

Livestock a Boon for Self Reliance to Indian Economy in COVID-19 Pandemic

¹Vibha Yadav, ²D.K. Yadav and ¹R.P. Diwakar

¹Department of Veterinary Microbiology, C.V.Sc. & A.H.,
Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, 224229, India
²M.V.Sc.(Surgery and Radiology), Ex Vet Medical Officer,
Deputy Superintendent of Police, India

Abstract: The pandemic COVID-19 caused by SARS-CoV-2 has led the world to the negative side of economic growth. All the manufacturing, transport, communication and services sectors contribute about 75 percent of the total economy while only about 25 percent is contributed by agriculture and allied sectors. However, even after less contribution in economic growth it has been always the way of livelihood of about 65 percent of people. Livestock has always been profitable among all agricultural allied activities. With the lockdown and corona impact reverse migration of labourers to the rural side has thrown up new challenges and opportunities in different types of livestock rearing and it will lead to industrialization for different livestock products and its ancillary activities. Thus it will not provide only employment to the migrated labourers but will prove a milestone in making self-reliance the country.

Key words: Economic Growth • Livestock • Sarscov-2 • Pandemic

INTRODUCTION

World Health Organization declared first a public health emergency and later a pandemic to the viral disease COVID-19 [1]. Even though with an increase in cases India's effort to combat this virus has been appreciated over the globe. However, the lockdown imposed on economic cost and it has cascading impact on all the sections of society. The coronavirus pandemic has triggered a massive reverse migration from the urban to rural areas in different parts of the country. Indian roads have been flooded hundreds of thousands of labourers marching back to their villages to find some warmth and empathy [2]. The central and states government in India under the special economic package, Pradhan Mantri Garib Kalyan Yojna (PMGKY) scheme etc. tried to take care of the economy and the poorest among the poor but effective implementation of this scheme poses a big challenge [3]. The governance - related issues are very important in the effective implementation of the scheme [4]. Migrant workers have been the engine of growth from centuries who work day and night for the economic success of any region across the globe. On the other hand, they are the most vulnerable even for their

livelihood as they have no access to any kind of social security. The forced reverse migration from urban to rural areas will have a significant impact on the demography, society and economy of rural India. Most of the migrant workers were marginal farmers in the past which left agriculture and moved to urban areas for better economic opportunities. The reverse migration either wilful or forced amid agrarian crisis poses a big threat on people to fall into abject poverty.

Status of Migrant Labourers: COVID-19 brings crisis on several economic and non-economic fronts over the globe. In India, about 81 percent of people employed in the informal sector [5]. Almost 90 percent of the workers in the informal sector have survived with no minimum wage or any kind of social security [6]. Even after the unorganized worker's social security act (2008), only 5-6% were enrolled for social security. According to Periodic Labour Force Survey (PLFS) of 2017-18, 71.1% had no job contract, 54.2% are not eligible for paid leave and 49.6% has no social security [7]. The return or reverse migration in between the agrarian crisis in the agricultural sector from urban to rural areas pose big challenges on the rural economy. According to International Migration

Table 1: Output by Major Economic Activities (2017-18)

SECTOR	OUTPUT (Rs Crores)	PERCENT OF TOTAL
Agriculture, forestry and fishing	2371342	9.373
Mining and quarrying	665387.9	2.630
Manufacturing	8904660	35.196
Electricity, gas, water supply and other utility services	801456	3.168
Construction	2642395	10.444
Trade, repair, hotels and restaurants	2244829	8.873
Transport, storage, communication & services related to broadcasting	1807438	7.144
Financial services	1014881	4.011
Real estate, ownership of dwelling and professional services	2700357	10.673
Public administration and defence	907580.2	3.587
Other services	1239848	4.901
Total	25300174	100

Source: EPW Research Foundation

Table 2: Contribution of different sectors in total employment

SECTOR	Total Percent Employment
Agriculture and allied	42.38
Manufacturing	32.03
Services	25.59

Note: 74.26 percent of total employment is vulnerable which has no social security

Organisation [5], “return migration is the act or process of going back to the point of departure, is the returning of people to their origin or place of habitual residence after spending some time at another place”. It can be a voluntary return or forced migration. Irrespective of the reason for migration, the return poses a significant impact on the demography, society and economy of rural areas. Finally, return migration to rural areas has a significant impact on the economy of the rural areas as well since in some cases it dramatically contributes towards boosting the economic activities in the area. In the current situation, the internal migrant labourers in India are around 450 million. Field realities show migrant labours are higher in case of UP and Bihar followed by MP, Punjab, Rajasthan, Uttarakhand, Jammu and Kashmir and West Bengal. Currently, returnees came with empty hands which have left their destination to save their life from poverty and hunger. According to ILO estimates around 400 million workers in India in the informal economy were at the risk of falling deeper into poverty during the crisis. Reverse migration due to COVID-19 provides an opportunity to engage the returned labourers in gainful employment and the sole short-term option is to leverage the potential of agriculture. Especially labour-intensive sectors like livestock, fisheries and food processing have not developed over the years and the labourers who have returned can be used to reverse this trend. Labourers can also be involved in creation and revamping of rural infrastructure (both farm and non-farm), godowns and water management and in food and fodder processing.

The labour has to substitute for the probably reduced input application in agriculture to help maintain the production level, resulting in increased factor share of labour in the agricultural sector.

Contribution of Agriculture in Our Economy: India is the country of villages, where the major population lives in rural areas. Agriculture and agriculture-related services are the major sources of livelihood of the peoples. In the past few decades, farm distress led to huge migration from rural to urban centres. The structural economic growth theories explain every economy in the transition phase moves from traditional (agriculture) to the modern sector (manufacturing/services). Irrespective of high growth from the manufacturing/services sector in the past two decades, agriculture remained a major source of livelihood for the majority of the population. Since Independence, there is a substantial decline in the contribution of agriculture and allied activities in the total GVA. Table 1 shows the contribution of agriculture and allied activities including mining and quarrying (12.003) in the total GVA. The contribution of the manufacturing (35.196) is highest as a single sector in the economy but services combined contribute is more than 50 per cent of total GVA. There is a large number of studies confirms the agrarian crisis in the Indian economy [8]. Irrespective of the lowest contribution of agriculture in total GVA, it provides the highest employment (42.38) followed by manufacturing (32.03) and services (25.57) sector (Table 2).

What is Self-Reliance: Self-reliance meaning 'Atmanirbhar' has become a buzzword after mention of it in the speech of our Prime Minister Shri Narendra Modi. Economists define self-sufficiency or self-reliance in strict sense as the state of not requiring any aid, support, interaction or trade with the outside world. If an independent national economy is to be built, the economy must be developed in a diversified and integral manner [9]. Unlike the capitalist economy which is geared to make money, the socialist independent economy is always aimed at meeting the demands of the country and the people [10]. So an independent economy should naturally be developed in such a multifarious and integral way as to produce independently heavy and light industry goods and agricultural products to make the country rich and powerful and improve the people's living standard.

Our Prime Minister has clarified that his version of self-reliance does not imply isolationism and inward-orientation. His version of self-reliance will inject *greater self-confidence* in the people by reducing the country's dependence on other nations.

Livestock and its Role in Self-reliance: India has vast livestock resources in population as well as production. Livestock imparts a major role in Indian economy. As per census 2011 approximately 20.5 million people are dependent directly or indirectly upon livestock for their livelihood. It contributes about 16% to the income of small farm households in comparison to the average of 14% for all rural households. Livestock provides livelihood to two-third of the rural population. It also provides employment to about 8.8 % of the total population in India. Livestock sector contributes 4.11% of GDP and 25.6% of total Agriculture GDP. This sector has great scope in self reliance.

India is topmost in many aspects of livestock census with highest livestock population i.e. 535.78 million in the world. It is first in the total buffalo population in the world with 109.85 million buffalo population. It is second in goats population, aquaculture and poultry market while third position in sheep population (20th Livestock census).

Livestock and its Importance: The livestock provides not only various food items but different non-food items also which are of immense importance to the public at large.

Food: The livestock provides food items such as Milk, Meat and Eggs for human consumption. India ranks first in milk production accounting for 20 per cent of world production. It is producing about 187.70 million tones of milk in a year (2018-19). Similarly it is producing about 100

billions of eggs, 7.70 million tonnes of meat in a year. At constant prices the value of output from livestock was about 31.25% of the value of the output from total agriculture and allied sector. During this 2018-2019 financial year, the total fish production in India is estimated at 13.7 Million Metric tonnes which are second largest in the world.

Fibre and Skins: The livestock also contributes to the production of wool, hair, hides and pelts. Leather is the most important product which has a very high export potential. India accounts for 13% of world leather production of leathers. India is producing about 46.4 million Kg of wool per annum during 2018-19 which is expected to increase to 54.1 million Kg by 2019-20.

Draft: Bullocks are the back bone of Indian agriculture. Despite lot of advancements in the use of mechanical power in Indian agricultural operations, various agricultural operations of the Indian farmer especially in rural areas still depend upon bullocks so far. The bullocks are saving a lot on fuel which is a necessary input for using mechanical power like tractors, combine harvesters etc. Pack animals like camels, horses, donkeys, ponies, mules etc are being extensively used to transport goods in different parts of the country in addition to bullocks. In situations like hilly terrains mules and ponies serve as the only alternative to transport goods. The army has to depend upon these pack animals to transport various items in high areas of high altitude. Similarly, the paramilitary forces use camels for their patrolling in border areas along with pack animals for transport as per the need.

Dung and Other Animal Waste Materials: Dung and other animal wastes (urine alongside litter and left finished roughages) serve as very good farm yard manure and the value of it is worth several crores of rupees. In addition it is also used as fuel (bio gas, dung cakes) and for construction as poor man's cement (dung). Compost made by animal waste materials is in high demand because of rising trend of organic farming.

Storage: Livestock are considered as 'moving banks' because of their potentiality to dispose off during emergencies. They serve as capital and in cases of landless agricultural labourers many time it is the only capital resource they possess. Livestock serve as an asset and in case of emergencies they serve as guarantee for availing loans from the local sources such as money lenders in the villages.

Weed Control: Livestock are also used as biological control of brush, plants and weeds. They used to graze the weed either before sowing a crop or after crop establishment for weed control and to enhance tillering.

Cultural: Livestock offer security to the owners and also add to their self esteem especially when they own prized animals such as pedigreed bulls, dogs, horses and high yielding cows/ buffaloes etc.

Sports / Recreation: People also use the animals like cocks, rams, bulls etc for competition and sports. Despite ban on these animal competitions the cock fights, ram fights and bullfights (jalli kattu) are quite common during festive seasons in different parts of the country. The present working condition leading the stress in at the workplace, the animals have been found as a stress reliever which is proved by psychiatrists.

Companion Animals: Dogs are known for their faithfulness and are being used as companions since time immemorial. When the nuclear families are increasing in number and the old parents are forced to lead solitary life the dogs, cats are providing the needed company to the latter thus making them lead a comfortable life.

Medicinal: Many of the animal products and by-products are of medicinal use both in allopathy and traditional therapy like Ayurveda. Panchgavya is now proven to cure many chronic diseases viz. cancer, diabetes etc.

Livestock and its Role in Our Economy: Farming system in India is of mixed farming pattern means practising a combination of crop production and livestock rearing where the output of one enterprise becomes the input of another enterprise and thus increase the resource efficiency. Livestock play vital role in the upliftment of farmer's economy. It serves the farmers in different ways. Livestock is a source of subsidiary income for many families in India especially the resource poor who maintain few heads of animals. Cows and buffaloes if in milk will provide regular income to the livestock farmers through sale of milk. Animals like sheep and goat serve as sources of income during emergencies to meet exigencies like marriages, treatment of sick persons, children education, repair of houses etc. The animals also serve as moving banks and assets which provide economic security to the owners. The livestock products such as milk, meat and eggs are an important source of animal protein to the members of the livestock owners. The per capita availability of milk is around 375 g / day; eggs are 74 /

annum during 2017-18. The animals offer social security to the owners in terms of their status in the society. The families especially the landless which own animals are better placed than those who do not. Gifting of animals during marriages is a very common phenomenon in different parts of the country. Rearing of animals is a part of the Indian culture. Animals are used for various socio religious functions. Cows for house warming ceremonies; rams, bucks and chicken for sacrifice during festive seasons; Bulls and Cows are worshipped during various religious functions. Many owners develop attachment to their animals.

Importance of Livestock in Covid-19 Pandemic: A large number of people in India being less literate and unskilled depend upon agriculture for their livelihoods. But agriculture being seasonal in nature could provide employment for a maximum of 180 days in a year. The landless and less land people depend upon livestock for utilizing their labour during lean agricultural season. India's agricultural sector depends on migrant labourers for several operations. Now, an estimated 50 million migrant labourers (of India's 140 million) are expected to have returned to their native places from cities following the nationwide lockdown from March 24. They account for about 11% of the non-self-employed labour force. Many migrant labourers, mainly from eastern states, are working in agricultural fields in the country's west and north. They are also significantly employed in marine fishing, post-harvest activities, managing livestock, in marketing and in the creation of agricultural infrastructure [11].

This has provided opportunity to plan a long-term strategy focusing more on livestock than other sectors. Nonetheless, agro-based activities and livestock enterprises would be a key element. Improving the skilled labour and livestock productivity would be a critical strategy with inclusive and sustainable approach to mixed farming. For this, changes in the organisation of milk industries, use of livestock products technologies, food processing with value addition of animal origin and sustainable development of these industries will be important. Models that harness economies of scale in rural areas and mass absorption of labourers need to be evaluated and adopted [11].

CONCLUSION

COVID-19 could reinvent the importance of the animal husbandry sector as the one on which our labour force can fall upon at a time of crisis. The establishment of

dairy plants along with associated various MSMEs (Micro Small and Medium Enterprises) will not only provide employment but will strengthen the economy also. Reviving this sector will be the key in the post-COVID-19 phase of the Indian economy.

REFERENCES

1. Alejandro Portes, 1998. Social Capital, Annual Review of Sociology, pp: 1-24.
2. Dandekar, A. and R. Ghai, 2020. Migration and Reverse Migration in the Age of COVID19. Economics and Politics Weekly, 55(19).
3. J. David Cherrington, 1994. Organizational Behavior, 2nd edition (Boston: Allyn and Bacon,), pp: 134-135.
4. ILO, 2018. Woman and men in the informal economy: A statistical Picture. International Labour Office, Geneva. <https://doi.org/10.1179/bac.2003.28.1.018>
5. International Organisation of Migration, 2011. International Migration Law: Glossary on Migration, second edition. IOM, Geneva.
6. Jha, A.K., 2020. Will Central Largesse Help Construction Workers? COVID-19 Relief Package. Economics and Politics Weekly, 55(17). <https://www.epw.in/journal/2020/17/commentary/covid-19-relief-package.html>
7. Mohanty, P., 2019. Labour reforms: No one knows the size of India's informal workforce, not even the govt. Retrieved April 9, 2020, from <https://www.businesstoday.in/sectors/jobs/labour-law-reforms-no-one-knows>
8. Sharma, Y.S., 2020. National database of workers in informal sector in the works. The Economic Times. Retrieved April 9, 2020, from <https://economictimes.indiatimes.com/news/economy/indicators/national>
9. Simon Johnson, 2007. Why Economists Are Still Grasping To Cure Global Poverty, The Wall Street Journal, Section A7.
10. Singh, M.K. and Y. Neog, 2020. Contagion Effect of COVID-19 Outbreak: Another Recipe for Disaster on Indian Economy. Public Affairs (Forthcoming).
11. WHO, 2020. Novel Coronavirus (2019-nCoV): situation report, 10 (Report). World Health Organization. hdl:10665/330775.