

**IDENTIFICATION OF SMALL FARMERS
WITH PARTICULAR REFERENCE TO
CUTTACK DISTRICT**

Dissertation in part fulfilment of
M. Phil. Degree Course of the

UNIVERSITY OF POONA

Submitted by

RADHAMOHAN MALLIK

Gokhale Institute of Politics and Economics

POONA - 411 004

1978-79

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PREFACE

The evaluation studies of the SFDAs in various parts of the country in the recent past have high-lighted several important issues that merit re-thinking on the part of the policy makers, administrators and economists. The concept of 'Small Farmer' is one of them. The present study attempts to examine various criteria suggested and norms adopted for identification of small farmers over one decade. This study suggests a criterion which is more workable and objective. It is hoped that, this work would provoke further thought on rationalising the concepts and methods in the identification of small farmers. An attempt is made to illustrate the argument for this criterion with the data of Farm Management Studies on Cuttack district for the year 1969-70.

I am greatly indebted to Shri Radhanath Rath, President, Governing Body of my college for having given me one year study leave to pursue my further studies. I am also grateful to my Principal Maj. D. K. Nanda for allowing me to avail of the fellowship.

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(11)

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June 30, 1979

CHAPTER I

SMALL FARMER IN INDIA

After independence, agriculture in India showed considerable growth during the process of planned economic development. More especially, the brighter prospects for agricultural development resulted from the increased production of important cereal crops in the recent past due to the introduction of hybrids and high yielding variety of the seeds. The total production of foodgrains and wheat in particular exhibited remarkable increase with the advent of green revolution. The year 1977-78 gave us a record foodgrains production of 125.6 million tonnes. This really reflects that the sinews of India's agricultural growth are real and strong.

The response of wheat production to the application of new agricultural technology was spectacular whereas it was meagre in case of other crops, particularly rice. The growth of output of these crops between 1950-65 was due to expansion of cultivated area and improvement of cultural practices. There, mainly due to technological reasons, the new strategy had little impact on the output of those crops.¹ On the contrary, between 1965-73, the growth rate fell sharply below the previous period and more especially the growth rate of the output of rice fell further

¹ V.M.Dandekar, (India) - Food Enough or Starvation, Tata McGraw Hill Publishing Ltd., New Delhi, p.53.

(from 3.01 to 1.49) in spite of the spectacular growth rate for wheat (from 3.91 to 12.13).

It is widely accepted that big and medium farmers took the greater advantage of the new situation. The package inputs of the green revolution were essentially capital intensive. Big farmers used to a greater extent their own resources but small and marginal farmers had to depend on borrowed funds. Since, the resource positions of small and big farmers are known to be unequal, the long term investments for irrigation etc. was a remote possibility for them. Thus, the introduction of new technology caused two immediate effects; it strengthened the hands of the traditionally dominant rich land-owning families and created a feeling of discontent and frustration among the small farmers and landless labourers.² If certain immediate measures had not been devised, the gap between rich and poor would have widened causing socio-economic tensions in the rural areas. The Planning Commission observed "the new agricultural technology tends to add a further dimension of disparity between those who have the resources to make use of it and those who have not. There is thus, a danger of emergence of a sharp polarization between the more privileged and less privileged classes in the rural sector, the privilege in this instance relating to the resources and tools of development."³

² V.R.Gaikwad, Small Farmers: State Policy and Programme Implementation, pp.1-2.

³ Government of India, Planning Commission, Fourth Five Year Plan, 1970, p.149.

In the pre-independence period, the nature of the problem of the small farmer was somewhat different from what it is today. In those days, cultivation of land was carried on in vast areas by tenants and absentee land-owners both in zamindari as well as ryotwari area. Hence, the problem of the small farm was looked upon mainly as a tenurial problem.⁴ The solutions thereby were confined to the tenurial reform so as to improve the security of tenure, reduction of rents and distribution of surplus lands among small and landless farmers.

In recent years, after the implementation of land reform legislations in most of the states, the small farm problem has acquired some new dimensions, more especially since the introduction of planning for economic development. Now, the attention is focused on economics of the farming business of small farmer, his costs and returns, his use of inputs and output potential, his total contribution to the total marketed surplus, capacity for saving and investment etc. Therefore, in the post-independence period, these new problems have been added, which have become far too many and call for many sided solutions. Now, it is no longer a tenurial problem but rather a problem of the reorganisation of credit and marketing, provision of inputs like irrigation, fertiliser etc., minimum price for assured

⁴ Sulekh C. Gupta, "Small Farmers in Developing Capitalist Economy - Some Preliminary Problems," Seminar Series VII on Small Farmers, 1968, p.31.

income to farmers, provision of extension services and restriction on purchase of land beyond ceiling fixed for operational holding.

In the traditional pattern of agriculture, the input-output differentials between big and small farmers were almost absent. In fact the small farmer was in a better position relating to production due to the intensive use of family labour as well as greater care of the small farm. Even, in the post-green revolution period, there seems to be no efficiency difference between the small farmer and big farmer since new technology is scale neutral.⁵ But, the overall efficiency of a small farm strategy depends upon whether or not current agricultural practices approximate scale neutrality. In fact, two of the important inputs like hybrid seeds and fertilisers are neutral to scale whereas irrigation and mechanisation are more often scale-sensitive. However, they can be put to optimum use through appropriate institutional-cum-organisational changes to a certain extent, so that production can be augmented. It is a fact that small farmers in the recent past have not benefited from the various schemes implemented for boosting of agricultural production whereas, big and medium farmers got a substantial share due to the schemes like I.A.D.P. Moreover, as regards agricultural financing, cooperative credit movement has taken all necessary initiative to save such farmers from the

⁵ V.S.Vyas, D.S.Iyagi and V.N.Mishra, Significance of the new Strategy of Agricultural Development for Small Farmers, Chapter I, p.2.

clutches of the moneylenders. But it, inspite of its existence since last seven decades, seems to have done very little to ameliorate the economic conditions of the small farmers. The power structure of the rural areas being what it is, the problems of small farmers have been somewhat competing with the big farmers, who are capable of influencing the institutions so as to secure cooperative credit and other benefits. Therefore, the study of agricultural credit constituted by the National Commission on Agriculture has categorised them as the neglected partners in agricultural growth and has recommended the establishment of 'farmers' service society'.

It is a fact that about 62 per cent of the operational holdings in India are distributed in the less than 2 hectares size group of which about 19 per cent are below .40 hectare.⁶ Such farmers subsist at a very precarious level of living conditions due to a large number of economic, geographic and sociological factors. Moreover, the subdivision and fragmentation of holdings with very little improvement in the irrigation facilities, conspire together to perpetuate the poverty of these people.

According to 1970-71, Agricultural Census, in India, there are 70.5 million operational holdings over an aggregate area of 162 million hectares. One half of the total operational holdings in Indian agriculture; about 35.7 million out of 70.5 million, are of a size of less than one hectare of land. Table 1.1 gives

6 N.S.S., 16th Round, No.113, July 1960-June 1961, pp.134-41.

Table 1.1: Size Distribution of Operational Holdings of the Country as a Whole (India)

S. No.	Size group (hectares)	Number of holdings in %	Percentage of cumulative holdings	Operated area in percentage	Percentage of cumulative operated area
1.	Less than 1.0	50.6	50.6	9.0	9.0
2.	1.0 to 2.0	19.0	69.6	11.9	20.9
3.	2.0 to 4.0	15.2	84.8	18.5	39.4
4.	4.0 & above	15.2	100.0	60.6	100.0

Source: All India Report on Agricultural Census (1970-71), p.26.

necessary information about the percentage distribution of holdings over four size groups along with the share of each size group in the total operated area. It is obvious that although small farmers (howsoever we may define them) share in total area is low. They constitute a very large proportion of the farming community. For example (with reference to our Table 1.1), farmers in the size group of 1.0 to 2.0 hectares constitute 19 per cent of the total farmers and operate area of 19.3 million hectares, which is 11.9 per cent of the total operated area. On the contrary, 30.4 per cent of the holdings are owned by cultivators of 2 hectares and above and they operate about 79.1 per cent of the total area. It seems thereby,

that their importance relating to the number of holdings is neither insignificant nor the operational area cultivated by them is so negligible. It follows from the preceding discussion that in the present socio-economic set-up, such large segment of the rural cultivating community can be neglected only at the cost of socio-political tensions in the country as a whole.

In recent years, most of the developing economies including India, have realised the need for taking special interest in such neglected sections of the cultivating community. Moreover, they attract greater attention in our country for various reasons. The reason may be that the small farmer is not less efficient. Of course, it cannot be denied that the betterment of the small farmer leads to the betterment of the society, since their number in our country is quite significant.

The conventional measure to identify the small farmer is the size of holding or operational unit of cultivation. Khusro is of the opinion (relating to the size of the operational holding) that, under existing farm practices in India, holdings less than 2 hectares are uneconomic and unprofitable as they do not provide adequate employment to the available family labour, bullock labour and do not generate surplus over and above farm family requirements.⁷ Therefore, the real problem is, how the conditions of the small farmers can be improved, so that they

⁷ A.M.Khusro, "An approach to farm planning among small farmers," Seminar Series IV, I.S. of Agricultural Economics, Bombay, 1964, pp.105-06.

would be able to meet the expenditures on minimum consumption needs of the family as well as, the servicing of the loan. It is remarkable that, though the share of the small farm sector in cultivated area is only 21 per cent (below 2 hectares, Table 1.1) its share in all the important inputs namely, irrigated area, fertiliser consumption, institutional credit and total assets is around one-third in each case. In other words, the small farmers, as a class command more productive assets and inputs per unit of land than large farmers.⁸ But, the asset and input availability per household is less in the small farm sector than in the large farm sector, because they constitute 70 per cent of agricultural households. The farm income per household and per capita to a greater extent, is less in the small farm sector. As we have stated earlier the input per hectare is larger in case of the small farms. This does not necessarily mean that further intensification of input is unnecessary. The poverty in this sector continues, because the number of dependents per small holding is large. Due to demographic pressure it is difficult to increase the average size of holding of these farmers as also to reduce the burden of labour force on agriculture. This is one of the peculiar characteristics of the Indian economy.

It is again important to note that during the decade (1961-62 to 1971-72) the average size of the operational holding

⁸ Rajakrishna, "Small Farmer Development," Economic and Political Weekly, Vol.XIV, No.21, May 26, 197 , p.913.

has been reduced from 2.6 hectares to 2.2 hectares due to population pressure. Hence, the present structure of the small farm is bound to remain as it is in our country for a very long time.

From the foregoing paragraphs, it is clear that we do not have any alternative way to increase the productivity of such small farms in order to reduce the poverty of their operators except concentrating all possible efforts to realise effective increase in productivity. The Fourth Five Year Plan aimed at identifying such farmers in order to assist them in the process of their betterment. Therefore, there may be concerted efforts through policies and programmes for supplying credit, inputs and knowledge exclusively to the small farmers on a high priority basis so as to tackle the deep-rooted poverty in our economy. These farmers find it difficult if not impossible to raise their farm income due to the above mentioned reasons. Most of these farmers are not credit worthy since they fail to meet their farm family consumption needs. Sometimes, they look to their present consumption needs rather than the future. In any case some of them have potentialities which, if explored properly with necessary aids of varied nature, they can make their economic units viable. Therefore, an inevitable task is to locate such farms. Here, the minimum level of subsistence has to be specified against the background of the prevailing standards of living and peoples' notions about it. For the purpose, one has to make an empirical test in order to find out the level of income below

which credit would be more paying. There are farmers in this category, who face greater imbalances in the factors of production on the one hand and their income, savings, credit and investment on the other.⁹ Since, they do not generate surplus and they are incapable of making investments the prospects for coming out of the poverty trap are practically non-existent. This is due to lack of cash resources, incapacity to face market uncertainties and more due to their crop pattern which is dominated by low valued subsistence crops.¹⁰ Therefore, some of the important special programmes were formulated and implemented during the Fourth Plan comprising S.F.D.A., M.F.A.L., D.P.A.P. and cash schemes for rural employment in order to remove the obstacles in the way of such cultivators so as to devise immediate measures to do away with the bottlenecks and improve their economic lot. However, this study is related to the small farmers development programme.

The appropriate solution is to provide irrigation and other inputs particularly 'landscue' capital goods like fertilisers, hybrid seeds which are able to replace land. This can augment production as well as income to a level where large size of holding does not remain so desirable.¹¹ Schultz is of the

9 C.H.Shah, "Problems of Small Farms," The Indian Society of Agricultural Economics, 1958, p.164.

10 V.S.Vyas, "Economic Efficiency of Small Farms of Central Gujarat," Seminar Series VII, Indian Society of Agricultural Economics, p.71.

11 B.K.Tandon and B.S.Mundia, "The Small Farmers in Rajasthan," Seminar Series VII, The Indian Society of Agricultural Economics, pp.78-79.

opinion that 'the quality of resources' may even postpone the operation of diminishing returns in the countries where land is a predominant resource. Such resources help in striking better utilisation of the scarce factor like land and surplus labour which are predominant in the underdeveloped economies. The optimum combination of other factors along with land may help these farmers to raise their level of farm income to a considerable extent. Hence, they should be provided with necessary agricultural inputs on high priority and that too on a subsidised basis. It is important to note that fertiliser and technology substitute for land to an admirable extent both under irrigated and unirrigated conditions.¹²

Therefore, we can say with reasonable confidence that the 'smallness' of the size of the farm is not an insurmountable constraint on productivity of small farms. The irrigation facilities provided by the public sector and better cropping pattern envisaged by the government can no doubt make the small farms efficient. The availability of manufactured inputs at reasonable prices and that too in proper time along with the extension services facilities relating to the provision of knowledge of improved techniques have increased the productivity to a considerable extent. Again, the advent of different financing schemes through organised banking; both commercial and cooperatives with concessional rates of interest and with

¹² S.S.Bain, "Improving the Production Potential of Small Holdings," Seminar Series VII on Small Farmers, The Indian Society of Agricultural Economics, 1968, p.52.

the reduced emphasis on security as well as convenient repayment schedules, lead to easy accessibility to credit throughout the year. This may have some degree of reduction effect on the efficient size of the farm. The expansion and strengthening of reliable marketing system with support prices also may encourage the small farmers to reap the benefits of available technology for increasing productivity.

Again, in order to improve the conditions of small farmers and tenants, tenant reforms have been advocated since several years by many states. But, it is pointed out by Dandekar and Rath in 'Poverty of India' that in the past, most of the radical land reforms measures could not be implemented in many states for various politico-economic reasons. Unless and until, such inequalities in the land distribution and land relations are set right, any special programme to help the poor masses are little better than exercises in hypocrisy.¹³ Moreover, land distribution merely cannot be able to improve their economic conditions unless, other resources are explored to raise their farm income.

It is needless to mention that there are farmers who fail to produce farm income sufficient to meet their family consumption requirements in the existing pattern of cultivation. There are some farmers who can be made viable with appropriate assistance. In this case viability is a concept tied with the

13 "SFDA minus the small farmer," Economic and Political Weekly, 24th January 1976.

ability to recover investment on land to improve production and income. The new strategy of agriculture based on HYV seeds and package of inputs can increase the productivity and such evidence has been witnessed in the recent past.

In view of this, there appears to be two distinguished categories; small but potentially viable and marginal but not potentially viable under present technology. Both of these categories require help. Theoretically, one can see that there would be a class of 'small farmers' who cannot reach the minimum consumption level even with credit for their agricultural activities. This class needs employment outside of their farms to augment their income. They are generalised as marginal farmers.

In fact, a viable farmer is exposed to yearly fluctuations in output and hence he remains, where he is, and with help he can share growth. There are farmer, who are potentially viable, and if neglected, are bound to suffer more and more over the years. Therefore, help is required for all such categories of farmers except those who are already viable since, they do not come under the purview of SFDA.

So far, we have been discussing the problems of small farmers and their importance in an agrarian economy like ours. It would be better at this stage to concentrate our attention on the establishment of institutions by the government in order to cater to their needs during the last two decades of planned economic development. In the early years of planning, N.E.S. blocks were thought of as ideal institutional arrangements for

comprehensive development of rural areas. But, it did not succeed to the desired level in terms of economic gains to the vulnerable sections of the rural community. As pointed out earlier, although, there was economic development in agriculture, it was lop-sided and small farmers, who constitute an important segment of the farming community were neglected. It was realised that such disparities must be reduced, if the growth with social justice or 'growth for all' objective was to be ensured. Thus, the rural poor caught the attention of the Government of India during the Fourth Five Year Plan when certain special employment programmes were initiated for supplementing the income of the various sections of the rural poor.

After having realised the plight of the small farmers, the planners made an institutional approach through the establishment of SFDA in 1969. In this connection, the committee recommended the establishment of such institutions so as to provide them better economic condition.¹⁴ The focus in these programmes is accordingly on intensive agriculture to raise the net income and this may not be one-shot affair but, efforts on the permanent basis.

In view of this, 87 special agencies in the Fourth Five Year Plan (46 SFDA and 41 MFAL) were established. This number increased to 169 in the Fifth Five Year Plan. They were supposed to cater to the needs of both small and marginal farmers.

¹⁴ B. Venkatppaih, (Chairman), All India Rural Credit Review Committee, Reserve Bank of India, 1969.

In this connection, one has to resolve the crucial problem of identification of 'small farmers'. In any scheme of assistance the definition of 'small' assumes special importance. Therefore, identification of the participants is one of the vital considerations for the success of such programmes. It is however, seen that in the absence of a proper test-check or elaborate system of identification, benefits under SFDA have leaked to some large farmers also, which should have accrued to the bulk of the small farmers. Hence, it is necessary to evolve a suitable and dependable definition of the small farmer by the agency, following the instructions in this regard meticulously in each and every case. Moreover, where substantial benefit is given, it should be locked into more appropriately.

Our study therefore attempts to examine various criteria suggested and norms followed by the economists from time to time.

Chapter I discussed the importance of small farmers relating to their operational holdings and number in the country as a whole. This also focused on the appropriate reasons for the establishment of SFDA in 1969.

In Chapter II, we consider briefly the significance of identification and the factors affecting it. A view that identification is a quite relevant requisite for assisting small farmers is examined in this context.

Chapter III spells out some of the issues relating to the criteria for identification by different agencies so far.

Besides this we would like to make an attempt for a brief review of such criteria suggested by different economists from time to time.

In Chapter IV, we would suggest an objective criterion for identification of small farmers with an illustration of Cuttack district in Orissa State.

Summary and conclusions are given in Chapter V.

CHAPTER II

SIGNIFICANCE OF IDENTIFICATION

An attempt is made in this chapter to justify the significance of our study of identification of small farmers. The absence of an unanimity regarding the criterion for the identification necessitates to take into consideration critically the existing strands of the problems and unify the more objective as well as measurable criterion into an acceptable composite criterion. Thus, a measurable criterion may help the programme implementation by the agencies for the small farmers in order to increase their farm income so as to increase the level of living. In any case, identification assumes greater importance for better implementation of the appropriate schemes and for the desired objectives of SFDA.

A host of new but, important problems emerged during the late sixties in the Indian economy for the farm production compared to the past experience. Such break through was of a revolutionary character. The disadvantaged groups also got a share in the new production potential. But, the existing disparities in income between small and big cultivators were not altogether wiped out, rather, in turn it accentuated further disparities, as new technology strengthened the prosperity of big cultivators. In a way, the new strategy can be said to have increased the

disadvantage of the small farmer as against the entrenchment of the big farmer. Moreover, this resulted in creating a few pockets of progress with large areas and vast majority of the rural households were lagging behind; increased thereby agrarian tensions in the rural sector. This conflicted with the objectives of equalitarian redistribution and balanced growth of different regions and/or sectors. To avoid this, it becomes imperative that small farmers are scientifically identified, so that schemes like SFDA could cater to the needs by devising appropriate programmes or measures.

To quote the All India Rural Credit Review Committee (1969) which examined the problem of those farmers in depth; "there is apprehension that the new agricultural strategy may aggravate the economic disparities which already exists, between different parts of the country and different sections of the rural community, while prosperity occurs to some, the resulting tensions - social and economic may not only upset the process of orderly and peaceful change with rural economy, but, even frustrate the national effort to step up agricultural production."¹ The Committee therefore suggested that the less affluent cultivators should be enabled through state and institutional support to improve their production potential. It was feared that if this increasing inequality was not checked the 'green

¹ B. Venkatppaih, (Chairman), All India Rural Credit Review Committee Report, Reserve Bank of India.

revolution' would turn into a 'red revolution'.² Thus, the purpose of setting up of a special agency was to devote undivided attention for the development of small farmers in the project area. The need was to enable them to participate in the existing agricultural technology. Hence, keeping this in mind, various measures have been suggested for being carried out by SFDA's. For the purpose, identification of the participants seems to be the necessary precondition for the successful implementation of different programmes.

The future prospects of this disadvantaged class depend largely upon the direction and reorganisation of the farm structure of such numerous small farmers in our country. Identification of small farmers and the rectification of their economic inadequacies under which they function have become particularly relevant, less for sustaining the tempo of technological change than for the point of social justice. Therefore, identification seems to be inevitable, so that better services to the deserving 'small' man in agriculture can be ensured.

In the approach paper of the Fifth Five Year Plan, the depth and dimension of rural poverty has been estimated. Accordingly, there are about 30 million households in the rural areas who are below the desirable minimum on the basis of per capita monthly expenditures, which is Rs.37/- at 1971-72 prices. Moreover, the development of backward regions assumes a critical

² S.S.Tyagi, Evaluation of SFDA, Ambla district 1972-73, Agricultural Economics Research Centre, New Delhi, April 1973, p.3.

importance in view of the emphasis laid on increasing the level of living of the lowest 30 per cent of the population, a significant fraction of which is found in the backward areas.³ In keeping with the basic logic of a redistributive growth process, the primary objective must lie in putting efforts for better economic conditions of the neglected sections of the rural community. The major cause of poverty is due to low resource base and the lack of access to new technology necessary to develop their farm economy. Therefore, identification of such vulnerable section of the rural community has great significance to enable the agencies to devise special measures. So that, the problem of rural poverty can be mitigated if not completely eliminated only through such measures designed to improve the production capacity.

A study conducted by Agricultural Economics Research Centre, New Delhi revealed that proper attention to the problem of identification of small farmers has not been given. To quote the study report, "It is our impression that SFDA programme is treated as a programme of extended benefits and farmers - big and small try to make suitable adjustments to pocket these benefits. The result is that the benefits extended under the scheme have not gone to small farmers and leakages in the real

³ Government of India, Planning Commission, Approach to the Fifth Five Year Plan 1974-79, January, 1973.

effectiveness of the programme have been found to be not less than 30 per cent.⁴

Since, the criterion of size of holding was followed by this particular agency and each unit was an individual but not the cultivating family, the big farmers by their fictitious attempts, divided the land in the names of their family members for getting the benefits of SFDA. This led to the diversion of funds to people, who are really not small farmers. Hence, again, the land owned and cultivated but, situated in other places were not taken into account. Hence, the study argued for operational holdings, instead of owned holding for identification. In this regard, the study suggested for the essential re-orientation of the pattern of working of the agency relating to the task of identification and felt thereby, that block level officials and more especially V.L.Ws would help much in proper identification since they are very much acquainted with the rural people. In this way, it would be possible to identify the genuine small farmers with whom the agency is concerned and various programmes can be formulated in a better way for their benefits and uplift.

It is interesting to note that the above study of Dr. Gupta revealed the same result in the second round investigations and thus, lent further support to the findings. This is

⁴ D.P.Gupta, "Evaluation of SFDA Amritsar - Ferozpur (Punjab)," Agricultural Economics Research Centre, New Delhi 1972-73.

no doubt a disturbing element in the execution of the whole programme.⁵ In fact, it gives the impression that due to improper identification, SFDA funds have not really accrued to the right farmers and there has been sheer economic injustice.

A study of the Ambala district SFDA revealed the fact that, some of the farmers cultivated as much as 100 acres, fictitiously divided in the names of the family members either with a view to avoid ceiling legislations or with a view of taking advantages from SFDA's in the form of subsidies.⁶ In fact, land is jointly operated, although a number of people are supposed to own the land. The threat of land reforms programme led many rich peasants to organise themselves in this manner by breaking up their holdings on paper.⁷ Unless, some radical and far-reaching changes are made with regards the identification, implementation of any scheme or programme for the benefit of the rural poor would not reach him and small farmer will continue to remain the small fry.⁸

It is needless to mention that many medium and big land holders have been reaping the fruits of economic development in agriculture since long. They actually own substantial resources

5 Ibid., p.27.

6 S.S.Tyagi, "Evaluation of SFDA, Ambala district, 1972-73," Agricultural Economic Research Centre, New Delhi.

7 H. Laxminarayan, "A note on Ambala district field study report," Economic and Political Weekly, April 8, 1973.

8 Pankaj Puri, "Small Farmer - Small Fry," Financial Express, 24th April, 1977.

and they have easy access to financial institutions for securing credit because of their capacity to produce tangible securities. Besides, they have also command over other necessary inputs. It is a fact that they can sustain heavy long term capital investments particularly for irrigation purposes. It goes without saying that these farmers have incomes considerably in excess of their minimum consumption needs. On the contrary, small farmers have neither easy access to credit nor do they have command over other inputs like irrigation, knowledge of better farm practice etc. In fact, the size of holding is an ever-present constraint on their farm business. Besides, they have only one source of income which supplements their farm income i.e. by utilising labour outside the owned farms. Sometimes, this is also not available since they have a limited skill i.e. cultivation of crops.

It is however a fact that the definition of small farmers involves important theoretical and practical issues. Many questions appear to be quite important in this regard. But, any definition for the identification of small farmers must reflect the small farm poverty and it must be defined so that the land base can be made to yield the poverty line income to the operating household with adequate technical and financial assistance for crop production as well as supplementary activities.⁹ In this connection, it would be better to quote the stipulation of the All India Rural Credit Review Committee Report (1969)

⁹ Rajakrishna, "Small Farmer Development," Economic and Political Weekly, May 26, 1979.

that "the effort is obviously restricted to those cultivators who can be developed into surplus farmers, if they adopt improved techniques, on the basis of the support in terms of supplies, irrigation, services of machines etc."¹⁰

Such specific recommendation of the committee puts particular importance on the identification of potential small farmers who need help in order to help themselves. Therefore, proper identification of such category of small farmers may help in reducing the magnitude of rural poverty.

The recent relaxation of the terms of credit to the small farmers with regards the personal security and/or simple hypothecation of assets created out of the loan, a crop guarantee system in case landed or personal security is not available, may be considered at this stage. Moreover, the extended periods of repayment for small farmers, elimination of margin money requirements, low rate of interest (between 8 1/2 per cent and 11 per cent on loans upto Rs.2500/-) are very important measures to improve the economic lot of the small farmers.

But, it would all the same be useful to consider the credit starvation of the small farm sector which seems to be a vicious circle in our country. There are productivity and profitability potentials in this sector but, they remain unexploited due to lack of sufficient investment. Investment of this nature is not made in this sector, since it involves risk. This

¹⁰ B. Venkatppaih, (Chairman), All India Rural Credit Review Committee Report, Reserve Bank of India, 1969, p.579.

riskness is due to mainly yield instability in the farm business. Yield instability is again due to inadequate inputs of HYV seeds, water control, irrigation, pest control and fertilisers, and the absence of multiple cropping. But, stability in yielding can be ensured into certain extent by the optimum use of inputs. Therefore, there is no necessary and adequate investment. Thus, it necessitates a big investment thrust, with a matching technological, extension and delivery back-up which can break the vicious circle.¹¹

It is needless to say therefore that, the success of this new credit policy largely depends upon a reasonable as well as a scientific criterion for the identification of genuine small farmers. This only would realise the intention of the new credit policy into effective action.

After discussing the limitations of improper identification from the working experiences of the SFDA's in the recent past in many parts of the country, we are confident that what has occurred in one SFDA, may have repeated in the other. Moreover, the crucial role of identification of such farmers cannot be neglected more in view of the present economic policies and programmes of the government. All these experiences of the past, along with the basic objectives of SFDA have provoked many farm economists for further thought on rationalising the concepts and methods in identification of small farmers.

11 Rajakrishna, op.cit., p.914.

CHAPTER III

VARIOUS APPROACHES TO IDENTIFICATION

So far, we have discussed the significance of our study of the identification of small farmers and reasons for the establishment of SFDA in 1969. The economic philosophy behind such institutional approach was to make special preferential arrangements for the supply of inputs to these farmers. In this connection, proper identification of genuine small farmers, those, who deserve help and assistance cannot be overlooked if, the programme has to meet its objectives even at present.

We make an attempt in this chapter to examine various criteria followed by the agencies in the recent past and different criteria suggested by the economists. This would enable us to judge the limitations of each criterion from the working experience and also would help us to formulate a more objective as well as workable criterion to distinguish small farmers from others.

It is a fact that the problem of defining a small farmer is faced at every step.¹ Venkatpaih Committee has observed "the definition of this category of farmers raises several

1 V.M.Dandekar, "Foreword", Seminar on Problems of Small Farmers, Seminar Series VII, Indian Society of Agricultural Economics, 1968, pp. vii-xvi.

problems of methodology and hence, difficult, though a ~~small~~ farmer can be fairly and easily identified for practical purposes."² The characteristics of such farmers vary from area to area, although, in general, there are a number of common denominators. That, they use to operate more leased-in-land, agriculture is their main occupation, they use mostly traditional technology and produce mainly for self-consumption. The small farmer is caught in a vicious cycle and although, he may have the desire, he has little ability to take risks to increase his farm income. This is due to his limited economic strength. He is therefore caught in the small farmers' low productivity trap. In spite of their common features, a more precise and fair definition is needed to identify them for operational purposes. Hence, a simple and better workable criterion is always necessary for the purpose.

The Venkatppaih Committee avoided any sharp classification of the farmers into small, medium and large. Following the Census Report 1961, on land holdings, it classified medium to large i.e. 7.5 acres and above, medium farmers, i.e. 2.5 to 7.5 acres of holding and category small as less than 2.5 acres of holding. But, such categorisation of the committee was not appreciated by the then ministry. Because, the proposal of the ministry was that the scheme should cover those small farmers, who are potentially viable to become surplus producers with

² Venkatppaih Committee, Report on the All-India Rural Credit Review Committee, Reserve Bank of India, 1969, pp.538-39.

improved techniques, input support, irrigation etc.³ It seems, there was no uniform definition in terms of the size of holdings proposed by the ministry also. It was left to the agency to determine the class of farmers eligible for the assistance in the project area. Therefore, it is clear that the agency was left with the responsibility of devising a criterion more suitably to cover genuine small farmers.

But, the concept of small farmer is a relative concept. Any particular definition used whether size of holding or our proposed criterion minimum consumption requirements has of necessity to be somewhat arbitrary. Unfortunately, in the literatures of agricultural economics, its connotation is not very clear and denotation not at all defined. Therefore, it is difficult to find a precise and meaningful definition for the purpose of identification.

In fact, a single criterion may not be universally accepted. So, the genesis of each criterion is to be judged separately and each may have unique relevance only at a particular time and at a particular place or region.

According to the R.B.I. field study 1972-73, in the initial stage of working of SFDA, area approach i.e. the criterion of the size of holding was followed for identification. But, towards the middle of November, 1973, additional income from non-farm business was added in order to leave relatively

³ V.R.Gaikwad, Small Farmers: State Policy and Programme Implementation, p.10.

better-off farmers outside the scope of SFDA.⁴ The size of holding criterion was followed by many agencies but, the procedures of adoption of the same was quite different. As per the report of this study of 13 SFDA's in 1972-73, some agencies even did not distinguish between irrigated and unirrigated holdings and a few had taken cultivating holding into account. Some had practised in taking into consideration recorded cultivation rights and thereby, tenants, lessees and share croppers were found to be excluded.

It is needless to mention that even, in a homogeneous agro-climate area, the definition of small farmer on the basis of physical acreage cannot be free from arbitrary and notional elements. Dantwala considers a holding below 2 hectares, at the current intensity of cultivation are by and large, uneconomic in the sense that they have hardly any surplus to effect transformation from subsistence to commercial farmers.⁵ The owners of such farms are cultivators because they cannot do anything else. There is neither any alternative occupation to their skill nor any scope for diversion to any other sector in an agrarian economy like ours.

C.H. Shah also makes an attempt to divide farmers into big, medium and small. Accordingly, farmers cultivating holding larger than one family holding are termed as big, less than one

⁴ Reserve Bank of India, Field Study, 1972-73.

⁵ M.L. Dantwala, "Problems of Farm Economy: The Indian Case," Seminar Series VII on Small Farmers, The Indian Society of Agricultural Economics, 1968, p.1.

family holding but, more than half of it, is termed as medium, less than half of the family holding are classified as small.⁶ He assumes that cultivating holdings larger than one family holding possess potentiality to grow, holdings nearer to the family holding may grow, though with some difficulty but, the third category of holdings i.e. below half of the family holding would find extremely difficult to grow. In such classification, there seems ^{to be} no clear cut-off line on the basis of size to make a distinction between farmers by Shah.

The criterion of identification in terms of physical acreage may not be the sole criterion in judging the small farmers under the dynamic conditions of ours which is more problem oriented economy.⁷ In reality the consideration of the factors like size of family, productivity of land, types of soil, crop pattern, irrigation etc. along with the size of holding may be somewhat a relevant proposition for such identification. Size of holding itself as an indicator to distinguish small farms from others is inappropriate. Moreover, an uniform size of holding for identification for the country as a whole seems to be absurd. A small farmer of Punjab is better off than the middle farmer of Bihar or U.P. or Assam. The measurement of farm size may be simple for the purpose of identification but, obviously, it is too crude to judge the really needy small farmers.

6 C.H.Shah, "The Small Farmer - Problems and Remedies," Seminar Series VII on Small Farmers, Indian Society of Agricultural Economics, 1968, p.115.

7 S.Singh & P. Shukla, "Identification, Problems and Prospects of Small Farmers in Balia District".

The Planning Commission observed that the expressions "small and middle owners of land can be defined precisely but, for most purposes, it might be sufficient to consider owners of land not exceeding a family holding as small farmers..."⁸ In this context, Planning Commission defined a family holding as "an operational unit being equivalent according to local conditions and under existing conditions of technique, either to a plough unit or to a work unit for a family of an average size, working with such assistance as is customary in agricultural operations."⁹ This concept of family holding refers to the full utilisation of a minimum unit of capital (plough unit), adequate employment for cultivating family (a work unit) and a net income of Rs.1200/- as the minimum annual income which a family holding must provide. Farmers which fall short of this size have low income value and they are unprofitable both to its operator and to the agricultural economy as a whole.

But, sometimes ownership of holding is taken into consideration for identification which does not take into account of the leased-in or leased-out land and even, land owned but situated in other villages. As leasing of land continues to be a significant phenomenon in our agriculture, it is important to take this into account. If, this number of such small farmers happen to be

8 Government of India, Planning Commission, First Five Year Plan, 1953, p.191.

9 Ibid., p.189.

substantial, this will be a crucial weakness of the scheme, as this scheme is to direct funds to the small farmers.¹⁰ Moreover, the scheme is for small farmers and not for small owners. Therefore, it is always desirable to consider operational holdings rather than ownership holdings. In any case, mere size of holding seems to be the improper yardstick for identifying the small farmers since, productivity differs from land to land. This factor may not be neglected, while locating the small farm. It follows logically thereby that productivity cannot be measured, unless crops grown in the farm are referred which ultimately depends upon the consideration of irrigated or unirrigated or dry land etc. Unless, factors like irrigation, productivity are at least indirectly accounted for, mere size of holding consideration is arbitrary. Hence, we are yet to evolve a better workable criterion for operational purposes. In brief, size and structure of the family, productivity, technology adopted etc. may be considered for the location of small farms. Instead of individual as the unit, cultivating family may be regarded as the unit for the purpose of identification. This can at least put a check on the fictitious attempt of the large cultivating land-owned families.

In this connection, the value of gross output is a good measure to express the size of the farm. It takes into account both the size of the farm in terms of acreage and the productivity

¹⁰ S.S.Tyagi, "Evaluation of SFDA, Ambala district, 1972-73," Agricultural Economics Research Centre, New Delhi, p.13.

of the soil. In case of the gross income criterion, the value of productivity of factors in the different size groups of holding of the farmers would be assumed to be the same. But, in reality, this is not the case. It would be relevant if we are to identify the small farm as different from the small farmers.¹¹

It would be proper at this stage to refer Gogula Parthasarthy's work relating to the identification of small farmers in Andhra Pradesh. He considers one single level for the state as a whole mainly in terms of minimum requirements of the household or in terms of the level of operation needed for efficient management of the individual farm.¹² According to him, even if all produce at the same cost, some will be small in the sense of survival while there may be continuing deficit between farm business and household requirements. This inability to survive as an independent business unit is the obvious consequence of smallness.¹³ He uses a figure Rs.1200/- which is commonly seen for the minimum household requirements of a household. He accepts the suggestions of 'Farm Management Studies' that F.B.I. is around half of the gross value of output. Therefore, a level of Rs.2400/- gross value of output could be taken as the minimum

11 P.B.Parthasarathi and K.S.Suryanarayan, "Small Farmers: Identification, Problems and Solution," Southern Economist, 15 October, 1973, p.22.

12 Gogula Parthasarathy, "Agricultural Development and Small Farmers," Vikash Publications, Chapter II, p.6.

13 Ibid., p.7.

necessary. In this way, he works out holding size for each district of the state and he accepts minimum gross value of Rs.2400/- and the minimum acreage required below which all would be categorised as small. In such a categorization, the techniques and cultural practices are assumed to be given. Moreover, it is assumed that cultivators with a holding below the minimum size do not derive non-farm income and they rely exclusively on farm income.

In addition, he takes an attempt also to sub-divide the small farmers' category into two groups. For the purpose, he has used the concept of 'basic holding' which is familiar in the ceiling legislation. Accordingly, holding with current gross values varying between Rs.800/- to Rs.2400/- will be categorised as small farmers and small farms.¹⁴ According to him, the basic holding is related to a holding yielding less than Rs.800/- and possibly, this cannot survive as an independent farm unit even with superior techniques and capital assistance, while latter could be assisted for the survival as independent business unit. It is important to note that Parthasarathy expresses the minimum requirements in terms of farm business income.

It is found from the field investigations of R.B.I. in 1972-73 that one reason of not identifying tenant farmers was the fear that, had the agency attempted to record tenancy rights in a village, there would have been strong oppositions from land owners. It is a fact in Andhra Pradesh and so also in many

¹⁴ Ibid., p.9.

states that 'the majority of tenants were oral lessees where tenancy arrangements were concealed.¹⁵ This follows logically from the foregoing discussion that unless and until, the inequalities in the distribution of land and land relations are set right, it would be difficult to enable the poor man to share in growth.

Economists like K.S.Suryanarayan also favours the income norm to be more preferable, since, it takes into account efficiency of resource use, cropping pattern, fertility of the soil and the most important input i.e. efficiency of management. He considers 'net income' of the farm which can better reflect the smallness of the farm. In estimating the net income, the gross value of output including by-products and cost of cultivation excluding the imputed value of family labour may be considered. This is the income which is actually left with the cultivator to manage his farm family for meeting consumption needs.

However, a more satisfactory measure for the identification of small farmers may be either net income or farm business income criterion. Net income criterion refers to the income which is obtained after paying costs to all resources; fixed and variable used in production. But, under Indian conditions since most of the farmers do not consider farming as a business, this concept may not be an appropriate one to locate and identify the traditional subsistence small farmer.¹⁶

15 "SFDAs Minus the Small Farmer," Economic and Political Weekly, 24 January 1976.

16 K.S.Suryanarayan and P.B.Parthasarathy, op.cit., p.11.

Therefore, farm business income is the most appropriate criterion under the rapidly changing conditions of farming in our country. This criterion takes into consideration the value of output after deducting the cash and out of pocket expenses (cost A_2) on the farm. Such income criterion (without imputed cost of family labour, rent on owned land etc.) is more realistic, because, this is the income at his disposal to meet his consumption needs. It would be more appropriate to estimate the viable farm size based on such income. Thus, the more suitable norm for identification would be farm income (surplus over Cost A_2). It is the most realistic indicator to judge the standard of living which a cultivator can enjoy at a given time.¹⁷ In Indian conditions, where quality of fixed factors have no opportunity cost in their use, this seems to be a more realistic criterion.¹⁸

It is interesting to note that in several studies limited to homogeneous regions, high and significant correlations were found to exist between the size of holding, F.B.I. and gross farm income. But, admittedly, F.B.I. criterion does not reflect on judging economic efficiency, for doing so, we will have to examine

17 V.S.Vyas and Others, "Significance of the new strategy of Agricultural Development for Small Farmers," Agro-Economic Research Centre, Vallabh Vidyanagar, 1969, p.32.

18 V.S.Vyas, "Economic Efficiency on Small Farms of Gujarat," Seminar on Problems of Small Farmers, Seminar Series VII, 1968, p.62.

net income (viz. Gross product net of total inputs including imputed value of the family labour).¹⁹

V.S.Vyas takes an attempt to distinguish small farmers from the rest on the basis of F.B.I. by arranging farm incomes of the farmers on descending order. He considers the last three deciles to be the small farmers as per his study of two villages. The next four deciles to the top, he considers medium and the top three deciles as large farmers. But this criterion has its own problems of methodology, apart from the defect, that it neglects the present distribution, where we need a farm that yields a particular level of income which would be reasonable for socio-economic equity.²⁰ Farm business deciles consideration for the purpose of identification of small farmers is quite inappropriate due to subjective elements.

From the preceding discussion, it follows that it would be rather reasonable to set a norm for stating that a particular level of farm business income is required to maintain an average family in reasonable comforts. Any cultivator, who fails to obtain this requisite level of income from farm business may be identified as small farmer. This seems to be somewhat better proposition than the notion of deciles for the identification of small farmers. Such rational approach to the issue of identification considers farm viability since, Vyas takes farm income to be the norm for the purpose.

19 V.S.Vyas, op.cit., p.32.

20 V.S.Vyas, op.cit., p.62.

But, our proposed criterion of minimum consumption requirements seems to be similar to the approach made by N. Rath on the basis of minimum cereals and non-cereal requirements for a square of meal a day (40 per cent cereal and 60 per cent non-cereal) for the identification of small farmers in Maharashtra. He, with the help of an exercise on the basis of the survey conducted by the Gokhale Institute of Politics and Economics in Satara and Poona district has specified the small farmers in a region. He has taken crop pattern, ratio of out of pocket expenses to gross farm yields, price of farm produce, a non-farm income receipts of the farmers for subsistence level of living. In this way, an area of 10 acres in the dry regions are required in his estimation to produce an income from farm sufficient to meet subsistence level of living and thereby, farmers with less than 10 acres may be considered as small farmers.²¹ Nearly, 44 per cent of the farmers in the scarcity area of Maharashtra had holdings less than this minimum.²²

The study of Rath reveals the above fact that it may vary from region to region on the basis of cropping pattern, better yielding capacity, irrigation facilities. Again as per this study, 3 acres of irrigated land, a part of which is under perennial is likely to be better off possibly than the small cultivator in the dry areas. Moreover, farmer, whose farm resources

21 N. Rath, A Note on Dry Agricultural Regions and Small Farmers with special reference to Maharashtra, pp.26-27.

22 "1961 Census" on the basis of 20% Sample Survey in the size distribution of operated holdings.

do not suffice him to maintain the farm family at a minimum level of subsistence, credit or any assistance may be of little use as it is spent on consumption, unless, it makes his farm viable.

Such proposition has some universal applicability to any region, whether dry or irrigated since minimum consumption requirements on the one hand and farm business income and non-farm income on the other are considered, (non-farm income has been taken as wages etc. to be approximately 50 per cent of farm income). In fact, what is true in one area, is also true in most of the scarcity areas of Maharashtra.²³

Identification of already viable farmers are not at all desirable. It is necessary to bring the non-viable farmers under the purview of SFDA. Otherwise, in case of the former, it would contradict the basic philosophy of SFDA. Even in the latter case also all need not be helped by SFDA rather only potentially viable ones and hence preferential arrangements may be made in other occupations for potentially non-viable farmers other than agriculture. Therefore, there is a need for identifying potentially viable farmers who may be able to meet their minimum consumption requirements as well as may be able to pay off the debt if helped for the betterment of their farms.

T.V.S.Rao examines the process of identification on the basis of viability and defines viability as a concept essentially

23 N. Rath, op.cit., p.29.

related to the poverty line.²⁴ He estimates the minimum consumption requirements for a family of Nalgonda district with an average family size of 4.5 on costs and prices of 1972-73. This, he does by following the calorie basis (2250 calories per day per capita 61-62) for the same year. In addition, he estimates separately the depreciation cost of agricultural implements by 10 per cent of the total assets of a farm family. Thus, the total requirements of a farm family of the district for 72-73 is estimated, which can keep a family in reasonable comforts. Accordingly, any farm family fails to produce such desired income from both farm and non-farm sources may be regarded as small farmer.

It is important to note that, he assumes 85 per cent of such desired income to come from farm and rest from (15 per cent) non-farm sources. In this way, he adjudges such requirements with the size of holdings of wholly irrigated and un-irrigated land in view of their income in each case.

Besides, he makes an additional exercise for fixing the potential limit in case of irrigated and unirrigated land separately keeping in view of a definite crop rotation during a year for Nalgonda district of Andhra Pradesh. On the basis of post-developmental incomes under optimum conditions per acre with a crop rotation of paddy-wheat-green gram or two consecutive HYV paddy, he estimates the farm income so as to adjudge

²⁴ T.V.S.Rao, "Identification of Small Farmers by SFDAs, Some Conceptual and Methodological Issues," Agro-Economic Research Centre, Andhra University, Waltair, June 1978, p.3.

with the size of holding for the potential limit. In his opinion, size of holding below such potential limit may be given assistance in some other occupation. In this connection, all that is necessary is to estimate the income very accurately and honestly for the fixation of upper (viable limit) and lower limit (potential limit) and this would at large may help to identify the small farmers properly.

Sirohi and Banerjee make an attempt in the analysis of farm business of small farmers of the Chandauli Tehsil of Varanashi district with simple regression analysis and parametric programming to estimate the viability size of the farm.²⁵ They consider the concept of viability on the basis of basic requirements. They estimate minimum consumption requirements for a farm family and the cost of maintaining a pair of bullocks. This minimum requirement is used to determine the critical size of farm holdings which could yield the minimum needs of the family consisting of four adult units and a pair of bullock. They account the minimum consumption expenditure of an average family for the year 1971-72 to be Rs.2302/- and Rs.690/- (24 per cent of the total requirements) for a pair of bullocks.

In this way, they adjudge such desired income with the size of land holding. It is important to note that farm income would vary from village to village and even, may vary in the

25 A.S.Sirohi and Banerjee, "Identification of Small Farmers in Chandauli Tehsil, Varanashi district," I.J.A.E., July September, 1975, p.185.

identical pieces of land of the same place depending upon the irrigation conditions, consolidation and infrastructure facilities. Therefore, it would be better to define a small farmer whose farm business income does not suffice to maintain himself, his family and a pair of bullocks. The minimum farm family requirement approach to viability is much more sound than the physical approach but at the same, it requires greater degree of competence. Therefore, it is better to translate the farm business income figures into physical acreage figures for the identification of small farmers. It follows logically from the preceding discussion that less acreage would be required for identification of such farmers, in case villages are consolidated, irrigated and infrastructure facilities are quite developed.

V.M.Jakhade and N. Mazumdar make an attempt to identify the small farmers on the basis of subsistence norm in a small homogeneous region. The acreage required indicating the size of a farm which produces just the minimum foodgrains - requirements for an average family has been called the 'subsistence norm'.²⁶ This takes into account the annual foodgrains requirements for an average family of 4 adult units on the basis of 18 ounces of foodgrains per adult per day and by making allowance for feed, seed and wastage at 12 1/2 per cent of production.

But, such subsistence norm has no universal applicability as it is limited to the commercial sector of agriculture. In

26 V.M.Jakhade and N.A.Mazumdar, "Subsistence Sector in Indian Agriculture," Reserve Bank of India Bulletin, Vol.xviii, No.8, August 1963, p.1147.

fact, all subsistence farmers may belong to the group of small farmers but the converse is not true. So far as food requirements of the family is concerned, the norm of subsistence might refer to a 'culturally determined level' of consumption as reflected in the average level for the concerned region. But, it is difficult to account non-farm income for a subsistence level under dynamic and progressive agricultural society where the viable size of holding itself may change over a time. It is rather a futile attempt to search for a solution of subsistence agriculture which is not also a solution of general underdevelopment.²⁷ In an agrarian economy like ours, solution of general underdevelopment includes a reform in the agrarian structure.

V.M.Dandekar, in his report of the 'Committee on Financing Small and Marginal Farmers through Cooperative Credit Structure' appointed by the Government of Maharashtra submitted the report in March 1976, poses the same problem for the settlement of an initial question; namely, how to define the small farmer while various definitions are in vogue.²⁸

In order to evolve a criterion for identification of small farmers, Dandekar Committee refer to the definition of the R.B.I. for the state. The definition of R.B.I. relating to the

27 M.L.Dantwala, "Problems of Subsistence Farm Economy," Seminar Series VII on Small Farmers, 1968, p.6.

28 Report of the Committee on Financing Small and Marginal Farmers through Cooperative Credit appointed by the Government of Maharashtra, Chapter II, p.7, March 1976 (V.M.Dandekar was the Chairman of the Committee).

'weak farmer' was expressed in terms of size of holding i.e. 3 acres and less, for all districts excepting where SFDA and MFALs are implemented. But, the range was again fixed by R.B.I. between 3 and 7.5 acres (upper limit) for all districts after the representation made by the district cooperative banks. However, in this case the methodology explained does not explicitly indicate that an important consideration of the really weak farmers have been taken into account since cropping pattern, productivity of the soil, irrigation etc. have not been considered. But, the committee is of the opinion that revenue assessment may not be a good indicator to locate such small farms.

In this connection Dandekar's Committee consider total credit eligibility of these classes to be more appropriate since the scale of finance varies from crop to crop. Therefore, the credit eligibility of a member as derived by applying the scale of finance to his crop acreage provides a useful measure of the size of his farm business.

It seems, this is somewhat a better proposition, since it takes into consideration the size of holding, crop pattern, irrigation, differences in the soil to different crops grown. Accordingly a small farmer is defined as one, whose credit eligibility is not more than Rs.1000/-. This limit roughly corresponds to gross income of Rs.2500/- and net farm income of Rs.1500/-. Here taking soil climate complex and irrigation etc. into account, the total gross output has been estimated. It seems, the costs of inputs have been estimated to be

Rs.1000/- and this is the credit eligibility of the farmer. Similarly, where there are large number of such small farmers on the basis of credit eligibility norm, a lower limit, say Rs.750/- or Rs.500/- may be followed so as to enable the small farmers to get better attention and all can get their share to the full extent of their credit eligibility.

It is a flexible proposition. Such criteria seems to be more democratic in its spirit and so quite reasonable also in its economic consideration. In other words, this not only takes economic factors, but, so also social justice, where each and every small farmer is entitled to get its share.

The credit eligibility criterion for identification of small farmers is established on the basis of crop loan given by cooperatives. Unless, all the small farmers get properly identified and enrolled in the cooperative societies, they may not get due share. On the contrary, this also depends upon the initiative and concerted efforts of cooperative institutions. But, it is limited to a particular state like Maharashtra where cooperative organisations have longer history. The strong cooperative credit structure is the basic pre-condition for the successful implementation of such crop loan system. Therefore, this criterion for identification of small farmers may have limited application to other states where cooperative credit structure is weak.

The problem of identification of such farmers is a complex phenomenon. It has been established by many researchers that

certain type of demographic, social and economic handicaps converge on a group of farmers who might be identified as small farmers or non-viable farmers.²⁹ Such identification implies economic, social and even political dimensions. But, this problem must be solved in a democratic manner. In fact, this calls for the strong and well-organised cooperative credit institutions at the grass-root level. This crop loan system implemented by the cooperative organisations in Maharashtra seems to be a pilot experiment for other states. In this connection, the feasibility of this credit eligibility and its applicability may be judged in view of the cooperative structure of other states.

The real problem appears to be somewhat like this. Mere size of holding is not enough unless, factors like irrigation, productivity, cropping pattern etc. are at least indirectly accounted for. Similarly gross value of output is not necessarily a correct reflect^{-ov} of income but, only a substitute. This also does not consider livestock income, income from labour (hiring out) and non-farm income. Besides, the size of the family and minimum consumption requirements are not considered by this criterion.

In case of income in terms of surplus over cost A_2 (F.B.I.) criterion, productivity, cropping pattern, irrigation etc., are indirectly reflected but how can one be sure that this income

29 V.M.Dandekar, "Foreword", Seminar on Problems of Small Farmers, Seminar Series VII, 1968.

meets minimum consumption requirements. Land holding sufficient to meet the minimum consumption requirements of a family takes into account cropping pattern, productivity as well as consumption requirements.

Regarding, the minimum consumption requirements criterion, one may wonder whether income from livestock, hiring out labour and non-farm activities should or should not be included. We feel that livestock income must be included because, for the states like Maharashtra and Orissa, when owned bullock labour cost is included in the cost of cultivation, the livestock accounts consisting only cows, buffaloes often turn out to have a deficit. But this is essential part of the farm activity and more especially of small farmers because, cows as producers of draught animals are important. Thus, we feel that livestock account is an integral part of cultivation activity.

Regarding hiring out of own bullock labour and family labour, similar arguments can be made and one feels that income from such activity must be included.

Regarding income from non-farm activity, one may consider whether the aim is to arrive at family viability from farm activity only or from both farm and non-farm activities. There have been cases where village traders have 2 to 3 acres of holdings but, to them farm income is a very secondary activity. Therefore, small farmers, whose farming business is the principal occupation, they may be considered for help.

There is more justification for our proposed criterion of minimum consumption requirements and the norm of desired level of income, which comes from farm business. Hence, this criterion is adhered to both the family viability as well as farm viability. It is somewhat a better proposition, since we consider family size and the consumption needs on the one hand and income from farm sufficient to meet such needs on the other.

CHAPTER IV

AN EXERCISE FOR CUTTACK DISTRICT

In the preceding chapter, it was noted that the income approach to the problem of identification of small farmer is somewhat a better proposition than the area approach. The criteria of size of holding gross value of output and F.B.I. have their own limitations and a degree of arbitrariness is present everywhere. Therefore, we devise a criterion of minimum consumption requirements, which seems to be conceptually sound and operationally workable to a greater extent. There is every reason to believe from the past experience that the small farmers have never been identified properly and defined clearly since the inception of SFDA as a result of which a number of actual beneficiaries have been excluded for getting assistance.

This chapter spells out our proposed criterion in the form of an exercise relating to the identification of small farmers in the Cuttack district of Orissa. The basic economic explanation underlying for the significance of such criterion is that it does away all such subjective elements in the process of identification.

In this connection, it would be better at the beginning to state the idea of Dr. Vyas relating to the crucial issue of identification. According to him, the inability of the small

farmers to maintain a reasonable standard of living ^{great} problems in planning and policy making. It is a fact that identification would vary from region to region due to differences in resource endowments and resource productivity. In this regard, either the size of holding or the gross income from farm does not help very much to classify the farmers, because of their operational limitations. In case of the former, we have to assume same factor endowments in all farms, which is not found in reality. Similarly, in case of the latter the assumption of same efficiency in case of resource use in different size groups seems to be illogical. Therefore, farm business income which considers variable costs alone is more realistic. On this basis, a cultivator whose farm business income does not suffice to meet the annual household requirements may be regarded as small farmer. According to the study, the farm which ensured in the reference year, a farm business income which would enable a farmer to enjoy customary standard of living may be called a viable holding.¹ This logically gives the impression that any holding which does not produce a farm income corresponding to the customary standard of living, is a non-viable holding and its operator, a small farmer.

Our proposed criterion is somewhat related to Dr. Vyas's F.B.I. criterion and the norm of customary standard of living. But, there is some kind of difference which can be easily

¹ V.S. Vyas, Significance of the new strategy of agricultural development for small farmers. A cross sectional study of two areas of Gujarat, Chapter I, p.9.

noted. We propose to define a small farmer on the basis of minimum consumption requirements. The desired level of income required for the same is the requisite norm in our method of identification. We put importance unlike V.S.Vyas on minimum standard of living and the farm income is the only source. Our proposed criterion seems to be more reasonable as the level of income and the size of family are considered here. Of course, ultimately it reflects on the standard of living of a farm household at a given time. Moreover, this is quite a flexible proposition since, it would vary from place to place, time to time and one farm family to the other.

Our desired level of income norm is related to a nutritionally desirable level of living. Of course, by this, we do not mean any scientific norm of nutrition but, below any 'conceivable' scientific norm. This nutritionally desired level of living is closely associated with the subsistence needs of the farm family. Unfortunately, 'subsistence' is not easy to define. If, we follow the scientific norms of nutrition, clothing and housing, the danger is that practically the entire population would appear to be living below subsistence.² Therefore, our notion of desired level of living is somewhat arbitrary and such element is unavoidable. Having fixed this desired level, we would say that a small farm is that which fails to produce a net farm business income sufficient to meet the minimum consumption needs of the farm family.

2 V.M.Dandekar, "Foreword", Seminar on Problems of Small Farmers, Seminar Series VII on Small Farmers, I.S.Agri. Economics, 1968, p.ix.

It would be more practicable to identify such actual beneficiaries, who need genuine help in order to reach desired level of income. However, in this connection, an immediate conclusion is derived that larger the gap between the actual farm income and desired level of income, greater would be the magnitude of poverty. In short, this shows the poor produce of the farm of the concerned farm family. Other things being given, the level of farm income is determined largely by the efficient use of the productive resources under one's command. Thus, the farm income itself reflects on the welfare of the farm family.

An important advantage of this criterion is that, on this basis the development requirements of each small farmer may be assessed in order to give him an optimum income to become self-sufficient. Of course, our scope of study is limited to the identification of small farmers and not how best they could be helped to be self-sufficient.

It would all the same be useful to start with two basic propositions in our mind, the minimum consumption requirements and income from farm for the purpose of identification. Here, it is an attempt to identify such farmers in the Cuttack district for the year 1969-70. For the purpose, we resort to rely on the data of farm management studies where farm income of different size of holdings are clearly estimated. The reference year of our study is a normal year since green revolution had little impact on farm income. Because, it was limited to the mostly irrigated areas of Punjab, Haryana and Western U.P. Besides,

farm management studies would provide us the information relating to the break up of inputs by various cost concepts in detail. Identification on this basis may help the agencies thereby to devise more appropriate measures through various schemes and programmes to raise the farm income to a desired level.

In this connection, we have accepted the concept of minimum consumption requirements suggested by Dandekar and Rath as an appropriate criterion for getting standard and less flexible values. Thus, the identification of small farm necessitates a correct measure of farm size and our standard norm to which it is adjudged as small. Hence, it is not the small farm as such but 'smallness' of farm that matters most.

In estimating the minimum consumption requirements, Dandekar and Rath have used N.S.S. data for measuring the poverty in different states.³ For our purpose, in Orissa and at 61-62 price level the total consumption expenditure that could provide a minimum diet with a calorie content of 2250 per capita per day is valued at Rs.167/- per capita per annum. In order to know the required amount of expenditure for the year 1969-70, the price index for agricultural labourers for Orissa may be referred. The price index for the above class in the reference year is 213, the index being 100 at the base year 1960-61.⁴

³ V.M.Dandekar & Rath, Poverty in India, Ford Foundation, New Delhi, 1970.

⁴ Consumer Price Index of Agricultural Labourers of Orissa, Indian Labour Statistics, 1971.

Therefore, the same consumption pattern may cost Rs.355.71 in 1969-70, per capita per annum.

The consumer price index of agricultural labourers for the state is referred because small farmers as a class also depend upon the allied activities like agricultural labour and they spend a substantial part of their income on food. Besides, the standard of living of small farms is more or less the same as of agricultural labourers. Hence, the use of such price index seems to be more appropriate.

In the estimation of family consumption requirements, size of the family seems to be crucial. For the purpose, we obtain detailed informations about the size of holdings, number of operational holdings in each size group so as to estimate the size of the family from the Report on Agricultural Census of Orissa for the year 1970-71. Since, the study pertains to the agricultural year 1969-70, we assume no significant change in the size group of the family within one year.

Table 4.1 gives a better representation of minimum consumption requirements of the family in view of the corresponding size of the family and the size of operational holdings. The table indicates that the size of the family is estimated on the basis of total number of households and total number of members of the households in the corresponding size group. Here, the farm family size varies from 4.07 of the second size class to 5.28 of the fourth size class and the average size of

Table 4.1: Farm Population According to Size of Holding for the State Orissa

Size class (in hec- tares)	Total number of members of the family house- holds in di- fferent age groups	Total number of the family house- holds	Average size of the family	Per capita per annum minimum consumption requirements at 1969-70 prices Rs.	Total income re- quired to meet the farm family expenses at di- fferent size of the family 1969-70 prices Rs.
Below .5	3147493	731668	4.30	355.71	1529.55
.5 - 1.0	3031360	743871	4.07	355.71	1447.73
1.0 - 2.0	4649832	1120719	4.14	355.71	1472.63
2.0 - 3.0	1248696	236195	5.28	355.71	1878.14
3.0 - 4.0	1099092	216415	5.07	355.71	1803.44
All size class state as a whole	14874185	3407418	4.36	355.71	1550.89

Source: Agricultural Census of Orissa, 1971, p.384.

family of all size class of holdings is 4.36. Accordingly, the minimum consumption requirements for the reference year has been estimated. Any farm family which fails to earn such desired level of income from farm (in each size group) according to our criterion may be regarded as small farmer.

Now, we desire to convert the income criterion into area criterion for the operational convenience. In other words, we are yet to determine the size of holding in each case. But this is very closely connected with the productivity of land and cropping pattern productivity again depends upon the fertility of the soil, irrigation facilities etc. The farm business income is closely associated with the size of the farm. Hence, the same may be accepted as an important criterion to assess the minimum consumption requirements. In farm income, the variable costs are taken into account. This takes care of the efficiency in case of the use of resources.

In order to consider the value of farm produce as measure of the farm size, we account not its gross value but, the farm income net of costs. Such farm income is available to the farm family for consumption. The relevance of this as a measure of the farm size on of the farm business for the present purpose will become evident. While, estimating such farm income as paid-out wages of hired labour is estimated in the variable costs, similarly, the wages which accrue to the farm family members working in other farms may be estimated in the farm income. But, unfortunately, the necessary informations relating to the earnings

of such wages for working in other farms are not available in the farm management studies of the Cuttack district for the reference period. This may be the limitation of our study.

It is important to note that in the estimation of the size of holding, the farm income of each size class is to be adjudged with the corresponding desired level of income so as to fix the upper limit below which holdings would be regarded as small.

It is necessary to point out here that F.B.I. is defined by the farm management studies of the Cuttack district for the reference year as the difference between the value of gross output (including by-products) and the expenses were worked out on the basis of cost A_2 . Such cost A_2 includes, value of hired human labour, value of hired animal labour and owned animal labour, value of seeds, manures and fertilisers, depreciation cost of the agricultural implements, land revenue, water rates, irrigation charges and interest on working capital if any. In other words cost A_2 refers to only variable costs. As we have stated earlier, income from farm depends upon irrigation, productivity of the soil, cropping pattern, etc. While, estimating the farm income of the Cuttack district, it is desirable to focus our attention on the sample farms, their area of operation, irrigation facilities etc.

Table 4.2 shows that the distribution of farms are unevenly distributed in different size groups. The fourth size group has the maximum number of farms with more than 100

Table 4.2: Distribution of Farms, Cultivated Area and Average Size of the Farm in Different Size Groups

Size group (in hecets.)	No. of farms	Total culti- vated area in hecets.	Net sown area in hecets.	Gross cropped area in hecets
0 - 0.81	26	11.07	11.07	16.12
0.82 - 1.32	36	38.02	37.87	57.17
1.33 - 2.04	37	62.12	61.95	91.76
2.05 - 3.64	41	105.85	105.59	152.09
3.65 & above	10	47.43	97.34	61.80
Total	150	264.49	263.82	378.84

Source: Farm Management Studies, Cuttack 1969-70, p.148.

hectares of cultivated area. The total gross cropped area of all the sample farms is 378.94 hectares. Total cultivated area is 264.49 and the net sown area is 263.82. The difference between these two is the current fallow. The gross cropped area is larger than cultivated area and N.S.A. since area sown more than once is added here.

From Table 4.3 we find the cropping pattern of the sample farms and the sample villages relating to the area of operation under various major crops. In fact, paddy of all varieties and grams occupy 77.40 per cent and 14.19 per cent of the gross cropped area respectively. This shows paddy is the major crop

Table 4.3: Distribution of Area in Hectares under Various Major Crops for the Year 1969-70 in Irrigated, Unirrigated and Flooded Zones

Name of the major crops	Percentage of area	Area of sample villages in hect.	Area of sample farms in hect.	Percentage to total
Kharif paddy	70.49%	77.40	2101.30	71.88
HYV paddy	3.82%			
Dalua improved paddy	2.67%			
Green gram	8.51%	14.19	384.83	13.31
Black gram	3.82%			
Horse gram	1.86%			
Potato	1.67%	8.41	218.67	14.81
Jute	1.58%			
Sugarcane	1.18%			
Others	3.98%			
Gross cropped area	100.00	2714.80	378.94	100.00

Source: Farm Management Studies, Cuttack District, 1969-70, pp.11-12.

in the area which contributes more to farm income. We do not find any substantial change in the cropping pattern of the sample farms. They are 71.88 per cent and 13.31 per cent for paddy and grams respectively.

In the Table 4.4 it is found that irrigation facilities

Table 4.4: Extent of Irrigated Area under Some Major Crops and their Percentage to Total Cropped Area by Size Groups (Area in hectares)

Crops	1st	2nd	3rd	4th	5th	All farms
Local paddy	3.83 (40.65)	12.43 (41.59)	16.30 (31.12)	31.34 (38.07)	15.91 (40.12)	79.81 (37.39)
Improved paddy	0.66 (57.89)	4.96 (72.67)	4.47 (78.01)	15.06 (77.11)	7.66 (100.00)	32.81 (80.24)
HYV paddy	0.21 (100.00)	3.26 (89.07)	4.28 (91.45)	5.16 (66.40)	0.65 (36.78)	13.55 (75.02)
Green gram	1.81 (67.00)	3.12 (49.98)	6.07 (50.55)	14.73 (63.85)	4.86 (76.17)	30.59 (60.64)
Total of major crops	6.51	23.77	31.12	66.29	20.07	156.76
Total of all crops	7.44	27.32	34.61	70.89	30.31	170.57

(Figures in the parenthesis indicate percentage to cropped area.)

Source: Farm Management Studies, Cuttack District, 1969-70, p.21.

for local paddy and green grams irrespective of the size of holdings are available to the extent of 37.39 per cent and 60.64 per cent respectively relating to their total area in each crop. Improved paddy and HYV paddy are produced in the most irrigated areas and more especially irrigation is assured for such crop.

But, these crops occupy about 6.5 per cent of the total cropped area of the sample villages (see Table 4.3). However as irrigation is the major input, it affects significantly the farm income of a crop like paddy. Now it is our attempt to estimate the F.B.I. of net sown area and gross cropped area per hectare for each size group. Since F.B.I. is more influenced by N.S.A., it would be better at this stage to state something about N.S.A. size distribution of holdings in hectares of the Cuttack district, (Refer Table 4.2).

Net sown area of the size group of holdings; 0.81 hectare and below accounts for 11.07 hectares whereas the size group of 2.4 to 3.64 hectares accounts for 105.59 hectares of the total N.S.A. of 263.82 hectares. It is a fact that the N.S.A. in each size group directly affects the farm income. Besides, intensity of cultivation affects the farm income also. Curiously, the low sized group holders intensively take care of their farms in order to get a better income for their livelihood.

With reference to Table 4.4, 170.57 hectares of the total gross cropped area of 378.94 hectares are irrigated. Similarity, for the district as a whole, with a reference to agricultural census of Orissa 1970-71 data pertaining to irrigation, one can also see that the size group of 1.0 to 2.0 hectares accounts for 36.48 per cent of the total irrigated area. It is also equally true in case of the size class of holding between .5 to 1.0 hectare, which gets 22.96 per cent of the total irrigated area.⁵

⁵ Report on the Agricultural Census of Orissa, 1970-71,
Table II.4, p.234.

Therefore, the lower sized groups seem to enjoy better irrigated area in the district.

Keeping all these considerations in our mind, we make an attempt to estimate the per hectare farm income from all crops of the N.S.A. as well as of G.C.A. in each size group.

Farm business income per hectare of N.S.A. is; total farm income divided by N.S.A. of a definite size group. By this, we desire to estimate the farm income per hectare in each size group and this would help us at large to know the size of operational holding required for a family corresponding to the desired level of income.

It is clear from Table 4.5 we observe a significant difference in the F.B.I. of different size groups. This is largely due to comparatively less irrigation facilities for big size of holdings. For an example, the size group of 2.0 to 3.0 hectares formed 10.9 per cent of the total irrigated area of the district and 3.0 to 4.0 and 4.0 to 5.0 hectares enjoy 6.63 per cent and 6.22 per cent respectively.⁶ Secondly, they use to spend more on hired labour in their farms. On the contrary, the F.B.I. of the lowest size group is very high due to the fact that these farmers make the best use of available family labour and they also enjoy better irrigation facilities. About 35 per cent of the total irrigated area of the district is enjoyed by the holdings below one hectare and 36.48 per cent by one to two hectares size group.⁷ Similarly, if we look to the farms under

6 Ibid., p.234.

7 Ibid., p.234.

Table 4.5: Per Hectare Farm Business Income of N.S.A.⁸ and G.C.A. (in rupees) of Different Size Groups

Size class in hectares	Per hectare N.S.A.	Per hectare G.C.A.
Below 0.81	975.69	670.03
0.82 to 1.32	821.03	543.86
1.33 to 2.04	707.43	447.61
2.05 to 3.64	618.55	429.30
3.65 & above	707.67	542.09
All farms	734.12	511.10

Source: Farm Management Studies, Cuttack District, 1969-70.

second size group i.e. below 1.32 hectares they get about 41 per cent area irrigated for local paddy. All these factors mentioned above might influence the farm income of different size of holdings.

Now, we would like to estimate the livestock income in each size group per hectare of N.S.A. and G.C.A. It appears, income from livestock and the farm is somewhat interdependent,

⁸ Farm business income of G.C.A. x total G.C.A. of the particular size group, divided by the total area under N.S.A. of the same size group, so also the same in case G.C.A. where the total farm business income of that size group is divided by the total G.C.A. of the same size group.

although, these are two different sources of income. Since, income from the source of agricultural labour ought to be included in the farm income, similarly, there is no reason why it should not be included.

In any case, income from livestock cannot be neglected since it is a necessary activity. Actually most of the farmers keep animals like cows and buffaloes in order to get bullocks for the purpose of cultivation.

In the farm management studies of the Cuttack district in the reference period, the costs incurred for maintenance has been estimated. This includes fodder, hired labour, depreciation cost and the output has been estimated from milk and dung only. The depreciation cost has been estimated at the rate of 20 per cent after the age of 5 years, assuming the age of animal as 10 years. Of course, the depreciation costs includes repair of cowshed, ropes and some incidental expenses. Table 4.6 reveals that the output-input ratio is less than one in dairy enterprises, indicating a loss in the business. This loss might be due to the fact that the farmers do not^{have} milch animals of good breed. They are poorly fed and cared for. But despite this, the livestock income should be added to the farm income.

It is important to note from the report as such that it is not clear, where the imputed income from births of these animals, i.e. appreciation of animals is accounted. Livestock income account only estimates for cows and buffaloes. Hence, this loss might be slightly over estimated.

Table 4.6: Livestock Income⁹ per Hectare of N.S.A. and G.C.A. of Different Size of Holdings

Size class (in hectares)	(in rupees)		
	Per hectare N.S.A.	Per hectare G.C.A.	Output-input ratio
Below 0.81	-107.65	-73.92	0.24
0.82 to 1.32	-48.44	-32.09	0.30
1.33 to 2.04	-43.27	-29.21	0.36
2.05 to 3.64	-40.87	-28.27	0.26
3.65 and above	-63.43	-48.59	0.16
All farms	-49.11	-34.19	0.28

Source: Farm Management Studies, Cuttack District 1969,70, Table 5.55, p.97.

As the family labour engaged in other farms ought to be estimated as a source of farm income, similarly, bullock labour working in other farms and plying of bullock carts outside the farm may be accounted. For our purpose, the income accrues to the farm family in hiring out bullock labour and manures, have been estimated in the farm income. There, the difference between the cost of the maintenance of such draught animals

⁹ Livestock income per hectare of N.S.A. has been estimated as F.B.I. (livestock) of a particular size group, multiplied by the number of animals, divided by the N.S.A. of the same size group. This gives per hectare income of livestock. The same is the case with per hectare livestock income of G.C.A.

(feed, fodder, upkeep etc.) and income from them have been estimated so as to know the cost of bullock labour.

At this stage, it would be better to mention the limitations of our estimations of farm income. We have neglected the income of family labour in other farms, non-farm source of income and the farm income from all crops have been estimated on an average as per the estimates of the farm management studies of the district. In other words, per hectare income estimation of F.B.I. from all crops is calculated irrespective of the area irrigated and unirrigated.

Table 4.7 gives per hectare net farm income and livestock

Table 4.7: Total Income of All Crops and Livestock per Hectare in each Size Group of N.S.A. & G.C.A. Respectively

Size class (in hectares)	Farm income all crops	Live- stock	Total	Farm income all crops	Live- stock income	Total
Below 0.81	975.69	-107.65	868.04	670.03	-73.92	596.11
0.82 to 1.32	821.03	-48.44	772.59	543.86	-32.09	510.77
1.32 to 2.04	707.43	-43.27	684.16	447.61	-29.21	418.40
2.04 to 3.64	618.55	-40.87	577.68	429.30	-28.37	400.77
3.64 & above	707.67	-63.43	644.24	542.09	-48.59	493.50
All farms	734.12	-49.11	685.01	511.10	-34.19	476.91

income of N.S.A. and G.C.A. for each size group. The livestock income in each size class is negative and the loss seems to be the highest in the lowest size class. However, inspite of the loss incurred in such enterprise, we have estimated it. Because, these animals are maintained only with a view to getting some organic manure and actually they are fed with some by-products of the farm production activities.

Now, we make an attempt to estimate the hectarage required for getting desired level of income and per hectare income from farm of N.S.A.

Table 4.8 is prepared after suitable adjustments in the size of holdings so as to enable us for better comparison. It is very clear that the size of the family determines the desired level of income, and this is as it should be. While adjudging the farm business income in each size group corresponding to the desired level of income, we get different holding requirements. It is important to note that, the holding requirements in case of large size class of holding is greater than the small size class of holding. This is due to two important reasons, firstly F.B.I. of small size class is significantly high and secondly the family size of this size class is also small.

Land holding requirements for the viable limit in each size class of holding is also estimated in Table 4.8. It appears unreasonable as well as impracticable from the operational view points to demarcate the small farms from the rest. Theoretically, it appears quite reasonable no doubt, but for

Table 4.3: Adjustment of Desired Level of Income with Farm Income of N.S.A.

Size class (in hectares) (1)	Desired income Rs. (2)	Size class in hectares (3)	Farm income from all crops Rs. (4)	Land re- quired (in hect.) (5)
Below 1.0	1486.88* (4.18)	Below 1.32	794.18**	1.87
1.0 to 2.0	1472.63 (4.07)	1.33 to 2.04	684.16	2.15
2.0 to 4.0	1842.77* (5.18)	2.05 & above	598.28**	3.07
Overall size class (includ- ing farms with more than 4 hectares)	1550.89	All farms	685.01	2.26

(Figures in the parenthesis of the 2nd column is the family size.)

* All members of the family of the first and second size class (refer Table 4.1) of holdings divided by the number of operational holdings of both 1st and 2nd. This results average family size to be 4.18. Similarly, family size of the third size class is obtained.

** Farm income of the first size class, multiplied by N.S.A. of the same size, plus farm income of the second size class, multiplied by N.S.A. of that size class, divided by total N.S.A. of first and second size class. (Refer 4.1).

our purpose, it is practically very difficult to follow a set of operational holdings for a state or even for a district.

Therefore, the better alternative may be the estimation on an average holding requirement, irrespective of definite size classes. This would possibly be a better proposition. In fact, it is our 'upper limit threshold' and so-called viable limit. As such for Cuttack district operational holdings below 2.26 hectares may be identified as small farmers. The consideration of F.B.I. for the upper limit threshold is more realistic and to our mind, this is possibly the most reliable source which can better reflect the standard of living of the farm family at a given time. On the other hand, consumption needs of a farm family on the basis of subsistence requirements seem to be a more reasonable consideration for the identification of small farmers, since this reflects on the family size too. In this way, our criterion of identification, considers both farm viability and family viability.

On the contrary, those who advocate 'minimum requirements of the family' as the criterion for the identification of small farmers, they adjudge such desired income with the total income of the farm family i.e. both farm income and non-farm income. Here, they consider family viability but not farm viability. Similarly, those who define small farmers on the basis of F.B.I., there they consider that farm family fails to produce an income from farm for a customary standard of living at a given time is regarded as small farmer. Thus, such criterion takes care of the farm viability only, not the family.

Now our attempt is to evolve lower limit of the holding

qualifying for getting assistance so as to raise farm income under SFDA. This may be called, the 'potentially viable threshold'. It appears that the potential limit i.e. 2.5 acres was recommended by the Rural Credit Review Committee (1969). In fact, our purpose is neither to judge the arbitrariness of such lower limit nor our intention is to estimate the same at this stage. But we would like to establish the fact by some reasoning from the experiences and conditions of farm business of Cuttack district.

Here, it is only a theoretical observation relating to the feasibility and reasonability of the adoption of improved techniques, irrigation, services of machines etc. in the small farms of 2.5 acres i.e. one hectare, so that the potential limit still may be reduced. Such one hectare limit falls in the second size group (see Table 4.2) in the farm management studies of Cuttack district 1969-70.

As per the study of Cuttack district for the year 1969-70, there are 57.17 hectares of G.C.A. of this size group (0.82 to 1.32) and there are 36 farms. The average area of holding comes to 1.58 hectares. The total irrigated area under this size group is 27.36 hectares (see Table 4.4) where each farm seems to get only about 0.75 hectare of irrigated land on an average. Paddy is the major crop of the district and there are three varieties of paddy, local, HYV and improved paddy. The area under paddy is about 40.38 hectares of the second size class of holding (local paddy 29.89, improved paddy 6.83, HYV

paddy 3.66).¹⁰ The total irrigation available to this size group for paddy is 20.65 hectares (Table 4.4) in which HYV and improved paddy irrigated are is of 8.22 hectares. But the total area of these two varieties of paddy is 10.49 hectares.

With this background, one can possibly make an attempt to see to what extent it is possible to raise the farm income of Rs.794.18 of the size class below 1.32 hectares to a desired level of income of Rs.1486.88. In other words, in order to reach the stage of viability, it appears that the farm income has to be increased almost by double at present.

All that possibly could be done is to convert the local paddy cultivating area to HYV, so as to increase the farm income since paddy seems to be the major crop in the area. This is somewhat a theoretical proposition to raise the farm income. Because, HYV paddy needs assured irrigation, package inputs, better techniques of production etc. With all possible optimum estimates, traditional techniques can be substituted adoption of modern techniques into some extent, if not to a significant extent.

As we have stated earlier, the average size of the irrigated land for each farm is around 0.75 hectare i.e. about one half of the average size of holding of this size class. Irrigation itself is quite expensive since in some cases it involves

10 Farm Management Studies, Cuttack 1969-70, Directorate of Economics & Statistics, Ministry of Agriculture, 1973, Table 3.6, p.19.

heavy capital investments. Therefore, it is practically not possible to convert the rest half of the unirrigated land to irrigated land for each farm.

The size of land holding is an inherent constraint on such farms. The expenses of irrigation along with package inputs, and better techniques of production would increase the costs of production of the farm. It does not appear to be an easy task, thereby, we do not think the costs of production of this magnitude can be neutralised by the increased farm income. Therefore, we tend to agree with the 2.5 acres lower limit since no provision of credit to these farms that is not likely to change the basic character of agriculture through irrigation is likely to be of much use or worthwhile.

From the foregoing paragraphs, it is now clear that consideration of the lower limit threshold is neither necessary nor desirable for Cuttack district, with all possible post-developmental estimates by adopting HYV packages. It would be more unrealistic to get a picture relating to the type of improvement envisaged and the stage of development attained after the improvement under optimum conditions for these admittedly very small cultivators of Cuttack district.

The adoption of new technology may be more expensive for such small farmers since they would resort to hired labour apart from the family labour available. On the one hand, they would neglect their source of income and on the other hand the new techniques of production would involve heavy expenses for all

such modern inputs. Keeping all these factors in mind, we do not think it proper to deviate from the potential limit (2.5 acres) fixed by the SFDAs.

A better way of identification would be to estimate net (i.e. over cost A_2) incomes for an irrigated hectare and unirrigated hectare separately and then classifying a farmer as small (or otherwise) by looking at the components of irrigated and unirrigated land.

In the context of our rural economy a workable approach like this may be more reasonable but this involves several problems. Firstly, pattern of irrigated crops and unirrigated crops differ from farm to farm. To make a realistic approach one has to make estimates for all individual irrigated and unirrigated crops. This is a tall order. Even, in Farm Management Studies, income of only a few major crops is available and even in that irrigated/unirrigated break-up is not always available. Indeed, the point can be examined from a slightly different angle. In Cuttack, paddy is the main crop. Unfortunately irrigated paddy and unirrigated paddy are not separately analysed. But, in the report of farm management studies 67-68, we have a separate analysis for rabi paddy which is entirely irrigated. To quote the study report, "cultivation of paddy during rabi season is not popular with the farmers of the region mainly high yield paddy is grown in certain areas where irrigation facility exists."¹¹

¹¹ Farm Management Studies, Cuttack District (Orissa), Report for the year 1967-68, p. 125.

From 67-68 report, we see that the yield of rabi paddy is 20.12 quintals per hectare.¹² For kharif paddy, irrigated/unirrigated paddy areas are equally important. According to 69-70 study report total area under kharif paddy is 1913.17 hectares. The irrigated area for such paddy is about 41.40 per cent of the total kharif paddy area and the rest (58.60 per cent) came under unirrigated and flooded area. But kharif paddy yield of 69-70 is almost the same as in 67-68 i.e. about 15.20 quintals per hectare.

Assuming, rabi paddy (which is irrigated) yield is of the same order as yield for kharif irrigated paddy (i.e. 20.12 quintals per hectare) and taking into account area components of irrigated/unirrigated paddy for kharif paddy, we see that for unirrigated paddy an estimation of about 11.74 quintals per hectare is arrived at.¹³ We are quite aware that rabi paddy yield would be slightly high^{er} than kharif irrigated paddy. In case of the former the water is controlled and possibly it is properly used. The same case is also with regard to inputs like fertiliser, pesticides etc. But, in case of the latter, the land is irrigated and so also rainfed, hence the yield is bound to fluctuate. But, however, we have accepted it as a matter

12 Ibid., Table 5.24, p.126.

13 Yield irrigated $\frac{\text{Area irrigated}}{\text{Area total}}$ + yield unirrigated

$\frac{\text{Area unirrigated}}{\text{Area total}}$ = Combined yield.

of illustration only. Taking into account this yield differential from 69-70 report one sees that income per quintal paddy (inclusive by-product) comes to be about Rs.30/- per hectare.¹⁴ Therefore, a farmer with only irrigated paddy earns Rs.603.6 per hectare as income. To reach the required minimum consumption standard of Rs.1550.89 $\left(\frac{1550.89}{603.6}\right)$ i.e. about 2.56 hectares of paddy unirrigated area would be necessary. Similar estimate for irrigated paddy comes to $\left(\frac{1550.89}{352.2}\right)$ i.e. 4.40 hectares. These appear to be reasonable limits, but one must remember that these relate to farms growing paddy only.

As per our estimates of the upper limits on the basis of farm income from all crops, farm income from paddy irrigated and paddy unirrigated appear to be 2.26 hectares, 2.56 hectares and 4.40 hectares respectively.

While estimating the total number of holdings in order to know the magnitude of such farmers in the Cuttack district, we find that there are about 551011 (below 2.3 hectares) holdings out of 628002 to be regarded as small farms on the basis of our criterion of identification i.e. about 87.74 per cent of the total number of holdings.¹⁵ But, while estimating the number

¹⁴ Table 5.5 (69-70), Farm Management Studies, p.64, per hectare income Rs.462.57 (over cost A_2) divided by average yield per hectare 15.48 quintals comes to Rs.29.88.

¹⁵ Agricultural Census, Orissa, 1970-71, Table 1.4, p.220. (Within the size class 2 to 3 hectares and 4 to 5 hectares the number of observations are assumed to be equally distributed).

only on the basis of irrigated paddy income, they are about 130207 out of 137005 irrigating holding (below 2.6 hectares) and on the basis of unirrigated paddy income, they amount to be 413747 out of 420342 holdings (below 4.4 hectares).¹⁶

Inclusion of other crops would change the above mentioned per hectare requirements somewhat and the present exercise is only an illustration.

16 Ibid., p.234.

CHAPTER V

SUMMARY AND CONCLUSIONS

In India, the small farmer constitutes bulk of the agrarian population. Any development of agriculture must be examined in the context of this large segment. Over the last decade, there has been an increasing awareness among researchers and policy makers that this large segment of the people in the cultivating community is not receiving the benefits of growth.

The so-called 'Green Revolution' in the mid-sixties resulted in wide disparities in income from agriculture between small and big cultivators. To remedy this situation, the idea of establishing special agency like SFDA was mooted. After a decade of the functioning of this agency, one realises that lack of proper identification is one of the reasons for its limited success.

Therefore, our overall objective was to devise a better objective criterion which must be conceptually sound and operationally simple, since our economy aims at "growth for all" in the existing socio-economic set-up. Chapter I dealt with this statement of the problem.

In the second chapter, we have spelt out the significance of such identification issue and there, more explicitly we have stated the basic reasons for identification.

To make our analysis more clear and logical, we have resorted to a number of practical experiences of the recent past. There, we have pointed out the experiences of various SFDA as revealed by the empirical studies of different Agro-Economic Research Centres. In order to have a better workable and less arbitrary criterion, these centres also have suggested to consider a number of factors. We have carefully noted the limitations in each case, which is a necessary step in the search for a dependable criterion. In brief, this chapter dealt with the significance of the study of identification of small farmers at present, so that actual beneficiaries can get the necessary help from SFDA.

In the third chapter, we discussed the criteria followed and norms fixed by different agencies along with the criteria suggested by different economists from time to time. We have mentioned therefore that although, size of holding is simple from the operational view point, unless, the factors like productivity, cropping pattern, irrigation are at least indirectly accounted for, mere size of holding is arbitrary. Besides, we have argued in favour of operational holding rather than ownership holding for identification.

Gross output criterion may be a substitute for the size of holding but, it does not take into account livestock income, hiring-out labour, minimum requirements of the family, family size and hence, may not truly reflect on the "smallness" of the farm. We have also considered net income and F.B.I. criteria

for the purpose of identification. In case of the former cost C is accounted for, which reflects on the loss or profit of the farm business. But, we have argued that F.B.I. is a more suitable criterion for identification under Indian conditions. This considers the standard of living of the people at a given time and this can provide necessary informations to SFDAs to devise suitable measures in order to increase the farm income. But, how far it would satisfy minimum consumption requirements of family is not known by this criterion. Therefore, we argued that unless, family size, their minimum consumption requirements are considered, mere F.B.I. cannot be very useful for the purpose of identification. There, we pointed out that both Farm viability and Family viability are relevant in the search for a suitable criterion.

Hence, we considered minimum consumption requirements criterion to be somewhat better proposition in comparison to other existing criteria. Of course, we have discussed some other criteria like credit eligibility which is a most successful proposition in case of a state like Maharashtra, where cooperative structure is very strong at the grass-root level. Apart from this, the subsistence norm for identifying the small farmers has been considered by us. But, we have pointed out its limited applicability to foodgrains producing areas. The viability consideration of T.V.S.Rao has been examined by us in more detail, especially his estimation of the potential limit for Nalgonda district in view of a definite crop rotation

and irrigation facilities. In short, our attempt was to examine each criterion, stating the inadequacies in each case, so as to evolve a better workable criterion.

In Chapter IV, our attention was exclusively focused on the application of our proposed criterion in the Cuttack district. There, we have followed the estimation of Dandekar and Rath relating to the subsistence level of consumption consideration on calorie basis. By following the Farm Management Studies data for the year 1969-70 of the Cuttack district, we have estimated the income from all the crops and livestock in each size of holding. But, we have neglected the hiring-out of human labour as a source of farm income in our estimation. On the contrary, on the basis of family size in each size group, the minimum consumption needs have been estimated so as to adjudge with farm income. While estimating the farm income, productivity, irrigation, cropping pattern, soil-climate complex have been indirectly accounted for.

As, we have pointed out earlier, the Farm viability and Family viability in each size class of holding have been considered by us. The landholding requirements to produce a desire level of income in each size class is somewhat a theoretical proposition for identification. Thereby, we have argued in favour of a size of holding of 2.26 hectares for the district as a whole for the year 1969-70 on an average for operational convenience and any farm family operating below this size of holding is small. It is obvious that family consumption

requirements are largely affected by the family size. Moreover, the farm business income on the other hand is also less in case of large size class. Therefore, the size of holding requirement seems to be high in the above case and this is as it should be.

However, circumstances may not vary very much in other SFDA areas. There is an urgent need for operationally defining a small farmer and making suitable modifications in the procedure followed. In fact, one must recognise the absurdity of rigid adherence to a set of operational holding ranges across vast areas in the country for the consideration of identification. We considered 2.26 hectares to be better for operational view point and we are confident that on this basis funds would actually flow to the genuine beneficiaries who need help in order to help themselves.

It appears, there would not be any difficulty in making an exercise by the state planning department for such upper limit on the basis of our proposed criterion. There, of course, hiring-out of human labour must be considered in the farm income. Data are available on poverty line for each state. Data relating to the cost of production and yield be obtained from different surveys conducted by research organisations and from Season and Crop Reports of State Bureau of Statistics and Economics. Since, this criterion is quite a flexible proposition, the subsistence level of income required to meet the consumption needs can be better estimated by following consumer price index of such class. This, ultimately accounts for the standard of living for a given period.

As regards the lower limit, we have accepted one hectare to be the limit for Cuttack district for obvious reasons. Because, under the irrigation conditions, cropping pattern and farm income at present (1969-70) it appears unrealistic to raise the farm income by double in view of the expected irrigation cost along with costs of other inputs which hardly can be neutralised by the corresponding yield.

Lastly, we have made an attempt to distinguish small farmers from others on the basis of farm income from irrigated kharif paddy and unirrigated kharif paddy separately. Since, farm income break up of irrigated/unirrigated for each crop separately is not available in the Farm Management Studies, our attempt has been exclusively confined to one crop. There, of course we had to assume that the yield of rabi paddy is of the same order as yield for kharif irrigated paddy. However, our attempt was merely for the sake of illustration and nothing else.

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