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Changing Structure and Organisation of Agriculture and Small Farmers in India

Sukhpal Singh*

Since most of the farm operators have been small and marginal farmers in India, the growth in farm sector is mainly determined by the role of the state - both in capital financing as well as incentive structure created. But, now, there is plenty of distress among small and marginal farmers both in agriculturally progressive as well as backward regions, as manifested in farmer suicides. The areas which have achieved a greater level of modernisation and commercialisation of agriculture have also witnessed suicides by farmers. The viability of the small holdings is an important issue and promoting agricultural commercialisation and diversification towards high value crops is considered to be one of the means through which this can be achieved. This paper examines the nature, problems and significance of small farms in India particularly under commercial agriculture. It highlights the state of small farms and the difficulties of dealing with commercial and diversified farming by small farmers and the changing structure of agricultural sector in terms of contract farming and its implications for the small farmers. The study focuses on the mechanisms for facilitating small farmer participation in commercialised agriculture. The paper concludes by outlining some important policy and institutional measures for ensuring small farmer participation in commercialised agriculture.

Dynamics of Land Ownership Pattern in Rural Sector

E.R. Patil[†], V.N. Autkar[‡] and S.C. Nagpure[†]

The ownership of land and its distribution pattern have a direct bearing on distribution, accumulation and generation of wealth, particularly in an agrarian country like India where agriculture contributes approximately 28 per cent of the national product. In the present paper an attempt has been made (i) to study the structural changes in the ownership and distribution of land holding over time and (ii) to analyse the land transfer mechanism in Maharashtra State. The study covers a sample of eight broad size groups of cultivators in a typical ryotwari village, viz., Palso (B.K.) from Akola district of Maharashtra. Secondary data available in tehsil office and village revenue office were collected for the period from 1950-51 to 2000-

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2001. The study reveals some structural changes in the number of khatedars and average size of holdings over the study period. The number of khatedars increased nearly four times and the population increased nearly three-fold over the period. The share of large farms, i.e., 8-12 hectares size groups indicated a declining trend both in total number as well as total area. Structural changes occurred due to law of inheritance depicting a declining trend, both in respect of number of cultivators and the area affected by it. This was mainly because of breaking up of joint families. The purchase transaction is observed to decrease over the period. This was mainly due to the non-market forces which influence the structural changes in agricultural holding. It was concluded that, market transactions were declining in importance due to non-market forces such as inheritance, partition deed, gift deed, will deed transaction, etc. which influenced along with land reform forces. Among the land sale pressure groups, consumption pressure was the most dominant factor, i.e., 47.50 per cent followed by investment pressure (40 per cent) and managerial pressure (12.50 per cent). Among the buyer class, most of the buyers belonged to smaller size groups. As regards the purchase of land, about 47.50 per cent cultivators purchased land for self cultivation, about 30 per cent of the buyers purchased the land for availing tax free benefits under the Income Tax Act. The study concludes that the success of land reforms depend upon effective combination of technological, institutional and organisational factors in the context of changing agrarian structure in the country.

Land Transactions in Canal Irrigated Area: Some Field Level Realities

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The present study aims at examining the issues in the context of emerging land lease market with reference to canal irrigated area of Bilha block of Bilaspur district of Chhattisgarh. A total of 115 households were selected randomly using the survey method. The study revealed that the average size of holding ranged from 0.58 ha to 5.84 ha between the different farm size group of farms. Leased-in area per household was maximum, i.e., 0.50 ha in the case of marginal farms and minimum, i.e., 0.13 ha, in the case of large farmers. Canal is the major source of irrigation which provides one or two times life-saving irrigation to *kharif* crops only. Family size has significantly influenced the leasing-in activity in the case of landless households. However family size has adversely affected land leased-in activity in the case of small farmers. Owned land of the farmer also influenced land transactions activities. Landless and the marginal and small farmers were engaged in leasing-in activity. The main reason of leasing-out of land were lack of manpower particularly in peak period of crop production, absenteeism, inferior quality of land or unsuitable location

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which was not preferred by richer tenants. The lessees were found to lease-in land for their subsistence and family labour employment. Majority of the farmers were involved in agricultural activities which is the major source of income and employment. Most of the transactions of leasing was on crop sharing basis and the duration of leasing contract was for one year duration. The degree of exploitation is more in crop sharing system as compared to fixed kind and money contract. In order to keep the landless, marginal and small farmers confined to agriculture, it is important to reorient micro finance credit policy alongwith the incentive structure from state department of agriculture. The traditional practices of crop sharing have strong roots in the feudal system and it is difficult to deviate. However, the informal arrangement between the owner and lessees needs balanced intervention through informal collective action at the village and community level.

Share Tenancy in Assam: Analysis of Factors and Economic Performance of Share Tenants

R.N. Barman and P.K. Das[†]

Analysis of factors influencing share tenancy and economic performance of the share tenants is important as still a sizeable portion of the rural farm population is engaged in share tenancy. The present study examines some of these aspects in the state of Assam. The objectives of the study were to identify and analyse the pattern of crop sharing and economic performance of share tenants. Nalbari district of Assam was purposively selected for the study. Data were collected from a sample of 50 share tenants from Stratum I (farmers with holding upto 2.02 hectares) and 45 share tenants from Stratum II (from 2.03 to 4.04 hectares) selected randomly from six purposively selected villages of two contiguous development blocks in the district during the year 2003-04. Paired t- test was used to test the difference between the owned and share cropped plots in terms of resource allocation and productivity level. In Assam share tenancy is more prominent among small and medium size group of farmers. The main factors influencing share tenancy, from the point of view of the tenants are insufficient land to meet the farm family need and surplus labour. More than sufficient land, labour shortage and management difficulties are the reasons for leasing out the land by the land owners. The existing share cropping arrangement is still a major factor influencing the economic performance of the share tenants. In many cases the tenants discriminate between their owned plots and sharecropped plots. This discrimination regarding resource utilisation and management need to be eliminated. The share tenants mainly prefer output sharing ratios on a 40:60 and 25:75 basis. The farmers remain invariant between owned and share cropped plots in the case of fixed rented plots and in the case of plots with output sharing ratios 50:50.

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To avoid any possible litigation arising out of land tenancy Act, verbal agreements are still determining the term of share tenancy. Co-ordination between the lessor and lessee regarding the sharing of costs of cultivation and other physical amenities in the share cropped plots are needed to improve the economic performance of the share tenants. The land tenancy Act should be such as to harmonise the agrarian relations.

A Study on Land Market Using Hedonic Model

J.S. Amarnath*

A study on land market using hedonic model is attempted in the paper in three situations of good, average and poor land quality and a sample of 41, 43 and 67 farmers were randomly selected from each of three situations in North-eastern zone of Tamil Nadu. The semi-logarithmic functional form (logarithm in Y) was employed in all the three situations. The hedonic model analysis revealed that the household income had positive relationship with land value in all the three situations. Land quality and distance of the farm from the industry were the significant factors influencing land value in average and poor land quality situation. The presence of fallow land had a negative influence on land value in average land quality situation. Value productivity influenced the land value in poor and good land quality situation.

Class Composition of Rural Households, Employment and Tenancy in Haryana

R.K.Khatkar, J.C.Karwasra, Kuldeep Kumar and O.P.Chhikara[†]

An attempt has been made to examine the class composition of rural households, tenancy status, wages and off-farm employment at a micro level. Based on the primary data collected from 200 respondents scattered in 10 villages of Sirsa and Bhiwani districts of Haryana and secondary data taken from NSS and Agricultural Census reports it was observed that 72.90 per cent of the selected households in the ten selected villages were cultivators, followed by agricultural labourers (18.86 per cent), rural artisans (2.97 per cent) and others (5.27 per cent). It indicated that more than 90 per cent of the households were cultivators and agricultural labourers which are directly or indirectly dependent on the agricultural sector for their livelihood. The percentage of irrigated area in the selected villages was found to be 49.53 per cent. Higher proportion of cultivators and agricultural labourers indicated that the over-dependence of households on agriculture still prevails in the rural areas. In the study area higher percentage of unirrigated land was due to the deficiency of irrigation

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water. The prevailing wage rates were also found to be lower than the minimum wage rate prescribed by the government. The land holding is shrinking day by day as the proportion of marginal and small holdings was found to be more than the large holdings. The higher employment in crop enterprise speaks of the lack of other employment opportunities in the rural areas. This was further testified by lower proportion of off-farm employment in the selected villages (ranging between 2 to 19 per cent of the rural youths). The tenancy pattern indicated preference for fixed money income rather than share and fixed produce. The reverse trend of tenancy by leasing-out land by the marginal and small farmers indicated the non-viable holdings owing to diseconomies of scale as well as higher cost of cultivation. The study recommends creation of other avenues for gainful employment in the rural areas for such large number of displaced work force. Commercial dairying, bee keeping, poultry farming, mushroom cultivation, floriculture, horticulture, etc., must be encouraged through development of the required marketing infrastructure.

Emerging Scenario of Land, Labour and Credit Lease Market and Its Interlockings: A Study of Uttar Pradesh Agriculture

R.B. Singh and R.N. Yadav*

The paper attempts to examine the pattern of leased-in and leased-out land in different regions of Uttar Pradesh. Kanpur district of Central Uttar Pradesh was purposively selected. The study is based on the cases of land-leasing noticed in the cluster of the villages selected under the Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops during the year 2003-04. The results based on the simple tabular analysis indicated that at the overall level, majority of the tenants (67.46 per cent), preferred to pay the land rent in cash followed by share cropping (22.56 per cent), wherein the important cash inputs such as seed, fertilisers, plant protection chemicals were shared by the land-leasers for particular crop by mutual understanding and rent in kind of about 17-22 per cent. There are no significant differences observed in the land lease market with regard to different categories of farmers of all size groups engaged in leasing-in and leasing-out activities. The leasing-in and leasing-out activities for different categories of farmers mainly depended on owned land, size of family, availability of family labour and educational level of the farmers; family size and the availability of family labour played an important role for leasing land. In the case of marginal and small farmers, owned land and educational level adversely affected the leasing-in of land. Land lease activity also depends on the level of agricultural development. In the least developed region, leasing activity was dominated by the marginal and small farmers

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whereas in the intermediate and developed regions leasing activity was on the decline among the landless, marginal and small farmers. It was noted that the stage of development of the region influences the occupational background. In the least developed region, service sector was predominant whereas in the relatively developed region farming dominated over services as occupation. The degree of exploitation is more in the case of payment of rent in kind or crop-sharing as compared to cash payment. The practices of tenant cultivation cannot be stopped from practical standpoint. It would however be feasible to eliminate the interlocking elements by strengthening the process of social network and infrastructure for agriculture. Although the concept of exploitation of tenants has its real implication in the land lease interlocking in Uttar Pradesh agriculture, yet its adverse impact on tenants, production and incomes is not very clearly discernible in our study. The economic status of tenant cultivators can be improved by providing them adequate irrigation facilities along with regulated tenancy.

Changing Agrarian Relationships in Rural Areas: A Case Study

R.D. Khodaskar[†]

A sample of fifteen farmers was selected randomly from Avasari Bk. village of Ambegaon taluka in Pune district of Maharashtra with a view to examining the changes in the land-lease market. The reference period of the study was 2004-2005. The land under tenancy formed 28 per cent in regard to perennial sugarcane crop. The distribution of rented-in land by size class of operational holdings shows that the small and marginal farmers had the largest share, accounting for nearly 65 per cent. The rest was held mainly by the middle size-group of farmers. It is further revealed that the proportion of leased-in land to the total operated land was 49 per cent, 22 per cent and 23 per cent among the marginal farmers, small farmers and middle farmers respectively. In the *rabi* season the leased-out area formed 29.96 per cent of the total. The large size class accounted for nearly 60 per cent of the total leased-out land. The share of middle size-class was 44 per cent.

There were two types of tenancy, namely share cropping on a 50:50 basis and fixed kind rent prevalent in the sample village. The rent under fixed kind system per hectare during perennial sugarcane is the predominant form of tenancy arrangement. Sharecropping is the predominant form of tenancy in the *rabi* season accounting for about 80 per cent and rest by the fixed kind rent system. The return on per hectare of land under perennial crops was higher in the case of fixed kind rent system. In the case of sharecropping, all the costs, except labour were shared equally by the tenant and the owner, whereas in the case of fixed kind rent system, the tenants incurred all the costs except the land revenue. Thus, the substantial farmers mostly belonging to

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the higher size classes who were endowed with resources preferred the fixed rent system and enjoyed higher return. On the other hand, the lessees who belonged to the poor category of farmers had to depend on the landowner for working capital and they preferred sharecropping on a 50:50 basis although it gave lower return. Since the introduction of new technology the lease market had undergone some significant changes and the nature and extent of irrigation were important factors in shaping its character. As between the two systems, the fixed kind rent system was more profitable as the whole of the economic surplus after meeting the cultivation expenses went to the farmers.

Uncertain Water Supply and Changing Agrarian Relations

R. Rajendran*

The paper attempts to examine the general agrarian conditions in a village, Thirvisanallur of Thividaimaruthur taluka of Thanjavur district of Tamil Nadu selected for the study. Further, the paper seeks to study the direction and magnitude of land-leasing of the sample farmers during the last 14 years from 1991-92 to 2003-2004 and the alternative measures taken by the farmers, particularly the marginal and small farmers to meet uncertain water supply. It also analyses the emergence of water market for the marginal and small land holders and their dependence on large land holders and make some policy suggestions to improve the conditions of marginal and small land owners. The study covers 135 sample farmers of the village. It reveals that the farmers slowly lose the water resources first, and they depend on large farmers for the same in the next stage and finally, they lose the land resource to the big land owners. It is concluded from the study that even though there is decline in the share of agriculture in national income, the role of agriculture sector in the national economy is an important one. However, inter-state disputes over sharing the water resources, and changing political-economic policies are gradually affecting the farming communities, particularly the small peasants. At the same time, capable farmers are maximising their own welfare at the cost of the welfare of marginal and small farmers, in an exploitative manner. It is found that gradually production resources of these poor farmers are moving in the hands of big land owners. Hence, effective and proper distributive mechanisms are essential to reduce the widening disparities in this disintegrated society. The study offers some policy suggestions to improve the conditions of farmers from uncertain canal water flow, inequitable distribution of groundwater resources, increased cost and investment on irrigation.

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Agrarian Structure and Occupational Diversification in Rural Karnataka: Emerging Issues

R.R. Biradar and D. Rajasekhar[†]

This paper attempts to examine the agrarian changes led-occupational diversification within and outside agriculture in the state of Karnataka. Specifically, the study (i) examines the trends and pattern of number and area operated by size of land holdings at the state level and in each of the agro-climate zones; (ii) analyse the compositional changes in occupational structure at the state level and in each of the agro-climatic zones; and (iii) identify the important rural non-farm activities in which male and female workers are seeking employment in each of these zones.

The data, collected from Agricultural Census and Census of Karnataka for the period 1970-71 to 1995-96 on agrarian structure in Karnataka, *prima facie*, reveal that there has been a rapid growth in the proportion of small and marginal land holdings. The increase in the proportion of small and marginal landholdings has not been accompanied by a proportionate rise in the proportion of area operated by them. As a result, the average size of landholdings has declined thereby reducing the income earning potential of the small and marginal farmers. At the state level, a rapid increase in the number of small and marginal landholdings was associated with a greater increase in the share of male workers in agricultural wage employment (AWE) and rural non-farm activities (RNFAs), and marginal decline in agricultural allied activities (AAS) during 1981 to 1991. In respect of females, a greater increase took place in the proportion of workers in crop cultivation, followed by AWE, and corresponding decline in RNFAs and AAs during the same period. Among all the RNFAs, the share of male employment is found to be more in services, non-household manufacturing, trade and commerce. In the case of females, non-household manufacturing activities, followed by services, have emerged as important sources of non-farm employment generation. A greater increase took place in non-household manufacturing sector and services, and rapid decline occurred in household manufacturing sector and marginal decline in construction and transport, storage and communication activities during the same period.

Going by different agro-climatic zones, it is found that the arid and semi-arid zones had a lower proportion of marginal landholdings, have had a large proportion of workers in AWE and lower in RNFAs. On the other hand, the coastal and irrigated zones with a greater magnitude of marginal landholdings coupled with relatively smaller size of land, had a lower share of workers in AWE and higher in RNFAs. It is evident from the study that the zones in which land is productive and hence agriculture is more profitable have had a greater share of marginal landholdings, lower proportion of agricultural labourers and greater share of non-agricultural workers.

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Scenario of Leased-out and Leased-in Land in Rajasthan – A Caste-wise Inter Regional Analysis

D.C. Pant, S.S. Burark and C.P. Singh*

An attempt has been made in this paper to ascertain the extent of land arrangements, estimate the area leased-out and leased-in and its utilisation and also to identify the reasons for leasing-in land among different caste groups. The state has been divided into nine agro-climatic zones which are widely used for devising agricultural development strategies. In all 50 villages were selected from these nine zones. Detailed information on the selected villages were collected from those who either leased in or leased-out land. The data were collected for the agricultural year 2001-02. The study revealed that in Rajasthan of the total lessor households 70.90 per cent belonged to General Caste (GC), followed by Other Backward Class (OBC), Scheduled Caste (SC) and Scheduled Tribe (ST), respectively. Across the zones, the maximum number of lessors belonged to GC in all the zones. The higher tendency of leasing-in by GC was probably due to their prosperity and less own work force in comparison to available land with them. The minimum number of lessors belonged to ST in all the zones except in zone II and VIII. Of the total number of lessees, maximum number belonged to GC followed by SC, OBC and ST. In most of the zones, the percentage of leased-in land by ST was very less except in zone VIII which is a tribal dominated zone. SC and OBC have a significant role in leasing-in land in most of the zones. In general, caste lessees accounted for less than one-third to half of lessors and contrary to this in the rest of the caste groups lessees were more than lessors in all the zones except in few zones for different caste groups. GC leased-out 72.45 per cent land and leased-in only 34.21 per cent land, SC leased-out 7.18 per cent and leased-in 28.90 per cent, ST leased-out 2.65 per cent and leased-in 9.30 per cent and OBC leased out 17.63 per cent and leased-in 27.59 per cent. Thus, the GC leased-out more land as compared to leased-in land and contrary to this all the other castes leased-out less land compared to leased-in land. The same picture of leasing-out and leasing-in land by all the caste groups was observed in all the zones. The land leased-in by lessees of various caste groups was mainly utilised in both the seasons in all the zones except zone I which is an arid zone. Per lessor area leased-out is more than per lessee area leased-in by GC and OBC while it was reverse in SC and ST. More or less, the same picture was observed in all the zones for various caste groups. Two-thirds of total respondents leased-in land as they have bigger family size compared to the land possessed by them, followed by the landless (15.50 per cent), and the respondents who have additional farm resources (12.48 per cent) to earn money. In all the zones, nearly two-thirds of the respondents leased-in land because of less own land and bigger family size.

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Analytical Study of Changing Agrarian Relationship and Land Tenancy in Rural India

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Land ownership provides a sense of security to people in the rural areas and it also determines the economic condition as well as social status of individuals. Indian agriculture is predominated by small and marginal farmers and the agricultural scenario is characterised by the incidence of tenancy, landlessness, high degree of fragmentation and skewed distribution of holdings. The present study has been undertaken with the objectives of investigating the changes in tenancy structure in various states over time, to study the terms of payment for leased-in land in various states and to examine the factors influencing area under tenancy over time. The available evidence over the years indicates that there is an increase in the proportion of wholly owned and self-operated holdings. The types and terms of tenancy decreased in terms of percentage to the total holdings in the country. Moreover, a larger proportion of marginal holdings were wholly leased-in in various states. For the nation as a whole, of the total leased-in area, the largest share was accounted by share of produce, followed by fixed money and fixed produce. The analysis indicated that gross domestic product in agriculture influenced the leased-in area positively, the same was true for proportion of rural population whereas, the extent of poverty had a negative impact on tenancy. This trend signals that the proportion of tenant farmers would be considerably reduced in the near future.

Land Holding Pattern, Social Stratification and Livestock Rearing: The Case of Rajasthan

A. Suresh and D.C. Gupta*

The paper attempts to examine the changes in the land utilisation pattern and livestock composition as well as the inequity in distribution of land and livestock with respect to class and caste composition in rural Rajasthan. The study is based on primary and secondary data. It was observed that the land utilisation pattern has changed through reduction in the area which can be classified under common property resources and increase in the cropped area. The total number of holdings increased from 37.27 lakh to 53.63 lakh with generation of nearly 44 thousand holdings annually with annual marginalisation of nearly 27000 farms. The Gini

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coefficient of land distribution was 0.5928 in 1970-71 and it could improve to 0.5744 only by 1995 indicating little improvement in the skewed land distribution against the marginal and small farmers.

With the sharp increase in the population and decline of the grazeable area, the grazing area available per Adult Cattle Unit (ACU) declined from 2.17 ha in 1972 to 1.79 ha in 2003. The primary data collected from 5990 farmers indicated highly inequitable distribution of land. The number of ACU increased with increase in land size. The landless farmers owned nearly 7.79 small ruminant (SR) per household, thus 6.9 per cent of the total landless farmers accounting for 11 per cent of total SR. The distribution of land holding was highly skewed against the SC/ST population of the society wherein 31.26 per cent SC/ST population accounted for only 14.66 per cent land. The Gini coefficient indicated that the distribution of the livestock is more equitable than that of the land holding among different caste groups. Thus the distribution of livestock played an important role in mitigating skewed distribution of land and stabilisation of income in rural areas of Rajasthan.

Changing Size of Holdings and Implications for Economic Viability – Some Reflections from Himachal Pradesh

K.D. Sharma, Harbans Lal and A.S. Saini[†]

An attempt has been made to study the changes in the size and structure of holdings and suggest ways of achieve economic sustenance among small farmers in agricultural development of the country in general and Himachal Pradesh in particular. The study is based upon both primary and secondary data and pertains to Himachal Pradesh. The primary data for the present study were collected from a sample of 200 farm households adopting different farming systems in low and mid-hill regions of the state. The data were analysed through tabular and statistical method. It was found that over the years the size of agricultural holdings has declined both at the state as well as at national level. The proliferation of small holdings is more in the hilly regions due to limited availability of cultivable land. The average size of holding for all the categories of holdings at the state as well as at country level is declining. The average size of holding in Himachal Pradesh declined by 21 per cent from 1.54 ha in 1980-81 to 1.21 ha in 1990-91. An agricultural holding, on an average, has a tendency to get divided within a period ranging from 12 to 21 years. There is, thus, preponderance of marginal and small holdings accounting for about 84 per cent of the holdings, 45 per cent of the agricultural land and 56 per cent of the irrigated area. However, it was found that the marginal and small farmers were using more fertilisers and farm yard manure per unit of land. The cropping intensity was

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also higher on marginal and small farms as compared to medium and large categories of holdings. This clearly reveals that small holders were better adopters of technology as well as intensive users of land resources. They had also a major stake in the livestock wealth accounting for about 74 per cent of the cows, 71 per cent of buffaloes and 75 per cent of sheep and goats in the state. The trend analysis shows decrease in area under foodgrain crops and significant increase in the area and production of high value crops mainly fruits, vegetables, and livestock products. The micro-level data also supports this tendency. The small farmers were growing more high income generating and labour intensive vegetables and fruit crops and rearing improved milch animals thereby enhancing the land productivity considerably higher as compared to cereal-based farming on large farms. There were various cropping systems and high value enterprises that could promise decent incomes, gainful employment and better livelihoods to small farmers. There is immense scope to diversify agriculture with the inclusion of many profitable enterprises rather than cereal crops only. The cultivation of off-season vegetable crops, rearing of superior breeds of livestock and adoption of ancillary activities can make a small farm profitable, economically viable and sustainable. However this is possible only under given set of production and institutional support like irrigation, efficient marketing, road connectivity and R & D support. The study also supports the argument to impose a floor limit (minimum size) on land holdings to arrest further proliferation of holdings into merely 'toy farms'.