

A Comparative Analysis Of The Present And Potential Industrial Development In District Bundi

Dr. Bhartendu Gautam

Lecturer in Geography

Maharana Pratap Government College, Chittorgarh, Raj

Abstract

Manufacturing is a major economic activity. This economic activity is performed by industries, where various raw materials are transformed into consumable items. Industrial development is generally used to measure the levels of economic development. The use of industrial development potentialities is quite necessary for economic development. Study area district Bundi is famous for its industrial development. Various types of industries are situated here. District Bundi is rich in various natural resources and agriculture production. In the accordance of abundant natural resources and agriculture production, there are wide potentialities for the industrial development in district Bundi. District Bundi has strong possibilities not only for the development of present industries but also for the establishment of new industrial units. The study focuses upon the comparative study between the present status of industrial development and potentialities for industrial development in district. This will find out the various potential industrial sectors for development in district Bundi.

Key Words: Manufacturing, Economic Activity, Levels of Economic Development, Potentialities, Natural Resources.

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 Yearbook 2015-16

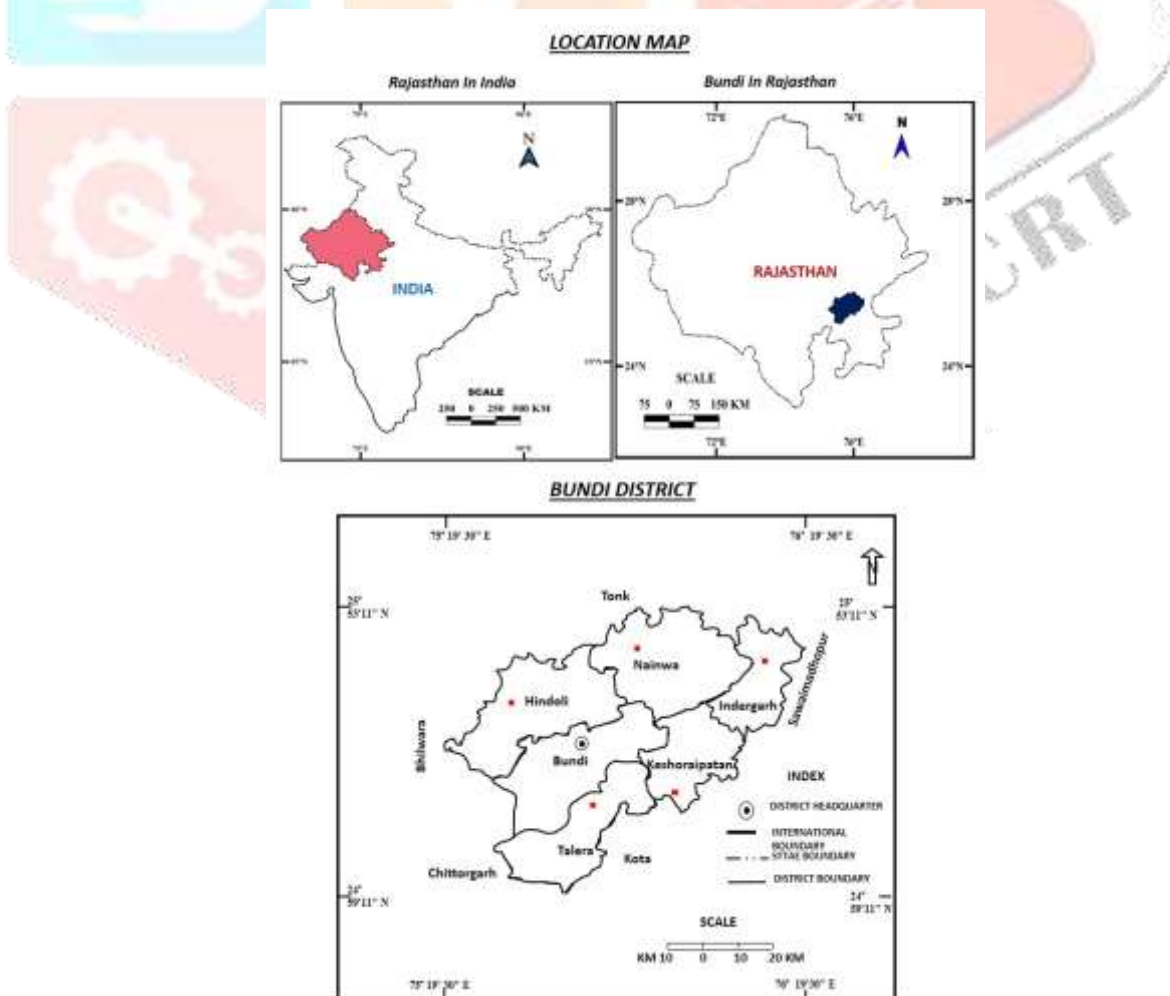


Fig. – 1

Location Map of District Bundi

Related Work

Industrial development is a widely discussed topic among the scholars. Various studies and researches have been done by scholars. Nayyar, D. in 1978 studied about the industrial development in India. He discussed also about the growth and stability in the industrial development of India in 'Economic and Political Weekly'. Isher Judge Ahluwalia in 1986 analysed about the industrial growth in India from various aspects. The analysis was published in 'Journal of Economics'. Kniivilä, Matleena in 2007 discussed about the industrial development and economic growth. This study also included a detail analysis of implications for poverty reduction and income inequality. This study was published in the book 'Industrial Development for 21st century: Sustainable Development Perspectives', published by UN department of social and economic affairs, New York. Taptej Singh, Sumit Bhardwaj & Baljinder Kaur (2015) studied in detail about the role of sugar industry in the sustainable development of agriculture. Chobe & Kale, Bilas & Chobe, Sanket in 2015 studied about the post reforms industrial development in India with special reference to Maharashtra. Author (2011) studied about the spatio-temporal development of agro-based industries in district Bundi.

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** – From published and unpublished sources like statistical books, handbooks of published by various departments etc. Random sampling method is used to use data whether primary or secondary as requirements and applicability.

The theory of locational analysis of August Losch is theoretically used to determine the location of various potential industries units in district Bundi. Industrial Development Coefficient is calculated to determine the levels of industrial development in the tehsils of District Bundi.

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. These all industries have vital role in district economy. Bundi can be categorized in the high industrial development potential district of Rajasthan. Following table 1.2 shows the comparative analysis of industrial status between Rajasthan and district Bundi.

Table 1.2

Comparative Scenario of Industrial Units Registered in Rajasthan and District Bundi

YEAR	YEARLY REGISTERED INDUSTRIES, BUNDI	YEARLY REGISTERED INDUSTRIES, RAJASTHAN
2005	175	9341
2006	190	9707
2007	214	10012
2008	225	10403
2009	225	11243
2010	225	12102
2011	225	12908
2012	225	13510
2013	230	14244
2014	240	14809
2015	248	15624

Source: Industrial Potential Survey, Bundi (2015-16)

Table 1.3 shows the year wise trend of units registered, employment generation and capital investment in district Bundi. It shows the importance of the industrial sector not only in economic development but also in the generating employment for the population of district Bundi.

Table-1.3

Year Wise Trend of Units Registered Employment and Capital Investment in The District (2014-2015)

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	248S	189	402.92
2015-2016	114	602	1248.47
Total	6665	22992	35794.24

Source: DIC, Bundi

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.

According to DIC, Bundi, here are seven large and medium scale industries situated in district. Five industries out of these seven industries are working, while two are closed. Three industries belong to edible oil production; one belongs to rice production while remaining one is cement industry. One sugar industry and one rice export-import industry of large and medium scale is 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. One large-medium scale rice industry is situated in district Bundi. ACC cement industry is also contributing to the economic development of district Bundi. The table 1.4 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.

Table 1.4
Industrial Scenario at Large-Medium Scale in District Bundi

S.N.	Name of Unit	Location	Name of Product	Present Status
1.	Advantage Oil Mills Pvt. Ltd.	P.O. Ramganj Balaji, Tehsil Bundi	Refined oil, Vanaspati Ghee, Deoiled Cake	Running
2.	ACC Ltd.,	Lakheri, Tehsil Indergarh	Cement, Clinker	Running
3.	Adani Willmar Ltd.	Silor Road, Tehsil Bundi	Soya Crude, Refined oil, Deoiled cake	Running
4.	Ruchi Soya Industries Ltd.	Govindpur Bawari, Tehsil Talera	Refined Oil	Running
5.	Shri Shankar Gauri Agro Product Pvt.Ltd.	Katunara, Tehsil Bundi	Basmati Rice, Poha	Running
6.	K.J. International Ltd.	District HQ Bundi	Rice	Closed
7.	Shri Kashovari Patan Shekari Sugar Mill Ltd.	Tehsil Keshovari Patan	Sugar	Closed

Source: Industrial Potential Survey, Bundi (2015-16)

On small and cottage level, the weaving, dyeing & printing, lac bangles, mats, fans, toys, leather tanning, black smithy, carpentry and pottery were carried out on the cottage scale. Although most of these industries are still continuing but they are struggling hard for their existence in the phase of the machinery made goods. So, a public, political, and social responsibility should be paid towards these small and cottage industries for their real development.

The following table 1.5 gives the industry-wise details of working small scale units during the year 2015-16.

Table 1.5

Break Up Existing Small and Cottage Level Industries (Working)

S. No.	Types of Industries	No. of Units
1.	Agro- Based	64
2.	Textile Based	951
3.	Forest Based	521
4.	Animal Husbandry Based	927
5.	Chemical Based	91
6.	Mineral Based	488
7.	Metal Based	357
8.	Repairing and servicing	712
9.	Other NIC	474
Total		4585

Source: Industrial Potential Survey, Bundi (2015-16)

The present industrial development of Bundi district is not satisfactory in comparison to its ample quantity of various types of minerals and agriculture production. The underdeveloped infrastructure and lack of encouragement towards new industrial establishment are responsible for underdeveloped industrial scenario of district Bundi.

Potentialities for Industrial Development

District Bundi has a large potentiality of industrial development. Its versatile agriculture production, availability of various minerals, transportation and other facilities are the major elements which support the present and potential industrial development in district Bundi. There are many industrial sectors with great potentialities of development. Few of these industries are already exist while few of them to be established from beginning. The following table 1.6 shows the potential sectors for industrial development in district Bundi–

Table 1.6

Sectors for Potential Industrial development: District Bundi

S.N.	Sector for potential development	Existing/ To be Established
1.	Rice	Existing
2.	Edible Oil	Existing
3.	Minerals	To be Established
4.	Mining	To be Established
5.	Cement	Existing
6.	Sugar	Existing
7.	Wooden Furniture	Existing
8.	Lakh- Chudi	Existing
9.	Lather work	To be Established
10.	Dairy	Existing
11.	Engineering	Existing
12.	Flour Mills	Existing
13.	Pulses	Existing
14.	Tourism	Existing
15.	Soap	Existing
16.	Spices	To be Established
17.	Animal Food	To be Established
18.	Cold Storage	Existing
19.	Natural fiber	To be Established
20.	Herbal Medicine	To be Established
21.	Bricks industry	Existing
22.	Stone Crushing	Existing

Source: District Industrial Department

The table 1.6 shows that there are various sectors which have remarkable industrial development. Some sectors already exist while some are to be established. Spices industry, animal food industry, herbal medicine industry are totally new industries that are to be established.

The factors on which industrial development is based are: availability of raw material, infrastructure, initiatives for industrial establishment, interest of local people and demand. In the earlier part, we have discussed the available facilities which are responsible for the industrial of district Bundi.

Development Potentiality in Mining Industry

The rich mineral resources of Bundi district can support the mining and mineral industry in district. In Dabi and Barad areas of Bundi, there are large deposition of sand stone and masonry stone. A large and medium scale sandstone mining and finishing industry can be setup in Dabi and surrounding area of Bundi tehsil. The location is near N.H. 76. Large deposition of sandstone and cheap and ample labor are other supporting factors for the establishment of sand stone mining and finishing industry. Like this in Barodia, where a large silica mine is already working, a large and medium silica mining industry and a glass factory can be set up.

The potential location of this industry is in district Bundi near N.H. 52. Another mining industry can be setup in Indergarh tehsil. Indergarh is rich in lime stone deposition. ACC industry is already using these large lime stone depositions. A large and medium scale lime stone mining industry can be set up. The geographical location of this unit can be determined through the broad-gauge railway track between Delhi & Mumbai and abounded availability of limestone in Indergarh and surrounding area. Thus, there is a potentiality for the establishment of three large and medium scale mining and mineral industry in Bundi.

Development Potentiality in Engineering Industry

Engineering industry is the base of all industries. It provides mechanical supports to all industrial activities as well as agriculture and manufacturing. Machines and spare parts are need of every industry. In district Bundi engineering workshops are working on small and cottage level. These units are engaged in production and assembling of small and less technical machines, especially which are used in agriculture activities. As agriculture is the major economic activity of Bundi, so here is a need of one large and medium scale engineering industry. This unit is necessary for making apparatus used in agriculture and relative activities. This will support the agriculture and related activities in district. This unit can be setup in Bundi or Keshroipatan tehsil, because these two tehsils are ahead in agriculture and properly connected to the road and rail network. Cheap and skillful labor of these tehsils can support to this large and medium scale unit.

Development Potentiality in Agro-based Industries

As described that the agro-based industries are leading the industrial scenario of district Bundi. Diverse agriculture production, labor, rail and road connectivity provide a sound platform for the development of various agro-based industries in district. Rice, edible oil, sugar, flour mill are a few agro-based industries, which are already established in district.

Sugar Industry

Before two decades sugar industry was working as a major agro-based industry of district Bundi. But because of downfall in the sugarcane production and lack of motivation and support to the sugar industry, the only unit of sugar production got closed in the year 2003. This unit was working as a cooperative unit, and was one of the units which are working under cooperative scheme in Rajasthan.

Since Bundi district still have an important place among sugarcane producing districts of Rajasthan. In the year 2015 the production of sugarcane was 8475 mt. ton. Before two decades this production was average 60000 mt. ton. per year. This unit can be re-established for the development of district. The pre-established infrastructure of this unit and ample production of sugarcane will support the re-establishment

and development of sugar industry in district. At present on the place of Shri Keshorai Patan Sugar Mill, a proposal for the establishment of a power plant (Natural Gas Based) supported by Rajasthan government, is under process. Local people are running various campaigns to restart the Keshorai Patan Sugar Mill.

Animal Food Industry

Bundi district is rich in animal resources. In 2014 total population of livestock was 1047312 lacks. This large no. of livestock needs food for their survival. 45% of total livestock population is included under animal husbandry industry. The bi-product of edible-oil industry which is called 'DEOILED CAKE' is used as a food for animals. This de-oiled cake has a large amount of protein and other nourishing elements.

The remaining materials of various crops and raw material of sugarcane, mustard is used as an animal food in district. The establishment of an animal food industry at large & medium scale is strictly needed. This industry can be set up in Bundi tehsil because of its connectivity with road and railways. As tehsil Bundi is the district headquarter so many facilities like finance, administrative, other industrial support will be easily available for this unit.

Bakery Industry

Various grains like wheat, maize, millets, and sorghum are grown here. In 2015 the production of wheat was 623997 mt. ton. The production of maize was 244413 mt. ton. This production of wheat and maize can support to the establishment of a bakery unit at large and medium scale. Bread, Biscuits, Toasts and other items are made of wheat and maize floor. This unit can be set up at Hindoli and Bundi tehsil. These two tehsils are located near N.H. 52, and have a major place in wheat and maize production. Dense population of district is suitable for the consumption of bakery products.

Soap Industry

The major factors responsible for the establishment of soap industry at any place are – availability of edible oil, availability of chemicals and market or population for the consumption of the products of soap industries. These all factors are available at district head quarter. A large and medium scale soap industry can be established at Bundi tehsil headquarter.

Potentialities in Rice Industry Development

Rice industry is one of the major agro-based industries in Bundi. It has a significant role in the economic development of district. However, a gradual downfall has been noticed in the status of rice industry. The reason behind this was a dramatic decline in rice production and the other responsible reasons were irregular availability of irrigation facilities, government policies, lack of financial support, lack of awareness of local administration etc. Despite of all these constraints there is a wide scope for the development of rice industry in the mentioned region.

Since 2005 the rice production is continuously increasing. In 2005 the rice production was 25000 metric ton., in 2010 it was 45764 metric ton and in 2015 it was 70096 metric ton. This continuous production of rice is working as a fuel for the growth of rice industry in district Bundi. Currently there are 25 rice units are working in district. But the large amount of rice production has a great potentiality for the establishment of new rice mills. About 90% of total rice production comes from Bundi and Keshoraipatan and Talera tehsils.

According to the J.C. Weaver 's crop-combination region delimitation method (1954), Bundi and Keshoraipatan, Talera tehsils are in Rice-Mustard-Soybean-Wheat-Sugarcane region, Hindoli is in Wheat-Maize-Pulses-Mustard-rapeseed region, while Nainwa and Indergarh tehsils are in Maize-Wheat-Barley-Mustard-pulses region. So, the potentiality of the development of rice industry remains in these three

tehsils i.e., Bundi Keshoraipatan and Talera. According to the industrial development coefficient (table - 1.7), Keshroipatan and Nainwa tehsils have high industrial development coefficient level.

Table 1.7

District Bundi: Industrial Development Coefficient

Tehsils	Industrial Development Coefficient
Hindoli	2.39
Nainwa	3.89
Indergarh	2.99
Keshroipatan	3.78
Bundi	2.91
Talera	N A
Bundi District	3.09

Source: Calculated on the Population 2011

These factors prove the potentiality of establishment and development of rice industry in district. Three (03) new large & medium scale rice industries can be setup in Bundi. The proposed location of these three industries is in Bundi and Keshoraipatan tehsils, because of rice production and connectivity with road and rail network. The estimated investment will be 30 to 50 lack rupees, while the capacity of employment will be about 250 to 300 persons.

Potentiality in Edible Oil Industry Development

Edible oil industry is the fast-growing industry of district Bundi. During last two decades a remarkable development is noted in the field of edible oil industry. At present edible oil industry is equally important on large & medium scale and cottage level industry. Presently there are three large and medium scale edible oil industries are working in district. Almost all five tehsils are producing oilseeds like mustard, soybean, rapeseed, groundnut etc.

As Bundi and Keshoraipatan tehsils are ahead according to production, industrial development and connectivity, so the potentiality of establishment of new edible oil industries lies in these two districts. There is a potentiality of two (02) or three (03) new large and medium scale edible oil industries in Bundi or Hindoli or Nainwa tehsils. These two new large and medium scale industries will use the large production of oilseeds in district Bundi. The estimated capital investment will be 50 to 70 lack rupees and the employment capacity will be 350 to 400 persons directly.

On small and cottage level there is a huge potentiality of the development of 'Oil- Ghannies'. Ghani is a local term. 'Ghani' is a small machine which is used for crushing oilseeds to extract edible oil. As described previously that each tehsil of district Bundi is ahead in the production of oilseeds, so one small scale edible oil industry can be set up in each tehsil of Bundi. On the other hand, cottage level edible oil industry at village level can be developed by giving them fundamental facilities and financial assistance. At present 67oil "Ghanis" are working in Bundi. Cottage level edible oil 'Ghanies' are supporting to the

economy at village level in district Bundi. Nainwa is the leading tehsil according to the industrial development coefficient level because of these small and cottage level industries.

Other Potential Industries at Large and Medium Scale Level

Pulses Industry

Spice Industry

Seed Grading Industry

Herbal Medicine Industry

Cold Storage

Tourism Industry

Food Processing Industry

Industrial Development Potentiality on Small & Cottage Level

More than 70% population of Bundi is rural. This rural population is dependent on agriculture and related activities. Large and medium scale industries are located at district headquarter, while small and cottage level industries are agglomerated at village level. These industries are like, Oil-Ghanis, Gud-Khandsari, Pulses Mills, Cotton Industry, Floor Mills, Bidi-Tobacco Industry etc. The table 1.8 shows the potential small and cottage industries in district Bundi.

Table – 1.8

Potential Industries at Small and Cottage Level: District Bundi

S.N.	Potential Industry	Tehsil / Potential location
1.	Oil-Ghanis	Bundi, Hindoli, Nainwa, Indergarh
2.	Gud-Khandsari	Bundi, Hindoli
3.	Pulses Industry	Nainwa, Hindoli, Indergarh
4.	Cotton Industry	Hindoli, Keshoraipatan
5.	Bidi-Tobacco Industry	Hindoli, Nainwa

Source: Industrial Potential Survey – 2015 by DIC

This table 1.8 shows the potential development of industries at small and cottage level. The development of small and cottage industries at village level will lead the economic development as well as employment generation in Bundi.

Justification of Potentiality and Location of Industries

The establishment and estimated location for new industries in Bundi is justified with various factors. These factors are raw material, agriculture production, connectivity, availability of labor and market, finance etc. The following table no. 1.9 shows the justification of potential industry and its location.

Table – 1.9

Justification and Planning for Potential Industrial Development: District Bundi

Potential Industrial Units	Large-Medium/Cottage-Small Level & No.of Units	Optimum Location	Justification
Rice Industry	Large-Medium Scale 03	Talera tehsil, Bundi, District headquarter, tehsil Keshoraipatan	Ample rice production, cheap and sufficient labor, connectivity with road and railways
Edible Oil Industry	Large-Medium Scale 02-03	At all tehsils headquarters, especially at Hindoli, Nainwa and Keshoraipatan tehsil headquarters.	Abounded production of mustard and soybean, connectivity with road and railways
Sugar Industry	Large-Medium Scale 01	Keshoraipatan tehsil headquarter, Bundi tehsil headquarter	Near sugarcane productive areas, pre-established sugar industry at Keshoraipata tehsil headquarter, wide market, connectivity
Bakery Industry	Large-Medium Scale 01	District headquarter Bundi	Ample wheat production in whole district, near demand areas and connectivity
Soap Industry	Large-Medium Scale 01	District headquarter Bundi, Nainwa tehsil	Near edible-oil production units, market and connectivity
Animal Food Industry	Large-Medium Scale 01	District heaequarter Bundi	Location of edible-oil industries, availability of de-oiled cake from these industries, Animal husbandry a prime activity in district.
Pulses-Species Industry	Large-Medium Scale 02	District headquarter Bundi, Tehsil headquarter Nainwa	Ample production of pulses and spices, sufficient labor.

Agriculture Engineering industry	Large-Medium Scale 01	District headquarter Bundi	Lack of engineering industry, agriculture is a main activity. Connectivity, market
Bidi-Tobacco Industry	Small-Cottage Scale 01	Tehsil headquarter Nainwa and Indegarh	Availability of Tendu leaf in Ramgarh sanctuary of Nainwa and Indergarh, Market
Oil Ghanies	Small and Cottage Level (02 At each tehsil headquarter)	Each Tehsil headquarters	Production of oilseeds in each tehsil, industry is pre-developed in maximum areas, market
Gud-Khandsari industry	Small and Cottage Level (02 in each tehsil)	Bundi, K.Patan, Hindoli tehsils	industry is pre-developed in area, ample sugarcane production in area, cheap labor.
Flour Mills	Small and Cottage Level (According to demand in each tehsil)	Each tehsil headquarters	Ample grain production and market
Cotton Industry	Small and Cottage Level (One unit in each tehsil)	Tehsil headquarter Hindoli, Nainwa	Sufficient production of cotton in area
Herbal Medicine Industry	Large and Medium Scale 01	District headquarter Bundi.	Favorable conditions for the production of herbs in Bundi and Keshoraipatan tehsils
Cold Storage	Large and Medium Scale 01	District headquarter Bundi.	Ample production of vegetables and fruits and other agro-products, connectivity with rail and road.
Food Processing Industry	Large and Medium Scale 01	District headquarter Bundi/tehsil headquarter	Ample production of food crops, vegetables and fruits and other

		Keshoraipatan Talera	or	agro-products, connectivity with rail and road.
--	--	-------------------------	----	---

Source: Statistical Methods, Self-observation, DIC

Thus table 1.9 shows the planning and the justification of the potential industrial development. It shows that each potential industry has an optimum location and justification with the potentialities for development.

Conclusion

District Bundi is rich not only in various agro-production but also in the production of various minerals. Various industries of district Bundi are based on the raw material, gained from agriculture and mining sector. The entire analysis shows that district Bundi has a wide potentiality according to the development of industries. There are a lot of potentialities for industrial development in district Bundi. In the sector of mining industry, cement industry, mineral industry, rice industry, edible-oil industry, soap industry, bakery industry, spice industry, gud-khansari industry, oil-Ghani industry, dal mills, lakh-chudi, weaving-dying-printing industry, leather tanning, black smithy, carpentry, tobacco-bidi industry etc. On large-medium scale one cement industry, three rice industry and two or three edible oil industries can be set up in district Bundi. While on small and cottage level there are lot of potentialities of the development and establishment of oil-ghanies, Gud-khansari, weaving industry, tobacco-bidi, toys making, mats making, leather tanning, and carpentry industry. These industries can contribute in the development of rural economy. A systematic approach towards the industrial in district Bundi is required. Realizing the potentialities of industrial development in district Bundi will lead the whole economic development of the district.

References

1. Agrawal, K.C. (1982): "Industrial Location in Agra District and their Impact on Regional Development", Ph.D. Thesis, Agra University, Agra.
2. Alexanderson, G. (1967): Geography of Manufacturing, Printice Hall.
3. Chaudhary, M.R. (1970): Indian Industries Development and Location, Indian Book House, Kolkata.
4. Durrani, P.K. (1965): "Industrial Development and Locational Factors in Rajasthan", Annals of Social Sciences, Vol.1, pp. 46-45.
5. Gandhi, M.P. (1972): Major Industries of India, M.P. Gandhi and Co., Bombay.
6. Tiwari, R.N. (1961): The Location of Sugar Mills, National Geographical Journal of India, pp. 61-68.
7. Nayyar, D. (1978). Industrial Development in India: Some Reflections on Growth and Stagnation. *Economic and Political Weekly*, 13(31/33), 1265-1278. <http://www.jstor.org/stable/4366860>
8. Isher Judge Ahluwalia, Industrial growth in India: Performance and prospects, Journal of Development Economics, Volume 23, Issue 1, 1986, Pages 1-18, ISSN 0304-3878
9. Singh, Taptej & Bhardwaj, Sumit & Kaur, Baljinder. (2015). Role of sugar industry in sustainable agricultural development: an overview. Indian Journal of Economics and Development. 11. 295.10.5958/2322-0430.2015.00032.3.
10. Chobe, C. & Kale, Bilas & Chobe, Sanket. (2015). Post Reforms Industrial Development in India with Special Reference to Maharashtra. SSRN Electronic Journal. 10.2139/ssrn2721558