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Agriculture in India and the Laws Related to it

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ABSTRACT

Agriculture in India has continued for thousands of years and has given prosperity, employment, and has proven to be its economic backbone. It has flourished in different times under a lot of rulers. The rules related to agriculture have been diverse throughout history, and reforms have been done in the field by one or the other ruler. There has been a major reform by the central government regarding that and passed three new farm laws.

We have tried to analyse them and see them from the angle of the socialist and capitalist approach taken by the government. After Independence, the government has taken mainly the capitalist approach and kept private players out of agriculture, but these laws have brought the private players. We have tried to answer whether it is the right choice and whether it will help fulfill the goal of doubling farmers' income by 2022.

We have also discussed some alternative and allied activities that the farmers can pursue to raise their profits and the current income they get from farming. We have analysed the laws relating to agriculture in various states. We have then briefly explained the laws related to farming in other countries.

I. INTRODUCTION

Agriculture is considered to be one of the first reasons for people to settle in one place. Before the advent of agriculture, people were wanderers who search for food from one place to another. They settle at one place for some time, get the food they need, and leave the place.

With the discovery of agriculture, they started living in one place. They started to settle at one place as it requires months for the crop to be fully prepared to harvest. When they started settling at one place, they form communities. They started living together in one place; it develops societies and leads the foundation of modern culture.

When they started living, they need some rules and regulations to maintain peace and resolve any conflict in their society. They started following some basic rules, and they passed from

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generation to generation, and these rules got ingrained in their culture. It eventually led to the development of modern laws, which now we have. Agriculture was the basic foundation of civilized society.

With the advancement of civilization, there was a need to regulate agriculture in India. The various period of history with the various empires and civilizations have a different approach towards agriculture. We have discussed the history of agriculture from pre-independence to post-independence era: farmers' economic strength and income in India in the 21st century.

A farmer can do the alternatives or allied activities to make him financially viable and increase his income. We have tried to answer whether the socialist approach of Government like providing subsidy to farmers or the capitalist approach like contract farming introduced by three new farm acts or the combination of both will help the farmers increase their income.

We have also compared the farming laws of various states and the outcome of them. We have then analyzed the agriculture laws throughout the globe and their impact on the local population. From them, we have suggested some reforms which needed to be done.

II. HISTORY

Humans fed themselves for 2.5 million years by collecting plants and hunting animals that grow and bred naturally without human intervention.³ It all changed about ten thousand years ago when humans started domesticating animals and devoting all their time and effort to sowing seeds.⁴ This brings a complete change in the lifestyle of human beings as from nomads to settlers.

It is difficult to identify the exact period in which the transition from hunter-gatherers to Farmer begins, but it is roughly believed to be in 9,500 BCE. Agriculture in the Indian subcontinent started at the same time, and it began in Pakistan and the North-Western part of the country.⁵ The wheat and barley were the first crops cultivated in the Indian sub-continent in about nine thousand BCE.⁶ It was soon followed by the domestication of horse, sheep, goat, and the elephant was also first domesticated in this period only was visible in Mehrgarh (now Baluchistan, Pakistan).

In around 5,000 BCE, agricultural activities started in Kashmir, and cotton was first cultivated in Kashmir. Various fruits like mango and muskmelon are the native fruit of the Indian sub-

³ Yuval Noah Harari, *Sapiens: A Brief History of Humankind* (Random House, 2014).

⁴ Id.

⁵ Wayne D. Rasmussen, "Origins of Agriculture," *Encyclopedia Britannica* accessed 11 January 2021 <https://www.britannica.com/topic/agriculture>.

⁶ Id.

continent, and they started growing in this period only.

(A) Indus Valley Civilization (3300 BCE to 1300 BCE)

In this period, the people were able to do Farming and started to make houses from bricks and clay. They have a systematic way of living, and the houses were of the same design. People sell their agricultural produces, including wheat, barley, cotton, date-palms, melons, mango, etc., not only in the Harrapan cities but also to the Sumerians, Persians, Mesopotamians, and Chinese through well-established trade routes.⁷ Agriculture was dependent on the bullock cart for ploughing, and irrigation was developed in this civilization.⁸ Animals domesticated in this period include buffalo, cow, goat, pig, camel, ass, elephant, and dog, and they were exported to China, Japan, Iran, and Mesopotamia.⁹

In about 2375 BCE, there was the start of Jhuming or shifting cultivation in the tribal areas of the North-Eastern and Eastern parts of the country.¹⁰ Some new crops in South India, like the ragi, which is millet, first occurred in 1800 BCE in Karnataka and pulses in 1700 BCE.¹¹

(B) The Vedic Period (1300 BCE to 300 BCE)

The Aryans are considered Russia's original inhabitants, and they traveled from Russia to India via Iran, where they form a Babylonian Empire in about 1746 BCE.¹² When they arrived in India, the Indus valley people were already there, so they have to fight with them for centuries to fully establish their civilization. The language used by them was Sanskrit.

In around 2000 BCE, horses were domesticated and used for transportation in this period widely. There is no evidence of domestic horses in India prior to the invasion of Aryans, around 1600 BCE.¹³ Most of the problems were solved in *Sabha* or *Samiti*, and the primary loyalty was to the tribe called *Jana*. Iron was used in this civilization, and various tools of Farming and fighting were made of it. Agriculture was praised in the Vedic age, and it was considered a novel profession, and there were two harvests a year.¹⁴

(C) The Mauryan Empire (322 BCE to 122 BCE)

In 325 BCE, Chandragupta Maurya killed Dhananand, a Nanda King, and overthrow the Nanda

⁷ "Ancient Indian Agriculture" *History Tuition* (2021) accessed 10 January 2021 <https://www.historytuitions.com/ancient-india/ancient-indian-agriculture/>.

⁸ Id.

⁹ Supra note 3.

¹⁰ MS Randhawa, *A History of Agriculture in India: Beginning to 12th Century* (Indian Council of Agricultural Research, 1980), 200.

¹¹ Id, 235.

¹² Id, 279.

¹³ Id, 287.

¹⁴ Supra note 5.

Dynasty with the help of Kautilya. In the year 322 BCE, he came with a large army from Punjab to Patliputra, took over the throne, and set up the Mauryan Empire.¹⁵

Art and crafts have reached a certain level of proficiency and specialization during this time. Many professions dedicated to them become flourish like carpenters, weavers, blacksmiths, goldsmiths, jewelers, potters, ivory-workers, etc.¹⁶ Metal coins replaced the barter system in this period.

The empire has a well- managed revenue system, bureaucracy, police, and army. The king was the largest landholder in the kingdom, and the royal land was termed as *Sita* lands. The Superintendent of Agriculture employs slaves, prisoners, and labourers to work on this land, and some of this land was given to *Shudras*, who have to submit one-fourth of produce to the royal warehouse.¹⁷ The farmers were protected from the intruders by the state, and the land other than *Sita* lands were taxed for the crop and vary from place to place in the kingdom.

Animal husbandry made significant progress in the Mauryan empire. It includes cows, buffaloes, sheep, goats, horses, mules, elephants, and asses. There was a separate Superintendent of cows to deal with cattle, and cows were considered sacred and worshiped daily in the morning.¹⁸ In the Ashoka era, the horticulture and arboriculture flourished.

(D) Early Common Era (200 BCE to 1200 CE)

After the death of Ashoka, there was no powerful successor of the Mauryan Empire, and the empire collapsed. It was divided into various parts, which were ruled by Sungas, Satavahanas, and Kushans. The iron hoes were known from 3rd BCE but increasingly used in 2nd CE, and Andhra became famous for cotton cloth.¹⁹ Coconut cultivation has also drastically started on the western coast of India.

During the time of Pandyas, Cheras, and Cholas in the 100CE, there was a discovery of monsoon, and with the monsoon winds, the trade started with Romans viz. Spain, Italy, and Egypt. The evidence of the cultivation of Turmeric and Pepper first appeared in this period.²⁰

The age of Guptas came after that, which is referred to as the golden age of India. Trade and agriculture flourish at a pacing rate. The state machinery was well functioned, and the taxes on land varies from one-fourth to one-sixth in the region. The various kings and dynasties come

¹⁵ Vishnu-Mittre, "Origins and History of Agriculture in the Indian Sub-Continent" *Journal of Human Evolution* 7 (1978): 31.

¹⁶ Supra note 8, 347.

¹⁷ Id, 352.

¹⁸ Id, 365.

¹⁹ Id, 391.

²⁰ Id, 406.

and go, and under their patronage, agriculture flourish.

(E) Late Medieval Era (1200 CE to 1800 CE)

This was the period of Rajputs, Delhi Sultanate, and then the Mughals ruled the majority of today's India. Agriculture was the largest source of people's livelihood and the largest revenue generation source of the state. The various crops grown in the Mughal period were cereals, millets, oilseeds, sugarcane, cotton, hemp, chilli, indigo, and betel.²¹ Different new fruits were also introduced in the Mughal period like apple, grapes, orange, guava, pomegranate, mango, banana, pineapple, pear, etc.²²

The Portuguese introduced tobacco and potato during the reign of Jahangir in India. Ajmer was renowned for the finest sugar cane quality. Gujarat and Agra were famous for the cultivation of indigo. Babur introduced to India many central Asian fruits. Firoz Shah's Yamuna canal was repaired for the first time during Akbar's rule.²³

A new system called Dahsala was implemented in 1580 by Akbar. Under this, the average production of different crops and their average prices over the last ten years were calculated, and 1/3rd of the average output fixed in rupees per bigha was the state's share.

(F) Colonial Era (1800 CE to 1947 CE)

The East India Company rule begins in 1757 after the Battle of Plassey, and it came to an end in 1858. The British Crown took control of India through the Government of India Act, 1858, after the rebellion in 1857, and it was also the end of the Mughal Empire in India.

It is evident that British rule was not a period of agricultural growth, but it was an era when many foreign crops and new technology were introduced in India.²⁴ It was a period of industrialization in Britain, so modern technology and fertilizer were also introduced in India.²⁵

It was a period when more focus was given to the cash crops and plantation crops than the food crops. It leads to food scarcity, and as the population was increasing, it resulted in a huge problem. Farmers take loans to produce the crops, and they were unable to pay for it as the taxes were fixed and very high, and the local zamindars took advantage of them, and when the loan is not paid, they lose their land.

²¹ Tanuja Kumari, "Crops of Medieval India- Innovations in Economic Area" *IOSR Journal of Humanities and Social Science* 19 (2014): 61.

²² Id.

²³ Id.

²⁴ Jayaraman, T., "Agricultural Science in Colonial India An Introductory Note" *Review of Agrarian Studies* 6(2) (2016): 42.

²⁵ Id.

With the advancement of roads and railways, there was a huge expansion in cash crops sold in national and international markets.²⁶ Few Indian commercial crops like cotton, indigo, opium, and rice made their way to the colonial era's global market. Britishers made an extensive canal network in Punjab, Narmada valley, and Andhra Pradesh for irrigation but not to the level required.

The Department of Revenue, Agriculture and Commerce, established by Britishers in 1871, was the basis for India's agricultural research initiation. A separate department for agriculture was created in 1881 at the Centre for Famine relief operations. In 1890 Dr. J.A. Voelcker, consulting chemist from Royal Agricultural Society (England) was appointed and laid the foundation for agricultural research in India.

Between 1901 to 1905, there was the establishment of Agricultural Colleges at Pune, Kanpur, Sabour, Nagpur, Coimbatore, and Lyallpur (now Pakistan). Imperial (now Indian) Council of Agricultural Research (ICAR) was established in 1929 on Royal Commission on Agriculture's recommendation to research the agricultural field.

III. HOW PROFITABLE IS THE FARMING INDUSTRY?

The agriculture sector is not perceived to be one of the most profitable sectors in general. But what is the sector's actual reality in a third world country like India, where even the general per capita income is meager? The agriculture sector comprises around 70% of the Indian economy.²⁷ This is one of the major reasons why the Government has focused on this sector, as the sector currently has a lot of potentials to contribute to the GDP. The sector currently only contributes around 17% of the total GDP.²⁸ However, it employs more than 40% of the total workforce in the country.²⁹

As we see how important the sector is, and though the development in terms of technical, and research aspect, is not at par with the other sectors of the country, the Government has from time to time launched various schemes to support the farmers of the country. The Government has launched the Kisan Credit Card scheme, which has proved to be a success. In the past three Financial Year, the performance has increased substantially due to the Government's push.

²⁶ David Washbrook, "The Commercialization of Agriculture in Colonial India: Production, Subsistence and Reproduction in the 'Dry South', c. 1870-1930" *Modern Asian Studies* 28(1) (1994): 129.

²⁷ "India at a Glance," Food and Agricultural Organisation, accessed January 20, 2021, <http://www.fao.org/india/fao-in-india/india-at-a-glance/en/>.

²⁸ "Contribution of Different sectors," Press Information Beauru, accessed January 19, 2021, <https://pib.gov.in/newsite/PrintRelease.aspx?relid=186413>.

²⁹ "Distribution of Different Sectors," Statista, accessed January 19, 2021, <https://www.statista.com/statistics/271320/distribution-of-the-workforce-across-economic-sectors-in-india/>.

Table 01: Number of Operative of Kisan Credit Cards (KCCS), Outstanding Crop Loan and Term Loan in India (2016-2017 to 2019-2020)³⁰

Year	Number of Operative KCCs	Outstanding Crop Loan	Outstanding Term Loan
2016-17	23.37	3851.89	498.13
2017-18	23.52	3906.02	407.20
2018-19	236.30	413670.40	41409.00
2019-20 (Provisional)	241.50	423587.80	46555.80

(All the number in Lakhs, Amount in Crores)

As we can see from the Table³¹ that the credit has increased by a significant margin in the FY 2018-19 and is projected to grow continuously at that pace. It definitely shows how important role the banking institutions play, and sure the farmers are benefitting from it. This brings us to the Question that what profit are they actually making, as the outstanding term loan amount is significantly higher, and though this may show the socialistic approach of the Government, but how big of a difference does it play amongst other factors would be discussed later in this paper.

Apart from this, the Government also provides various crop insurances in case of any unfortunate events happen. These insurances generally offer farmers a sense of relief if their produce is destroyed due to Destructive Weather, like floods or drought, or insect infection. They are generally called the Multi-peril Crops Insurance. The Government of India mainly offers insurances under the following schemes:

- Coconut Palm Insurance Scheme (CPIS)
- National Agricultural Insurance Scheme (NAIS)
- Performance of Agriculture Insurance Company of India Limited (AIC)
- Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Weather Based Crop Insurance Scheme (WBCIS)

³⁰ "Number of Operative of Kisan Credit Cards (KCCS), Outstanding Crop Loan and Term Loan in India," Indiastat, accessed January 21, 2021, <https://www.indiastat.com/table/agriculture-data/2/annual-performance-of-kisan-credit-cards/451032/1258788/data.aspx>.

³¹ Table 01

Under the National Agricultural Insurance Scheme, the most recent available data shows that around 86,15,750 farmers were insured in 2015-16, which is a decrease from the year 2014-15, where 90,88,557 were insured.³² More recent official data is unavailable at this moment, but the launch of PM FBY can be a reason for the decline under the National Agriculture Insurance scheme.

The majority of farmers in the country depend on the Minimum Support Prices to sell the crops, and currently, they are being provided at the state-affiliated Mandis. The MSPs have increased over the past Decade in a significant amount, with Double the prices in some cases like that of Grams, and more crops have been included in the MSP program so that farmers could explore different crops for production.

Table 02: MSPs of Different Crops from 2012-13 to 2020-21³³

Year	Paddy (Common)	Barley	Coarse Cereals	Wheat	Gram	Arhar	Moong	Urad
2012-2013	1250	980	1175	1350	3000	3850	4400	4300
2013-2014	1310	1100	1310	1400	3100	4300	4500	4300
2014-2015	1360	1150	1310	1450	3175	4350	4600	4350
2015-2016	1410	1225	1325	1525	3500**	4625	4850	4625
2016-2017	1470	1325	1365	1625	4000^	5050	5225	5000
2017-2018	1550	1410	1425	1735	4400@	5450^	5575^	5400^
2018-2019	1750	1440	1700	1840	4620	5675	6975	5600
2019-2020	1815	1525	1760	1925	4875	5800	7050	5700
2020-2021	1868	-	1850	-	-	6000	7196	6000

*All Prices in ₹(Rs.) per quintal.

As we see that the MSP³⁴ has been increasing but still not in a profitable margin for farmers, although an important fact to keep in mind is that the Government does provide fertilizers and seeds to them at subsidized rates; hence the MSPs can be justified.

Farming is not a comparatively profitable industry in India, and if you have a small area of

³² "Season/Scheme-wise Sum Insured, Premium and Claims Paid by Modified National Agricultural Insurance Scheme," Indiastat, accessed January 20, 2021, <https://www.indiastat.com/table/insurance-data/19/national-agricultural-insurance-scheme-naais/450076/767941/data.aspx>.

³³ "Minimum Support Price for Foodgrains (Fair Average Quality) in India," Indiastat, accessed January 20, 2021, <https://www.indiastat.com/table/agriculture-data/2/minimum-support-prices/17827/207165/data.aspx>.

³⁴ Table 02.

land, the situation is really worse. Currently, farmers who have small land do not stand a chance to earn a decent living. Think it about this way, in a hypothetical situation, a farmer who has an acre of land and produces around a produce quintal. He is getting a profit of ₹500 per quintal; in even the best-case scenario, his profit will not increase on that area of land. This is the situation of the majority of farmers in India, and they struggle every day to achieve their livelihood somehow.

IV. ALTERNATIVES AVAILABLE TO THE FARMERS

Due to climate change, fatigued soil health, diminishing water resources, and endangered biodiversity, the farming sector is becoming uneconomical and unattractive. There needs to be innovation in the field, and farmers should shift to some alternatives or try allied activities like poultry, dairy, and fish farming.

(A) Dairy Farming

Dairy farming is an agri-business that is involved in the production of milk. People all over India had involved in this sector for thousands of years. It can be an option for large to small farmers, and it is considered profitable as the agriculture residue can be used as fodder for the cattle, and the grass can also be used.³⁵ The cattle which are used for milk production in India are generally cow, buffalo, and goat.

The lowest five-year average annual growth rate in dairy production was 4.1%, and the highest was 7.1% in the past three and a half decades (1985–86 to 2010–11).³⁶ The increase in milk production can be attributed to the ease, and low investment is required to set up dairy farming. It also has other benefits like the cattle dung used to make manure, biogas, and vermicompost.³⁷

(B) Poultry Farming

The form of animal husbandry that raises domesticated birds such as chickens, ducks, turkeys, and geese to produce meat or eggs for human consumption is called poultry farming. It can also be used for the commercial production of features. It can be done either domestically at a small scale and even commercially at a large scale.

Commercial feeding is a scientific technique that ensures maximum intake of energy for growth and fat production.³⁸ On feeding about 0.9 kg of ration, the chicken will produce about a 0.5

³⁵ M Dinesh Kumar and O P Singh, "Economics of Dairy Farming in India" *Economic and Political Weekly* 52 (2017): 77.

³⁶ Government of India, Report: *Annual Report 2015–16*, Department of Animal Husbandry, Dairying and Fisheries (Ministry of Agriculture and Farmer Welfare).

³⁷ Supra note 31.

³⁸ Wesley Patterson Garrigus, "Poultry farming", *Encyclopedia Britannica*, accessed Jan 16, 2021

kg broiler and a dozen eggs for 2 kg of feed.³⁹ They needed an optimal environment condition to breed and increase production. It also requires mechanized and timely watering, feeding, egg gathering, and cleaning operations.⁴⁰

(C) Fish Farming

Fish farming or pisciculture means raising fish commercially for food in tanks or ponds. As marine finfish cultivation is rarely practiced on a large scale, the growth in the fish farming sector is mainly due to the freshwater aquaculture sector.⁴¹ Of the total animal protein consumed in India, about 12.8 percent comes from freshwater fish.⁴²

Irrigation ditch or pond system of raising fishes can be very beneficial to small farmers as it can simultaneously use for irrigation and fish production. The essential requirement for it is to have a ditch or pond to store water. This is a specific method since fish are artificially fed at a small level, and the waste generated from the fish is then used to fertilize fields for farmers.⁴³ The pond is self-sustaining on a larger scale, often in wetlands, producing plants and algae for fish food.⁴⁴

Compared to land animals, they have one significant advantage: you have to feed them much less. Fish require fewer calories because they're cold-blooded, and they also don't fight gravity as much as other land animals.⁴⁵ To produce a pound of farmed fish, it takes approximately a pound of feed; to produce a pound of chicken, it takes almost two pounds of feed, and about three for a pound of pork.⁴⁶ As with low investment, it is a better option for farmers.

(D) Horticulture

Horticulture is agriculture, which is both science and art, which involves producing, propagating, and cultivating fruits, vegetables, flowers, and ornamental plants for food and decoration.⁴⁷ The word is derived from the Latin Hortus, "garden," and colere, "to cultivate."⁴⁸

<https://www.britannica.com/topic/poultry-farming>

³⁹ Id.

⁴⁰ Id.

⁴¹ P.E. Vijay Anand, "The Fish Farming Industry of India" *Global Aquaculture Alliance* accessed 16 January 2021 <https://www.aquaculturealliance.org/advocate/the-fish-farming-industry-of-india/>.

⁴² Id.

⁴³ "Fish Farms | Fish Farming Information and Resources | Farms.Com" accessed 16 January 2021 <https://www.farms.com/farming/fish-farms.aspx>.

⁴⁴ Id.

⁴⁵ Joel K. Bourne, Jr., "How To Farm a Better Fish" *National Geographic* accessed 16 January 2021 <http://www.nationalgeographic.com/foodfeatures/aquaculture/>.

⁴⁶ Id.

⁴⁷ Carol A., B.S.L.A., M.Ed., M.B.A., J.D. Rolf, "Horticulture", *Salem Press Encyclopedia of Science* 2018 accessed 17 January 2021, <https://ezproxy.nujs.ac.in/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ers&AN=89250484&site=eds-live>.

⁴⁸ Patrick Millington Synge, "Horticulture | Definition, Types, Techniques, & Uses", *Encyclopedia Britannica*

It includes all aspects of garden management as a general term but applies to intensive commercial production in ordinary use.⁴⁹

While horticulture has existed since ancient times, many practical uses of plant materials, including pharmaceuticals production, have resulted from modern scientific developments in the field.⁵⁰ Like various other agricultural activities, it is also influenced by factors like climate, terrain, and other regional variations. India is a country that lies both in temperate and tropical zones, which are north and south, respectively. It thus supports a large variety of plants throughout the country. It can be a good option for farmers all over the country.

V. SOCIALISM AND CAPITALISM IN THE AGRICULTURAL SECTOR

(A) Socialistic Approach of the Government

One of the most challenging professions in the world is Farming. A farmer not only has to have knowledge in Agricultural Sciences, and the biology of it, but in addition to it he should know meteorology, then he should be knowing about physics and mechanics for the various machines used for the Farming. Also, marketing and accounting form a major part of Farmer's profession. The profession of Farming is generally perceived as not from the elite class of the society. All of this is a requirement for a successful farm operation. In countries like India, the profession of Farming has acquired a really bad name to it. They are seen with a sense of pity. The majority of farmers' economic conditions in India have not been good; several factors such as small lands, geographical conditions are reasons behind this. The Government of India, which has worked for the upliftment of the economically weaker section of the society, has taken cognizance of them. The Government has been collectively working and has launched various schemes and provides subsidies to the farmers for the same.

In these situations, the Government is taking a socialist approach towards the farmers, where the Government provides them with subsidies at every possible stage of Farming. Still, these steps ensure that every person is just getting to that minimum wage mark, and the basic necessities of the farmers and their family members are fulfilled. There are many other issues, which is not addressed by this mechanism, for which capitalisation of Farming is required, which might give some amount of profit to the farmers. Agriculture is not an easy job, and farmers don't have access to the basic machines required for Farming; the quality of crops are going to decline, which would mean losses to farmers, and in countries like India, where

accessed 17 January 2021 <https://www.britannica.com/science/horticulture>.

⁴⁹ Id.

⁵⁰ Supra note 43.

Government is accountable for a majority of the buffer stock, and it even pays to the farmers, the Government loses money too. A major part of Tax-Payer's income is diverted towards them, and it might prove a hurdle in the country's overall infrastructure growth.

(B) The Capitalistic Approach

Is Capitalism Farmer's best friend? Well, it is, and it isn't. It depends on the amount of investment you're able to put in—the land area available to you, among many other factors. An agricultural setup is just like a start-up, which requires a ton of investment and probably the most difficult one. The modernization of Agriculture around the globe has already been in place for years now, and even in states of Madhya Pradesh⁵¹ in India, farmers have started to use these modern machines for farming purposes, although, farmers are still not completely independent. If farmers are given a choice to freely sell their crops and use different techniques of production that is going to benefit them.⁵²

Capitalism in the agriculture sector should definitely be differentiated from the Peasant style of Farming, where exploitation of workers is very high. A capitalism system works when a person who owns the land either works himself or employs workers to work in the farms, and they are in Contract with some companies, or for that matter, even Government, to sell the crops. And yes, Income generation is the major goal, but with the current norms of employment and labour protection codes, chances are very less that the workers would be exploited.

Now, something can't be consumed without first being produced. This means wealth is created in the production process as well as jobs at each level of production. So, the Capitalistic Perspective not only helps in an increase in the Farmer's income but also generate more employment. But in countries where we don't have big landowners, this becomes extremely difficult, although working under a Corporation can definitely give you a basic sense of life. In the United States, where Bill Gates recently became the biggest farmland owner⁵³ in the country, this approach is being taken.

VI. THE FARM AMENDMENT ACTS, 2020

On the 5th of June 2020, the Government promulgated three ordinances related to the Farmer's rights. The bills were then passed in the parliament on 17th and 20th September, in the Lower

⁵¹ "MP Farmers earning more now by new Techniques," League of India, accessed January 14, 2021, <https://leagueofindia.com/change-on-the-ground/mp-farmers-earning-more-now-by-making-use-of-modern-techniques/>.

⁵² Lem Harris, 'Some Comparisons of Socialist and Capitalist Agriculture' *Science & Society*, Guilford Press (1946) accessed January 12, 2021, <https://www.jstor.org/stable/40399751>.

⁵³ "Bill Gates is reportedly the largest farmland owner in America," New York Post, accessed January 15, 2021, <https://nypost.com/2021/01/15/bill-gates-is-the-largest-farmland-owner-in-america-report/>.

and Upper houses, respectively. These bills have raised a series of debates questioning how beneficial these laws are and how the Government plans to implement them. The Supreme Court of India has also interfered after a series of Protests were held in the Nation's Capital. After getting the assent of the Presidents, the bills have already come into force, with Farmers in states like Karnataka have already started benefitting from the same.⁵⁴

The laws in question are "The Essentials Commodity Act," "The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act," and "The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act," namely. Through these three acts, the Government has tried to reduce the monopoly of the State Mandis or the APMC mandis, a hub for corruption and one of the major causes of Farmer Suicide in India.⁵⁵ The mandis have a middlemen's system, where they buy crops from the farmers and sell them at 60-75% profit margins.⁵⁶

The very first Act, i.e., the essentials commodity acts have removed Pulses, Cereals, Oilseeds, among other items, from the necessity list, which means that these can be stored in cold storage without a limit to their quantity, which in turn, would benefit the farmers as he would sell them, whenever he sees fit and would get a sufficient price for the same. This allows farmers to stock freely without the fear of being prosecuted for hoarding. Concerns have been raised regarding this, that this may lead to hoarding of these goods, and Government in the same Act under section 3 (1) has tried to answer the same, where they have said that if they feel that this law is being misused for certain commodities, they *"by order, provide for regulating or prohibiting the production, supply and distribution thereof and trade and commerce therein."*⁵⁷

The second Act, i.e., the Farmers Empowerment Act⁵⁸, empowers the farmers to be involved in contractual Farming. It also provides the legal framework for the same if any discrepancy occurs during the contract period. With this, the Government aims that the Indian Agriculture Industry would move forward from its stagnant and slow growth over the years. The Acts believes that more industries and the Fast-Moving Consumer Goods (FMCGs) companies would directly enter into a contract with the farmers, which would remove the concept of middleman, thus providing a better cost for both the Farmers and the manufacturers. The legal

⁵⁴ "Farm Laws Impact: Reliance To Buy 1,000 Quintal Paddy From Raichur Farmers, To Pay More Than MSP," Swarajyamag, accessed January 13, 2021, <https://swarajyamag.com/insta/farm-laws-impact-reliance-to-buy-1000-quintal-paddy-from-raichur-farmers-to-pay-more-than-msp>.

⁵⁵ "A visit to Delhi Mandis," The Print, accessed January 12, 2021, <https://theprint.in/report/visit-to-delhi-mandi-shows-farm-crisis-alive-kicking/9634/>.

⁵⁶ "How APMC Monopoly Is the Core Reason For Farmer Suicides In India," Swarajyamag, accessed January 13, 2021, <https://swarajyamag.com/ideas/how-apmc-monopoly-is-the-core-reason-for-farmer-suicides-in-india>.

⁵⁷ The Essential Commodities Amendment Act, 2020

⁵⁸ Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020

framework provided by the Act ensures that no farmer would be taken advantage of by these corporations and industries through the Contract. The Act has made it compulsory to have a conciliation process and be formed of the neutral parties. In addition to this, the farmers would have an option to approach the Sub-Divisional Magistrate if the conciliation does not work out for them. This is one of the points that has been raised in the Protests by the farmers from the state of Punjab and Haryana. The farmers have demanded that they should be given more liberty in such situations, and they should be able to approach higher courts.

In addition to the legal framework, the points laid down by the Act for a farmer to enter into a contract with any person are very articulate. They have explicitly conveyed the message that no farmer can be taken advantage of. The agreement should mandatorily include all the necessary details like time, quality of the crops, standards, etc. It also mentions the conditions related to a payment under Section 6 (3) of the Act.

All of this is made possible by the third Act, which is the Farmers Produce and Trade Act⁵⁹, which can be termed as the APMC bypass act, and not the APMC removal act. The major issue raised in the protest related to Farmers Law is that this Act would remove the APMC mandis, but this facilitates the farmers to sell their produce outside the mandis. Currently, 18 states in India have established APMC mandis, although 19 states in India have already allowed the direct purchase of crops from farmers⁶⁰; also, over 20 states in India already have a provision for contract farming. This Act has tried to make a national framework and marketplace for selling crops and removing various charges and restrictions for selling outside the state. Arguments have put forth in this regard as to states like Bihar, which has abolished the APMC system, have the least average income of farmers compared to other states, but in reality, the growth rate of Bihar in the Agricultural Sector is better than the national average⁶¹, and for that matter even Punjab, the state with the highest average agricultural income.

Through this fact, farmers would be allowed to sell their crops outside APMC yards, and they would have no restriction as to where to sell their products. The bill has been designed in such a fashion that farmers would be able to sell their produce in any part of the country, which allows inter and intrastate trading. The Act also prohibits the state government from collecting any fees or charges for trades that happen outside the mandis.

⁵⁹ Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

⁶⁰ "Progress of Market Reforms under APMC Act – Status Report of States," SFAC India, accessed January 15, 2021, <http://sfacindia.com/PDFs/Progress-of-Market-Reforms-under-APMC-Act.pdf>.

⁶¹ "How Bihar recorded growth but Punjab lagged behind and why farm reforms are important," The Print, accessed January 14, 2021, <https://theprint.in/opinion/how-bihar-recorded-growth-but-punjab-lagged-behind-and-why-farm-reforms-are-important/562619/>.

As mentioned earlier, the nation's capital has been seeing protests in this regard from late November 2020. The Supreme Court of India has finally decided to intervene and has put a temporary stay on the laws. The court has also set up a four-committee panel for the discussion of the same and awaits further action based on the committee's decision.

VII. DOES THE FARM BILLS SOLVE THE ISSUES OF FARMERS?

Farmers in India have different kinds of issues in different parts of the country, but majorly the issues have been small lands and unable to sell the crops in the market at a reasonable price. The new farm bills have tried to address the concern of the farmers, at least on paper. The new bills have through the "The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act," whereby, as mentioned earlier, the freedom to sell the crops at the Farmer's ease is started. The farmers would be able to sell their crops outside the Yards in a private market, although the concerns for Minimum Support Price (MSP) have been raised. The Government has assured MSP would be given in the APMC mandis. But Government should legislate such that MSP is provided for the Private Markets as well as contractual Farming. Currently, MSPs are suggested by the Commission for Agricultural Cost and Prices (CACP), which then are enforced by the Government. The CACP comes from a 1965 legislation⁶², at the time of the Green Revolution, where MSPs were mentioned. Currently, they are provided MSP by only government authorities. The new legislations are definitely a step ahead in the stagnant growing agriculture sector of India. Still, a certain amount of clarity would definitely lead to the overall inclusive growth of the farmers.

The other major issue which persists is the small lands owned by farmers in a large number in the country. Because of the social conditions, like the high population growth and the division of land among the family member, each person is left with a very small piece of land, where irrespective of any amount of margin, the income is going to be really low. From the new bills, there's an implication that farmers may come together in a contract with the corporations for better results. Even if they don't, the corporations may come into agreement with multiple small farmers leading to an increase in income for the farmers.

VIII. STATE-WISE VIEWING OF THE AGRICULTURAL LAWS

The model APMC act was introduced in 2003, but since Agriculture is a state subject, states have taken various viewpoints in their policies. And it makes sense as not every state in India can be leveled equally. Apart from our cultural diversity, India is also a country with equal

⁶² "70 Policies — Agricultural Prices Commission, 1965," Observer Researcher Foundation, accessed January 12, 2021, <https://www.orfonline.org/expert-speak/43025-70-policies-agricultural-prices-commission-1965/>.

geographical diversity. But in all this, the Farmers have had not seen much development over the course of 70 years after Independence. One of the major reasons to introduce the new Farm Amendment Acts is the unification of these Laws all over the country, which the incumbent Government has been doing a lot in recent times. Out of 29 states in India, over 18 states in India have amended the APMC in some way or another to make the entry of Private Players possible in the forms of Contractual Farming or Private Mandis,⁶³ including Punjab. So, these laws do not make any major change in the functioning of these markets.

Moreover, they provide an additional legal framework for dispute resolution, in both the case of selling crops in any market or for entering into a contractual farming agreement. In 20 states of India, the provision for contract farming is also there, which is there without any legal framework. States have also continuously making changes to their APMC acts, according to their ease. In the times of the Coronavirus, states have made changes in their laws accordingly.⁶⁴ Also, digitalization of trading, like facilities to promote e-trading, should be encouraged too. Around 14 states in India have the mechanism in place for the same.⁶⁵

The condition of farmers in most states is not good, with the average income being as low as ₹5842 in Andhra Pradesh.⁶⁶ States have taken different approaches to view this subject, and none of them have success per se. Unification of Laws is a long shot, but there are chances it might work. The conditions of farmers definitely, show the economic and social prosperity of a country, and the content of farmers in an agriculturally dominated country like India is important. India is a union of states, and these states should come together and, with the help of the central Government, should make it a better place for the Farmers.

IX. LAWS RELATED TO FARMING IN OTHER COUNTRIES

(A) USA

Many farmers were losing money after the Great depression in 1933, so to overcome it, President Franklin D. Roosevelt came up with the Agricultural Adjustment Act (AAA) of 1933. Subsidized farmers started to control agricultural production by destroying crops and

⁶³ "NAM: States modified their APMC act," Governance Now, accessed January 15, 2021, <https://www.governancenow.com/news/regular-story/nam-17-states-have-modified-their-apmc-act>.

⁶⁴ "Changes in Agricultural Marketing laws across states," PRS Legislative, accessed January 14, 2021, <https://www.prsindia.org/theprsblog/changes-agricultural-marketing-laws-across-states>.

⁶⁵ "Progress of Market Reforms under APMC Act – Status Report of States," SFAC India, accessed January 15, 2021, <http://sfacindia.com/PDFs/Progress-of-Market-Reforms-under-APMC-Act.pdf>.

⁶⁶ "Farm income, MSP, row over new laws: All explained," Times of India, accessed January 15, 2021, <https://timesofindia.indiatimes.com/india/farm-income-msp-row-over-new-laws-all-explained-in-5-charts/articleshow/79798223.cms>.

artificially decreasing supplies in the Agriculture Adjustment administration.⁶⁷ It also provided subsidies to those farmers who voluntarily limit their crop production.⁶⁸ The Act was challenged in the celebrated judgment of *United States v Butler*⁶⁹, and the AAA was struck down and held to be unconstitutional by a vote of 6 to 3.

President Roosevelt then comes up with different legislation named the Soil Conservation and Domestic Allotment Act of 1936 with a similar organization as the AAA for subsidizing farmers. This Act has a provision where the landlord has to share the payment with the workers, which he received from the Government as a result of cutting the production.

In the USA, much of the agricultural and food policy legal framework is laid down through a legislative process that takes place approximately every five years.⁷⁰ The current law that governs the USA's farm policies is the Agriculture Improvement Act of 2018 (2018 Farm Act), which will remain in effect till 2023 and some provisions beyond 2023.⁷¹ It increases budget allocation by \$1.8 billion to a total outlay of \$428 billion, with the largest allocation to nutrients of 76% and the second to crop insurance of 7%.⁷²

(B) China

In 1949 with the victory of the Communist Party of China in the Chinese Civil war, the land was taken away from landlords and redistributed to the farmers. In 1952 the peasants were organized in teams, and then in 1955, they were combined to form a producer cooperative to enable the socialist goal of collective ownership. The Government then took control of the land in 1956.

The system today followed in China is the Household Responsibility System, which is laid down in Agriculture Law of the People's Republic of China, 1993. Rural collectives own all rural land, and private ownership is banned.⁷³ The rural collective allocates land to eligible households on Contract whose term was 15 years in 1983, which was renewed to 30 years in 1997, i.e., till 2027.⁷⁴ The farmers can choose what to plant, how to plant, can keep returns

⁶⁷ Santosh Paul, "A Short And Telling History Of Farm Protection Laws" (*livelaw*, 20 January 2021) accessed 22 January 2021 <https://www.livelaw.in/columns/farm-laws-protection-laws-legislative-history-agriculture-168628>.

⁶⁸ *Id.*

⁶⁹ 297 U.S. 1 (1936).

⁷⁰ "USDA ERS - Agriculture Improvement Act of 2018: Highlights and Implications" accessed 22 January 2021 <https://www.ers.usda.gov/agriculture-improvement-act-of-2018-highlights-and-implications/>.

⁷¹ *Id.*

⁷² *Id.*

⁷³ Minghao Li, Wendong Zhang, and Dermot Hayes, "Can China's Rural Land Policy Reforms Solve Its Farmland Dilemma?" *CARD Agricultural Policy Review* (2018) accessed 23 January 2021 https://www.card.iastate.edu/ag_policy_review/article/?a=78.

⁷⁴ *Id.*

from agricultural produce, and can lease land to others for agricultural production. They cannot convert agricultural land to any other use, leave their land uncultivated for two years, and cannot legally resist land acquisition.⁷⁵

With less than 10 percent of the world's arable land, China has succeeded in generating one-fourth of the world's grain and feeding one-fifth of the world's population, which is an outstanding achievement not only in China but also in the world in terms of food and nutrition welfare.⁷⁶ China ranks first in terms of the production of cereals, cotton, fruit, vegetables, meat, poultry, eggs, and fish products.⁷⁷

(C) Russia

Russia is the largest country in the world; its agriculture has survived various transition like from a command economy to a market-oriented economy. Until the 1980s, most agricultural land in Russia was state-owned, but in 1989-90 the privatization of land started when Gorbachev allowed business enterprises in the form of cooperatives and legalized private ownership of land by individuals. Simultaneously, the government imposed a moratorium of 10 years for the sale and bought of agricultural lands.

There are now three types of farms in Russia- corporate farms, household farms, and peasant farms. In the late 1990s, grain production rose steadily in Russia and became a major exporter from a small importer of grains.⁷⁸ In 2015-16, 10 percent of total world grain exports and 15 percent of wheat exports were supplied by Russia.⁷⁹ In contrast, 24 percent of total world grain exports and 14 percent of wheat exports were supplied by the United States.⁸⁰

The State Program for the Development of Agriculture and Regulation of the Markets of Agricultural Commodities for 2013-2020 was adopted by the Government in 2012. The program plans to allocate USD 76 billion over the period 2013-2020 to develop the agricultural and food markets, including USD 50 billion from the federal budget and USD 26 billion from the provincial budgets.⁸¹ The growth of the livestock industry is listed as the top priority for

⁷⁵ Id.

⁷⁶ "China at a Glance | FAO in China" *Food and Agriculture Organization of the United Nations* accessed 23 January 2021 <http://www.fao.org/china/fao-in-china/china-at-a-glance/en/>.

⁷⁷ Id.

⁷⁸ Nicolas Rada, William M. Liefert, and Olga Liefert, "USDA ERS - Agricultural Recovery in Russia and the Rise of Its South" accessed 23 January 2021 <https://www.ers.usda.gov/amber-waves/2017/april/agricultural-recovery-in-russia-and-the-rise-of-its-south/>.

⁷⁹ Id.

⁸⁰ Id.

⁸¹ "Russia at a Glance | FAO Liaison Office with the Russian Federation" *Food and Agriculture Organization of the United Nations* accessed 23 January 2021 <http://www.fao.org/russian-federation/fao-in-russia/the-russian-federation-at-a-glance/en/>.

the Ministry of Agriculture. The method of support for agriculture, which will move from subsidized interest rates to direct income support for farmers, is a significant change brought about by the State Programme.⁸²

(D) Switzerland

In Switzerland about 37% of the land is used in agriculture and out of it one-third is found within the midlands.⁸³ The most substantial portion of the entire agricultural land is pastures and meadows. Consequently, the majority of the farms concentrate on stock farming, dominated by dairy cattle farming.⁸⁴ Cereals are the primary important category of land use in cultivable Farming. Agriculture is predominantly favored by the Swiss soil, terrain, and environment, and farms are mostly family businesses, mostly tiny in size.⁸⁵

Cereals like wheat and barley are harvested, root crops like sugar beets and potatoes, and fruits like apples and grapes are harvested.⁸⁶ Large-scale single-crop Farming is difficult due to the variance in soil quality within small areas in Switzerland caused by geological conditions and relief; instead, an incredibly varied variety of crops is grown in a limited space.⁸⁷ Approximately two-thirds of all farms combine grass and grain production, and almost four-fifths of domestic demand is met by the latter.⁸⁸

The Swiss Government has supported agricultural productivity with a policy figure. It is making efforts to stabilize production and is looking for ways to ensure that the area is growing in a healthy and sustainable manner.⁸⁹ The Swiss Federal Government has long been a major supporter of agriculture, and there is broad political agreement on the demand for land, labor, and tax reform to serve the sector.⁹⁰ As a result of appropriate policies, the agriculture sector's performance has been steadily increasing in recent years. The Government has also started the initiative of smart farming revolution in the country to serve the purpose.⁹¹

⁸² Id.

⁸³ "Agriculture and Horticulture in Switzerland *Climatechange*post accessed 23 January 2021 <https://www.climatechange.com/switzerland/agriculture-and-horticulture/>.

⁸⁴ Ken Research, "Agriculture Market In Switzerland, Agriculture Industry In Switzerland" 18 January 2021 accessed 23 January 2021 <https://researchforecast.com/agriculture-market-in-switzerland/>.

⁸⁵ Id.

⁸⁶ Id.

⁸⁷ Daniel Wachter and others, "Switzerland - Agriculture and Forestry", *Encyclopedia Britannica* accessed 23 January 2021 <https://www.britannica.com/place/Switzerland>.

⁸⁸ Id.

⁸⁹ Supra note 80.

⁹⁰ Id.

⁹¹ "Agriculture 4.0 - the Swiss Smart-Farming Revolution" *House of Switzerland* accessed 23 January 2021 <https://houseofswitzerland.org/swissstories/economics/agriculture-40-swiss-smart-farming-revolution>.

X. CONCLUSION

Agriculture is considered the backbone of any economy in the past and continued to do it today. The agricultural sector has employed the majority of the workforce of India to date. It is not that profitable but has the potential of income if utilized wisely, like using allied activities with the Farming. It can boost both economy and the income of the person doing it through various combinations with agriculture.

The Government is also trying to reform the laws that play a major hurdle in developing the sector. The Government till now was only using the socialist approach, but now it is tried to use the capitalist approach of contract farming. The best approach can be the combination of both approaches, and the variation of using the combination can vary from one region to another, which depends on the climate, terrain, and geographical conditions as the country's geography are diverse, so it needs a law which suits the environment of the particular region.

The new farm bills introduced by the central Government are a reasonable step towards better implementing the policy and benefit the farmers from them as it gives them options to choose between mandis and corporate houses as per their needs. It will help them make profits, but there are challenges to it as it can also create a monopoly of the corporate in the farming sector, which the Government has to see and take into account.

The country can also make a system where the government acts as a medium between the farmers and corporate houses like in China, giving confidence to people and increasing the farmers' bargaining power. It will also be a step to curb the monopoly that some farmers' unions have raised. It also has its pitfalls, but it can be a viable option by customizing it as per the region, eliminating corruption, and building the required infrastructure. The topic can be further researched, and a new prospect can come into place.

We can learn from countries like the USA and Switzerland, where agriculture is treated as a science. It is fused with modern technology for better results like; in Switzerland, the Government is trying to bring smart Farming, and it can be beneficial for the Indian farmers. The government's agriculture education programs and motivate the youth to take agriculture forward with science. The profits can be increased through it, and it is way forward. All it needs is a better and efficient program that can easily educate the people about it.
