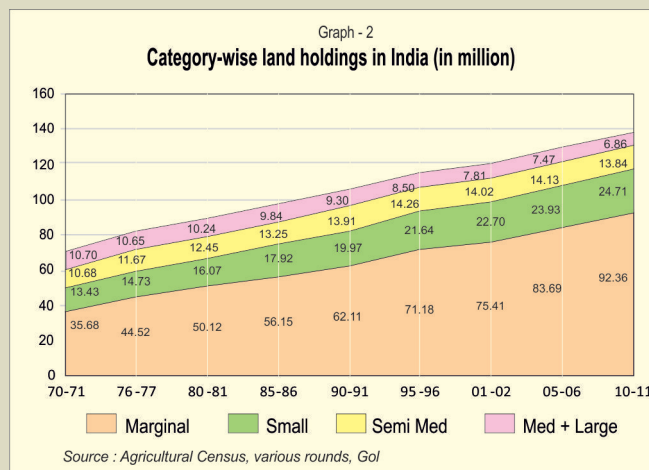


## Agricultural Land Holdings Pattern in India

The last four decades has witnessed a sharp decline in the average size of operational land holdings in India. This is reflective of the immense population pressure on the limited land resource available for cultivation. This issue of “NABARD Rural Pulse” attempts to capture the challenges posed by declining land holdings in the farming hinterlands of the country. It attempts to draw a few inferences based on these trends and proposes a few policy options that are available for consideration.

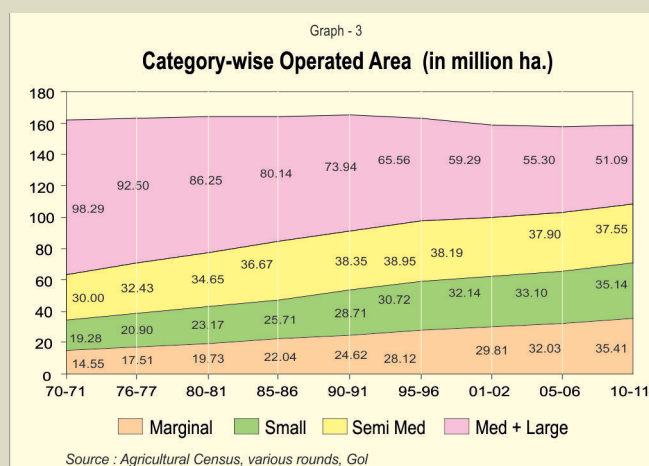
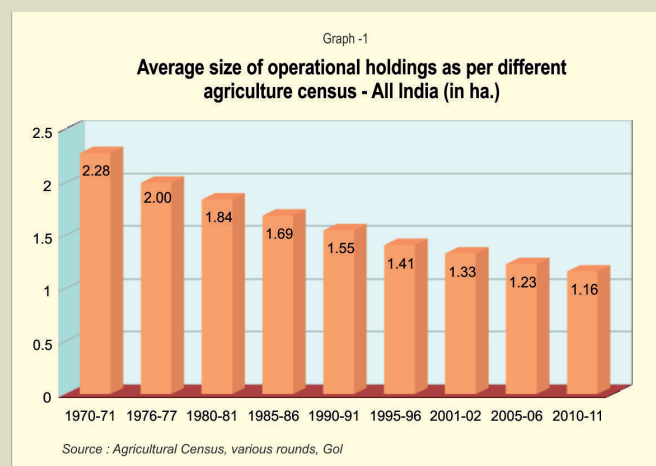
This brief looks at the trends and patterns in average size of land holdings. The average size of operational land holdings has reduced by half from 2.28 ha in 1970-71 to 1.16 ha in 2010-11 (Graph 1). Consequently, the number of land holdings in the marginal and small categories have swelled by 56 million and 11 million respectively, during the same period (Graph 2). The size of the land holdings has implications for investments in agriculture, its productivity, farm mechanisation and sustaining farm incomes itself.

Land holdings in the marginal category (less than 1 ha.) constitute 67 per cent of the operational holdings in the country (2010-11). In terms of area operated, the share of marginal holdings has doubled to 22 per cent (2010-11) from a mere 9 per cent (1970-71). Similarly, the share of (operated area under) small farm holdings (1 to 2 ha) increased from 12 per cent to 22 per cent during the same period (Graph 3). Small and marginal holdings together, constitute 85 per cent in terms of number of operational holdings and 44 per cent of the operated area in the country (Graph 5 to 8, page 2). Thus, over the period, the marginal category has emerged as a distinct and dominant class by itself with its average size dwindling to a mere 0.38 ha. (see Table).



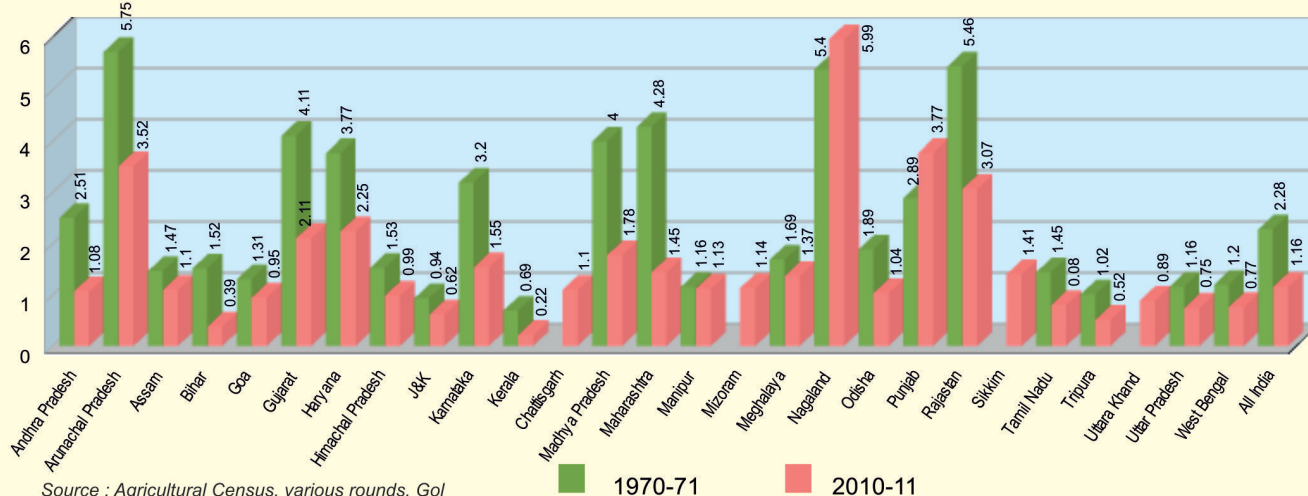
Category wise average size of holdings - All India ( in ha)										
Category of Farmers	1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2001-02	2005-06	2010-11	% Change#
Marginal (less than 1 ha)	0.41	0.39	0.39	0.39	0.4	0.4	0.4	0.38	0.38	-7.89
Small (1.0 to 2.0 ha)	1.44	1.42	1.44	1.43	1.44	1.42	1.42	1.38	1.42	-1.41
Semi-medium (2.0 to 4.0)	2.81	2.78	2.78	2.77	2.76	2.73	2.72	2.68	2.71	-3.69
Medium (4.0 to 10.0)	6.08	6.05	6.01	5.95	5.9	5.84	5.81	5.74	5.76	-5.56
Large (10.0 and above)	18.07	17.57	17.38	17.19	17.3	17.21	17.12	17.08	17.38	-3.97
All Groups	2.28	2.00	1.84	1.69	1.57	1.41	1.33	1.23	1.16	-96.55

Source: Calculated from Agricultural Census, various rounds, Gol  
#: 2010-11 over 1970-71



Graph - 4

## Average Size of Land Holdings- State-wise (in ha.)



This doubles up the challenge of making farming on these fragmented pieces of land gainful, if not viable. This calls for innovative solutions in terms of production, marketing and access to various markets.

## Average land holding size - State-wise Analysis

The declining trend of average size of land holding at the all India level conforms to all states except

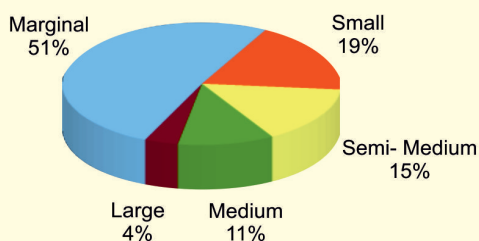
Nagaland and Punjab. However, the intensity of reduction varies across States. In Bihar and Kerala, the average size of holding fell by more than three times during the last four decades, whereas in Andhra Pradesh, Karnataka, Madhya Pradesh and Maharashtra, it has reduced by more than two times (Graph 4).

During the same period, the average land holding size increased in the marginal farmer category in

## Land Holding Categories - Share (%)

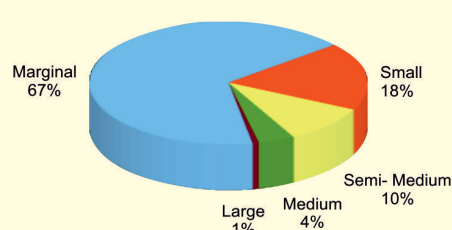
Graph - 5

### Share in Operational Holding (1970-71)



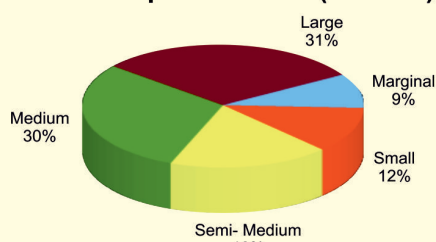
Graph - 6

### Share in Operational Holding (2010-11)



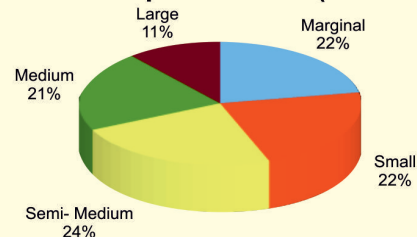
Graph - 7

### Share in Operated Area (1970-71)



Graph - 8

### Share in Operated Area (2010-11)



Together, marginal (<1 ha) and small (1-2 ha) farmers operate 44% of the cultivated area in the country (2010-11).

Source: Agricultural Census, various rounds, GoI



Himachal Pradesh, Odisha, Punjab and West Bengal. This needs to be probed further as it confronts the logic of increasing fragmentation of land consequent to population pressure on it.

In the small farmer category, the average size of holding has increased in Odisha, Punjab and West Bengal. In the large farmer category (more than 10ha.), the average size of holdings has increased in the States of Arunachal Pradesh, Assam, Gujarat, Haryana, Kerala, Odisha, Tamil Nadu and West Bengal between 1970-71 and 2010-11.

## Implications

The increase in the average size (of land holding) in the large farm category is perhaps easier to explain than the increase in average size in the marginal and small farm category particularly in Odisha, Punjab and West Bengal. Is this an indicator of consolidation of land holdings happening in these select States? Does this also signal that consolidation is happening through the lease market route?

The average size of large category land holdings indicate that huge potential exists to scale up agriculture wherein corporatisation of agriculture can be an independent intervention that can trigger the sector. However, more studies and attention need to be drawn to this aspect.

In Odisha and West Bengal, out of the five land size categories, in four categories the average size of holdings has increased between 1970-71 and 2010-11 (only in 2 to 4 ha. and 4 to 10 ha. in Odisha and West Bengal, respectively the average size has declined). Certainly, this is an indicator that in both the States, the dynamics of the land market is working very differently compared to other States.

The average size of land holdings for marginal and small category in Punjab has increased in the period. This has been reflected in the increase in the overall average size of holdings in the State (2.89 to 3.77 ha.). Given that Punjab is predominantly a progressive agricultural State, the changing positive signals (in terms of increase in average size of holdings) needs to be probed further to appreciate the issue.

## Changes in Operational holdings and area operated

Though the increase and/or decrease in the operated area and operational holdings gets reflected in

the average land holding size, a few interesting observations emerge, once we analyse both the parameters separately.

The total number of operational holdings increased from 71.01 million (1970-71) to 137.76 million (2010-11) holdings. The total operated area across land size categories decreased from 162.31 million ha. in 1970-71 to 159.18 million ha. in 2010-11, i.e. suggesting a total of 3.13 million ha has gone out of cultivation. It is vital to recognise that if available fertile lands go out of cultivation especially when the demand for food grains are expected to peak to 307 million tonnes by 2020 from the existing level of 245 million tonnes one would be left with limited options. States of Arunachal Pradesh, Bihar, Goa, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu and Uttar Pradesh have experienced a decline in operated area, whereas it has increased in States of Andhra Pradesh, Assam, Haryana, Himachal Pradesh, Karnataka, Manipur, Meghalaya, Nagaland, Rajasthan, Tripura and West Bengal resulting in a net reduction at the All India level.

In Punjab, there has been a decline of 24 per cent in the total operational holdings in the last four decades. The marginal and small category holdings decreased by 68 per cent and 25 per cent, respectively in the State. Thus the number of marginal holdings decreased quite sharply in the State during the period. Interestingly, the data further reveals that though there was a decline in the marginal category operational holdings between 1995-96 and 2001-02, since 2001-02, there has been a steady increase in the number of operational holdings in this category. The last four decades also saw a decline of 55 per cent and 28 per cent in the area operated by marginal and small farmers in Punjab. Thus, the dynamics of the land market has undergone a change in Punjab over the last decade.

The number of operational holdings in the small farmer category decreased in Bihar, Kerala and Odisha between 1970-71 and 2010-11. Analysis also reveals that in the case of both Bihar and Kerala, there was a decrease in this category between 2001-02 and 2005-06 and the trend got intensified between 2005-06 and 2010-11. However, for Odisha,



the decrease has only occurred during 2005-06 and 2010-11. For these States, to a large extent, this can be explained by the huge increase in the number of operational holdings in the marginal category in percentage terms.

In Nagaland too, in the marginal category, there has been a decline in operated area and number of operational holdings.

In Goa, across land size categories, there has been a decrease in the operational holdings and operated area during the period 1970-71 and 2010-11. This is reflective of the economy in Goa which is heavily skewed in favour of the Service (Tourism) sector. Thus, the case of Goa is not comparable with other States where there has been a decline.

## What policy options exist ?

(a) The tenancy laws as they exist need to be tuned to current realities including the reducing average size of holdings. The tenancy laws presently do not adequately cover the rights of the owner and this is one of the major factors inhibiting the emergence of vibrant land lease markets. In States like Punjab, there are visible traces of reverse tenancy which also need to be taken into account. The existence of a vibrant lease market would help in tiding over the problems of reducing average size of land holding, absentee landlordism, reverse tenancy problems, etc..

(b) The declining average size (1.16 ha.) of land holding raises concerns for viability of such small

farm holdings. This aspect gets more pronounced in the case of marginal farms where the average size is a mere 0.38 ha., furthering the concerns of investments and its viability. One plausible solution therefore, to confront the challenge, is collectivisation; which could perhaps attract private investment flow into agriculture. However, forming and nurturing collectives (groups) has to be done with caution not merely for the costs involved in forming such collectives and groups, but also the scale that is needed. Policy needs to bring about clarity on these aspects viz; the costs likely to be involved and the agencies suitable for this task.

(c) The trend also brings to focus marginal category of farmers as a separate and independent category forming 67 per cent of the operational holdings. Perhaps the time has come to look at this category distinctly as separate from small farmers (1-2 ha.) and devise interventions be it for production, marketing or access to various markets. Producers' Organisations, JLGs are all offsets of this latent need to collectivise.

(d) Farm mechanisation suited to the needs and requirements of marginal and small farmers is required. Obviously, this calls for supporting farm mechanisation which is in tune with the needs of small farm implements, machines, etc., and encouraging joint use or custom hiring of machinery. This is perhaps a way to make farm investments viable in a scenario of reducing average size of agricultural holdings. Policy needs to orient itself towards these developments.

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Prepared by Nirupam Mehrotra, Assistant General Manager, Department of Economic Analysis and Research, NABARD, Head Office: Plot No. C-24, 'G' Block, Bandra-Kurla Complex, Bandra (E), Mumbai- 400051.

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www.nabard.org. email ID : dear@nabard.org