

Agricultural Reforms Issues and Challenges in Punjab

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Abstract

Land is the important resource for food, shelter and clothes. Land is an essential natural resource, both for the survival and prosperity of humanity and for the maintenance of all global ecosystems. The initial years of the 21st century show that small holdings in Punjab agriculture still exhibit a higher productivity than large holdings. These smallholdings however show lower per capita productivity and the incidence of poverty is widespread. Strategies for Indian agriculture and smallholding households should include reducing the inequality in land distribution and promoting off-farm work in the rural areas itself. Demographic pressure has pushed down the land: man ratio to less than 0.2 hectares of cultivable land per head of rural population. It has also progressively pushed down the size structure of land holdings. The farmers are successfully producing crops in spite of many hardships. however all this will change in the coming decades as growing population, further fragmentation, land conversion will be lead to lower productivity, shortage of labour and dwindling natural resources.

Key Worlds: Division and Fragmentation of land, Farm Holdings, Productivity

Introduction

Land is the important resource for food, shelter and clothes. Land is an essential natural resource, both for the survival and prosperity of humanity and for the maintenance of all global ecosystems. It is a basic resource for agricultural production. Land, traditionally used for agricultural purposes, has over the years been fragmented as a regular phenomenon for various reasons. It is also a process of decreasing in the average size of farm holdings; increasing in the scattering of each farmers land; and decreasing in the size of the individual plots in a farm holding (Agarwal, 1972). The term land holding or agriculture holding indicates average size of agricultural land held by the farmers in India the number of small and marginal agricultural land holding in the country known as operational holding has registered a marginal increase in 2015-16 compared to 2010-11 according to the 10th agricultural census this means that there are more people who now on smaller passes of agricultural land.

Land fragmentation refers to the breakdown of the land Holdings to smaller, unviable tracts of land due to inheritance laws. The land belonging to the father is equally distributed among his sons this distribution of land does not a collection or consolidated one but its nature is fragmented.

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In a regional economy faced with stagnation of alternative employment opportunities, the small and medium farmers are forced to continue to cultivate despite repeated crop failures (Rao and Suri, 2006). Also, changing patterns and practices of agriculture initiated by the large farmers are impacting the small and marginal farmers in the rain-fed areas, who started to opt for cash crops and high yielding varieties without sufficiently understanding the accompanying risks (Dave, 2012).

There is no doubt that Punjab farming is capital intensive and agricultural production increase with the use of machinery, high yielding varieties of seeds, pesticides and fertilizers. But the use of technology made agriculture more capital intensive (Singh 2008), which was more in favour of large farmers because only they could easily afford modern agricultural machinery, chemical fertilizers, insecticides/pesticides etc.. This non-affordances in case of marginal and small farmers increased inequality as well as indebtedness in rural areas (Junankar, 1975). Inequality increased not only in farm income and land holdings but in other kinds of assets too. Modern agricultural machinery, chemical fertilizers, insecticides/pesticides etc. have benefited the large farmers more. Small and marginal farmers continue to conduct their agricultural activities with the traditional methods. New technology being capital intensive, so marginal and small farmers are unable to spend money on irrigation, machinery, fertilizers and better quality seeds. This disability of small and marginal farmers has pressed them into more poverty and indebtedness, along with increasing inequality among different strata of farmers. At present farm productivity is stagnate thus rate of return from agriculture is decreasing.

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agriculture and smallholding households should include reducing the inequality in land distribution and promoting off-farm work in the rural areas itself.

Data:

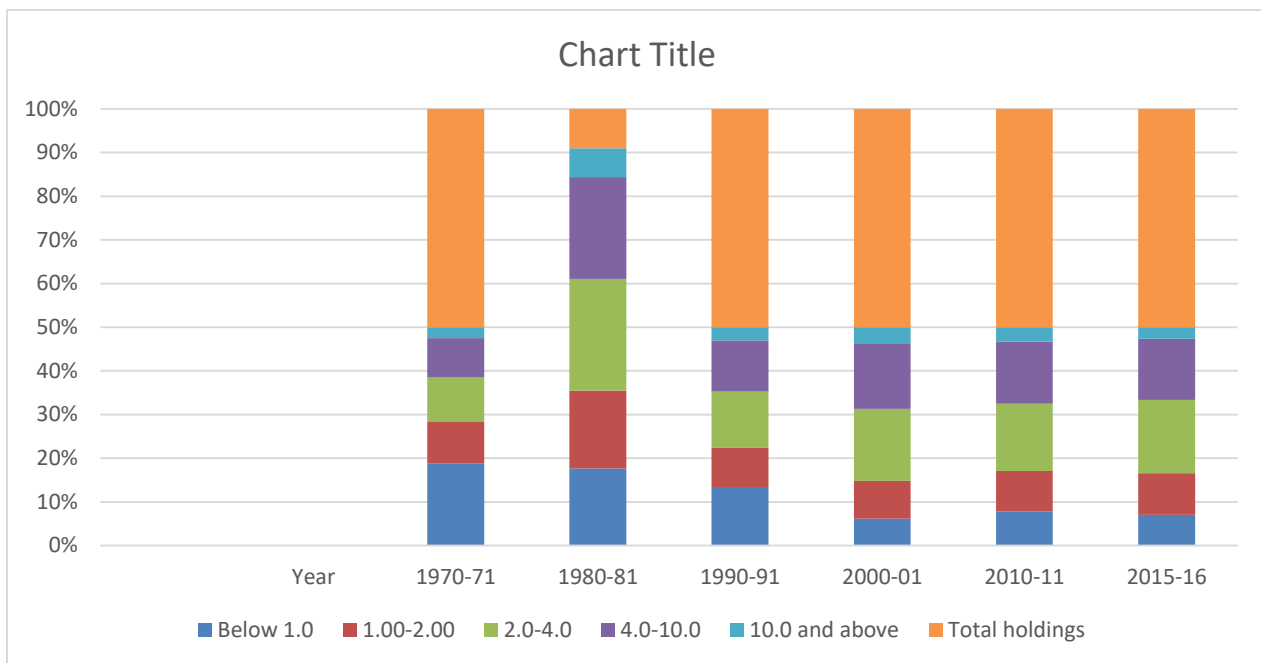
In this study, the secondary data was used from the Statistical abstract of Punjab. Accordingly, groups of farm holdings were constructed to bring out the size ranges of marginal (< 1 ha), small (1-2 ha), semi-medium (2-4 ha), medium (4-10 ha) and large (10 ha and above) using the cube root method (Singh, Ravindra 1975).

Table1: Number of farm holdings by size groups in Punjab

(In hectare)

Year	Marginal	Small	Semi-medium	Medium	Large	Total holdings
1970-71	517568 (37.63)	260083 (18.91)	281103 (20.44)	247755 (18.01)	68883 (5.01)	1375392 (100.00)
1980-81	198060 (19.42)	199368 (19.54)	287423 (28.18)	261201 (25.61)	73940 (7.25)	100992 (100.00)
1990-91	295668 (26.47)	203842 (18.25)	288788 (25.86)	261481 (23.41)	67172 (6.01)	1116951 (100.00)
2000-01	122760 (12.31)	173071 (17.35)	328231 (32.91)	300954 (30.18)	72356 (7.25)	997372 (100.00)
2010-11	164431 (15.62)	195439 (18.57)	324515 (30.83)	298451 (28.36)	69718 (6.62)	1052554 (100.00)
2015-16	154410 (36.5)	207440 (20.63)	367940 (25.39)	305220 (14.28)	58010 (1.58)	1092710 (100.00)

Note: The figures shown in parentheses denote the percentages.



Number of total farm holdings has declined during 1970-71 to 2015-16 with some ups and downs in between. Share of different size groups has also changed during the same decade. Total number of farm holdings was 1375392 in 1970-71. In these holdings 37.63 per cent holdings were of marginal size and 38.45 per cent holdings belong to medium size category. Share of marginal size class decreased to 19.42 per cent in 1980-81 from 37.63 per cent in 1970-71. It increased to 26.47 per cent in next decade but again decreased drastically to 12.31 per cent in 2000-01. Finally it reached to 36.5 per cent, with a slight increase, in 2015-16 which is less the share of this class in 1970-71. Number of marginal farmer also decreased from 517568 in 1970-71 to 154410 in year 2010-11. Share of small sized farmers increased with some variations during 1970-71 to 2015-16 but there actual number decreased from 260083 to 207440 in the same period. Number of semi- medium sized farm holdings was 281103 in 1970-71 which was 20.44 per cent of total farm holdings. In 2015-16 share of semi-medium sized holdings was 25.39 per cent of total operational holdings and actual number was 305220 with a slight negative change from previous given year 2010-11. Share of medium size class was 18.01 per cent in 1970-71 which decreased in 2015-16 but size of farm holdings was increased during 1970-71 to 2015-16. The per cent share of large farm holdings was 5.01 in 1970-71 which was remained almost same in 1980-81 and 2000-01 which is less more than half share 1.58 in 2015-16 to 1970-71.

The information presented in the previous section on fertiliser use, irrigation, crop intensity, and technology clearly indicate that all of them decline with an increase in farm size – lower

the size of holding, higher was the use of inputs, crop intensity and coverage under HYVs, reflecting technology. Obviously, the greater use of these factors would result in higher productivity, and those farm categories with the higher value of these factors are also expected to realise higher productivity.

Challenges posed by land fragmentation:

- Sub-division and fragmentation of the holding is one of the main causes of our low agricultural productivity and backward state of our agriculture. A lot of time and labour is wasted in moving seeds manure, implements and cattle from one piece of land to another.
- Irrigation becomes difficult on such small and fragmented fields.
- Further, a lot of fertile agricultural land is wasted in providing boundaries. Under such circumstances, the farmer cannot concentrate on improvement.
- The farm mechanization cannot be applied in small land Holdings.
- The shrinking of productive agricultural land and land base being utilised for non-agricultural purposes also make the crisis of fragmented land holding multi-dimensional.
- Producers with small holding also often face problems due to inefficiencies in transporting their produce leading to increased dependence on middleman. Therefore, there is loss of income which become the middleman's commission.

Measures needed:

To ensure farmers-centric Agricultural Development, land consolidation efforts for good quality and efficient farming need to be undertaken.

- Cooperative farming Cooperative farming is a method where in farmers pool their resources in certain areas of Agricultural activity for mutual benefits.
- Contract farming and collaborative farming initiatives: though contract farming does not directly help in preventing fragmentation, the need of contractual requirements can be a tool for farmers to collaborate for joint cultivation.
- NGOs, farmer associations and the extension wing of the agricultural ministry at the grass root level should educate small and marginal farmers on the benefits of land consolidation which has which will reap benefits in scaling up of their operations and increasing profitability.

- Punjab has a robust and effective Panchayati Raj system that is an institutional forum for undertaking development projects. Pilot study of collective farming structured and monitored by the panchayats can be undertaken at various Grams and Jila Parishad levels.

Conclusion

While Punjab agriculture has shown resilience to many shocks that penetrated into the world in the last decade, the farmers are successfully producing crops in spite of many hardships. However, all this will change in the coming decades as growing population, further fragmentation, land conversion will lead to lower productivity, shortage of labour and dwindling natural resources.

These may put us back in the grip of a perennial food crisis. There is, therefore, a great responsibility on the farming community and the government alike to realise this future shock and take proactive steps to avoid such crisis. Consolidation is one such solution theme.

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