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## Atmanirbhar Bharat towards reinvigorating Indian economy: Special focus on poultry sector

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### Abstract

For various reasons, the majority of rural households in developing nations such as India are engaged in small-scale farming. Small-scale poultry farmers faced numerous COVID-19 challenges, such as supply chain disruptions, worker shortages, malfunctioning livestock markets, falling prices, and changes in consumer purchasing behavior. The majority of them operate informally, leaving them more vulnerable to COVID-19 effects and thus subject to containment measures and lockdowns. Despite the tight restrictions, the Indian economy has remained essentially stronger. Robust and reliable financial assistance, such as Atmanirbhar Bharat for the poultry sector, ought to serve as a significant component in supply chain interruption mitigation programs, since financial measures are critical for the sector's survival and revival. As a result, it is anticipated that the government would implement all practical measures to combat the unfavorable circumstances, including better governance, essential financial assistance, and the setting up of an environment that is favorable to reinvigorating the sector and facilitating the financial stability of the corresponding participants, in which the private sector, non-governmental organizations, and even regular citizens may well play an important role.

**Keywords:** COVID 19, lockdown, small scale farmers, supply disruptions, revival policies, better governance, financial stability

### Introduction

In a developing nation like India, the poultry industry is one of the most escalating sectors of the agricultural economy. The novel coronavirus pandemic (COVID-19) had become a worldwide public health crisis, which is extremely crucial for a diverse country like India, with a population of more than 1.38 billion people. Livestock and poultry industries are the country's traditional and primary agriculture sub-sectors, accounting for 4.9 per cent of total gross value added (Rs. 758,417 crores in 2017-2018). They provide livelihood and employment to around 8.8 per cent of the total population (20th Livestock Census). With a cattle population of 535.78 million and a poultry population of 851.81 million, the industry has long been the predominant source of animal protein for both non-vegetarians and vegetarians in the country, contributing significantly to nutritional security for people of all ages particularly for the urban middle class (Biswal *et al.*, 2020) [27]. According to the All India Poultry Breeders Association (AIPBA), the poultry farming workforce includes over ten lakh poultry farmers and directly contributes Rs 1.3 lakh crore to the country's GDP. Small-scale chicken rearing was practised by the majority of rural households in developing countries like India for different reasons (Kryger *et al.*, 2010) [16]. This may be because chickens lay eggs at 6 months of age, require little input, and convert feed efficiently into high-quality animal-source food (Nordhagen & Klemm *et al.*, 2018) [41], and income generated by chicken farming is more stable and consistent when compared to larger livestock (Mapiye *et al.*, 2008) [39]. Their smaller size and lesser market value make them ideal for vulnerable sectors of the population, notably women and the poor, who have a limited number of alternatives for entrepreneurship (Iannotti *et al.*, 2014) [34]. As a result, researchers and the development communities explained that poultry especially chicken, has a significant contribution to meeting the United Nations (UN) Sustainable Development Goals (SDGs) (United Nations), (De Bruyn *et al.*, 2015) [28].

According to FAOSTAT data for 2020, India ranks third in egg production and sixth in meat production in the world. India's egg production has increased from 78.48 billion in 2014-15 to 122.11 billion in 2020-21. The per capita availability of eggs is at 91 eggs per annum in 2020-21 (Provisional). Meat production in the country has increased from 6.69 million MT in 2014-15 to 8.80 million MT in 2020-21.

According to Basic Animal Husbandry Statistics, 2020 states that India's poultry meat production was 4.34 million MT,

contributing almost 50% of the total meat production in 2019-20.

### Annual Production of eggs and meat during 2020-21\* and 2019-20

Product	Annual Production		Growth Rate (%)	CAGR (%) During 2014-15 to 2020-21
	2020-21*	2019-20		
Egg (Lakh Nos.)	1220486.44	1143831.01	6.70	7.64
Meat ('000 Tonnes)	8797.91	8599.40	2.31	4.67

### Item-wise value of output of agriculture and allied sector

Item	At Constant (2011-12) Basic Prices (In Crore Rs.)							CAGR (%)	AGR (%) for 2020-21
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20*	2020-21*		
Poultry Meat	53120	60066	73064	79496	86833	93279	96772	10.51	3.74
Poultry Egg	19080	19829	20332	21901	23702	26628	28525	6.93	7.12
Total Poultry	72200	79895	93396	101398	110535	119908	125298	9.62	4.49

Note: \*: Third Revised Estimates;

#: Second Revised Estimates;

@ First Revised Estimates and;

\*\*: Trade & Repair hotel, Transport;

Communication & Broadcasting, Financial Services, Real estate ownership of dwelling & PS, Public administration and defense, Construction, Other Services; CAGR: Compound Annual Growth Rate from 2014-15 to 2020-21; Source: NAD, NSO, MOSPI.

Over 3.8 million tonnes of poultry meat were consumed in India (2019), with a retail value of Rs. 85,000 crores (Hafez & Attia *et al.*, 2020) <sup>[32, 33]</sup>, Béné *et al.*, 2020) <sup>[24]</sup>, and Country's egg production was reported to be 109 billion eggs worth Rs. 45,000 crores (Hafez & Attia *et al.*, 2020b) <sup>[32, 33]</sup>. The poultry industry in India was estimated to increase at a pace of 10-12 per cent in 2020, as it has for the previous three years. Before the pandemic, output averaged 27-28 crores of eggs per day and 40 crores of broiler chicks per month, totaling 1.25 lakh crores of rupees per year. According to Investment Information and Credit Rating Agency (ICRA) statistics, the overall broiler market size was roughly 4.7 million tonnes of carcass weight with a retail price of 85,000 crores. In the fiscal year 2019, per capita meat consumption was 3.4 kg, whereas per capita egg consumption was 80 kg per annum. The poultry sector grew at a rate of 2-3% and 4% in FY20 and FY21, respectively. India has a protein deficit of more than 80%. For nearly 20 million tonnes of protein, it will be required to feed 1350 million people. Approximately 47-56 per cent of protein and 20 per cent of energy requirements are met by livestock (Kumarnath *et al.*, 2021) <sup>[17]</sup>. However, the emergence of the COVID-19 pandemic at the beginning of the year had an unanticipated impact on the poultry industry (Biswal *et al.*, 2020) <sup>[27]</sup>.

### A brief overview of the impact of covid-19 on poultry

Unlike past recent outbreaks such as Ebola, SARS, Zika, and H7N9, the uncertainty created by COVID-19 predominantly affected the poultry industry rather than any other economic sector (FAO in Vietnam), (Egypt). Even before the first case was reported in the country, rumours circulated in the media that poultry was likely a carrier of the coronavirus, and following the country-wide lockdown, people's movement was severely restricted. Even though the union and state governments imposed no restrictions on food commodity shops (meat and egg sales), it still resulted in the sale of the produce at lower prices (Biswal *et al.*, 2020) <sup>[27]</sup>. According to small-scale poultry farmers experienced multiple COVID-19

challenges, including supply chain disruptions, worker shortages, malfunctioning livestock markets, falling prices, changes in consumer purchasing behavior (Uddin *et al.*, 2020) <sup>[46]</sup>, improper storage facilities, cold-chain facilities, restaurant closures that hampered the market, and circulating rumours in the media that led to the burning of birds and burying of live birds to prevent the spread of COVID-19.

(Abu Hatab *et al.*, 2021) <sup>[21]</sup> identified three primary causes of the pandemic's negative impacts on small-scale poultry farmers in contrast to large producers. Small-scale poultry farmers rely on labour rather than machinery, and they rely on limited logistical and financial resources to implement hygiene measures and are thus exempted from government stimulus plans for private businesses. Besides that, the majority of them operate informally, making them more vulnerable to COVID-19 effects and thus affected by containment measures and lockdowns. In India, a total loss of 22,500 crores was estimated by the end of February, with a loss of 27,000 crores estimated by the end of April 2020 as a result of the impact of COVID-19 on 10 lakh broiler farmers and 2 lakh layer farmers (Biswal *et al.*, 2020) <sup>[27]</sup>. COVID-19 impacted Maharashtra, Karnataka, Odisha, and Andhra Pradesh. During the COVID-19 scare, the decline in consumption rate was nearly 50% in Tamil Nadu. In Andhra Pradesh, the consumption rate fell by 50%, and the same in Karnataka, with a remarkable dip of more than 85 per cent decrease in broiler meat demand and a 50% decrease in egg demand (Kolluri *et al.*, 2021) <sup>[35]</sup>. To protect their markets, some countries have prohibited the import of poultry meat; as a result, overall chicken sales have decreased by 15-25 per cent. In several Italian hatcheries, forced euthanasia and egg reduction were practised. Corn and soybeans, the key ingredients in chicken diets, are mostly grown in the United States, China, Brazil, and Argentina. The import restrictions and transportation disruption between nations had an impact on the global chicken trade (All about feed, 2020a 2020b) <sup>[22]</sup>. Over 3.8 million tonnes of poultry meat were consumed in India (2019), with a retail value of Rs. 85,000 crores (Hafez & Attia *et al.*, 2020) <sup>[32, 33]</sup>, Béné *et al.*, 2020) <sup>[24]</sup>, and Country's egg production was reported to be 109 billion eggs worth Rs. 45,000 crores (Hafez & Attia *et al.*, 2020b) <sup>[32, 33]</sup>. The poultry industry in India was estimated to increase at a pace of 10-12 per cent in 2020, as it has for the previous three years. Before

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### Move of Belief-Reliance-Atmanirbhar Bharat

The concept of Atmanirbhar Bharat, or self-reliance, was at the heart of Prime Minister Shri Narendra Modi inaugural address on May 12, 2020, when he announced a Rs 20-lakh-crore (estimated at 10% of GDP) economic reform programme aimed at building an Atmanirbhar Bharat, or a self-reliant, resilient India, which is one of the world's largest relief packages. To enhance the efficiency of this program, land, labour, legislation, and liquidity have all been examined as part of the announced package. The same package was employed for the cottage industry, home industry, small-scale industry, MSME, labourers, farmers, middle-class individuals, and Indian industries, all of which were taking steps toward improving the Indian economy. The Prime Minister of India stated that Atmanirbhar Bharat aimed to be self-sufficient to provide joy, partnership, and peace to the globe rather than be self-centered.

It was planned to have five pillars: economics, infrastructure, system, vibrant demography, and demand. It is a relaunched version of the "Make in India" model, with additional benefits for the MSME sector, boosting private participation in many sectors and encouraging foreign direct investment in the defence industry. The primary goal of financial reform is to revive economic growth to pre-crisis levels (Trade Brains, 2020). The four E's of education, employability, employment, and entrepreneurship are essential in building a self-sufficient Atmanirbhar Bharat by supporting the five pillars of Atmanirbhar Bharat and capitalizing on India's intellectual wealth. The establishment of a Rs. 15000 crore Animal Husbandry Infrastructure Development Fund (AHIDF) was part of the Prime Minister's Atmanirbhar Bharat Abhiyan stimulus package. The Animal Husbandry Infrastructure Development Fund (AHIDF) is worth Rs. 15000/-cr. was established with Cabinet approval on June 24, 2020, and was implemented from 2020-21, with Rs. 13500/-cr. being the loan to be distributed by the scheduled bank and Rs. 1500/-cr. being the end loan applicant's contribution. Over ten years, Rs. 1623.78 crores was offered as an interest public subsidy for loan repayment (from 2020–21 to 2030–31, which may spill over to the first quarter of 2031–32). NABARD supervised a credit guarantee of Rs 750 crore, of which the DAHD gave Rs 75 crore over a ten-year term.

The (AHIDF) was established to incentivize investments by individual entrepreneurs, private companies, Farmer Producer Organizations (FPOs), and Section 8 companies to establish dairy processing and product diversification infrastructure, meat processing and product diversification infrastructure, animal feed plant infrastructure, and breeder infrastructure. The AHIDF's objectives are as follows: 1) to support the development of milk and meat processing capacity and product diversification by providing unorganized rural milk and meat farmers with greater access to organized milk and meat markets 2) to deliver improved price realization to the producer 3) to provide the wider public with high-quality milk and meat products 4) To fulfil the country's growing population's protein-enriched quality food needs, as well as to combat malnutrition in one of the world's most malnourished kid populations 5). Promote increased business and job creation 6) stimulate exports and increase the export

participation of the milk and meat sectors.7) provide high-quality concentrated animal feed to cattle, buffalo, sheep, goats, pigs, and poultry to provide a balanced ration at a reasonable price.

AHIDF funding is available for the following broad investment activities: a) dairy processing and value-added infrastructure; b) meat processing and value-added infrastructure; c) the establishment of animal feed facilities; and d) breed enhancement technology and breeding farms. Farmer Producer Organizations (FPOs), private firms, individuals, individual entrepreneurs, Section 8 companies, and micro, small, and medium enterprises were all eligible entities (EEs). The DAHD provided the bank with 3 per cent interest-free financial assistance upfront during the first year, and then on demand by the bank for each enrollee on the outstanding sum in subsequent years. The DAHD also extended credit guarantees, covering 25% of the loans, to beneficiaries who met the MSME criterion. The AHIDF credit guarantee fund trust, which is managed by NABARD, has been founded with detailed instructions. For 10 years, the credit guarantee was granted at a rate of Rs. 75/cr. each year. DAHD provided annual funding support for interest subvention, the hiring of a Project Monitoring Agency, raising awareness, developing a site, and implementing an MIS system. For the fiscal year 2021–2022, the AHIDF budget was Rs. 125.00 crores. The DAHD also imposed administrative costs such as establishing a Project Management Unit, raising awareness, publicising the scheme, developing the portal, and so on. The budget allocation to the Department of Animal Husbandry and Dairying for the Animal Husbandry Infrastructure Development Fund for the fiscal year 2021–22 is Rs. 12500.00 lakhs.

According to the IMF, India's real GDP growth rate in 2021–22 will be 11.5 per cent, and 6.8 per cent in 2022–23. According to the IMF, India's economy will be the fastest expanding in the next two years. The Survey also advocated for ongoing efforts as part of the Atmanirbhar Bharat Mission, noting the government's acknowledgement of the pandemic's potential "hysteresis" effect on the Indian economy and its comprehensive reform agenda. Considering the concurrent demand for expenditure, particularly the stimulus packages announced during COVID-19 to mitigate the impact of the pandemic and the anticipated revenue shortfall, "it is expected that the Central Government's fiscal deficit may exceed its budget estimate for the current fiscal year. "Through backward and forward links between private consumer spending and private investment, countercyclical expansionary fiscal policy is projected to promote GDP growth both directly and indirectly in times of crisis. "Relatively high GDP growth would thus facilitate buoyant revenue collection shortly, allowing for a sustainable fiscal path." The world has witnessed an unparalleled moment. The Indian economy would necessitate the finance minister pulling out all the stops to guarantee it returns to a sustainable growth path. The budget might be just what India requires (Sourav Majumdar *et al.*, 2021) <sup>[43]</sup>.

### Implications

Developing countries, such as India, should implement the experiences learned from the effects of COVID-19, as well as the risk mitigation lessons learned from previous zoonotic outbreaks, to strengthen supply chains at all levels and improve disaster response methods in the event of potential shutdowns. Comprehensive methodologies are required to

recognise the more sophisticated nature of small-scale livestock systems in poor countries than large farms, as well as how they react and adapt to various impacts and lockdowns. Although strict and immediate containment measures were required to control the virus and protect public health, COVID-19 policy responses must consider the likely effects on small businesses because flaws in such socioeconomically significant supply chains would exacerbate human suffering from the pandemic. Implementing a relatively thorough methodology would provide a chance to take a holistic view of the effects of pandemics on all phases of the poultry sector, from input supply and production to consumption. It is vital to unite various stakeholders at all levels around One Health strategies, which would combine animal, human, and environmental health and place food systems at the centre. Strong and effective financial aid, such as Atmanirbhar Bharat for the poultry sector, should be a crucial component in supply chain disruption mitigation plans since financial measures are important for their survival and recovery. Unexpected incidents have a more detrimental impact on poultry farms, especially if they are female-led. This underlines a possible threat to women's empowerment in poultry value chains, which might have ramifications not just for female businesses and individuals, but also for the entire value chain. As a result, effective approaches to assist female entrepreneurs in the poultry business amid supply chain interruptions, such as giving finance programmes with subsidized interest rates and targeting technical assistance, training, and consulting services, are required. Poultry operators and labourers must be prepared in terms of risk prediction and mitigation, control mechanisms, and contingency planning. Because farmer access to markets is dependent on infrastructure and market pricing, improving small producers' access to markets is an essential area of investment. As a result, increasing rural infrastructure would have a favourable impact on extending and improving SCBFs' access to markets, reducing their vulnerability to catastrophic occurrences and market shocks.

### Conclusion

While the lockdown was critical in averting and reducing the deadly COVID-19, it had a considerable detrimental impact on the availability of livestock and poultry products for everyday consumption by the people and all those who rely on the industry for their life and income. The possibility of an epidemic, which necessitated social isolation and the execution of many preventive measures, as well as the lockdown scenario, have taught each of us several lessons to be better equipped to deal with such situations in the future. In this context, it is expected that the government would therefore take all plausible measures to combat the adverse situations, such as better governance, necessary financial assistance, and the creation of a conducive environment for reviving the sector, ensuring the livelihood of the associated stakeholders, in which the private sector, non-governmental organisations, and even ordinary citizens might well play an important role. This is where the Atmanirbhar Bharat initiative comes into the equation. The fundamentals of the Indian economy have remained strong as a result of the steady decrease in lockdowns, along with the strategic and conscientious assistance of the Atmanirbhar Bharat Move, which has firmly placed the poultry industry on the path of recovery. The Animal Husbandry Infrastructure Development Fund, which was allocated, worked as a catalyst for

reinvigorating the livestock and poultry sectors' development rates.

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