



AGRICULTURAL DEVELOPMENT AND AGRO-BASED INDUSTRIES IN MYSORE DISTRICT

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Abstract: Agro-based industries are those, which are involved in supplying the farm with agriculture inputs besides handling the products of the farm. Agro-based industries are those industries which have either direct or indirect links with agriculture. The agro-based industry is classified based on raw material or final product. Agricultural progress is a strategic element in the process of economic development of the study area. It has already made a significant contribution to the economic prosperity of the state. In Mysore district, after the experience of the five year plans that agriculture must be accorded the highest priority in the planned development of the state.

Key words: agriculture, Agro-based industries, food based, economic development, industrialization.

Introduction:

Agro-based industries are those, which are involved in supplying the farm with agriculture inputs besides handling the products of the farm. Agro-based industries are those industries which have either direct or indirect links with agriculture. According to Union Development Commissioner, for small scale industries, all enterprises connected with the processing of agriculture produce and farm waste, industry related to canning and processing of fruits and also those providing cold storage facilities, industries producing chemicals needed in the processing operation of plant, fibers, forest produce, and some marine based ventures are categories as agro-based industries. Besides manufacturing of farm implements of various types including power, tillers, threshers, poultry equipments and accessories of dairying and formulations of pesticides have been listed as agro-industries in this list.

According to reserve bank of India industries which mainly depend for their raw materials on agricultural products including plantations animals, and husbandry products but excluding forest products but excluding forest products are brought under agro-based industries. It has further classified agro-based industry into food excluding salts, beverages, tobacco, textiles products, leather products, and rubber product industries. As per MSME act 2006 the small scale industries defined as “the manufacturing enterprises having investment ceiling in plant and machinery is above Rs. 25lakhs and upto Rs. 5crore is called small scale industry. The small scale agro-based industries is defined as those industries which have either direct or indirect links with agriculture having investment ceiling in plant and machinery is above Rs. 25lakhs & upto Rs.5crore.

CLASSIFICATION OF AGRO-BASE INDUSTRIES IN MYSORE DISTRICT

The agro-based industry is classified based on raw material or final product. Categorization of agro-processing industry based on raw material is shown

Sl. No	Type	Category(Based on Raw Materials)	Finished Products
1	Food based	Cereals Based Industry	a) Wheat Flour b) Biscuit Manufacturing c) Confectionary and Bakery Items d) Rice (puffed And flaked) e) Rice Bran and Rice Bran Oil f) Corn Flakes g) Canned Bake Corn h) Starch Material
		Pulses Based Industry	a) Gram Flour b) Nankeens c) Papad d) Whole or Split Dal
		Fruits & Vegetables Based Industry	a) Frozen Fruits & Vegetables b) Chips & Wafers (Ready To Eat Snacks) c) French Fries (Ready To Eat Snacks) d) Dehydrated Vegetables e) Ketchups, Purees & Concentrates f) Juices g) Pickles
		Spices Based Industry	a) Pasted & Powders b) Oleoresins c) Aromatic Extractions
		Fisheries Industry	a) Fish Processing b) Fish Meal c) Fish/ Prawn Pickle
		Oilseed Based Industry	a) Edible Oil b) Animal Feed c) Processed Seed (Sesame)
2	Dairy	Dairy based industry	a) Milk, skimmed milk powder, ghee, curd etc
3	Poultry	Livestock & Poultry	a) Processed Poultry Products b) Meat Gravy Concentrates c) Mutton & Lamb Processing
4	Others	Medication Herbs Based Industry	a) Medicinal Products
		Cotton textile based Industry	b) Fibres processing
		Sugarcane Based Industry	a) Jaggery b) Confectionary & bakery Products
		Plantation Crops Based Industry	a) Tea powder b) Coffee Powder

		Others	a) Honey b) Mushrooms
		Floriculture Based Industry	a) Fresh & Dried Flowers

The practice of agriculture is also known as “farming”, while scientists, inventors and others devoted to improving farming methods and implements are also said to be engaged in agriculture in Mysore district. More people in the district are involved in agriculture as their primary economic activity than in any other sector.

Food processing is the methods and techniques used to transform raw ingredients into food for human consumption. Food processing takes clean, harvested or slaughtered and butchered components and uses them to produce marketable food products.

AGRICULTURAL DEVELOPMENT AND AGRO-BASED INDUSTRIES IN MYSORE DISTRICT.

Agricultural progress is a strategic element in the process of economic development of the study area. It has already made a significant contribution to the economic prosperity of the state. In Mysore district, after the experience of the five year plans that agriculture must be accorded the highest priority in the planned development of the state.

Increased agricultural output productivity will tend to contribute substantially to an over-all growth of a country which is predominantly agricultural and over populated. Agricultural production can be raised more rapidly with lesser amount of capital investment. To a certain extent productivity can be increased even without additional capital. The use improved seeds can double or triple the yields with an insignificant increase in costs. The increasing agricultural productivity will make definite and considerable contributions to the general economic development of the country.

Rural industrialization is conceived to be one of the major economic and social developments in the district. The purpose of rural industrialization implies industrialization of the afford employment in Mysore district.

Agriculture and rural industrialization are considered twin engines of regional development in the district. Studies also show that the local people to get into the mainstreams of economic development through local employment generation.

Agro-industries can play a vital role in the development of agricultural regions in the district. Industries based on agricultural products could introduce economic diversification at the same time it improves farm productivity.

All enterprises connected with the processing of agricultural produce and farm wastes are brought under a single head in the list of the classified agro-industries issued by the union Development Commissioner for small scale industries.

The Planning Commission has set forth criteria for distinguishing the agro-industries and these have been approved by the National Development Council, the industries (a) which encourage greater inputs into agriculture, (b) which lead to better processing and conversion of agricultural commodities and (c) which increase agricultural production.

According to reserve bank of India, the agencies supporting agriculture by way of designing and manufacturing of inputs generally termed as “agro industries” are by nature different from those supported by agricultural products which are known as agro-based industries. The concept of agro industries is confined only to those industries which are engaged in processing of agricultural produce either for consumption (food crops, oil seeds, fruits, etc.) or for the use of industry (cotton and other similar products) and also to those industries producing inputs for agriculture such as fertilizer, industries manufacturing equipment for agriculture also comes under this category.

Problems Faced by Agro-based Industries in Mysore district.

Like with any other industry in India, Agro-based industries also face some constraints, which seem to be-devil their development. Some of these constraints and problems include:

- **Small Landholdings** – Small landholdings make it difficult for farmers to achieve economies of scale because of which farmers are forced to rely on subsistence farming.
- **Seasonal nature** – This means that the farmers have a very small window to reap the benefits of their hard labor. In recent times, climate change has affected weather patterns because of which there has been an adverse effect on agricultural production.
- **Perishable nature of products** – Agricultural products are perishable in nature because of which they require huge infrastructure in the form of cold storage, excellent road connectivity. India suffers on both accounts, forward and backward linkages.
- **Variability** – Agro-based industries involve variability in the quantity and quality of raw materials. Quantity of raw materials suffers because of fluctuations in weather and soil conditions. The quality suffers because of lack of standardization. These factors exert additional pressure on agro-based industries in terms of operations related to production, scheduling and quality control.
- **Limited Knowledge** – The absence of information, lack of awareness and limited knowledge about opportunities, technology and production systems are also a major hurdle.
- **Competition** – India is increasingly facing competition from other countries in the region such as Bangladesh, which offer similar advantages in terms of low labor costs and soil fertility.

TaluKwise Small Scale Agro based Industries Registered in Mysore -2019- 2020

Table .1 Food based industries				
Taluks	No of Units	Male Employs	Female Employs	Total Employs
H D Kote	441	832	211	1043
Hunsur	288	810	203	1013
K R Nagara	268	247	62	309
Mysore	637	2971	747	3718
Nanjangud	509	501	126	627
Periyapatna	252	689	172	861
Saraguru	01	08	02	10
T Narasipura	291	274	71	345
District Total	2687	6332	1594	7926

Source: Mysore district at glance-2019

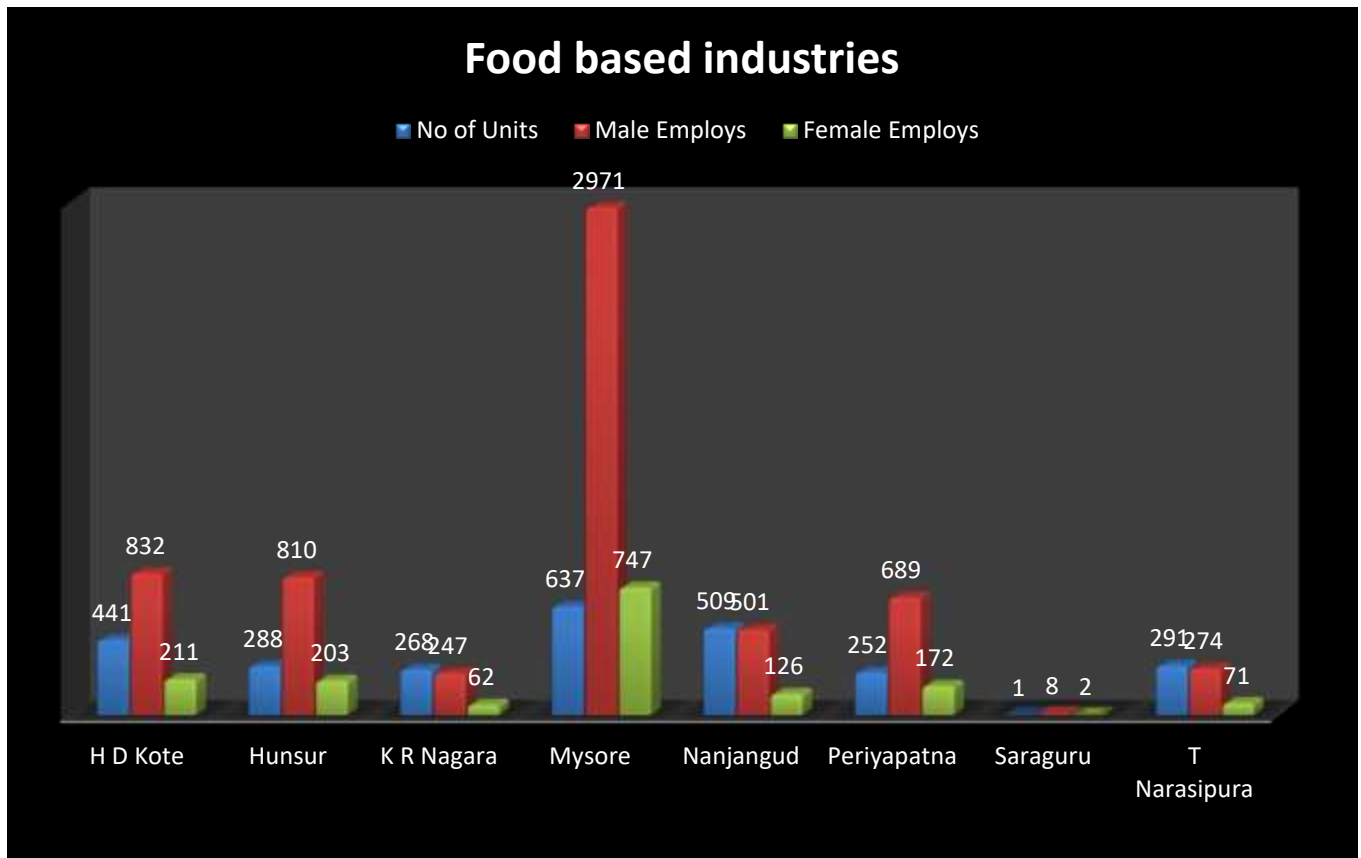
Figure .1 Food based industries

Table .1 shows the distribution of Small Scale Agro based Industries Registered in Mysore -2019- 2020 with reference to Food based industries in Mysore district. The district is constituted by eight taluks as mentioned. From the study it is revealed that Mysore taluk is dominated by Food based industries (637 units with 3718 employees), followed by Nanjangud (509 units with 629 employees) and H D Kote (441 units with 1043 employees).

The most common food processing industries are pickles, Ice-cream, Bakery, Pappad, Flour mill, Fruit and Jam, Jaggery, coconut oil, cereal food, chocolates, mineral water, dal mill and coffee packing etc.

Agro based- Cotton textile based Industries Registered in Mysore -2019- 2020

Table .2				
Cotton textile based Industry				
Taluks	No of Units	Male Employs	Female Employs	Total Employs
H D Kote	397	264	227	491
Hunsur	353	122	99	221
K R Nagara	241	263	216	479
Mysore	719	2210	1891	4101
Nanjangud	284	368	301	609
Periyapatna	228	239	195	434
Saraguru	03	09	04	13
T Narasipura	164	458	384	842
District Total	2389	3933	3317	7250

Source: Mysore district at glance-2019

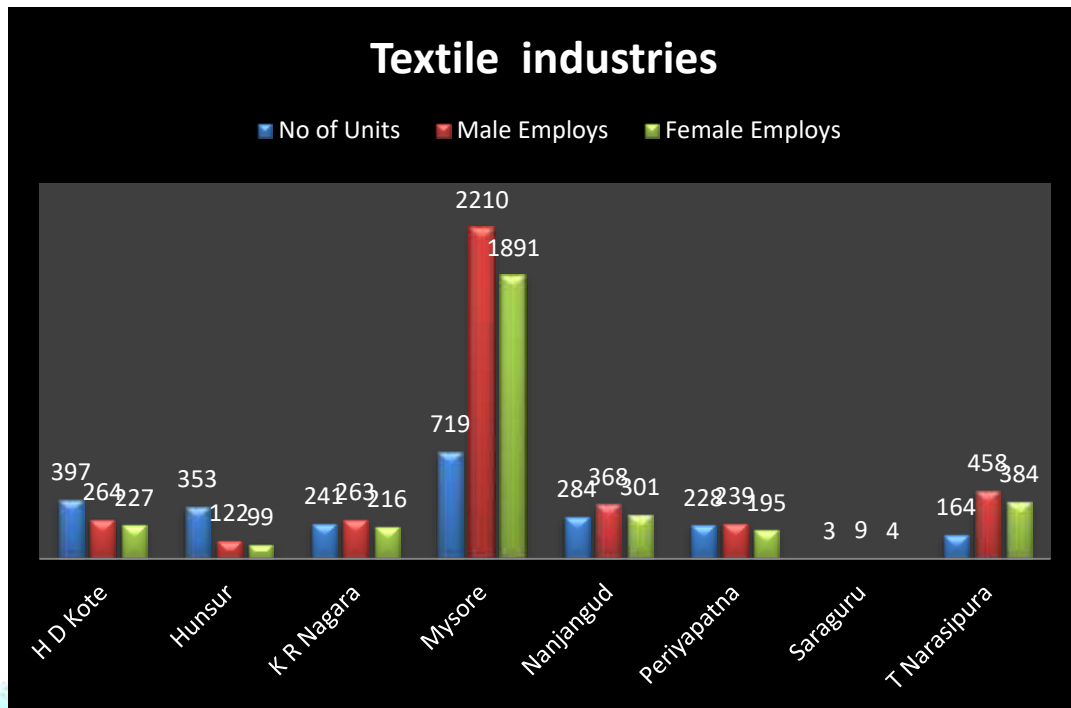
Figure: .2Textile industries

Table 3.2 shows the distribution of Small Scale Agro based Industries Registered in Mysore -2019- 2020 with reference to Textile industries in Mysore district. The district is constituted by eight taluks as mentioned. From the study it is revealed that Mysore taluk is dominated by Textile industries (719 units with 4101 employees), followed by HD Kote (397 units with 491 employees) and Hunsur (353 units with 221 employees).

In T .Narasipura Taluk 164 textile industries were found operating with 842 employees.

During the informal discussion with textile industry entrepreneurs it is found few of the industries are closed and also the employees /laborers are layed off due to covid-19 pandemic.

The most common textile industries are silk weaving, cotton weaving, garment manufacturing.

Sugar Industry Registered in Mysore -2019- 2020

Table .3				
Sugar industry				
Taluks	No of Units	Cane crushed (MT)	Production (MT)	Employs
H D Kote				
Hunsur				
K R Nagara				
Mysore				
Nanjangud	01	1101216	111722	450
Periyapatna				
Saraguru				
T Narasipura				
District Total	01	1101216	111722	450

Source: Mysore district at glance-2019

Table 3.3 shows the distribution of Small Scale Agro based Industries Registered in Mysore -2019- 2020 with reference to Sugar industry in Mysore district. The district is constituted by eight taluks as mentioned. From the study it is revealed that there is only one sugar cane industry located at Halaganchi village, Nanjangud taluk operating with 450 employees.

Other Industries Registered in Mysore -2019- 2020

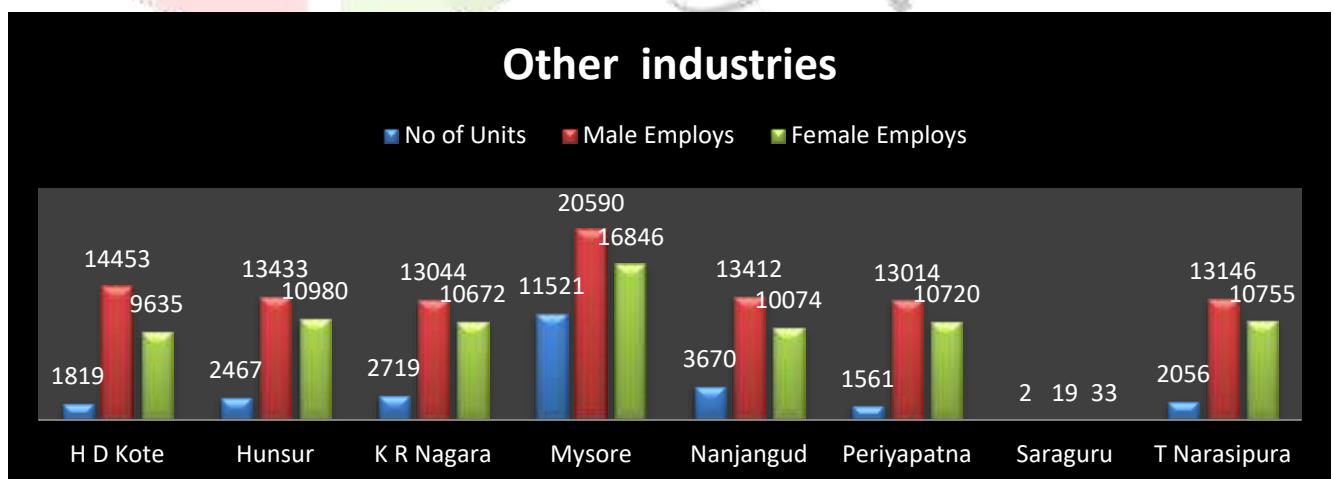
Table .4 Other industries				
Taluks	No of Units	Male Employs	Female Employs	Total Employs
H D Kote	1819	14453	9635	24080
Hunsur	2467	13433	10980	24422
K R Nagara	2719	13044	10672	23716
Mysore	11521	20590	16846	37436
Nanjangud	3670	13412	10074	24360
Periyapatna	1561	13014	10720	23824
Saraguru	02	19	33	52
T Narasipura	2056	13146	10755	23901
District Total	25815	101201	80624	181825

Source: Mysore district at glance-2019

Table 3.4 shows the distribution of Small Scale Agro based Industries Registered in Mysore -2019- 2020 with reference to other industries, agricultural implements and accessories in Mysore district. The district is constituted by eight taluks as mentioned.

From the study it is revealed that Mysore Taluk is dominated by other industries, agricultural implements and accessories (11521 units with 37436 employees), followed by Nanjangud (3670 units with 24360 employees) and KR Nagara (2719 units with 23716 employees)

.Figure:.3otherindustries



HULLING AND MILLING OF PADDY IN MYSORE DISTRICT

Paddy milling primarily transforms paddy into consumable form of rice and the milling ratio of paddy to the rice in consumable form. In this section ,an attempt has been made to determine how much rice is produced by processing of raw paddy, which gives milling ratio .the growth rate of rice milling ratio also depends on the

milling techniques . Based on the data collected on total quantity of paddy processed and total quantity rice produced, the milling ratio has been calculated and presented in this section. In reality, the efficiency of rice milling can be measured by three factors: technology, degree of competition, and capacity of utilization. Technology has a more significant impact on the cost of conversion, quality and quantity of rice and by – products, therefore, the study of technology embedded in the rice processing industry is very important in the district.

OPERATIONS IN RICE MILLS

Table: Modern milling process and its stages

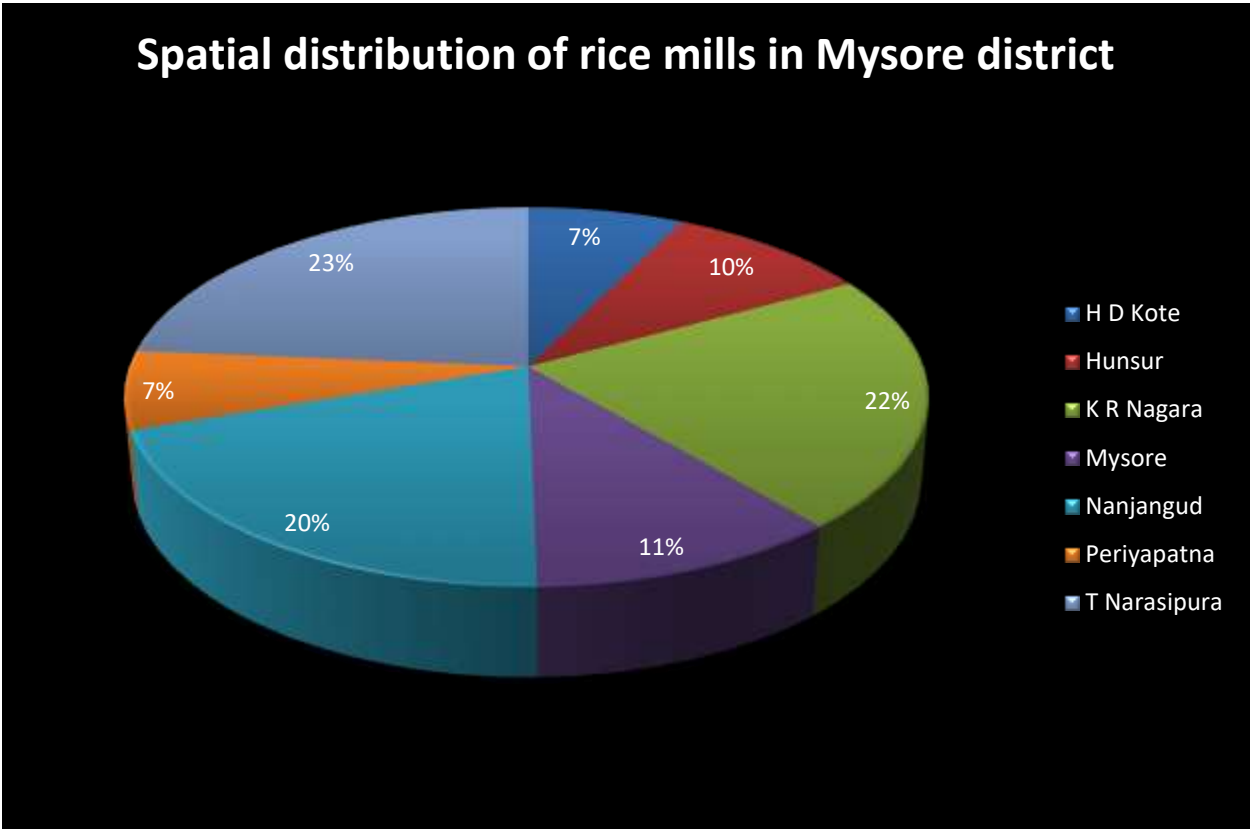
stage	Function
Pre-cleaning	Removing all impurities and unfilled grains from the paddy.
Husking	Removing the husk from the paddy.
Husk aspiration	Separating the from the brown rice/ un-husked paddy.
Paddy separation	Separating the un – husked paddy from brown rice.
De-stoning	Separating small stones from the brown rice.
Polishing	Improving the appearance of milled rice by removing remaining particle and polishing the exterior of the milled kernel.
Sifting	Separating small impurities or chips from the milled rice.
Length grading	Separating small and large broken rice from the head rice.
Blending	Mix head rice with predetermined amount of broken rice, as required by the customer.
Weighing and bagging	Preparing milled rice for transport to the customer.

Taluk wise Distribution of Rice Mills in Mysore district

Table .5 Rice Mills		
Taluks	No of Rice Mills	percentage
H D Kote	12	7.27
Hunsur	16	9.69
K R Nagara	36	21
Mysore	18	10.90
Nanjangud	33	20
Periyapatna	11	6.66
T Narasipura	39	23.63
District Total	165	100

Source: Mysore district at glance-2019

Figure:.4 Spatial distribution of rice mills in Mysore district



Map: .1 spatial distribution of Taluk Wise rice mills in Mysore district

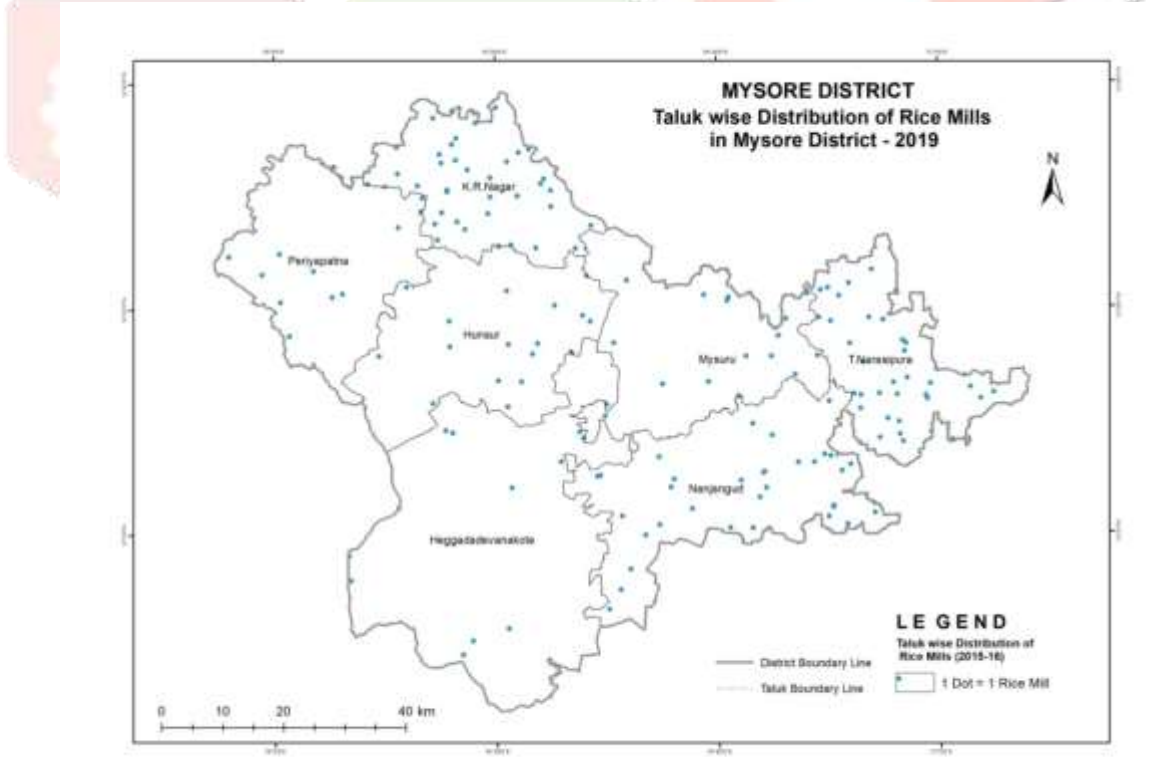


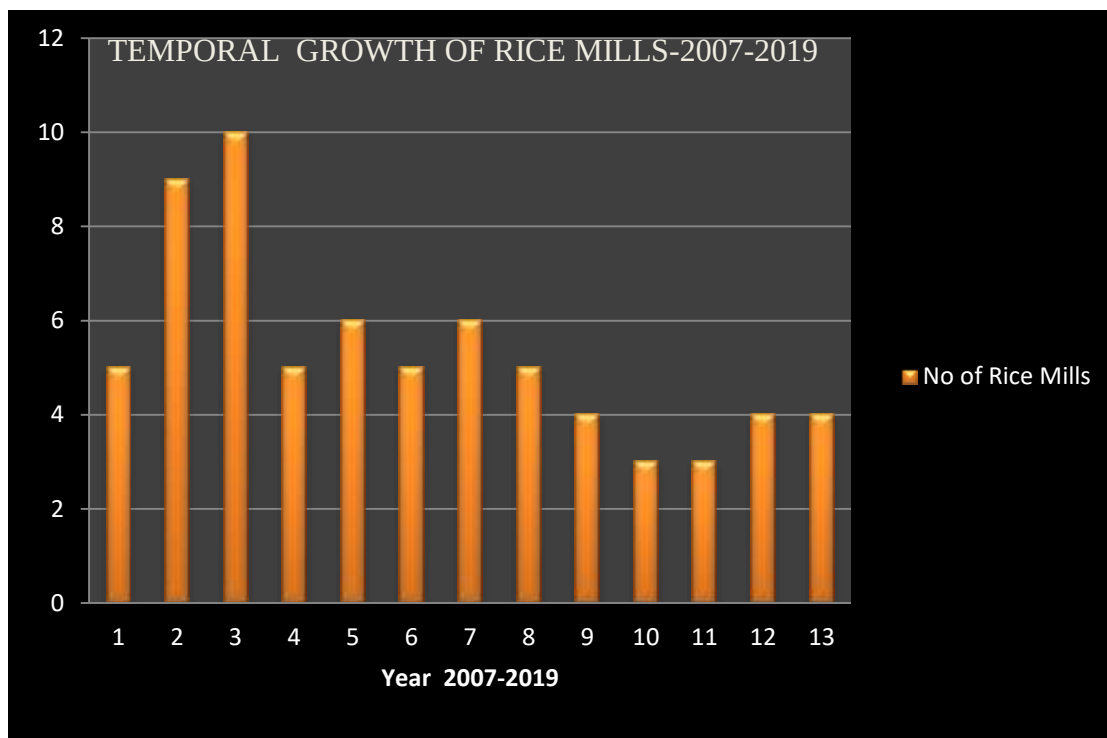
Table 3.5 shows the distribution of rice mills in Mysore district. It is noted that T Narasipura Taluk is having 39 rice mills, highest in the district. The reason for being T Narasipura Taluk with highest number of rice mills could be better irrigation facilities, soil fertility, good climate and paddy crop cultivation is more. The local community people are highly endowed with better financial resources and also inclined towards entrepreneurial activities. It is also witnessed that the rice mills are more into exporting of rice to Kerala and Tamilnadu states as well as neighboring districts.

The establishment of Rice Mills in K R Nagara (paddy bowl of Mysore) is witnessed with 36 rice mills, followed by Nanjangud with 33 rice mills.

Year Wise Growth of Rice Mills in Mysore district-2006-2019

Table .6	
Temporal Growth of Rice Mills	
Years	No of Rice Mills
Before 2006	96
2007	5
2008	9
2009	10
2010	5
2011	6
2012	5
2013	6
2014	5
2015	4
2016	3
2017	3
2018	4
2019	4
Total	165

Figure: .5 TEMPORAL GROWTH OF RICE MILLS-2007-2019



Map: .2 Temporal Growth of Rice Mills in Mysore district

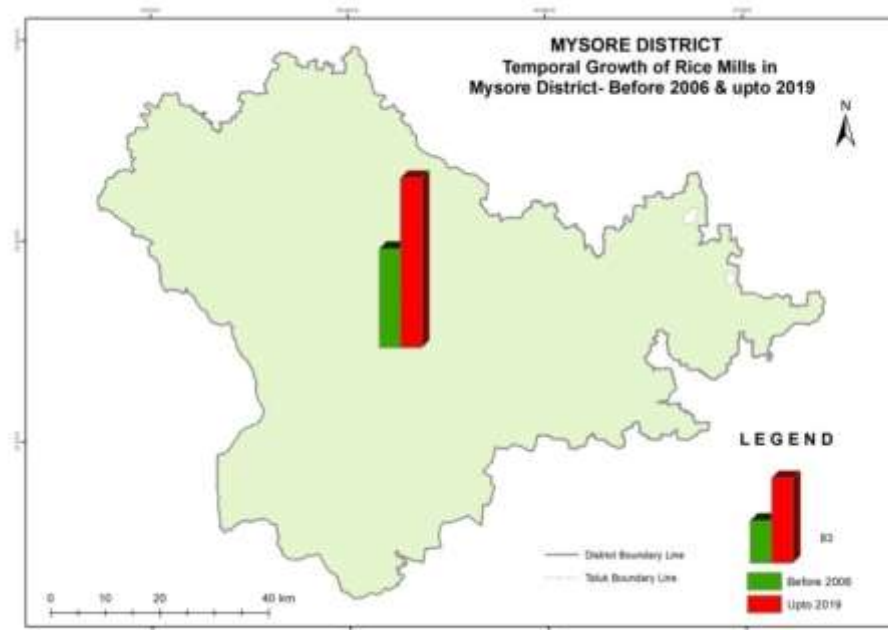
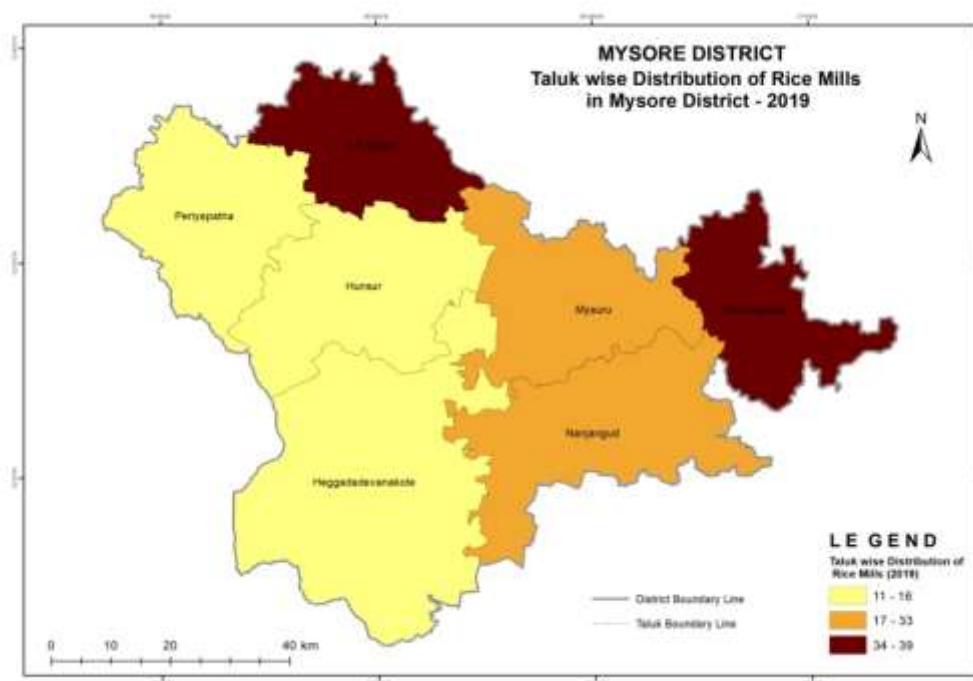


Table .6 shows the Year Wise Growth of Rice Mills in Mysore district-2006-2019. Temporal Growth of Rice Mills earlier 2006 was highly promising with 96 rice mills. After 2006 there was small or incremental growth in the rice mills, which was high in the 2009, followed by 2008 and very less during 2016, 2017, 2018, 2019. No new rice mills are established during Covid-19 pandemic

Map: .3 Taluk wise distribution of Rice Mills in Mysore district

Map 3. shows the Taluk wise distribution of Rice Mills in Mysore district in the year of 2019. T Narasipura, K R Nagara, are range between 34-39, followed by the Mysore and Nanjanagud range between 17-33 and then Piriapatna, Hunsur, H D Kote range between 11-16 respectively

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