

3.3.1

Peer Reviewed Referred and **UGC Listed Journal**
(Journal No. 40776)



ISSN 2277 - 5730

AN INTERNATIONAL MULTIDISCIPLINARY
QUARTERLY RESEARCH JOURNAL

AJANTA

Volume-VIII, Issue-II

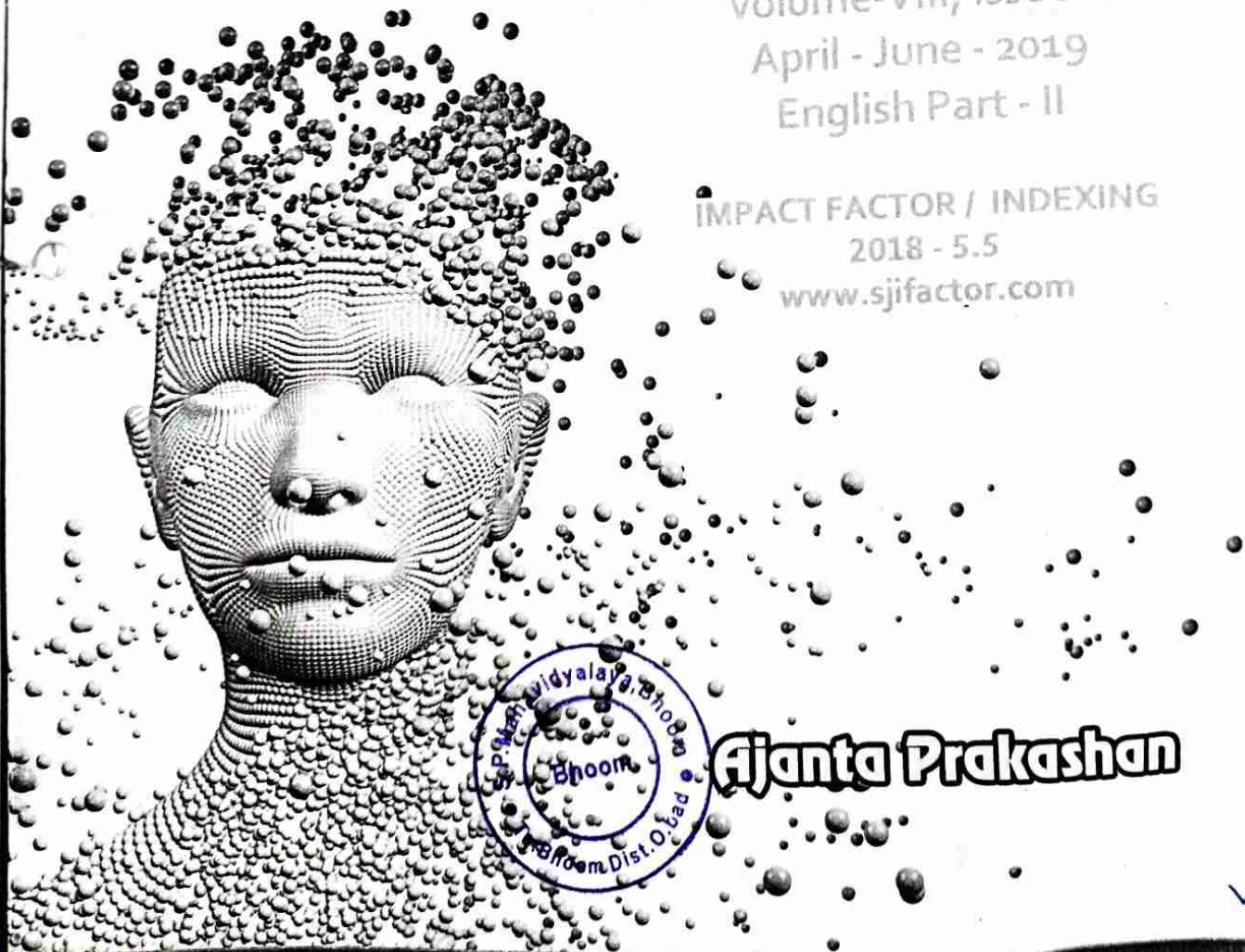
April - June - 2019

English Part - II

IMPACT FACTOR / INDEXING

2018 - 5.5

www.sjifactor.com



Ajanta Prakashan



16. A Study of the Dairy Industry in India

Dr. S. B. Chandanshiv

Research Guide, Principal, Shankarrao Patil Mahavidyalaya, Bhoom, Dist.: Osmanabad.

Datta Shivajirao More

Research Scholar.

Abstract

India, one of the developing economies where agriculture is a predominant occupation of the large number of masses. Agriculture in India is a gamble of monsoon. Though it provides employment to nearly 50% of population, the farmers are in sprightful situations. The farmers are poor and debt ridden. They commit suicides as unable to cope up the adversaries of man and the nature. In such a scenario they need to have another option of earning. Dairy provide the way to come out from the adverse situations. In the present research article efforts are made to highlight the dairy business as one of the promising allied sector of agriculture.

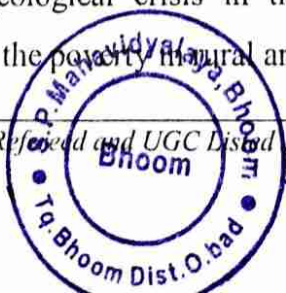
Key words: Agriculture, Dairy, Economic Development

Introduction

Agriculture Sector is one of the most significant pillar of the Indian economy. Agriculture is the only means of living for almost two-thirds of the employed class in India. As being stated by the economic data of financial year 2010-11, agriculture and its allied sectors has acquired 14.5 percent of India's GDP.

The agriculture sector of India has occupied almost 43 percent of India's geographical area. Despite a steady decline of its share in the GDP, agriculture is still an important sector and plays a significant role in the overall socio-economic development of the country.

Indian agriculture is at crossroads and one of the major challenges is to reverse deceleration in agricultural growth. Main reason for deceleration in agricultural growth is declining investment particularly public investment in agriculture research and development and irrigation, combined with inefficiency of institutions providing inputs and services including rural credit and extension. Other factors such as land fragmentation, out-dated tenancy laws, lack of modern market and rural infrastructure, inappropriate input pricing policies, etc. are also responsible for agrarian and ecological crisis in the country. The crisis of stagnation in agriculture causes the increase in the poverty in rural areas. The Indian farmer is heavily



indebted and poor. It's a high time to change the plight condition of the Indian farmers. This can be improved by adopting the allied activities of farming most scientifically and in organized manner. The concept of the allied business is not the new one. Animal husbandry, dairying, fishing and other are the allied sectors which are contributing along with agriculture since many centuries.

Dairying is one of the most promising allied sector of the agriculture. India has one of the largest livestock population in the world. Fifty percent of the buffaloes and twenty percent of the cattle in the world are found in India, most of which are milk cows and buffaloes. Just because of the "Operation Flood", the continuous and steady efforts adopted by the government contributed to make India the largest milk producing nation of the World. Present research paper is the work in the direction of evaluating the performance of Dairying industry of India. The focus is on the overall ingredients of the sector.

Objectives of the Study

1. To study the overall milk production in India.
2. To evaluate the performance of the dairy business in India.
3. To find out the problems faced by dairy business.
4. To make an evaluation of the "Operation Flood" and its implication.

Sources of Data

The study is primarily based on secondary data. The data is collected from the different government reports and news collected from the various newspapers and magazines. Certain references are also taken from the different scholarly research articles published in the field.

Indian Dairy- A Promising Sector

India has one of the largest livestock population in the world. Fifty percent of the buffaloes and twenty percent of the cattle in the world are found in India, most of which are milk cows and buffaloes. Dairy development in India has been acknowledged the world over as one of modern India's most successful developmental programme. Today, India is the largest milk producing country in the world.

Milk and milk products is rated as one of the most promising sectors which deserves appreciation in a big way. When the world milk production registered a slow growth of 1 percent, India performed much better with 4.5 percent growth. The total milk production has reached the 121 million tones record in the fiscal year 2010-11. Consequently, the per day per capita milk



availability has also increased from 124 grams in 1961 to 281 grams in 2010-11. The livestock sector contributed 3.93 per cent to the country's GDP and 20.71 per cent to agriculture GDP during the year 2009-10 (Economic Survey). Livestock as an integral component of economic and social life of the rural community.

Table 1: Share of livestock Sector in Gross Domestic Product:

At current price in crore

Year	GDP(Total)	GDP(sector)	livestock	Percentage of Share
2004-05	2971464	119333	4.02%	
2005-06	3389621	127518	3.76%	
2006-07	3952241	142695	3.61%	
2007-08	4581422	169296	3.70%	
2008-09	5282086	188732	3.57%	
2009-10	6133230	241177	3.93%	

Source: National Account Statistics 2011, Central Statistical Organisation GOI

Milk Production in India

India is home to the world's largest dairy herd. However, the country still faces a production shortfall due to massive demand from the growing population and also low productivity of Indian cows. India ranks first in the milk production, but Indian dairy is a classic example of production by masses rather than mass production. The nation's milk supply comes from millions of small producers, dispersed throughout the rural areas. These farmers maintain, on an average, a herd of only two-three milch animals, comprising cows and or buffaloes. With an overall achievement of 121 million tonnes of milk in 2010-11 from cattle, buffaloes and goats and a per capita milk availability of 281 g/day, The Indian dairy scenario is constantly looking ahead & promises to take greater strides in making dairying more remunerative to the farmer. However, with the ever increasing population, it is estimated that the total milk production should be around 200 million tonnes by the year 2030 to meet the demand there would be still shortfall in the supply. The following table shows the overall production and the per capita availability of milk.

Table 2: Milk Production in India

Year	Milk Production (Million Tones)	Per capita availability(grm/day)
2000-01	80.6	220
2001-02	84.4	225
2002-03	86.2	230



2003-04	88.1	231
2004-05	92.5	233
2005-06	97.1	241
2006-07	102.6	246
2007-08	107.9	252
2008-09	112.2	258
2009-10	116.4	273
2010-11	121.8	281

Source: Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, GOI

As far as imports are concerned, the volume of milk products imported into India has not been of a level so as to significantly affect the competitiveness and interests of the domestic dairy industry. The comparative statement of export and import of milk and milk products including casein in value and quantity terms for India is given at as follows:-

Table 3: Export & Import of Milk and Milk products including casein in quantity and value terms for India

Year		Export		Import		
		Qty. (thousand kgs.)	Value (Rs. in Lakh)	Qty. (thousand kgs.)	Value (Rs. Lakh)	in
2003-04		13813.72	17023.87	17166.83	13389.01	
2004-05		55597.06	62353.15	6932.45	5691.24	
2005-06		86454.40	95855.69	3204.01	3750.10	
2006-07		54028.26	64172.91	12788.23	11142.89	
2007-08		84621.8	101862.74	3684.82	6144.85	
2008-09	(Apr to Sept)	49903.49	63659.68	2080.85	3431.78	

Source: National Dairy Plan 2007-08 To 2021-22

Livestock Population in India

Dairy sector is economically and socially very significant in India due to the multi-functionality of dairy animals performing output, input, asset and socio-cultural functions. According to the 2007 Livestock Census, there are 166 million indigenous cattle, 33 million crossbred cattle and 105 million buffaloes in India. In this, the proportion of adult milch females is 19, 43 and 46 %, respectively. The decade-wise trend in livestock population (1997-2007) shows a distinct shift in composition of dairy animal stock in favour of buffaloes and crossbred cattle, as

their numbers increased by 5.91 and 6.05 million, respectively, while that of indigenous cattle declined by 1.8 million.

Table 4: Livestock Population in India

Livestock Population in India by Species									
(In Million Numbers)									
Species	1966	1972	1977	1982	1987	1992	1997	2003	2007
Cattle	176.2	178.3	180.0	192.5	199.7	204.6	198.9	185.2	199.1
Adult Female Cattle	51.8	53.4	54.6	59.2	62.1	64.4	64.4	64.5	73.0
Buffalo	53.0	57.4	62.0	69.8	76.0	84.2	89.9	97.9	105.3
Adult Female Buffalo	25.4	28.6	31.3	32.5	39.1	43.8	46.8	51.0	54.5
Total Bovines	229.2	235.7	242.0	262.2	275.7	288.8	288.8	283.1	304.4

Source: Livestock Censuses, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, GoI

Different breeds of cows and buffaloes used for milking in India:

India is rich in its livestock wealth. It accounts for nearly 15.8% of the world cattle population, more than half of the world buffalo population. Breeds of Buffaloes and cows of Indian Origin and Breeding Tracts are given below:

Table 5: The different breeds of the buffaloes:

Group	Breed	Breeding tract
Murrah type	MurrahNili Ravi	Rohtak, Jind, Hisar, Bhiwari, Sonapat (Hariyam) Ferozepur (Punjab)
Gujarat	SurtiJaffarabadi Mehsana	Kaira and Baroda Kutch, Jungarh & Jamnagar dist Mehsana, sabarkantha, Banaskantha Dist.
Uttar pradesh	Bhadawari Tarai	Bhadawari estate, Beh Tehsil in Agra, Gwalior & Etawah dist. Tarai region of U.P.
Central India	Nagpuri	Nagpur, Akola, Amravati dist. South maharashtra, west A.P., north Karnataka Hilly region of Andra Pradesh and Orissa
	Kalahandi	Bilaspur dist.
	Sambalpur	
South India	Toda South Kanara	Nilgiri Hills West coast in Kerela

Source : Livestock Censuses, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, GoI



Indian cattle breeds of cattle classified in to three types

- a. Milch breeds / Milkbreeds
- b. Dual Purposebreeds
- c. Draughtbreeds

Scenario of feed and fodder requirement & availability

There is tremendous pressure of livestock on available feed and fodder, as land available for fodder production has been decreasing. Scenario of feed and fodder availability till 2025 is as below:-

Table 6: The projected demand and supply of the fodder:

(In million tones)

Deficit as % of demand						
Year	Supply		Demand		(actual demands)	
	Green	Dry	Green	Dry	Green	Dry
1995	379.3	421	947	526	59.95 (568)	19.95 (105)
2000	384.5	428	988	549	61.10 (604)	21.93 (121)
2005	389.9	443	1025	569	61.96 (635)	22.08 (126)
2010	395.2	451	1061	589	62.76 (666)	23.46 (138)
2015	400.6	466	1097	609	63.50 (696)	23.56 (143)
2020	405.9	473	1134	630	64.21 (728)	24.81 (157)
2025	411.3	488	1170	650	64.87 (759)	24.92 (162)

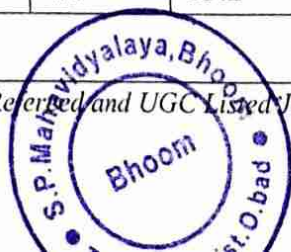
Source: Draft report of the working group on animal husbandry and dairying for five-year plan (2002-2007, Govt. of India, Planning Commission, August - 2001).

The above requirements have been worked out on the projected livestock population (equivalent to adult cattle unit) as below: -

Table 7: Projected livestock estimates when converted into adult cattle unit (ACUs)

massing are of their expected age profiles are as under: -

Year	Cattle	Buffalo	Sheep	Goat	Equine	Camel	Total
1995	180.5	82.8	4.0	9.2	0.5	0.9	278.0
2000	187.1	87.7	4.1	9.9	0.4	1.0	290.0
2005	192.2	92.6	4.2	10.5	0.3	1.0	301.0
2010	197.3	97.5	4.3	11.2	0.3	1.0	312.0
2015	202.3	102.4	4.4	11.8	0.1	1.1	322.0
2020	207.4	107.3	4.5	12.5	0.1	1.1	333.0
2025	212.5	112.2	4.6	13.2	0.1	1.1	344.0



The estimated livestock population was converted to ACUs assuming that 350 kg of body weight

=1 ACU in cattle, 450 kg=1 ACU in buffalo, 10 goats=1 ACU, 10 sheep=1 ACU.

Source: Draft report of working group for X plan for AHCD, Planning Commission, August 2001.

References

1. Acharya, S.S. and Agarwal, N.L. (2006) Agricultural Marketing in India. Oxford and IBH Publishing Co. Pvt. Ltd., NewDelhi.
2. Gupta, P.R. (2007) Dairy India Year book. Thomson Press (India) Limited, NewDelhi
3. Dairy Industry of India. (2007). BabcockInstitute, University of Wisconsin System.
3. Dr. B.S. Prakash, D. S. (2011). Vision National Dairy Development Board .
4. Dr. A.K. Srivastava, Director NDRI.
5. Pradesh, S. I. (2005). Dairy Animal Management.
6. Sharma, V. P. (2007). India's Agrarian Crisis and Smallholder Producers'. Indian Institute Of Management Ahmadabad.

Websites

- <http://dahd.nic.in> [http:// love4cow.com](http://love4cow.com)
- <http://www.siliconindia.com> <http://www.indiaagronet.com/indiaagronet/DAIRY/Dairy.htm>
- <http://www.fao.org/WAIRDOCS/LEAD/x6170e/x6170e38.htm#TopOfPage> <http://indiatoday.intoday.in/story/White+crisis/1/94231.html>




PRINCIPAL
S.P. Mahavidyalaya, Bhoom
Dist. Osmanabad