

Indian farmers' welfare:

Policies, approaches, strategies and prophecy

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Indian welfare is possible only through the farmers' welfare. If farmers are empowered, the nation would become self-sufficient. This is quantitative and qualitative research work on Indian farmers' welfare. Simple tabular analysis, grounded theory and Delphi survey method were used to approach the results. The current study revealed the land use pattern, number of operational land holders, and poverty profile of India. The study also analyzes the farmers' welfare policies, approaches and strategies. The study strongly suggests that price insurance and price loss programs as well as direct income approaches like developed nations may be implemented.

Keywords: Agriculture, Empowerment, Farmers' welfare, Policies

IN India, farmer's interest in agriculture is declining and consequently the agricultural workers self-employed in agriculture are leaving the industry. If such a shift continues, the aggregate output from the sector would be shared among a lesser number of farmers, indicating enhanced gains to those who continue to work in agriculture. As land holdings are going to smaller farmers, the sharing of small and marginal holdings in 2015-16 has increased to 86.21% of total operational holding in India. According to FAO, the food and welfare of the food producers are interdependent in the long run. The Ministry of Home Affairs stated that Indian welfare is possible only through the farmers' welfare. This shows that if farmers are empowered, the nation would become self-sufficient. The main aim of agricultural policy in India is farmers' welfare. Farmers' welfare could be achieved by enhancing income and employment in the agricultural sector. The Minister for Agriculture and Farmers' Welfare primarily concentrates on agricultural production and productivity to

enhance income and welfare of farmers in the nation.

At present, we don't need just another green revolution. But, we need a more comprehensive income revolution for Indian farmers'. Improving the farmers' welfare and rise in agricultural income is very important to assure the future of agriculture and increase the livelihood of the Indian population. This study analyzed the land use pattern, land holdings and the existing farmers' welfare approaches and policies in India. The main objectives were to analyze the land use pattern and operational holders across top 5 States in India, explain the poverty profile and how to reduce poverty, and study the farmers' welfare policies and approaches. The study is both quantitative and qualitative research on Indian farmers' welfare. It is based on secondary data sources. The data sources were FAO, Directorate of Economics and Statistics, World Bank and IFPRI. Simple tabular analysis was used to show the percentage share of India's land to the world, the number of operational landholders, and poverty profile of India. Grounded theory

and Delphi survey method was followed. Delphi survey is a technique of group facilitation, and an iterative multistage process is especially planned to change opinion into group consent. Grounded theory is a methodology used in many research studies especially in social sciences. Research findings and recommendations can contribute to knowledge or policy development, provision of service.

Land use pattern and operational holders in India

Efforts to strengthen agriculture and the wellbeing of farmers have remained a thrust area for the government. Nearly three-quarters of the Indian population rely on agriculture especially in rural areas.

Land use pattern of India: Farmers are engaged in supplying food and non-food produce to meet the requirement of the nation. India occupied 297.32 million ha land area which shared 2.28% of the world (Table 1). Agricultural land, cropland and arable land of India was 179.67, 169.42 and 156.42 million ha that shared 3.74, 10.81 and 11.21% of the world. ...13 and 10.26 million ha

Table 1. Percentage share of land use pattern of India to the World

Items	India (‘000 ha)	Per cent of India's Land Use Area to World	World
Geographical area	328725.9	2.44	13487492
Land area	297319	2.28	13028122
Agricultural land	179674	3.74	4801370
Cropland	169416	10.81	1567682
Arable land	156416	11.21	1394979
Land under permanent crops	13000	7.65	169942.5
Land under perm. meadows and pastures	10258	0.32	3233686.35
Forest land	71627.2	1.76	4068923.27
Naturally regenerating forest	58456.63	1.55	3770514.92
Planted Forest	13170.57	4.44	296500.52
Other land	46017.8	1.11	4132597
Inland waters	31406.9	7.33	428493.6
Land area equipped for irrigation	70400	20.78	338710.5
Agriculture area under organic agriculture	1938.22	2.73	71086.34

Source: FAOSTAT.

of land of India was occupied under permanent crops, and permanent meadows and pastures, respectively. Land area under forests in India covered 71.63 million ha sharing 1.76% of the world. Land area equipped for irrigation in India was 70.40 million ha, which shared 20.73% of the world. Agriculture area under organic farming was 1.94 million ha in India. The highest percentage share of India's land use to the world was under land area equipped for irrigation, arable land and cropland.

Operational holdings

Operational holding is defined as all the land used partly or wholly for production of agricultural commodities and is managed as one technical unit by the farmers. Land size determined the income ratio derived from farming and the extent of access to institutional credit, and net investment in productive assets.

In India, 68.45% were marginal farmers (<1 ha), 17.62% small farmers (1–2 ha) and the remaining 13.92% of farmers belong to the semi-medium (9.55%, 2–4 ha), medium (3.80%, 4–10 ha) and large category (0.57%, 10 ha and above). Most of the Indian farmers are marginal and small landholders.

Average size of landholding had fallen by 6% from 1.15 ha to 1.08 ha between 2010–11 and 2015–16. The percentage share of semi-medium and

medium operational holdings shrank from 14.29 to 13.22, while the share of large farmers dropped from 0.71%–0.57% between 2010–11 and 2015–16 (Table 2). The results showed that the number of small size operational holdings had increased, while medium and large size operational holdings had gone down within 5 years due to fragmentation of land.

Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh and Karnataka have the highest number of operational farmers in India, accounting to be 23.82, 16.41, 15.28, 10.03 and 8.68 million (Table 3). The shares of marginal and small landholders were higher than the other farm holders in India across state-wise. This was mainly due to the fragmentation of land.

Table 2. Operational holdings in India by size group

Category of holdings	No. of holdings (‘000 Number)		Area (‘000 in ha)		Average size of holdings (ha)	
	2010–11	2015–16	2010–11	2015–16	2010–11	2015–16
Marginal (<1 ha)	92826 (67.10)	100251 (68.45)	35908 (22.50)	37923 (24.03)	0.39	0.38
Small (1–2 ha)	24779 (17.90)	25809 (17.62)	35224 (22.10)	36151 (22.91)	1.42	1.40
Semi-Medium (2–4 ha)	13896 (10.00)	13993 (9.55)	37705 (23.60)	37619 (23.84)	2.71	2.69
Medium (4–10 ha)	5875 (4.20)	5561 (3.80)	33828 (21.20)	31810 (20.16)	5.76	5.72
Large (10 ha and above)	973 (0.70)	838 (0.57)	16907 (10.60)	14314 (9.07)	17.38	17.07
All holdings	138348 (100.00)	146454 (100.00)	159592 (100.00)	157817 (100.00)	1.15	1.08

Source: Ministry of Agriculture and Farmers' Welfare, Government of India.

Poverty profile in India

The main goals of the World Bank are to eliminate poverty and improve communal prosperity. According to the World Bank, due to COVID-19 pandemic in 2020, an additional 88 to 115 million people were forced into great poverty, bringing the total to between 703 and 729 million. In India, 270 million poor people are surviving. Data on the poverty profile of India has been collected from the World Bank. It revealed that 7 low income states are native to 45% of the population in India. About 62% of Indian poor people are living in 7 low income states. Poverty rate in rural and urban areas in India is 25 and 14%, respectively. Poverty is highest among the scheduled tribes, accounting for 43% followed by scheduled castes 29%. Most of the rural poor people belonged to marginal farms sharing 85%.

Reducing poverty among poor farmers

There are some ways in which we can reduce poverty among poor farmers. Increasing the operational size of farmland by consolidating existing landholdings or by extension of farmland on new land, enhancing agricultural productivity, increasing the off-farm income to supplement farming activities, increasing market orientation and value-addition by diversifying production, managing natural resources, adopting developed sustainable technology and post-harvest activities such as processing and trading of farm commodities.

Uttar Pradesh, Bihar, Madhya Pradesh, Odisha, Jharkhand,

Rajasthan, and Chhattisgarh are native to 45% of the population in India. Most of the poor people living in these rural areas belong to SC and ST. Enhancing agricultural productivity is the only sufficient tool to accelerate most poverty reduction around the world.

Farmers' welfare policy approaches

Farmers' aim is to generate income and make profit to meet living expenses, cover social welfare needs and build assets for their families. Farmer's welfare is defined as a condition of general interests in farmers, where farm households are supported by the income of their own farm or non-farm, and social security support to satisfy social, psychological, and economic needs. It provides a guarantee to earn adequate income. The farmers' welfare programs in India are listed in Table 4. Main aim of the policy programs is to increase the productivity and income earnings of farmers in India.

Pradhan Mantri Fasal Bima Yojana (PMFBY): This is an insurance scheme to ensure protection for notified food crops, oilseeds and annual horticultural or commercial crops. Under this insurance, the premium paid by farmers in *kharif* and *rabi* for food crops are 2% and 1.5% of sum insured, respectively. But, the same for horticultural crops or commercial crops is 5%. PMFBY provides a fully insured amount to the producers against crop loss from

Table 3. Top 5 state wise operational holders in India

State	Marginal (<1 ha)	Small (1–2 ha)	Semi-Medium (2–4 ha)	Medium (4–10 ha)	Large (>10 ha)	All holdings
Uttar Pradesh	19,099,828	3,008,403	1,313,695	376,790	22,909	23,821,625
Bihar	14,970,585	943,796	414,015	81,408	3,089	16,412,893
Maharashtra	7,815,823	4,339,259	2,327,023	733,619	69,715	15,285,439
Madhya Pradesh	4,834,531	2,724,684	1,674,301	706,734	62,885	10,003,135
Karnataka	4,767,132	2,213,732	1,192,724	451,445	55,706	8,680,739

Source: Ministry of Agriculture and Farmers' Welfare, Government of India.

natural calamities.

Soil health card scheme: This scheme enables the producers to employ a recommended dosage of nutrients for the production of agricultural crops and enhancing soil fertility and health.

Pradhan Mantri Krishi Sinchai Yojana (PMKSY): This scheme is to conserve water and soil through good management agricultural practices and ensures desired prosperity of rural people. This vision is to ensure access to some means of protective irrigation to all agricultural farms in India to produce 'per drop' more crop.

National Agriculture Market (e-NAM): The main aim of e-NAM is to usher reforms in the agri-marketing sector and promote online marketing of agricultural products across the country and provide maximum benefit to the farmers. e-NAM helps to reduce the number of middlemen, fascinate modern private investments in the agricultural market, modernize value-chain, and also ensure a better deal for the producers.

Farmer Producer Organizations

(FPO): A group of farmers, who have interest in pursuing agricultural business activities, are pooled under the FPO. This means that farmers' will have better bargaining power and also better marketing opportunities. This may help to expand the business activities of farmers'. This helps to turn the farmers into businessmen.

Rashtriya Krishi Vikas Yojana: RKVY's main aim is to make farming a remunerative economic activity through strengthening the farmer's effort, promoting agri-business entrepreneurship, and risk mitigation (Ministry of Agriculture and Farmers Welfare).

Sub Mission on Agricultural Mechanization (SMAM): This mission helps to reduce the cost of cultivation and human drudgery besides increasing the productivity and usage of natural resources. SMAM assists in the value and quality addition of agricultural produce.

Price policy (Minimum support price): The price policy of the Indian

Table 4. Farmers' welfare policy programs in India

Farmers' welfare programs	Year	Objectives
Pradhan Mantri Fasal Bima Yojana (PMFBY)	2016	To fully ensure against crop losses
Soil health card scheme	2015	To apply recommended dosage of nutrients for crop production of farmers'
Pradhan Mantri Krishi Sinchai Yojana	2015	To conserve water for ensuring desired prosperity of rural people
National Agriculture Market (e-NAM)	2015	To usher reforms in the agri-marketing sector and promote online marketing of agricultural products across the country
Farmer Producer Organizations	2020	To increase the marketing opportunities and better bargaining power for farmer
Rashtriya Krishi Vikas Yojana	2007	To make farming a remunerative economic activity
Sub Mission on Agricultural Mechanization (SMAM)	2014–15	To reduce the cost of cultivation and human drudgery besides increasing the productivity and usage of natural resources
Price policy (Minimum support price)	1965	To encourage higher investment and production of farmers
Pradhan Mantri Annadata Aay Sanrakshan Yojana (PM-AASHA)	2014	To ensure remunerative prices for the farm commodities
Income support Scheme/ Pradhan Mantri Kisan Samman Nidhi (PM-Kisan)	2018	To offer income support to farmers

Source: Ministry of Agriculture and Farmers' welfare, Government of India.

government seeks to ensure remunerative prices to the farmers for major agricultural commodities with a view to encourage higher investment and production.

Pradhan Mantri Annadata Aay Sanrakshan Yojna (PM-AASHA): The main aim of PM-AASHA is to ensure remunerative prices for the agricultural produce of the farmers' (National Portal of India).

Income support scheme/ Pradhan Mantri Kisan Samman Nidhi (PM-KISAN): The main aim of the PM-KISAN scheme is to offer income support to growers to enable timely access to inputs by assisting their cash needs. This scheme mainly helps people who are highly dependent on agriculture and have poor access to credit facilities.

Farmers' welfare approach

Price approach: Prices have a large impact on the growth of the agricultural sector, and are the main determinant of farmers' income. The important source of increase in income of farmers' is mainly due to the relative rise in farm commodities prices when compared to the non-agricultural commodity prices. Inflation in the agricultural commodity prices helps to twice increase the real farm income of the farmers within a short span of time. Even without an increase in the volume of the output, prices received by farmers for the agricultural commodities were higher than the CPI of agricultural labour, this added to the real income of the farmers'. Successful operations of unified national agricultural markets and market reforms have major scope to raise prices obtained by farmers and increase the farmers' income.

Contract farming assists the growers to concentrate on their production for higher productivity without worrying about post-harvest prices of farm commodities. Private mandi, direct marketing, contract farming, e-trading, single point entry, direct sale to consumers and single trades license are the market institutional reforms in the agricultural sector, which assists to raise the farmers' welfare. MSP and price incentives are helpful in

encouraging the farmers to continue. Increasing marketable surplus ratio indicates the increasing commercialization of Indian farming. For that, it requires a marketing network and marketing infrastructure to assure remunerative returns to the farmers.

Income approach: The need of the hour in Indian Agriculture is to shift farm policies from production centric to income centric. The income approach is mainly targeted to achieve higher productivity, remunerative price on the farmers' produce and reduce the cultivation cost for earning more profits from farming. Infusing technology into the agriculture sector helps raise the income of farmers and also to accelerate poverty reduction.

Sources of income growth for farmers are given here. These have been sourced from Ministry of Agriculture.

- Improvement in resource-use efficiency.
- Savings in the production cost.
- Increasing crop and livestock productivity.
- Improvement in real prices received by farmers.
- Diversification towards high value crops.
- Shift from to non-farm occupations.

Strategies to improve the farmers' welfare: Increasing the market transparency of food and policy response for food security; market centric policies are necessary to increase the income of the farmers. If market reforms of the agricultural sector are implemented successfully, the farmers will fetch better prices for their produce. There is a need to approach better ways to integrate or link small growers into modern value-chain. These may include providing infrastructure facilities to every village in India; ensuring alternate marketing mechanisms as competition to mandis; increasing the transfer of agricultural knowledge to farmers by extension programs. More off-farm employment is necessary to lessen pressure on land.

It is not enough to implement agricultural marketing reforms in the country. Many commission agents

and politicians continue to practice corrupt and restricted trade activities in marketing the product. We cannot achieve the target of doubling of farmers' income until the existence of corrupt officials in society. Hence the agricultural sector in India primarily needs action oriented policies to increase the farmers' welfare. Policymakers must concentrate on income earning opportunities for the poor to speed up the poverty reduction and increase the earnings of the farmers.

SUMMARY

The study shows that if farmers are empowered, the nation would become self-sufficient. This study also revealed the highest percentage share of India's land use to the world was under land area equipped for irrigation, arable land and crop land. The study found that most of the farmers belong to marginal and small categories in India. Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh and Karnataka have the highest number of operational holders in India. The number of small size operational holdings has increased, while medium and large size operational holdings have gone down within the 5 years due to fragmentation of land. PMFBY, Soil health card scheme, PMKSY, e-NAM, FPO, RKVY, SMAM, MSP, PM-AASHA, and PM-Kisan are the currently existing policy programs implemented by India to increase the farmers' welfare. Price approach and income approach are the two important approaches to improve farmers' welfare. Market transparency, market centric policies, basic infrastructure facilities, transfer of agricultural knowledge to farmers, off-farm employment, favourable insurance programs, and delivery of basic services are the main strategies to improve the farmers' welfare. The study strongly suggests implementing the price insurance and price loss program as well as direct income approach.

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