



REVIEW OF RESEARCH

ISSN: 2249-894X

UGC APPROVED JOURNAL NO. 48514

IMPACT FACTOR : 3.8014 (UIF)

VOLUME - 6 | ISSUE - 5 | FEBRUARY - 2017

GLOBAL OVERVIEW OF ANIMAL HUSBANDRY WITH SPECIAL REFERENCE TO INDIA

Prof. Nilima Rajaram Mirajkar
Head of Economics Department,
Doshi Vakil Arts College and G.C.U.B. Science and
Commerce College Goregaon Raigad.

Abstract :

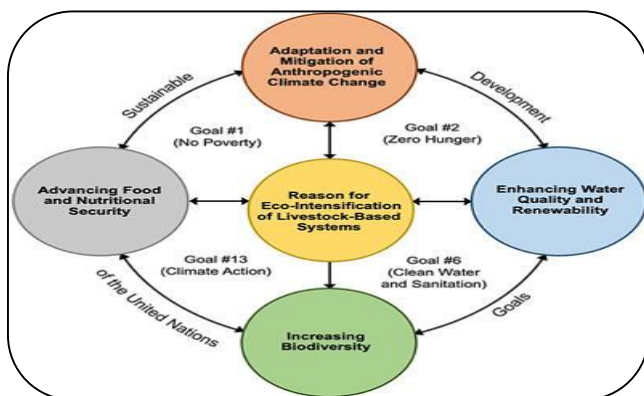
Livestock and animal husbandry is still playing significant role in the rural livelihood sources of the LDCs and developing nations like India. It has one of the high growth potential sectors in the world. The significant gainful employment is being generated through this sector in all over the world. Under this backdrop, present study attempted to analyze the performance of the animal husbandry at globe prospective. The major objectives of the study were, to study the positioning of the countries in world livestock population, to study the world cattle livestock population in selected countries, to study the trend in total world livestock, and to analyze the

trend in milk production in the Asian countries and world. The investigation has carried out based on secondary data published in various national and international reports and the period of study were confined to 2007-17.

KEYWORDS: Animal Husbandry, Livestock Population, Milk Production, India and Asian Countries.

1.INTRODUCTION

Being an agrarian economy base, a large segment of the Indian rural work force is being engaged in the agriculture and allied activities. As per census 2011 around 54.6 percent of the total population of India were engaged in agriculture sector. It indicates huge dependency of the large rural mass on the agriculture and allied activities. No doubt that still developing and undeveloped world population is highly depends on the agriculture sector for livelihood sources. The economies of these backward nations are directly and highly depends on the agriculture sector, due to low level of technological development, less industrial development, low level of education, poor infrastructure and high dependence on the import. In fact the backward and developing nations are suffering from the debt trap, chronic poverty, low human development and capital deficiency which resulted in stationary state of the economies having high dependence on agriculture and allied activities. Under this backdrop, present study attempted to analyze the performance of the animal husbandry at globe prospective. The major objectives of the study were, to study the positioning of the countries in world livestock population, to study the world cattle



livestock population in selected countries, to study the trend in total world livestock, and to analyze the trend in milk production in the Asian countries and world. The investigation has carried out based on secondary data published in various national and international reports and the period of study were confined to 2007-17.

2. OBJECTIVES OF THE STUDY

The major objectives of the present investigation are as below.

1. To study the positioning of the countries in world livestock population.
2. To study the world cattle livestock population in selected countries.
3. To study the trend in total world livestock
4. To analyze the trend in milk production in the Asian countries and world

3. GLOBAL OVERVIEW OF ANIMAL HUSBANDRY

3.1 Position of Countries in world Livestock Population

The agriculture development in LDCs is also not up to the mark and most of these nations are far away from the intensive farming. The animal husbandry is also not much developed in these nations. These nations are Congo, Zimbabwe, Burundi, Liberia, Eritrea, Niger, Afghanistan and Nepal. However, agriculture and animal husbandry is the main sources of national income of these nations and most of the rural mass is highly engaged in primary sector.

On the other hand agriculturally forwarded nations like Israel, Denmark, UK, USA, Brazil, Indonesia, China and India are also leading nations in animal husbandry and in production of milk, meat and wool. The contribution of agriculture and animal husbandry in GDP of these nations is reducing but the absolute contribution is increasing significantly.

In fact, Agriculture is the world's oldest and largest primary industry. It plays a dynamic role in the economic life of developing countries. It occupies more population of the world and provides the basic necessities like food, clothing, and shelter to the human being by the agriculture. Animal husbandry contributes in to the well-being of mankind. The livestock sector plays an energetic role in the economies of many developing countries. Animal products like milk, meat provide high quality nutritious. These products have about two fifth of the value of the world's agriculture output. Animal husbandry helps to reducing the malnutrition which is the world's number one problem because world's food production is falling behind population growth. Cultivated food is not enough to entire population in the world (Campbell John R and et al, 1977)¹. According to Economic and Social council of the United Nation more than 500 million children's and perhaps an equal numbers of adults facing the problem of malnourished, so sufficient nutrition's need to physical and mental growth of human. Animal rearing highly contribute further to maintain health of man as well as its big sources of power. The FAO Agriculture Engineering branch reported that animal power remain important where farm size is very small in countries like India, Mexico, Brazil and South Africa there are animal power important to small scale farmers (KumarAnjani 2010). The animal husbandry has vast network. It organized in rural, urban areas and even across the country. FAO has contribute into the development of AH and Dairying at international level. Several types of programme and organization worked at international level for AH development. Like United Nations international children's emergence fund programme (UNICEF) has run at international level for motivated various developing countries to establish livestock industry in their countries. India is also one of the recipients of UNICEF programme. The position of countries in world livestock population is show in the table 1

Table 1 Position of Countries in world Livestock Population

Livestock Population	First Rank Country in World	India's Position in World
Cattle	Brazil	2 nd
Buffalo	India	1 st
Sheep	China	2 nd
Goat	India	1 st
Camel	Somalia	9 th

Source: BAHS (GOI), 2017.

It has been clear from the table 1 that India stood at first rank in livestock population of Goat and Buffalo, whereas, China stood at first rank in the livestock population of Sheep and Brazil stood at first place in the livestock population of Cattle. Likewise, Somalia is having first position in the Camel population. India stood at second rank in world total cattle and sheep livestock population and it has having ninth place in camel population. It means that in an average India is having significant number of livestock in world.

3.2 Worldwide Cattle Livestock Population

The largest number of bovine animals were observed in China (677 million) followed by the US (470 million) and France (440 million).

Table 2: Worldwide Cattle Livestock Population in Selected Countries (Thousand head)

Sr.No	Countries	Cattles Numbers	Percentage
1	India	303350	30.39
2	Brazil	226045	22.64
3	China	99173	10.3
4	EU	89250	8.94
5	Argentina	53815	5.36
6	Australia	26142	2.78
7	Russia	18568	1.85
8	Mexico	16490	1.65
9	Turkey	14091	1.41
10	Canada	12065	1.21
11	Others	43790	4.38
World		998313	100

Source-FAS/USDA 2016.

Note- Other countries indicate the countries Vietnam, Bangladesh, Iraq, Iran, Malaysia, Taiwan, Portuguese, Rumania, Bulgaria, Italy etc.

The countries with the largest number of sheep were observed in Argentina (1.15 million) followed by the UK (0.89million) and Italy (0.7million). The countries with the largest number of pigs were found in China (215million) followed by the France (184 million) and Germany (144 million).Tanzania is one of the African country known for livestock. It ranks third in African after Sudan and Ethiopia in livestock population (Central

statistical organization, 2017). India is maintaining about 10.71 per cent of livestock population of the world. (CSO, 2017) The table 2 and figure 1 shows worldwide cattle livestock population in 2017.

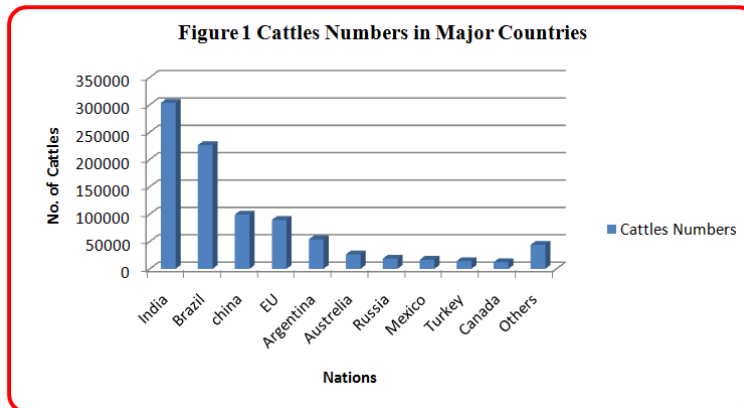


Table 2 shows the cattle population in selected countries of the world. In 2017 the world’s total cattle population is 998313 head. India, Brazil, China these countries are shared high numbers of cattle into the world; it shared 30.39 per cent, 22.64 per cent and 10.3 per cent respectively. On the other hand the lowest share of cattle population has been observed in Russia, Turkey and Canada with 1.85 per cent, 1.41 per cent and 1.21 per cent respectively.

3.3 Trendin Total World Livestock

The table 3 shows the species wise livestock population in the world.

Table 3 World’s Livestock Population (million stock)

Sr. No	Years	Cattle	Buffalo	Sheep	Goat	Horse and Ponies	Donkey	Pig	Camels and Mules
1	2007	1357	182	1105	836	59	7.5	921	35
2	2008	1372	185	1086	864	58	7.5	938	36
3	2009	1382	188	1071	868	59	7.8	941	36
4	2010	1428	194	1084	920	58	7.8	965	33
5	2011	1451	190	1139	959	60	7.9	969	38
6	2012	1463	192	1159	975	59	8.03	971	37
7	2013	1465	193	1183	991	59	8.14	977	37
8	2014	1475	194	1196	1011	59	8.25	986	38
9	2015	1507	196	1205	1046	59	8.36	998	38
10	2016	1525	198	1222	1072	59	8.47	1007	38
11	2017	1544	199	1239	1098	59	8.58	1015	38
CGR		1.3	0.78	1.5	2.8	0.1	1.3	0.9	0.9
Mean		1451.73	191.91	1153.55	967.27	58.91	8.03	890.74	36.72
S.D		62.08	5.28	70	87.66	0.54	0.37	281.64	1.61
CV		4.28	2.75	5.21	9.06	0.92	4.58	31.62	4.40

Source: FAOSTAT production data, www. Faostat.org

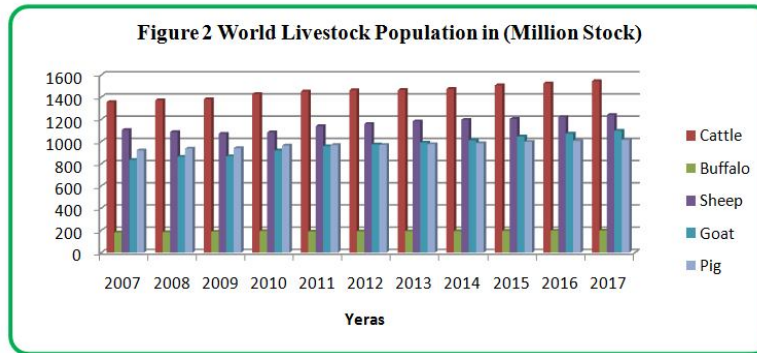


Table 3 indicates growth of different type of animals in world during 2007 to 2017. It has been clear from the data that the proportion of cattle population in total livestock population is significantly high for the all the years under consideration. The proportion of sheep population in total livestock of world is also significant during the period 2007 to 2017. Population of Donkey, Camel and Mules are less observed than other livestock during the same period. Overall the data observation can be summarized that cattle, buffalo, sheep, goat, horse, donkey, pig and camels are grown by 1.3 per cent, 0.78 per cent, 1.5 per cent, 2.8 per cent, 0.1 per cent, 1.3 per cent, 0.9 per cent and 0.9 per cent per annum respectively during study period. It implies that goat population in world has increased more rapidly than other livestock species in world and horse and ponies' population has increased very gradually during period under consideration. The average 1441 million cattle, 191.91 million buffalo, 1153.55 million sheep, 967.27 million goat, 58.91 million horse and ponies', 8.03 million donkey, 890.74 million pig and 36.72 million camels and mules are recorded during the reported period in world. The coefficient of variance is 31.62 per cent observed in case of pig in world during period 2007 to 2017, on the contrary it was lowest of 0.92 per cent recorded in case of horse and ponies in world during the same period.

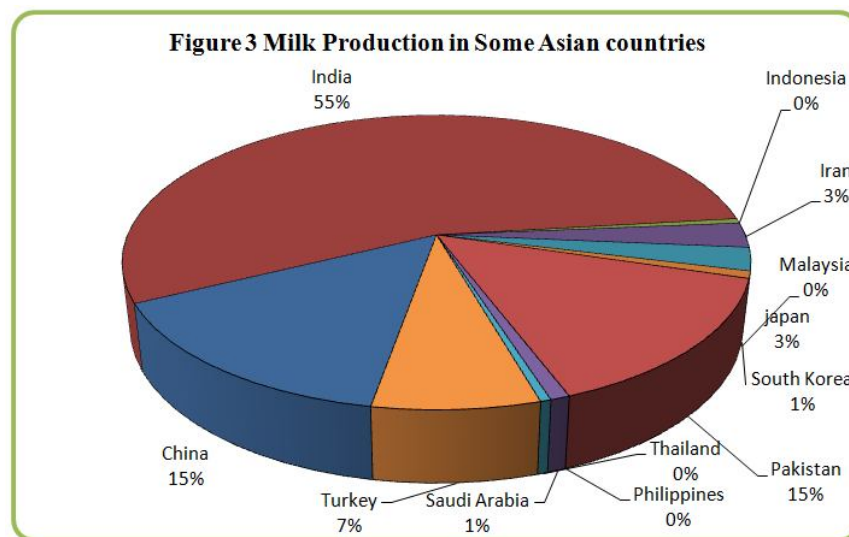
3.4 Milk Production in Asian Countries and World

According to FAO statistics 1.06 per cent increase in world milk production from 818 million ton in 2016 to 834 million ton in 2017. Out of which roughly two-third is concentrated in the developed countries. In world total milk production nearly 81 per cent milk is contributed by Cow and remaining 19 per cent is by buffalo. Mostly, confined trade of milk is to the south Asian countries out of the total milk production in the world. Processed milk product such as skimmed milk powder, butter, ghee, cheese confined mostly trade. More processed dairy product is concentrated in the EU, US, India, Pakistan, China. Over 80 per cent of milk consumed in developing countries is handled by informal market traders with inadequate regulation. India is the largest producer of dairy products in the world. Many countries are large produce and consume milk production. In 2016 export around 72339 million ton and import around 68406 million ton milk in the world. The world's largest exporter of dairy products was New Zealand and dairy products were the largest export earner for the country. Japan is the world's largest importer of dairy products. Since 2007 the demand for the dairy products grew especially in Asian region from 64 kg per capita in 2007 to 84 kg per capita in 2016, the Asian consumers presented almost a half of the world demand for milk and milk products. Table 3 shows milk production in Asian countries as compare world during 2017.

Table No 4 Milk Production in Asian Countries in 2017 (million ton)

Sr.No	Countries	Milk Production	Percentage to Total
1	China	43108	14.91
2	India	160377	55.46
3	Indonesia	1490	0.52
4	Iran	7870	2.72
5	Japan	7340	2.54
6	South Korea	2197	0.76
7	Malaysia	86	0.03
8	Pakistan	42000	14.52
9	Philippines	23	0.01
10	Saudi Arabia	2440	0.84
11	Thailand	1340	0.46
12	Turkey	20927	7.24
	World	289198	100.00

Source-FAS/USDA 2017.



The table 4 indicates milk production of Asian countries and their percentage in total milk production. It has been noticed from the table that India is the major producer of milk in Asian countries who contributing 55.46 per cent of the total milk production of Asian countries. It has followed by China 14.91 per cent and Pakistan 14.52 per cent. It means that nearly 80 per cent of the total milk production of Asian countries is derived from just three countries viz. India, China and Pakistan. The lower percentage of Asian countries indicates by the Philippines, Malaysia, Thailand, and Indonesia as compare to other Asian countries. The table 5 shows the species wise milk production in the world.

Table: 3.5 Milk Production in world (million ton)

Sr.No	Year	Cow	Buffaloes	Goat	Sheep	Total
1	2007	569.6	83.9	14.8	9.2	679.2
		(83.9)	(12.4)	(2.2)	(1.4)	100
2	2008	578.7	89.6	15.2	9.1	694.2
		(83.4)	(12.9)	(2.2)	(1.3)	100
3	2009	580.5	90.3	15.1	9	696.6
		(83.3)	(13)	(2.2)	(1.3)	100
4	2010	599.6	92.5	16.6	10	721
		(83.2)	(12.8)	(2.3)	(1.4)	100
5	2011	612.63	95.83	17.55	10.04	738.96
		(82.9)	(13)	(2.3)	(1.4)	100
6	2012	627.21	98.96	17.83	9.89	756.58
		(82.9)	(13.1)	(2.4)	(1.3)	100
7	2013	631.85	102.42	17.72	10.17	765.06
		(82.6)	(13.4)	(2.3)	(1.3)	100
8	2014	652.35	107.76	18.34	10.43	791.79
		(82.4)	(13.6)	(2.3)	(1.3)	100
9	2015	660.02	109.11	19.13	10.62	802.22
		(82.3)	(13.6)	(2.4)	(1.3)	100
10	2016	671.9	224.42	19.68	10.81	818.18
		(82.2)	(27.4)	(2.4)	(1.3)	100
11	2017	683.8	160.19	20.23	11.04	834.13
		(82)	(19.2)	(2.4)	(1.3)	100
CGR		1.92	7.39	3.24	2.01	2.14
AVERAGE		366.5	66.7	10.2	5.9	442.8
S.D		278.5	59.07	7.9	4.5	336.9
CV		76	88.6	76.9	76.1	76.1

Source: FAOSTAT production data, www.faostat.org

Figure in parenthesis () show percentage to Total livestock

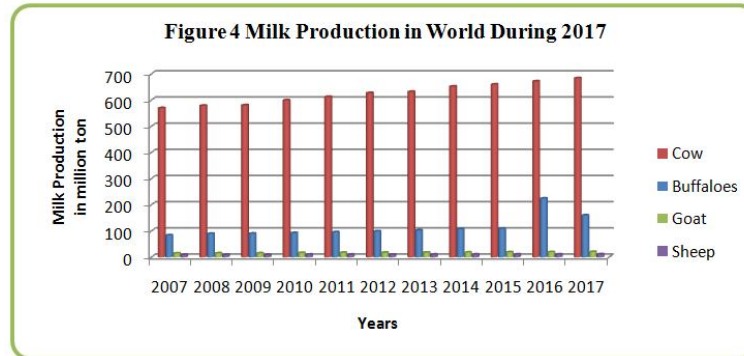


Table 5 represents the progress of milk production as per animal wise during the period 2007 to 2017 in total world. It has been noticed from the data that on an average more that 80 per cent of the total milk production of world is derived from the cow, during period under consideration. It means that cow is the major source of milk production in world. The contribution of buffalo in total milk production of world is varying between 12. 4 per cent to 27.4 per cent which is also significant. The share of goat and sheep milk in total milk production is less in all the years under consideration. The total milk production of world was 679.2 million ton in 2007 which went up to 834.13 million tone which means that there 22.81 per cent increase in total production of milk in the world during the reported period. The average milk production of cow was 366.5 million ton, whereas total average milk production of world was 442.8 million ton. Again, it means that cow is the major milk producer animal in world. The maximum coefficient of variance has been observed in case of buffalo i.e 88.06 per cent and it was minimum of 76 per cent found in case of cow.

REFERENCES

1. John R Campbell & John F Lasley .(1977) The Science of Animal that Serve Mankind. Tata Mc-Graw –Hill publishing Co,LTD(THM edition).pp. 15-21.
 2. Government of India.(2007). Report on 19th Livestock Census of Government of India. Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries KrishiBhavan. New Delhi.
 3. Government of India. (2012-2017) Report on Working Group on AH and Dairying. 12th Five Year Plan (2012-2017) Planning Commission Government of India.
 4. Shrivastava Mohan & Singh Jayshankar. (2008) Dairy Development in the New Millennium: The Second White Revolution. Deep and Deep Publication. pp-99-108.
 5. John R Campbell & John F Lasley .(1977) The Science of Animal that Serve Mankind. Tata Mc-Graw –Hill publishing Co,LTD(THM edition).pp. 15-21.
- Annual Report.(2015-16) Government of India. Basic Animal Husbandry statistics series 10 and 12 ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries KrishiBhavan. New Delhi.