Impact of FDI Policy on Animal Husbandry Sector in India: A Post COVID-19 Scenario

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No sector remains unaffected by the pandemic's deterrent impact. However, the situation has become adverse for small participants. This paper studies the Indian animal husbandry sector to understand the unfavorable conditions that have been created due to pandemic. Interrelatedly, it analyses the role that uncontrolled FDI has played in worsening the condition of small farmers in India. In this paper, the author also argues that there are three-fold consequences of hundred percent FDI in animal husbandry during a pandemic. First, the painful and distressing living conditions of animals in the sector is exasperated due to competitive cost-cutting. Second, it leads to impoverishment of the small farmers and workers due to centralised supply chains and fluctuating demand-supply equilibrium. Third, intensive farming adopted by foreign investors has an adverse ecological impact. The paper suggests that Covid-19 offers an opportunity that can be used to introduce policies that are farmer-friendly as well as agroecological oriented.

Keywords: *FDI, Animal Husbandry, Small Farmers, Covid- 19, Intensive Animal Farming, Ago- Ecological Farming, animal Cruelty.*

I. Introduction

The animal husbandry sector, with the introduction of intensive animal farming, witnessed a revolution in the period that followed the Second World War. The advent of intensive animal farming marked a paradigm shift from the erstwhile labor intensive to capital-intensive[1] system of food production. Earlier, if the farms were traditional and decentralised, today they have turned into Concentrated Animal Feeding Operations (CAFOs), in which animals are raised

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1 LD Mickey and MW Fox, 'The Case Against Intensive Farming of Food Animals' in LD Mickey and MW Fox, *Advances in Animal Welfare Science 1986/87* (Springer, Dordrecht 1987) 257-272.

under extreme conditions of confinement guided by the principles of biotechnology, modern machinery and economies of scale.[2] This technologisation of animal husbandry in the guise of enhancing productivity has adversely impacted the lives of animals as well as humans involved in it.

This paper attempts to analyse the impact of intensive animal farming on animals' living conditions and human livelihood from the perspective of centralisation of the system as facilitated by Foreign Direct Investments ('FDI'). The scope of the paper is concentrated in studying the Indian scenario after the government introduced a hundred percent FDI in animal husbandry in 2016. The paper studies the partisan foundation of a policy as this, understanding especially how Covid-19 exacerbates the living conditions of both, animals and poor farmers involved.

This paper is divided into four parts. The first part after analyses intensive animal farming, as a direct product of capitalism. This part works with a two-fold analysis. First, the implications of intensive animal farming on animal health, where capitalism conveniently discounts the welfare factor. Second, it understands what intensive animal farming implies as consequences for human health as well as livelihood, especially taking into account small and medium-scale farmers. The second part then attempts to analyse the policy of introducing 100 percent FDI in India, in the sector of animal husbandry. In a developing country like India, a complete FDI policy would be partisan in favoring large-scale farmers, while totally neglecting the efforts as well as the lives of small and medium scale ones. The third part analyses how the prevailing Coronavirus pandemic has exacerbated an already complicated and exploitative system that functions on 100 percent FDI. The fourth part offers suggestive measures, first in favor of promoting animal welfare. Further, measures are suggested in favor of making the livestock sector less exploitative for small and medium-scale farmers, by undoing the centralising and monopolising tendencies of intensive farming and 100 per cent FDI.

II. The Brutality of Intensive Industrial Farming of Animals

In order to understand the role of brutality in industrial animal farming, it is important to first understand the very need to adopt an industrial model. Marx has established that when humanity encounters a point when the natural availability of the products for consumption is no longer sufficient, the route to industrialisation becomes inevitable.[3] The priority attached to increasing the

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2 RC Ilea, 'Intensive Livestock Farming: Global Trends, Increased Environmental Concerns, and Ethical Solutions' (2006) 22 J Agric Environ Ethics 2.153-167.

3 "A very large number of products are not to be found in nature, they are products of industry. If man's needs go beyond nature's spontaneous production, he is forced to have recourse to industrial production." in Marx K, 1920. *The Poverty of Philosophy*. CH Kerr.

quantity supersedes the concerns of ethics, morality and, at times, even quality. This affects three categories of beings. Primarily, the increased pressure of good productivity often ends up in animal cruelty. Intensive animal farming is based on the principle of vertical integration[4] in which big corporate houses manage the tasks of breeding, animal feed composition and slaughtering. Second, it reduces the income of small, traditional framers because vertical integration also promotes economic centralisation, which means that the distribution of income to the multiple producers is managed by the selective corporate giants. Third, the boosted quantity compromises the quality, directly affecting the nutritional value of the food consumed. This leads to chronic illness and the risk of spread of zoonotic diseases, posing a huge threat to public health.

A. Intensive Animal Farming: A Nexus Between Capitalism and Violence

To cater to the growing demands of meat and other food produced from animals, the supply chains had to pick up pace. This meant more production of food and axiomatically more suffering to the animals. The World Economic Forum's research[5] shows that as of 2014, about 1.5 billion pigs, 0.5 billion sheep and 0.4 billion goats were killed annually. From being bred to being slaughtered, pain and distress are constantly a part of these animals' lives. One of the most common examples here would be the battery-cage system where there are enclosures for hens made of meshed wire, allowing approximately about 300 cm^2 of an area to each hen. However, research[6] shows that under normal circumstances, it requires a hen about 538 cm^2 to stretch wings, 528 cm^2 to stretch their bodies and 497 cm^2 to ruffle their feathers. Similarly, the tethering of female pigs during the periods of farrowing and gestation has increased their mortality rates.[7] The space allotted to them makes it even impossible for them to turn around.

If this is the treatment given to animals which are useful to us, we should not be surprised by the treatment of those that are "unwanted." The example comes from a report prepared by HSUS[8] which states that male chicks which are not operational in the laying of eggs are often killed on an electrified plate

4 J Rossi and SA Garner, 'Industrial Farm Animal Production: A Comprehensive Moral Critique' (2014) 27 J Agric Environ Ethics 3, 479-522.

5 Alex Thornton, 'This is How Many Animals we Eat Each Year', (World Economic Forum, 8 February 2019) <https://www.weforum.org/agenda/2019/02/chart-of-the-day-this-is-how-many-animals-we-eat-each-year/> accessed 9th June 2022.

6 H Bogner, W Peschke, V Seda and K Popp, 'Studie zum Flachenbedarf von Legehennen in Kafigen bei bestimmten Aktivitaten' (1979) Berlin and Munic Vet. J.

7 B Gustafsson, 'Effects of Sow Housing Systems in Practical Pig Production' (1983) 26 Trans ASABE 41181-1185.

8 The Humane Society of the United States, 'An HSUS Report: The Welfare of Animals in the Egg Industry', <https://www.humanesociety.org/sites/default/files/docs/hsus-report-welfare-egg-industry.pdf>.

which is the endpoint of a series of highspeed vacuum tubes through which they are firstly sucked. In the case of pigs that do not yield desirable output, they are killed through the process of thumping[9] which involves swinging, tossing and slamming of the pigs by catching hold of their hind limbs. In other cases, the transportation of animals from one farm to the other or to a slaughterhouse subject them to extremities of heat and cold,[10] besides disrupting their intake of food and water, or hampering their rest-time. Intensive animal farming in the dairy sector is heavily reliant on maximising the productive herd. Therefore, frequent reproduction is essential to it. To achieve the same, most cows are artificially inseminated[11] when young. What follows is a mechanical procedure of continuous birthing and lactating. Artificial impregnation at a young age also results in stunted milk production, after which the animal becomes economically useless to the owner.

Similar is the treatment given to bulls, who are often victims of electroejaculation.[12] This is a process where the animal is given an electric shock in the rectum, which induces ejaculation and enables semen collection. Another painful practice in use is that of tail-docking,[13] which means amputating at least two-third length of the tail. The docking, as is believed, renders the quality of the milk produced purer and cleaner. However, there is a dearth of scientific evidence to support this belief. This process is done by tying a tight rubber to the required area, so that blood flow stops there, after which a sharp instrument is used to cut that length off. The most shocking factor here is that this entire procedure is mostly done without making use of any anesthetics.

The above-discussed cruelties related to different species of animals heavily discount their lives to meet the demands of consumerism. This neglect of animal welfare and safety occurs at three[14] interconnected levels. First, the neglect of immediate health-related issues and injuries. Second, a denial of natural habitat ideal for animals due to incarceration in restricted and confined spaces. Third, a disregard for the affective state of animals, failing to understand how they also may feel pain or psychological distress when exposed to such harrowing conditions.

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9 JS Foer, *Eating Animals* (Penguin UK 2010).

10 DJ Wolfson and M Sullivan, 'Foxes in the Hen House: Animals, Agribusiness, and the Law: A Modern American Fable', in Cass R Sunstein and Martha C Nussbaum, *Animal Rights: Current Debates and New Directions* (Oxford Scholarship Online 2012).

11 N Clay, T Garnett and J Lorimer, 'Dairy Intensification: Drivers, Impacts and Alternatives' 49 Ambio1-14.

12 The Humane Society of the United States, 'An HSUS Report: The Welfare of Cows in the Dairy Industry', <https://www.humanesociety.org/sites/default/files/docs/hsus-report-animal-welfare-cow-dairy-industry.pdf>.

13 ibid.

14 Wolfson and Sullivan (n 10).

The less immediate but equally dangerous effects of intensive animal farming include the composition of homogenous breeds, eliminating erstwhile heterogeneous indigenous ones. Researchers have studied cases where prolonged inbreeding has resulted in about nine million cows, all of which can be traced back to only two bulls. This extreme scenario has so narrowed down the genetic pool that the effective population size in this case was even less than 50.[15] A direct consequence of this is the limits that get sets on the possibility of introducing genetic change to improve the quality of the milk produced. This also means that the less genetic variation there is, the worse is the quality of milk produced. The narrowing of genetic variation also leads to the lessening of genetic adaptation that enables the survival of certain animals in a particular climatic condition. One of the examples here would be that of the Ankole cattle located in the Western parts of Uganda.[16] Another report suggests how the bulls are ranked and chosen on the basis of the quantity of milk their offspring cows would produce. A bull whose offspring cows have been predicted to produce relatively more milk will be chosen for semen extraction.[17]

Beyond this, the bulls do have not much service to provide for in these intensive set-ups, especially in countries like India[18] where (un)declared beef-ban due to religious-political conflicts forbid the sale of meat. The laws prohibit the slaughtering of these animals, which means they add to the cost of their owners and are therefore, badly kept. Studies show that the population of male animals has sharply reduced from 61.95 million[19] in 2012 to 43.94 million in 2019. Similarly, there has been a significant decline in the strength of indigenous cattle, from 151.17 million[20] in 2012 to 142.11 million in 2019.

The exponential growth in the number of cattle means a proportionate increase in the availability of grazing land. In case of the unavailability of required space of land, which is a general problem faced by small and medium farmers, the same area of land is repeatedly used for grazing. This directly reduces the productive quality of soil and nutrient leakage. Another implication of the

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15 Maureen O'Hagan, 'From Two Bulls, Nine Million Dairy Cows', (*Scientific American* 20 June 2019) <https://www.scientificamerican.com/article/from-two-bulls-nine-million-dairy-cows/> accessed 9th June 2022.

16 David Cox, 'How Profit-Driven Inbreeding Could Bring the World Dairy Herd to its Knees', *The Guardian* (14 October 2018).

17 Marisa Sloan, 'Cows Used in Dairy Production Losing Genetic Diversity', (*The Carolinian* 30 October 2019) <https://carolinianuncg.com/2019/10/30/cows-used-in-dairy-production-losing-genetic-diversity/> accessed 9th June 2022.

18 World Society for the Protection of Animals, 'A Case Study of High Welfare Milk Production in India' (2014) <https://www.worldanimalprotection.org.in/sites/default/files/media/int_files/high-welfare-milk-production-india.pdf> accessed 10th June 2022.

19 Prachi Salve, 'Cow Vigilantism Has Led to a Major Collapse in Animal Markets and Hurt Farm Incomes' (*The Scroll* 12 March 2020) <https://scroll.in/article/955725/cow-vigilantism-has-led-to-a-major-collapse-in-animal-markets-and-hit-farm-incomes-cattle-expert.> accessed 9th June 2022.

20 ibid.

growth in the cattle size is the growth in feed produced. The animal feeds are often engineered with additives such as proteins, which surpass the retention capacity of soil, altering the nature of soil if the additives are insoluble.[21]

B. Risks Posed on Farmers, Public Health and Environment

Intensive animal farming, besides affecting the living conditions of animals, has adverse impacts on the health and livelihood of small and medium-scale farmers. First, it compromises their health as they are exposed to toxic fumes being emitted from unhygienic animal confinement spaces. Intensive animal farming also makes use of heavy, high-speed machines[22] to process animal feed and also to enable processes such as culling. Second, since industrial animal farming is based on the idea of consolidation of the market, it severely impacts the net income of farmers. The centralisation of the market as promoted by intensive animal farming monopolises the set-up in favour of the big corporate houses that own the purchasing power.[23] The small and medium farmers have no choice left but to sell the products to them at the desired price as quoted by the giant houses. The intensive farming practices often compel small and medium scale farmers to mortgage their limited ownership of farms, animals etc., to expand their business. At times the money is borrowed from banks for which they have to pay regular interests. Other times, it is borrowed from private money-lenders too.[24]

Conditions that prevail due to intensive animal farming practices are hygienically unsuited to humans and, therefore, pose a huge threat to public health. It becomes important here to understand the relationship that is shared between public health and food production systems, and the role an efficient animal welfare management would play. Studies show that zoonotic pathogens are potent enough to spread in three[25] different ways. First, they make a host of the body of the farmers who look after these animals. Second, it spreads into animals which are closely kept around the infected animals. Third, it also easily attacks the bodies of those buyers who consume the infected animals' products. A PPLPI research shows that the current division of labor systems deployed to facilitate the

[21] Centre for European Agricltural Studies, 'The Environmental Impact of Dairy Production in the EU: Practical Options for the Improvement of the Environmental Impact' (April 2020), <https://ec.europa.eu/environment/agriculture/pdf/dairy.pdf> accessed 9th June 2022.

[22] Mickey and Fox (n 1).

[23] H Steinfeld, P Greber, TD Wassenaar, V Castel, M Rosales, and C de Haan, 'Livestock's Long Shadow: Environmental Issues and Options' FAO (Rome).

[24] Krittivas Mukherjee, 'Moneylenders are the Only Hope for Poor Indian Farmers' (*Livemint* March 21, 2008) <https://www.livemint.com/Politics/b8yRJ1b7rqQoJCic8vTdnL/Moneylenders-are-the-only-hope-for-poor-Indian-farmers.html> accessed 9th June 2022.

[25] Safe for Animals, 'Intensive Farming -A Risk to Human Health', <https://safe.org.nz/our-work/animals-in-need/intensive-farming/effects-of-factory-farming-on-human-health/> accessed 28 July 2020).

processing and production of food from livestock imposes a serious risk of pathogen transfer, especially if they operate over great distances. The risk increases all the more if the production houses are clustered, as is an emerging trend of the intensive animal farming. Overall, it has been scientifically proven that at a stage when CAFO workers constitute 15% or above of the population, they would strongly act as Influenza A Virus (IAV) amplifiers.[26]

In many cases, to prevent the infection and spreading of such pathogens, animals are regularly injected with antibiotics, which is not scientifically recommended. This practice is unscientific because the regular and repeated dosage of antibiotics reduces the resistive capacity of the body to fight against pathogens.[27] This makes the drug ineffective, contributing heavily to the burden of public health risk. Another parameter that exercises strain on public health is the series of operations involved in animal feeding. These operations pollute air and water, thereby playing a significant role in climate change over a prolonged phase of time. Studies state that animal feed includes particulate matter and hydrogen sulfide,[28] which diminish air quality. Animal feed also contains chemical compounds which get transported into the water bodies through leaching, making them unfit for any further usage.

III. FDI During a Pandemic- Not the Best Policy for Small Farmers

The Indian government declared a 100 percent uncontrolled FDI in animal husbandry in 2016. With this, the industrial farming of animals became more intense, bearing direct negative impacts on both animals as well as the humans involved. An uncontrolled FDI supports conditions that make the rich richer and the poor poorer, since it functions through a central monopolisation of the supply chains. FDI is a direct consequence of trade liberalisation and is closely knit to generating capital through transnationalisation.[29] It widens the distance between the producer and the consumer through the entry of multiple middle parties. Not only does this adversely diminish the income of small and medium-scale farmers but it also forces them to work in extreme conditions, subjecting both themselves and the animals to a stressful environment.

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26 J Otte, 'Industrial Livestock Production and Global Health Risks', (*Food and Agricultural Organisation*, June 2017) <http://www.fao.org/3/a-bp285e.pdf> accessed 9th June 2022.

27 Health Care Without Harm, , 'Community Health Risks of Industrial Agriculture', (*Health Care Without Harm*, 2018) <https://foodcommunitybenefit.noharm.org/resources/community-health-needs-assessment/community-health-risks-industrial-agriculture> accessed 28 July 2020.

28 ibid.

29 MT Miller, 'Transnational Governance of Farmed Animal Welfare: A critique of Animals as Commodities' (2011) Colorado State University. Libraries, <https://mountainscholar.org/bitstream/handle/10217/46739/Miller_colostate_0053N_10657.pdf?sequence=1&isAllowed=y> accessed 9th June 2022.

A. FDI and the Narrative of Employment

The narrative that FDI generates employment has contributed to containing a considerable opposition from the masses. However, the statistics[30] expose how it is nothing more than a myth.[31] FDI growth in the year 2018-19 was 6 percent, in the year 2017-18 was 1 per cent, in 2016-17 it was 8 percent, in the year 2015-16 it was 29 percent, in the year 2014-15 it was 27 percent and in the year 2013-14 it was 8 percent. The FDI inflow for the past five years does not put forth a highly attractive scheme for the majority of the Indian population. Amidst these conditions, it is important to demystify the myth of FDIs generating jobs. First, any FDI inflow is centrally based on the idea of generating returns and making a good share of profitability. The generation of employment is only possible if the investors are making a profit. Second, the profit made also varies across sectors. In India, the telecommunication and the manufacturing industries,[32] which fall in the tertiary and secondary sectors, respectively, attract more investors and have a better FDI inflow as compared to the primary sector, of which animal husbandry is a part.

To further facilitate the inflow of FDIs, the host country often resorts to providing incentives and subsidies[33] to foreign investors, as is true for India's Make in India[34] program launched by the NDA government. Studies show that South- Asian countries such as India, Pakistan and China have been unable to generate employment despite a considerable FDI inflow and GDP growth. It has also been suggested by the researchers that the growing unemployment[35] needs to be addressed using better measures and policies by the government. Especially, in the post-Covid times, the economy and politics of a developing country like India will have to converge and support their local businesses[36] over foreign investments if the income of the small-scale workers and farmers has to be stabilised. Further,

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30 Bharath Kancharla, 'Analysis: The Story of FDI Inflows of the Last 10 Years – Which Sectors are Receiving a Lion's Share?', (*Factly* 31 July 2019) <https://factly.in/analysis-the-story-of-fdi-inflows-of-the-last-10-years-which-sectors-are-receiving-a-lions-share/> accessed 9th June 2022.

31 Harsha Jethmalani, 'FDI is Surging, But Job Creation Lags', (*Livemint* March 28, 2017) <https://www.livemint.com/Money/y54JgoJ8VUcZiU708MQAPM/FDI-is-surging-but-job-creation-lags.html> accessed 9th June 2022.

32 *Sectoral Distribution of FDI in India* (Doctoral dissertation, University of Pune), <http://lib.unipune.ac.in:8080/xmlui/bitstream/handle/123456789/7312/14_chapter%205.pdf?sequence=14&isAllowed=y> (last visited July 28, 2020).

33 S Rapaic, 'The impact of FDI on the economic development of Serbia' 65 J Bus Econ 381-392.

34 Make In India, 'The Next Manufacturing Destination' <https://www.makeinindia.com/article/-/v/direct-foreign-investment-towards-india-s-growth> accessed 28th July 2020.

35 SZA Rizvi and M Nishat, 'The Impact of Foreign Direct Investment on Employment Opportunities: Panel Data Analysis: Empirical Evidence from Pakistan, India and China' (2009) 48 PDR 4841-851.

36 SA Altman, 'Will COVID-19 have a lasting impact on globalization' (Harvard Business Review, May 20, 2020) . <https://hbr.org/2020/05/will-covid-19-have-a-lasting-impact-on-globalization#:~:text=In%20conclusion%2C%20Covid%2D19%20looks,present%20business%20opportunities%20and%20challenges.> accessed 9th June 2022.

it will have to ensure minimum spill-overs[37] between the foreign investors and the domestic equivalent.

B. FDI and Indian Small Framers

A truer narrative of FDI shows that the group claimed to be benefitted the most is the one that is subjected to maximum damage. In the case of FDI in animal husbandry, the farmers and the farm- workers. Examples from the U.S. show how corporatisation in the farming sector has left the farmers impoverished. This corporatisation also resulted in "oligopsony,"[38] a condition where the number of sellers are many but the number of buyers are only a handful. A situation like this gives these buyers an overriding position of bargaining and choice-making. Oligopsony ends up creating a market where a countable few supply chains would account for the maximum sale. A prolonged oligopsony would eventually cause a complete shut-down of the farms due to forced reduction in the farm products. The monopoly of the middle parties involved in the hierarchical structure of the FDI is evident from the huge gap between the price that is paid to the producer and the price that is a charge from the consumer.

The failure of FDI is visible through two major problems. First, the upliftment of poor farmers could never be realised in actuality since the government is forced to constantly issue subsidies for the farmers. If corporatisation through FDI has raised the income of farmers, then why the subsidies? Big economies as those of the U.S. and the European Union have paid immense subsidies. Between 1995- 2010, U.S. paid over $167 billion,[39] whereas the European Union in the year 2010 paid subsidies amounting to $51 billion. Even in countries neighboring these big economies, there has been no respite on account of foreign investments. Second, the FDI was expected to solve the problem of illegal immigration by generating employment. However, data proves otherwise. One classic example here would be that of Mexico, which signed North American Free Trade Agreement (NAFTA), 1994. Since then, the NAFTA has unemployed approximately 25 per cent of the farmers in Mexico due to an aggressive retail overtake. The NAFTA's failure is evident from the fact that it could create significant employment to prevent the illegal immigration in the U.S. along its border. Since NAFTA, the illegal immigration from Mexico has nearly doubled.

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[37] TH Moran, 'How Does FDI Affect Host Country Development? Using Industry Case Studies to Make Reliable Generalizations. Does Foreign Direct Investment Promote Development'. J AU 281-313.

[38] Shekar Swamy, 'How FDI in Retail Will Hurt Farmers', *The Business Line* (December 25, 2011), <https://www.thehindubusinessline.com/opinion/how-fdi-in-retail-will-hurt-farmers/article22996025.ece#.> accessed 10th June 2022.

[39] Environmental Working Group, 'The United States Farm Subsidy Information', <https://farm.ewg.org/region.php?fips=00000> (last visited July 28, 2020).

C. Lessons from FDI in Indian Dairy Sector

In 2016, the Indian government set an ambitious target[40] of INR100,000 crore investment in the dairy sector from private parties, a major fraction of which would be filled up by the foreign investors, from whom FDI of INR 114 crore was already estimated to have been attracted between 2010-16. Over the past eight years, India has attracted international investors like Danone (France), TPG (U.S.) and KKR (U.S.) with investments of $25 million, $50 million and $74.9 million,[41] respectively. The decision taken in 2016 stands antithetical to the current government's stand, which was in opposition in 2011 and had vehemently critiqued the then government's move to introduce 51 percent FDI[42] in retail. Whether in 2011 or 2016, the decision stands to hurt the lives of small farmers of India. With the farmers, it also stands to be disadvantageous to the lives of animals, as has been discussed at length in the part preceding this. Issues raised in a letter[43] that the Federation of Animal Protection Organisations (FIAPO) wrote in response to the policy change of 2016, stand to be true in the present times. As cautioned by them, first, the income of dairy farmers started declining since huge profit shares were being contained amongst the investors and retailers. Second, no sooner did the international market fluctuate than the income of the dairy farmers abruptly fell.

The scenario, even before the implementation of a complete, uncontrolled FDI in animal husbandry was already unfavourable to the marginal farmers. If the current policy is not checked viably, it may prove to be fatal for the small and medium-scale farmers. This is evident from those states which were at the forefront of the White Revolution. The road ahead of Operation Flood increased the issue of inaccessibility to small-scale individual farmers. Operation Flood introduced the system of cooperatives based in India, which would purchase milk from the farmers and look after its distribution. However, in 2011, the Indian government introduced a 100 per cent FDI in food processing, which included milk. With this, milk soon transformed from a necessity for nourishment into a commodity that yielded viable profits. Large quantities of milk procured from small farmers were converted into skimmed milk powder (SMP) and exported to other countries. Between 2014-16, the demand for SMP drastically decreased, resulting in a disproportionate excess of supply.

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40 Sanjeeb Mukherjee 'Govt Sets Eyes on Foreign investment in dairy sector' *Business Standard* (Delhi 2 July 2016).

41 Indian Dairy Under Threat from New Trade Deals, GRAIN (29 June 2019), <https://www.grain.org/en/article/6257-indian-dairy-under-threat-from-new-trade-deals>.

42 FIAPO, 'Indian Dairy Sector Headed Towards Farmageddon', (*FIAPO*), <http://www.fiapo.org/fiaporg/news/indian-dairy-sector-headed-towards-farmageddon/> accessed. 28 July 2020.

43 FIAPO, '100% FDI in the Dairy Sector is Uncalled for, FIAPO Writes to the Minister of Agriculture to Review the Decision', (*FIAPO*) <http://www.fiapo.org/fiaporg/news/100-fdi-in-the-dairy-sector-is-uncalled-for-fiapo-writes-to-the-minister-of-agriculture-to-review-the-decision-3/> accessed 9th June 2022.

The cooperatives and corporations attempted to suppress the matter by imposing the onus on the small farmers, refusing to procure milk, citing its poor quality as the reason. Whereas, in reality, it was not the poor quality but the sudden fall in global demands for SMP. In states where milk was still being purchased from small framers, a huge rift between the cost of production and selling price was observed. If the cost of production[44] ranged between INR 18-24, the selling price ranged between INR 28-30. There was also an overall decline in the cost of procurement. If, in 2014, in Maharashtra, milk was being procured at INR 26-27, in 2015 it had declined to INR 18-19.

This makes it quite evident how the onus is always directed at the smallest stakeholders in a setup as FDI. What is an even starker realisation here is that the often-glorified cooperative system is neither greatly efficient nor farmer-beneficiary. Both, the corporations and the cooperatives transform food as a necessity for nourishment into food as a commodity for profit. Such a transformation always results in food inequality where the poor get sacrificed due to the acute shortage of income and, thereby, nourishment. The share of the producer's income and profitability is conveniently being diverted through the introduction of value-added products of milk such as cheese, probiotics or flavored milk.[45] The income generated from these relatively new products provides a considerable additional profit for the corporations and cooperatives, at the expense of the small farmers' income. This can only be avoided by giving small- farmers a focal agency in the supply chain, emphasising on small scale farming.

D. How Viable is FDI During a Pandemic?

As early as March, the International Monetary Fund (IMF) declared a record capital outflow[46] from the developing countries by the investors, amounting up to 83 billion US$. Developing countries with a faster growing economy in Asia besides China, such as India, Thailand, Indonesia or Vietnam have experienced a non-uniform FDI inflow both qualitatively[47] and quantitatively. These countries will be hit harder economically due to the pandemic because the sectors

[44] R Srikrupa, 'Small Dairy Farmers Across India are Struggling for their Livelihoods', *The Wire* (Delhi, June 4 2016) <https://thewire.in/labour/small-dairy-farmers-across-india-are-struggling-for-their-livelihoods> accessed 9th June 2022.

[45] Nexdigm Private Limited, 'Indian Dairy Industry – The Quest to Grab A Share of the Consumer's Monthly Basket', (Mondaq May 3 2018) <https://www.mondaq.com/india/industry-updates-analysis/698204/indian-dairy-industry-the-quest-to-grab-a-share-of-the-consumer39s-monthly-basket.> accessed 9th June 2022.

[46] Adnan Seric and Jostein Hauge, 'Foreign Direct Investments Could Contract by 40% this Year, Hitting Developing Countries Hardest', (World Economic Forum (June 2 2020) <https://www.weforum.org/agenda/2020/06/coronavirus-covid19-economics-fdi-investment-united-nations/> accessed 9th June 2022.

[47] Adnan Seric and Jostein Hauge, 'COVID-19 and the Global Contraction in FDI', (Industrial Analytics Platform May 2020) <https://iap.unido.org/articles/covid-19-and-global-contraction-fdi> accessed 9th June 2022.

that account for a major share of FDI inflow have been worst hit by the pandemic. Further, the growing dependence of the developing countries on FDI leaves them with no ready-to-use supportive alternative. Researchers have estimated that in an optimistic and a less likely situation, the developing countries should be able to return to the pre-pandemic level of business towards the end of 2021. A more realistic and probable estimation tells that the economic recovery in these countries would be highly uneven.

Coronavirus has accelerated the process of deglobalisation.[48] A sped-up deglobalisation is not necessarily detrimental holistically. It has convinced the giant corporate investors to consider all the stakeholders equally - producer, consumer and the overall community. In the pre-Covid times, when the checks from the host-country government were far too less, now they seem to have enhanced the checks. Consequently, the chances of relocating supply-chain to a domestic party are much higher now, which obligates the investors to own the social responsibility. The pandemic may force the investors to analyse the risks and either withdraw from countries which predict disruption of supply-chain or expand geographically to countries which have been less affected by the pandemic, avoiding concentration or clustering in the more affected countries.[49] The countries, which are developing, are also the ones worse hit by the pandemic due to their inadequate medical and health infrastructure. Therefore, the developing countries need to rethink their dependence on FDI on an immediate basis.

To minimise the intensity of the economic shock caused by the pandemic, a temporary measure of looking inwards would do well. India's exit from the Regional Comprehensive Economic Partnership (RCEP) in which its participation initially had attracted farmer protests[50] in 2017, is a farmer-beneficiary move. However, it needs to be remarked that India's exit is highly motivated by its tension with China[51] over the past year. Protectionism[52] has already been at the

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[48] Anastasia Ufimtseva., 'How Coronavirus is Changing the Rules on Foreign Investment in Essential Areas', (The Conversation 6 May 2020) <https://theconversation.com/how-coronavirus-is-changing-the-rules-on-foreign-investment-in-essential-areas-135660> accessed 9th June 2022.

[49] OECD, 'Foreign Direct Investment Flows in the Time of COVID-19', (OECD May 4, 2020) <https://www.oecd.org/coronavirus/policy-responses/foreign-direct-investment-flows-in-the-time-of-covid-19-a2fa20c4/> accessed 9th June 2022.

[50] Ashlesha Khadse, 'RCEP in India: A Creamy Deal for Transnational Dairy Corporations, Growing Resistance from Farmers', (Grain October 4, 2017) <https://www.grain.org/en/article/5815-rcep-in-india-a-creamy-deal-for-transnational-dairy-corporations-growing-resistance-from-farmers> accessed on 9th June 2022.

[51] Nayanima Basu, 'India 'Won't Review' Decision not to Join RCEP as Members Prepare to Sign Pact by 2020-End', (*The Print* July 4, 2020) <https://theprint.in/diplomacy/india-wont-review-decision-not-to-join-rcep-as-members-prepare-to-sign-pact-by-2020-end/454628/> accessed 9th June 2022.

[52] Cristian Rodriguez Chiffelle and Peter Vanham, 'Coronavirus is Bad News for FDI in Emerging Markets. But There is a Silver Lining', (*The Print* April 17, 2020) <https://theprint.in/opinion/coronavirus-is-bad-news-for-fdi-in-emerging-markets-but-there-is-a-silver-lining/403519/> accessed 9th June 2022.

forefront of a lot of countries' economic trade decisions in view of the pandemic. It has even been stretched to its far extreme with countries exercising a temporary restrain on medical supplies, consequently pinning down the lives of many. While a complete closed-door policy is not feasible, it would be less damaging to temporarily restrict foreign investments and put more emphasis on the domestic stakeholders, mainly those based on a small- scale. At the same time, the alternatives opted by any country to minimise or lessen the presence of foreign companies should be made in full condensation of the clauses of indemnification[53] that would apply to violation of the clauses under the bilateral investment treaties (BIT)s. The BITs protect the foreign investors against unfair treatment, ascertaining them a right to compensation.

The period that followed the Coronavirus pandemic marked a series of economic policy and legislation changes in major countries so as to create better social and economic[54] benefits for their domestic population. The European Union has issued FDI Screening Regulation[55] that will screen investments on the basis of their impact on public order and security. The regulation will apply equally to each member state and also equally across sectors. In a similar move, the U.K. announced the National Security and Investment Bill,[56] which will "scrutinise investments and consider the risks that can arise from hostile parties acquiring ownership of, or control over, businesses or other entities and assets that have national security implications." The United States, even before the pandemic hit, had announced additional checks on FDI directed towards protecting critical technologies,[57] healthcare and biotechnology under Committee on Foreign Investment in the United States (CFIUS). Other countries like Germany, France, Australia, Italy and Canada have also made significant amendments to check the FDI post- Coronavirus.[58]

In the month of May, in view of the pandemic, the Indian government revised[59] its FDI policy. The policy makes a government approval mandatory for

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[53] Massimo Benedettelli, 'Could Crisis Measures Encourage Foreign Investment Claims?', (FDI Intelligence 14 April 2020) <https://www.fdiintelligence.com/article/77393> accessed 9th June 2022.

[54] Reedsmith, 'COVID-19: Impact on Foreign Direct Investment', (*Reedsmith* April 6, 2020) <https://www.reedsmith.com/en/perspectives/2020/04/covid19-impact-on-foreign-direct-investment> accessed 9th June 2022.

[55] Rajat Sethi and Tanya Aggarwal, 'Impact of Covid-19 on FDI Regimes', (Bloomberg Quint 14 April 2020) <https://www.bloombergquint.com/coronavirus-outbreak/impact-of-covid-19-on-fdi-regimes> accessed 9th June 2022.

[56] Department for Business, 'Energy and Industrial Strategy, National Security and Investment: A Consultation on Proposed Legislative Reforms' (Department of Business, July 2018), <assets.publishing.service.gov.uk>.

[57] Ufimsteva (n 48).

[58] ibid.

[59] Statesman News Service, 'Foreign Investors Pull Out Over $16 billion from India Amid Coronavirus Pandemic: Report', *The Statesman* (New Delhi, May 2020).

an entity from a country with which India shares the borders or if the investor is a citizen of or is based out of one of the bordering countries.[60] The new policy undoes the "automatic" route that was granted under the FDI rules, effectively monitoring China, Afghanistan, Bangladesh, Bhutan, Myanmar, Nepal and Pakistan. This sudden policy change by the Indian government has been brought in to counter "opportunistic takeovers". In lieu of the pandemic and the need to serve our small-scale workers better, this move is a welcome move.[61] However, the unresolved issue that persists is that Indian firms are vulnerable to takeovers not merely at the hands of its neighbors but in every other country, especially those which are home to clusters of likely investors. This time of urgency should be well utilised to assess mindfully the implications of an automatic, uncontrolled 100 per cent FDI on our various sectors and understand what benefits our small-scale farmers and workers the most. At the same time, every foreign country in this regard should be considered to provide an equal threat of opportunistic takeover, and not merely those with which we share our borders.

IV. The Sorry State of Small Livestock Farmers During a Pandemic

In a developing country like India, the freehand permitted to FDIs only creates a deceptive narrative of facilitating a boost in the economy. A narrative as this is far from the ground reality in which the introduction of an uncontrolled 100 percent FDI in the animal husbandry sector has resulted in more loss of employment than generating it. The rigidity of the centralisation of the market has forced many small and medium-scale farmers to borrow loans from either banks or private money-lenders. The borrowing of money from either party traps the farmers in an endless cycle of interest payment. The uncertainty that lurks because of the uncontrolled FDI in the sector often leaves farmers indebted, causing serious psychological distress, at times also resulting in suicides. Data shows that around 9.6 per cent of marginal and small farmers and around 22.9 per cent of landless farmers depend on livestock and animal husbandry as their primary source of income.[62] Further, the country also (un)officially exercises cultural checks on the animal husbandry sector since some animals are found to have a higher cultural significance.

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[60] Neha Alawadhi and Subhayan Chakraborty, 'India Blocks Automatic FDI Route for Neighbours to Curb Hostile Takeovers', *Business Standard* (New Dehi, April 19, 2020).

[61] PTI, 'The Decision to Tighten FDI Norms for Investors From Neighbouring Countries Timely: Experts', *The Economic Times* (New Delhi, April 19, 2020).

[62] Harsh Kumar Bhanwala, 'Livestock, a Lifeline for Small Farmers', (*Businessline* December 30 2015) <https://www.thehindubusinessline.com/opinion/livestock-a-lifeline-for-small-farmers/article21328347.ece1#> accessed 9th June 2022.

A. Covid- 19 and Disruption of Supply Chains

Amidst these already existing parameters of checks, the Coronavirus pandemic has worsened the situation. The official declaration of coronavirus as a pandemic created huge panic about the probability of the virus being contracted through the consumption of livestock products. Perishability and low shelf-life of these products makes them unfit for use in a much longer span of time as compared to products from other sub-sectors. The wave of panic that followed led to a disproportionate relation between demand and supply, to which further woes were added by a complete lockdown in the country.

The survey on consumption reveals that around 34 percent share of the total food expenditure comes from livestock products.[63] The months-long complete lockdown brought their daily work to a complete and sudden halt. Data state that nearly 70 percent of the total household (around 102 households) engaged in agriculture is dependent on livestock as their secondary source of income, whereas nearly 22 million workers are dependent on livestock as their primary source of income.[64] Many of these workers had migrated to urban areas to avail better income opportunities. With income discontinued, it became nearly impossible for them to bear their expenses, and therefore, they had to return home indefinitely. This caused an acute shortage of labor and, subsequently, a shortage of food processing as well as its supply. The lockdown also led to a shortage of availability of equipment required for animal farming. If we specifically consider small and medium-scale farmers, they would mostly rent the machinery since the cost of these machines is generally outside of their purchasing power. The pandemic made the renting of this equipment even more expensive,[65] putting these farmers under a tremendous financial burden.

The loss due to the pandemic described above enumerates the obstacles that the future production and processing of food faced. Huge losses were also incurred by farmers who were ready with their produce to transport them. However, the orders of the purchase were abruptly cancelled. Most of these farmers work on a contractual basis, and with the private companies denying to buy the products, they all went wasted. An example here would be that of eggs, which touched an all-time low of Rs. 1.95 per egg.[66] With the crash in egg demand, the

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63 MOSPI, 'Consumption Expenditure Survey of the National Sample Survey Office (NSSO), 68th Round', (MOSPI, August 4, 2016)<http://mospi.nic.in/sites/default/files/publication_reports/nss_report_560_19dec14.pdf >(accessed 22 July 2020).

64 ibid.

65 Deepa Maggo, 'Impact of COVID-19 on Smallholder Farmers – Insights from India', (WBSCD June 2020), <https://www.wbcsd.org/Overview/News-Insights/WBCSD-insights/Impact-of-COVID-19-on-smallholder-farmers-in-India> accessed 9th June 2022.

66 RV Bhavani, 'Impact of COVID-19 on Rural Lives and Livelihoods in India', (*ORF* April 20, 2020) <https://www.orfonline.org/expert-speak/impact-covid19-rural-lives-livelihoods-india-64889/> accessed 9th July 2022.

private companies stopped buying more eggs from the farmers. For these farmers, not only did the income expected from the produce remain unmaterialised, but the stock of eggs processed also went unused and finally wasted. The Ministry of Animal Husbandry and Dairy Development has received representations from delegations that flag the prolonged consequences of the current impasse in the poultry sector. According to them, it is likely to derail the National Action Plan for Egg and Poultry Industry[67] that promises to double the income of farmers by the year 2022, among other deliverables of providing nourishment for the population and elevating the social status of the rural population.

Similarly, in aquaculture, the fish farmers sustained loss due to a range of factors. Firstly, there was a massive shortage of labor due to migration back home, which led to a drop in fishing activities. Second, lockdown restricted movement and thereby prevented the available labor force of farmers from procuring fish during the peak of the fish-breeding season. Third, the demand for fish also declined, which led to the arduously procured stocks of fish going unsold. Further, demand that would earlier be generated by the foreign exports of fish was also not in place anymore. It needs to be emphasised that after a few days of implementing lockdown, restrictions on fisheries were lifted, but it did not effectively improve the situation. This is because the transportation of stocks continued to be an impediment. The estimated loss in the fish industry was studied to range between INR 500-2000 crore on a daily basis.[68]

Coronavirus and pandemic have had severe impacts even on one of the essential sectors, the dairy industry. Prior to the pandemic, the per day supply of milk in India would be about 315 million liters, the demand of which reduced drastically by approximately 25 percent.[69] Consequently, the privately-owned dairies stopped purchasing milk, and even the cooperatives had to reduce the quantity of procurement, to facilitate which they started declaring milk holidays. If the losses incurred by the dairy and fish industries are clubbed together, they can easily be estimated to range between 1500-2000 crore per day.[70]

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67 Anita Gupte, 'Coronavirus Rumours Cost India's Poultry Dearly', (Poultry World June 19, 2020) <https://www.poultryworld.net/Meat/Articles/2020/6/Coronavirus-rumours-cost-Indias-poultry-dearly-600561E/> accessed 9th June 2022.

68 MSSRF, 'COVID-19 Impact on Livelihoods of Marine Fishing Communities', (*MSSRF*, April 7, 2020) <https://www.mssrf.org/content/covid19-impact-livelihoods-marine-fishing-communities-0>.

69 DD News Service, 'Aatma Nirbhar Bharat: FM Announces Governance and Administrative Reforms for Agriculture', (*DD News* May 16, 2020) <http://ddnews.gov.in/national/aatma-nirbhar-bharat-fm-announces-governance-and-administrative-reforms-agriculture>.

70 The Economic Times, 'Coronavirus: Chicken Prices Fall, Poultry Industry Affected', (The Economic Times (March 9, 2020) <https://economictimes.indiatimes.com/news/economy/indicators/coronavirus-chicken-prices-fall-poultry-industry-affected/articleshow/74546189.cms> accessed 9th June 2022.

B. Trickling Income Amidst Mounting Risks

The Coronavirus pandemic has left no sector or class of people unaffected. However, its impact can only be assessed as the differential. Even in the sector of animal husbandry, it was easier for the big corporations to minimise the loss. The minimisation of loss and a speedy recovery from the loss already incurred is accomplished due to three important factors. First, these companies operate with a full-blown department dedicated to the concerns of risk management and mitigation. Second, they enjoy an overriding position in trade decision making, as facilitated by an uncontrolled FDI, promoting a top-down model. Third, they have an ease of access to the key parameters governing trade facilitation, such as access to policy-makers, capital and liquidity.[71]

As a consequence of the aforementioned reasons, an unexpected situation of emergency as the coronavirus pandemic widened the gap between the rich and the poor business stakeholders. The uncontrolled FDI in animal husbandry functions on the trickle-down economic policy since it is primarily based on profit-making. A model as this is a prototype for any business sector in a capitalist economy which is highly discriminatory against the small and medium business stakeholders. The discrimination is visible from the fact that during normal profit-making, these stakeholders obtain a trickled income, while during an emergency such as the Coronavirus pandemic, these stakeholders are always at the epicenter (with the giant corporations only incurring a trickled loss percentage).

With the current FDI policy in the animal husbandry sector in place, the Indian governments' role during these frightening and unequal times has been instrumental only in regulating mass panic and executing lockdown. The government relief packages were announced as late as 15th May, 2020, while the nationwide lockdown was imposed nearly a couple of months ahead on 24th March, 2020. Even the packages announced for relief were more long-term[72] based instead of providing any immediate respite to the falling sector. Most of the deliverables announced in the package were clearly enhancing the role of private corporate houses, intensification of contract farming being the most noteworthy of those. During a time when addressing the woes of the small and medium-scale animal farmers on account of the pandemic was necessitated, the governing bodies chose an errant path of strengthening privatisation, deregulation and individuation[73] over protecting the interest of poorer groups.

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71 C Monson, 'What Small Businesses Need to Survive the Coronavirus Crisis' (Harvard Business Review March 27, 2020) <https://hbr.org/2020/03/what-small-businesses-need-to-survive-the-coronavirus-crisis> accessed 9th June 2022.

72 Mayank Aggarwal, 'Centre's Economic Package Addresses Long Term Issues, not Immediate Concerns of Farmers', *The Wire* (New Delhi June 3, 2020) <https://thewire.in/agriculture/farmers-economic-package> accessed 9th June 2022.

73 M Cherkaoui, 'The Shifting Geopolitics of Coronavirus and the Demise of Neoliberalism–(Part 2)' (Aljazeera Center for Studies March 22, 2022) <https://studies.aljazeera.net/en/reports/

V. Small-Scale Agroecological Farming- A Ray of Hope

The Coronavirus pandemic has exposed the ills of an uncontrolled 100 per cent FDI, which were earlier being welcomed under the garb of generating employment. This negates the significant role small farmers play in feeding the world population. According to the FAO, around 70 per cent of the total food[74] is produced by small farmers. If an agroecological transition[75] has to be made, the emphasis will have to be put on small-scale farmers involved with livestock. The FAO, at this juncture, considers it best to invest in small farmers, most of whom are currently insecure and poverty-stricken. These small farmers alone are the most potential agents of reducing hunger,[76] and also promoting ecological welfare measures. Livestock managed at a small level by small-scale farmers will enhance the quality of soil, contributing to the benefit of biodiversity of crops grown as fodder.

As discussed in the paper earlier, not only has the generation of employment been sparse, but the working conditions of those already employed have also worsened. An automatic, uncontrolled FDI is much more exploitative in nature since it thrives on monopolisation over poorer and weaker stakeholders involved. Research shows that the generation of employment in the primary sector[77] of the Indian economy has not been enormous when placed against the ratio of this sector's contribution to the overall GDP.

The medium and small-scale farmers are either landless or own a meagre portion of land, which helps in their sustenance. However, the complete, uncontrolled FDI forces them to lose ownership of even that land. A direct consequence of this often ends up in a forced, unwanted urban migration,[78] with even lesser job opportunities. A case study from South-West Iowa[79] shows that an unchecked

shifting-geopolitics-coronavirus-and-demise-neoliberalism-%E2%80%93-part-2> accessed 9th June 2022.

74 Nafeez Ahmed, 'UN: Only Small Farmers and Agroecology can Feed the World', (*Permacultue Research Institute* (September 26, 2014) <https://www.permaculturenews.org/2014/09/26/un-small-farmers-agroecology-can-feed-world/> accessed 9th June 2022.

75 FAO, 'Livestock and agroecology', (*FAO,* 2019) , <http://www.fao.org/3/I8926EN/i8926en.pdf> acessed July 22, 2020).

76 Fiona Harvey, 'Can We Ditch Intensive Farming - and Still Feed the World?', (*The Gaurdian* January 28, 2019) <https://www.theguardian.com/news/2019/jan/28/can-we-ditch-intensive-farming-and-still-feed-the-world> accessed 9th June 2022.

77 Kirti, R and Prasad, S, 'FDI Impact on Employment Generation and GDP Growth in India' (2016)3 AJEER1, 40-48.

78 Rahul Pandey, 'The Modi Government's New FDI Policy will Hurt Indian Interests', *The Wire* (New Delhi, June 21, 2016) <https://thewire.in/economy/governments-new-fdi-policy-will-hurt-indias-interests> accessed 10th June 2022.

79 Chris McGreal, 'How America's Food Giants Swallowed the Family Farms', (*The Gaurdian* March 9, 2019) <https://www.theguardian.com/environment/2019/mar/09/american-food-giants-swallow-the-family-farms-iowa> accessed 9th June 2022.

industrial farming crashed the commodity prices, eventually resulting in a transfer of ownership of land from the small farmers to the big corporations.

A. Towards Small- Scale Agro- Ecological Farming

A centralised monopoly of big corporations creates ambiguous spaces of accountability where it becomes easier to trample the ones situated lowest in the power structure- small farmers. The more middle parties facilitate the supply chain between the producers and the consumers, the more there is an exploitation of the small farmers. Therefore, it is important to switch to a model in which the market is localised, and the communication between the producer and the consumer occurs without any mediating, profit-making parties.

Further, a localised model involving the small- scale farmers will not only boost their income but will also create better living conditions for animals. An agro-ecology-based form of small farming will take the pressure off animals to act like machines while also improving the quality of soil and, thereby, the crop production. Further, it will paradigmatically facilitate the removal of irrelevant metrics that judge the food system. Currently, the quantity of yield is the biggest parameter in evaluating the food system, but an agro-ecological system of small farming will replace this with the connected factors of resilience[80] and sustainability. Case- study from Achampet[81] village of Telangana proves to be exemplary over here. The village milk farmers supply milk directly to the nearby sweet-shops. In each case, the price of the milk is fixed through a mutual agreement between the two parties involved. First, this does away with the issue of delayed payment that is very common in a trickle-down set-up. Second, it relooks into the importance of trust in a producer-consumer relation, which centralised capitalist models only superficially address.

There is a holistic scope of a better trade transaction if the producer is a small-scale farmer. The improved conditions include efficiency in managing farm resources[82] as well as the ability to earn a better share of profit. Selective few cases from the poultry and the milk industries in India justify these improved conditions.

80 Organic Without Boundaries, 'How are Agroecological Farmers Challenging the Industrial Way of Farming?' (Organic Without Boundaries August 8, 2018) <https://www.organicwithoutboundaries.bio/2018/08/08/agroecological-farmers-rethink/> accessed 9th June 2022.

81 Y. Divresi, 'The milk crisis in India: The story behind the numbers', (The Dairy Working Group of the Food Sovereignity Alliance, India, October 15, 2017) <https://foodsovereigntyalliance.files.wordpress.com/2017/10/the-milk-crisis-in-india.pdf > accessed 9th June 2022.

82 V Ahuja, 'Asian Livestock: Challenges, Opportunities and the Response', (ILRI Publications, August 17, 2012) < https://www.fao.org/docrep/017/i3166e/i3166e00.pdf> accessed 9th June 2022.

B. Small-Scale Farming and Animal Welfare

Industrial farming reduces the role of animals to a mechanical functionality where they are utilised solely for their product attributes that help in generating profit. These industrial practices cause immense pain and distress to animals both during their lives and at the time of slaughtering them. Modern animal farming practices cause suffering[83] to animals at various levels. First, diseases arise at the time of animal production due to the industrial and scientific methods used. Second, the care and attention given per animal is minimal since maintaining a sizable population of animals are more important than caring for a manageable few. Third, animals do not lead natural lives in the industrial set-ups. They are kept away from the open fields, confined to tiny boxes or at times are unnaturally kept without food and water for hours during transportation. Fourth, sizable farms demand labourers be deployed to feed and rear animals. This eliminates an empathetic or compassionate relationship between the animals and the workers. Most of these labourers, are paid daily wages, and therefore, they are forced to work with zero concern or compassion.

If these four categories of inducing suffering are analysed, one may easily hold the farmer responsible, but that would be unjust. The nexus between capitalism and industrial animal farming creates such conditions that the farmers, in order to earn their livelihood, are compelled to subject animals to such torture and pain. Nonetheless, small-scale farming would efficiently diminish these conditions of pain and distress as it will not function on the basis of a top-down farmer. The animal farmer would be as close to the animals in a relationship of care as they are with the customers in a direct relationship of trust.

Moreover, with the ever-growing demands for milk, there is also a growing awareness[84] amongst the consumer masses that now wish to be informed about the ethical production of milk they buy. Amidst these growing concerns, it is only feasible to adopt an alternative model of small-scale farming which ensures good feeding, housing, health and behavior[85] towards animals. Two efficient models of small farming would be family farming and community farming.[86] The two have primarily proven to be efficient in eliminating antibiotic and hormone administration, preserving genetic diversity and maintaining optimum health conditions. Secondly, they have prevented the quality of soil, water and air from deteriorating

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[83] BE Rollin, 'Animal Rights as a Mainstream Phenomenon' (2011) 1 Animals 1, 102-115.

[84] Jack Yates, 'Three Diverse Indian Dairy Systems Compared', (*Farmers Weekly* November 28, 2018) <https://www.fwi.co.uk/livestock/dairy/three-diverse-indian-dairy-systems-compared> accessed 9th June 2022.

[85] European Food Safety Authority, 'Scientific Report on the Effects of Farming Systems on Dairy Cow Welfare and Disease' (2009) 7 EFSA Journal European Food Safety Authority 7 1143r.

[86] Beyond Factory Farming, 'Industrial vs. Family Farms Comparison', (Beyond Factory Farming) <http://www.beyondfactoryfarming.org/get-informed/industrial-vs-family-farms-comparison> accessed July 22, 2020.

by using efficient ways of waste management. Thirdly, they have strengthened the communities as well as the working conditions of the laborers involved. In addition to these, organisations may take up the task of educating the farm personnel about the best ways to rear animals without causing them any harm or pain. This will facilitate the reachability of scientific knowledge[87] to the actual ground level where these tasks and processes are carried out. This being mentioned, the legislation[88] around the trade and supply chains will also have to be reinvented so as to support the small farm systems. If the current laws and policies are not rectified, the small farmers, despite all their efforts, will be defeated by the industrial corporations.

VI. Conclusion

Over the years, capitalism has emerged by establishing itself as a promoter of better living standards. This has inevitably led to a growth in demand for commodities. A demand that can only be matched-up using advanced scientific tools and methods. In the field of animal husbandry, the demand for good productivity has ended up in a large-scale cruelty towards animals and deterioration of the farmers and workers engaged in the garb of intensive animal farming. The globalisation of the market, which is central to both capitalism and FDI, has exerted tremendous pressure on animals and farmers. The Indian government declared an uncontrolled, automatic 100 per cent FDI in animal husbandry in 2016. This form of internationalisation has reduced animals to mere machines of production while impoverishing the small-scale farmers, since FDI functions through centralisation of the supply chain, widening the gap between the producers and the consumers. The discrimination against small farmers has visibly been established in the paper through case studies from industries of aquaculture, poultry and, most importantly, the dairy sector in India. Although no generalisations have been made in this paper based on these case studies, a pan-India study can be taken up by future researchers to establish the impact of FDI on small and medium livestock farmers.

The scenario was exacerbated after the coronavirus pandemic was announced. It brought the supply chain to an abrupt thud, hitting small farmers the worst. It was nearly a couple of months of lockdown that the Indian government announced relief packages for the farmers. Subsequently, the automatic route of FDI that was earlier in effect was struck down. However, this was

87 AE Adams, 'Dairy Cow Management and Welfare: Practices on Dairy Operations in the United States that may Impact Dairy Cow Welfare, Lameness, and Beef Quality Assurance' (2015) 2000-2019-CSU Theses and Dissertations, 2015 <https://mountainscholar.org/bitstream/handle/10217/167241/Adams_colostate_0053A_13224.pdf> accessed 9th June 2022.

88 PAD Santos and PD Bevilaequa, 'Family Farming in Agroecological Transition: A Look at the Marketing of Milk and Dairy Products in Municipalities of the Zona Da Mata of Minas Gerais State, Brazil' (2019) 49 Ciência Rural 7.

applicable only to countries with which India shared its borders, leaving the FDI norms relaxed for investors from substantially big economies. Therefore, no long-term measures seem to be underway that would alleviate the conditions of small farmers. It is a known fact that the Indian economy cannot thrive without them.

The existing FDI norms will have to be changed to benefit the small farmers and also to reduce the cruelty against animals in the husbandry sector that it promotes. The solution lies in an agro-ecological transition that eliminates middle parties of supply-chains between producers and consumers. This will effectively improve the quality of products, the income of farmers and the living conditions of animals. Nonetheless, the authors firmly believe in a system that promotes zero tolerance towards any form of animal, and such a world is only possible if the government prepares a plan to phase out the idea of animal husbandry as a profitable business and rehabilitates poor and small farmers to other sectors of the economy.

List of Abbreviations

BIT	Bilateral Investment Treaties
CAFO	Concentrated Animal Feeding Operation
CFIUS	The Committee on Foreign Investment in the United States
Covid- 19	Novel Coronavirus SARS-CoV-2-2019
FDI	Foreign Direct Investment
FIAPO	Federation of Indian Animal Protection Organisations
GDP	Gross Domestic Product
HSUS	Humane Society of the United States
IAV	Influenza A Virus
IMF	International Monetary Fund
INR	Indian Rupee
KKR	Kohlberg Kravis Roberts
NAFTA	North American Free Trade Agreement
PPLPI	Pro-Poor Livestock Policy Initiative
RCEP	Regional Comprehensive Economic Partnership
SMP	Skimmed Milk Powder
TPG	Texas Pacific Group
U.S.	United States