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Farmers' account book in  
underdeveloped countries

By P. N. Mathur.

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**FARMERS' ACCOUNT BOOK IN  
UNDERDEVELOPED COUNTRIES**

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**Poona 4**

**1959**

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## CHAPTER I

### Working of the Scheme

The practice of keeping accounts by the farmers in India is practically non-existent. Firstly a very large proportion of the Indian farmers is illiterate. And even those few who are literate do not get any guidance on this from anybody. In some countries like United States most of the agricultural colleges have devised account books for agriculturists. They sell or distribute these books free and give detailed guidance to the farmer in its use. In India on the other hand no such agricultural account book has been developed keeping in view the peculiar circumstances of Indian agriculture and the nature and aptitude of Indian Agriculturist, nor any techniques for popularising the same have been thought out. The present project is an attempt in this direction.

Gokhale Institute of Politics and Economics has been conducting studies in farm business for the last twentyfive years. In all these studies the required data had been collected through the agency of trained field investigators. The investigator filled an account book for each of the selected cultivators after getting the information from them orally. The data thus collected has been used for the analysis of farm business. In these surveys some experience was gained in designing the farm business account book suitable for Indian farming conditions. One of the aims of the present study had been to find out how much this account book will have to be modified if it is to be recommended for keeping farm account by the educated farmers themselves, and how can it be improved so as to make

it more useful from the point of view of the actual cultivators as contrasted with the requirements of the research worker in farm business.

Alternatively we can look at the account keeping activities by the specially selected farmers themselves, as an alternative to the costly and probably less reliable method of stationing a trained investigator in the village for whole of the year for every six to eight selected farmers. To explore the possibilities in this direction may be taken as a secondary aim of this study.

## 1.2 The Plan.

The sons of the cultivators studying in the school, were thought to be the most promising section of the cultivator's family for being trained in the keeping of farm accounts. It was considered that their young blood will be comparatively more enthusiastic for the new idea and they will be more amenable to the instructions of the instructor, particularly if that instructor himself happened to be a teacher at their school.

Consequently arrangements were made to get the services of six primary school teachers on deputation for a year to work as the instructors in the scheme. It was felt that to get the best result they should work in an area where they had already served for a considerable length of time in the capacity of a teacher and thus enjoy a certain amount of respect and confidence of the people of the area. As such

these teachers were allowed to select that village for the scheme where they thought they had the best chances of success. However, care was taken that each selected village should have at least a primary school teaching upto seventh standard, from the students of which the bulk of trainees were planned to be selected.

It was thought that one instructor would be able to guide about hundred students in keeping accounts. As about one fourth of the students taking up the scheme were likely to drop out initially about one hundred and twentyfive trainees were selected for each centre. As so many voluntary trainees could not be found in the selected village, students from neighbouring villages having primary school upto at least seventh standard were also selected. Some non-student cultivators who showed keen interest in the scheme were also admitted as trainees. The trainees were expected to keep the day to day account of the farm business of their family holding. However, some students from the non-cultivating families, who showed a keen interest in the scheme and who could get a cooperating cultivating neighbour whose accounts could be kept were also admitted to the training. To encourage the participation in the scheme a sum of Rs.25/- was provided as a reward to every trainee who would complete the account book satisfactorily.

### 1.3 Selected Centres:

This project was undertaken in six districts viz. Nasik, North Satara and Karwar of the former Bombay State, Buldana

and Wardha of the former Madhya Pradesh and Osmanabad of the former Hyderabad State. After reorganisation of the States, all these districts have come under the Bombay State except Karwar, which has been included in the Mysore State. Details of the centres selected in each district are given in the appendix.

#### 1.4 Progress of the Scheme:

After an initial training at Poona, the instructors were sent to their respective centres. There they gave instructions to the trainees in the filling of the farm accounts. Then they met each trainee weekly to inspect and guide their work.

Out of the six centres in which the scheme was launched, the work had to be given up in two, mainly due to the instructors' not being able to enthuse the local people. In the two of the remaining centres of work was not encouraging. With the approach of their annual examination the students were increasingly neglecting their farm accounts and some altogether stopped the keeping of the same. However, in the other two centres the work proceeded satisfactorily. In each of them the number of persons who kept account satisfactorily exceeded one hundred.

#### 1.5 Incidence of success.

In the four centres, where the project was in operation till the end, in all 478 trainees started keeping of the accounts. Of these only 244 completed it satisfactorily.



The details for each centre are given below.

Table No.1.5.1 : Number of trainees keeping account satisfactorily.

Centre	Khatav	Ter	Chendiye	Deulghat	Total
Total trainees initiated	129	69	125	155	478
Of which satisfactorily completed	19	5	103	117	244

Though the success seems to be about fifty per cent, from the above table it is evident that in the two centres, Khatav and Ter the scheme could not succeed. In the remaining centres where it worked, only 60 trainees out of 280 could not continue. Thus we can say that out of six agricultural instructors selected, only two could do their job satisfactorily and out of the trainees of these two, seventynine percent could be successfully trained. Given suitable instructors the response of student-sons of cultivators to the keeping of farm accounts seems to be very encouraging.

Out of the sixty trainees who could not complete this training successfully twelve were unable to do so as they migrated out of that village either permanently or temporarily during the year, while another seven complained of the non-availability of detailed guidance. And further nine of these were asked to discontinue either due to illegibility of their hand-writing or their habit of recording false data.

Out of the total trainees in these villages fifteen per cent were non-students and the rest students. About seventy per cent of non-student trainees and eighty one per cent of student trainees successfully completed this training into the maintenance of farm accounts. Whether a student was keeping account of his family's holding or that of his neighbour does not seem to have effected his chances of successfully keeping accounts for the while of the year. Seventy nine per cent of the former and eighty three per cent of the latter completed the training.

However the class in which the trainee was studying naturally limited his capacity to grasp the whole system of account keeping. Among the student-trainees studying in standards below 6th, seventy per cent were successful. The corresponding percentage for trainees studying in 6th or 7th standards and for those studying in higher standard than 7th were 79 and 87 respectively. This is inspite of the fact that sufficiently much more time was devoted by the instructor on junior trainees than senior ones.

#### 1.6 Suitability of students for keeping farm accounts:

From the above it can be said that given suitable guidance, students of comparatively higher standards can be trained to keep farm accounts. Being members of the family they have an easier access to information and much more facility for varification of the same as compared to any outside investigator. As such the quality of the data

collected by students about their own farm is likely to be quite good. However it was found that there were many errors in the area and land revenue figures of the various plots as recorded by the students. For these figures it proved necessary to check them against those in the village records.

As the schools open only by the middle of June, it is not possible to commence the recording before the beginning of July while quite a few preparatory operations for the Kharif crop are done before that date. Further it becomes difficult to induce them to keep on writing the accounts on any holiday or on the days when they absent themselves from the school, which was by no means infrequent. Many of them neglected this work on the nearing of examination as this consumed much studying time and was in no way going to give them any credit in examinations. As such if the data collected by this agency are to be used for analysing the farm business by a research worker this may be better supplemented by that collected by their instructors themselves, to fill in the occasional gaps.

#### 1.7 Conditions of work of Agricultural Instructors:

Throughout the year the agricultural instructors had to work under heavy pressures. The selection of a large number of villages distant from the headquarters and inadequately served by transport facilities resulted in

considerable personal inconvenience and hardship to the agricultural instructors as also in considerable waste of time in moving from village to village.

Further the selection of non-students and the frequent absence of students from schools prevented the Agricultural instructors from meeting all the students jointly in the class and consequently obliged them to move from house to house for imparting instructions. They also had to meet the parents of the students for verifying several of the entries made by them. All this required a lot of time. And the large number of books initially in force meant a further heavy work.

The selection of students of low age groups studying in lower standards meant greater attention to instruction and closer and constant supervision and guidance. It also meant more numerous computational errors on the part of the students and hence meant heavy correction work to the Agricultural instructor.

As the students were unable to furnish correct figures of area and land revenue for the individual plots comprising the selected cultivated holdings, agricultural instructors had to obtain the relevant data from the village records which increased this work correspondingly.

Every long leave enjoyed by the agricultural instructor resulted in the staggering of the work as there was no pro-

vision for the reserve staff to take charge during the leave period of the agricultural instructor.

Thus these teachers were obliged to reconcile themselves to heavy and continuous work all the year round without any break or vacation, which exasperated them and it would have been very difficult to persuade them to continue on deputation for any more length of time.

#### 1.8 Suggested modification in the plan of work:

For the reasons stated above the plan of work adopted in this scheme has not proved very successful. In the light of the experience gathered during the working of this project, the following modified plan of work for the selection of villages, instructors, and candidates and the programme of instructions in farm account is suggested for the purpose. It is hoped that this modified plan of work will be more successful in its operation than the one that was tried out.

We have seen above that it becomes onerous for an agricultural instructor to move from village to village and within a single village he may not have sufficient work and secondly his persuasive power as well as authority on the students and their parents are much reduced as soon as he ceases to be a teacher. Besides, obtaining on deputation the services of a senior full time teacher entails protracted

correspondence regarding the terms and conditions of service and results in unnecessary delay. In view of all this it may be better to recruit part-time agricultural instructors, from among the teachers, teaching sixth or higher classes in a full fledged primary school or a secondary school. Approval of the educational authorities concerned should be obtained for such an arrangement and an assurance should be sought from them that the teachers participating in the project would not be transferred during the period of investigation. Obtaining the approval of the educational authorities for such an arrangement would not be difficult as there is an established practice of the teachers being permitted to work on salary, in their spare time, for even non-educational work like that of a village postmaster, secretaries of village panchayat, etc.

The teachers thus selected should be required to instruct in farm accounts a limited number of students, studying in the classes taught by them in the school and supervise and guide them in keeping the accounts of their family holding. The selection of students may profitably be confined to the students studying in the sixth or higher standards in the school. Preference should however be given in selection to the students coming from the cultivating classes. It may be difficult for such a teacher to guide more than ten to fifteen students effectively. And as such the number of

students per teacher should be kept below that number.

These teachers may better be paid on a piece rate, a fixed amount per book per month. In order to induce them to provide effective supervision and guidance and to ensure that they see to the regular and satisfactory keeping of accounts, no payment be made to them in respect of books which cease to be kept as from the day they are ceased to be kept. Apart from this they may be given an incentive bonus for each of the book satisfactorily kept for whole of the year. A reasonable rate may be two rupees per book per month with a bonus of Rs.20/- at the end of the year. This high rate of bonus may be a big incentive for seeing the work through.

The above plan of working will restrict the scheme to only villages having secondary schools or the first grade primary schools which have classes upto seventh standard, for it is proposed to selected students of sixth or higher standard only and it may be to limit the students of the teacher cum agricultural instructors to the classes that they are teaching in their schools.

#### 1.9 Suggested plan for working of the scheme:

The candidates may be initiated in keeping farm accounts through tutorials of about 45 minutes duration, conducted at the school on every working day, just before

or after the working hours as is found convenient. The information which has to be obtained from the village records should be collected by the agricultural instructor and all other information should be collected by the candidate either by personal observation or by interviewing their parents. The agricultural instructor should also visit the students' houses periodically to verify the basic information at the commencement of the work and a sample of day to day data afterwards.

The account books may better be kept at the schools which will ensure against the loss of a book or of some detectable pages thereof. Besides the students may be required to write the account books at the school, during the tutorial period. This practice will not only ensure regular keeping of accounts but will also minimise the commission of errors as the candidates will fill them under the direct supervision of the instructor.

In periods of long vacation, the agricultural instructor should arrange to meet the students regularly. If some of the students go out of the village temporarily, the instructor should see that the operations about the holding are recorded either by some other students or by the instructor himself. Similar arrangements may be made, if for any reason, such as sickness, a candidate is unable to keep accounts for some length of time. At examination



time the instructor may have to assume a large share of the responsibility for keeping the accounts. A larger bonus, as suggested, almost just after the examination should act as a sufficient incentive to the instructor to take up that responsibility also.

Availability of a large number of students for selection, due to the selection of villages having a secondary school and limiting the number of candidates with an instructor to ten or fifteen will make possible the recruitment of two or more instructors from each of the selected villages. Consequently if one of the instructor falls sick or goes on a long leave the others may be asked to share his work among themselves. The instructors thus taking upon themselves the extra work should be paid for the extra work done by them, pro rata, the amount so paid being deducted from the remuneration payable to the instructor whose charge has been taken over. Such an arrangement will eliminate the need to maintain reserve staff.

#### 1.10 Remuneration to the students:

In the scheme worked out it was provided that each student completing the account book satisfactorily will be awarded a cash prize of Rs.25/-. In fact two hundred and forty four of the students were awarded that prize at the satisfactory completion of the work. This prize was not able to creat that much enthusiasm among the student

population that it was expected to. On the other hand when reproached for their negligence of the work quite a few students used to reply that they did not care for the paltry award of Rs.25/-. And there was a constant grumbling among the student population that the amount of the award was too meagre compared to the efforts that they had to put in filling the account books. Thus it is evident that the efforts were not taken as educational ones, and an idea that the work that they are doing is required for some other purpose primarily for which they are just cheap investigators got hold over the student population. Due to the prevalence of a definite type of educational tradition in our country, it is incomprehensible by the people that anybody can be paid extra for being educated just for the asking of it.

In view of the above it is suggested that no cash award should be given to the students who have kept the account satisfactorily. Instead of that a certificate to this effect may be awarded to those students, which may be useful to them in after-life as a qualification. This type of award is well understood by the people as the result of an educational effort.

## CHAPTER II

### The Account Books.

In the present study, the trainees were required to keep accounts in two types of account books designated as a ledger and a day book. The day book was meant to keep the day-to-day account of the various agricultural operations and of the working of the family and bullock labour. The details about the marketing, payment of village artisans in cash and kind, weekly changes in the live-stock position and their fodder and feed accounts were also kept in the day book. Further all sorts of daily cash transactions as well as family budgets and outside expenses were recorded in the same.

The purpose of the ledger was to record assets and inventories and also the final results of the working of the agricultural economy as gleaned from the day book. The ledgers were finally meant to be kept as a historical record in which all the data from the day book was consolidated in a readily usable form.

#### 2.2 Response to the Ledger.

The response to the recording of the essential yearly data directly in the ledger was comparatively good, the data pertaining to various assets of the cultivators

and their changes was more or less faithfully recorded. The recording of the details about individual plots in the cultivated holdings and their tenant status, about other property and financial assets, about live-stock, agricultural machinery and their debt position, were satisfactory. Also the details pertaining to the family members, permanent farm servants, cropping pattern and initial and final stock of farm produce were recorded with good care. However, there were a few instances where the value of the property and of agricultural implements had not been recorded. There were also instances of non-recording of the terms and conditions of services of permanent farm servants. The most numerous cases of non-reporting were, however, those of stock of farm produce at the end of the year. There were also a few instances in which the debt position at the end of the year had not been indicated. The temporary migration of the family was often not recorded on page 2 of the ledger, even though the evidence to this effect was available from the Schedule 3 of the day book in which the recording of the daily work was stopped on the ground that the person had migrated.

Another part of the ledger consisted, as pointed above, of the provisions for recording in a summary form the large volume of data already recorded in the day book. After completion of the field work, it was expected that the students will cull out the information from the day book and put it in the summary form in the ledger in a readily available form. However, it was found that in a

large number of cases, the data from the day book had not been transferred to the ledger. Even in the cases where the data from the day book had been posted in the ledger, a large number of errors were detected. In only a few cases was the posting both complete and correct and that too was in respect of certain items only. This was specially so in the cases where the entry in the ledger was a mere copy of those in the day book, such as gross yield of the crop, etc, but the other entries where some adding up or selection of entries was required, the postings in the ledger were far from satisfactory. Particulars of the fodder and feed consumed by the livestock, the work done by the family members, farm servants and also plough cattle were almost invariably incomplete in the ledger. A number of accounts such as income and expenditure accounts of plough cattle, milch cattle and other live-stock (pages 18, 19 and 20), commodity and fodder accounts (pages 31 and 32); and a number of statements such as consolidated cropwise statements of field operations (page 25), seed, manure and other material utilised (page 26), composition of cost per acre and per unit cost (Page 29), and the statements of farm cash accounts (page 30) and of daily income and expenditure (page 33), which require to be recorded on the basis of the data in the day book had mostly been left out unprepared. The data relating to most of these accounts had to be picked from all sorts of transactions recorded day-to-day in the

various forms of the day book and after the picking of the appropriate data, the different items had to be added to provide a summary which was to be recorded in the ledger. This was evidently too much for the capacity of the student-trainees and in future therefore in preparing an account book care should be taken that all the data required for making one type of statement should be available at a particular place.

### 2.3 Response to the Day book.

The response to the day book may be considered comparatively more encouraging. Only the response to the schedules giving the particulars of the Baluta and other kinds of wages received and given (Form 9) and particulars of other receipts and desposals of farm product (Form 10) and cash accounts of the daily agricultural operations (Form 14) may be considered as not very satisfactory. In Form 1 of the Day book all the farm work done on the particular holding was recorded. However, in a few cases community work done in the interest of farm and domestic labour employed on it were not recorded. Such work as the construction and repair of buildings for preventing the onrush of sea which should have been recorded on this form had not been recorded as there was no express provision for the same. Similarly instructions were issued that overhead expenses should be recorded on this Form 1 of the Day book as unclassified farm work chargeable to the farm business as a whole.

However, the trainees failed to distinguish between joint cost and overhead cost and consequently costs which were joint in respect of some of the crops were also recorded as unclassified farm work chargeable to the entire farm work.

Candidates had on occasion failed to record an operation in respect of specific crop. However, such errors were mainly corrected as list of various types of operations necessary for each crop growth in that region had been prepared in advance and the recorded operations were continuously checked against it by the agricultural instructions.

Another difficulty that arose in filling up this form was with respect to contract labour. When certain farm operations were got done on contract basis, the actual hours of work involved in carrying out the operations could not be obtained and thus the details required could not be filled in. Further, hours put in against various operations most of the time included the hours spent in transit to the particular plot by the family members and the permanent farm servants. Sometimes, these hours also included the hours spent in supervising the work of casual labour employed for that particular operation. This inclusion made it impossible to separate the hours of work actually done on each operation. Transit and supervision time naturally differed from plot to plot, as some plots were nearer and others at a distance from the place of residence. Further the work on the plots which were near each other

could be supervised by one person at a time, while if the plots were at a distance that made supervision by several persons necessary. All this depreciated much, the value of the data collected for input-output or production function type of analysis. It is necessary therefore that time in transit and in supervision if noted at all should be separately recorded and if not noted the point should be given home to the persons keeping of accounts.

In Form 2, of the Day book, all the hired labour employed for farm had been recorded. In that also sometimes the transit time has also been recorded as the time spent in the operation, resulting in the difficulties mentioned above. The receipts of the work of casual labour not employed for any specific work have not been treated as farm work and have therefore not been recorded in the Form 2 on the Day book. This was largely due to the absence of any instructions and alternative recording place for this purpose.

On Form 3 of the Day book the record of the daily work of the members of the family engaged in cultivation have been kept. The record of the activities of the permanent farm servants have also been put on the same form. The column headed 'other work' in this form of the Day book was meant to record hours of gainful employment other than those which a specific column had been provided. It was not meant for recording the domestic work done by these particular members. Yet not only the domestic work many times recorded in this column but also certain types of farm



work and the work in respect of livestock which should have been noted in the column provided for the same have also been recorded in it. Besides an immense variety of other work was also recorded. A sample of the same has been classified and presented in a statement appended to this chapter. Errors of this type may be minimised by defining "other work" and preparing a list of various types of work that should be recorded under this category and supplying a copy of the same to every candidate recording the data.

Instructions had been issued that in cases where wages are paid once a week or once a month receipt of wages should be indicated only on the date on which they are actually received. The wages had, therefore, not been recorded daily. However, in some cases the candidates failed to note the receipt of wages later when they were actually received.

In this schedule hours of gainful employment of the members of the family and permanent farm servants engaged in cultivation were being recorded. The gainful employment had been defined as the work which resulted in either a receipt of an income or a saving of an expenditure. The hours of gainful employment were being recorded everyday and if such hours of employment were less than 8 hours on any day, the way the remaining time was utilised on that day was also to be noted. However, due to misinterpretation of the word 'gainful employment', 'other work' done was recorded only on those days when the aggregate hours of work for other

categories of work was less than 8 hours and then only to the extent of the difference between that and the 8 hours even though the actual hours of the other work done were more.

In this Form columns for unclassified farm work had been provided for recording the work done on farm; but as in Form 1, the candidates failed to distinguish between the overhead work and the joint work and consequently in the column of unclassified farm work, even joint work with respect to some crops was also recorded.

On Form 4 the recording of the daily work of the owned plough cattle was kept. There also similar difficulties as those experienced on Form 3 about the classified and unclassified work and 'other work' were experienced;

Form 5 of the day book was meant to record the daily work of agricultural machinery such as tractors, and pumping sets. There were a few cultivators owning pumps, in our sample; but inspite of the repeated instructions every one of them failed to fill in this form properly. None of the cultivators in the sample possessed a tractor.

The response to the Form 6 of the Day book was comparatively good. This form gives the details of the form produce and its subsequent disposal. It was noted that there were only few obvious mistakes in the recording of the gross produce as well as in the recording of the net produce brought home from the threshing floor. But in a number of cases the difference between the gross and the

net produce on the harvest day was much less than the aggregate of the disposals in kind recorded as made at the harvest time. The internal evidence pointed out that it was due to the fact that certain payments not made in kind at the harvest time but somewhat later had been entered as paid at the harvest time. This was found mostly the case for the kind payment of the share rent as well as of Baluta payments. The net produce was what was actually brought home from the threshing floor.

Some difficulty in filling this form was noted for the case of cotton crop. In the selected villages, it was not the practice to weigh the cotton as soon as it was picked. In fact, cotton was weighed usually only at the time of sale. Besides cotton was stored in bulk and not in containers of any standard size as in the case of jowar and groundnut. Consequently the yield of cotton recorded on this form was only an estimated weight of the actual picking.

On the Form 7 the details of the total Baluta payments made to the village artisans and other village servants were noted. The response to the schedule was particularly good. Payments made to Balutedars after the threshing were required to be noted on Form 9. However, there was no provision on Form 9 to indicate the type of Balutedar to whom such payment was made. Consequently in such cases it was not possible to distinguish payments made to Balutedars

whose services are essential to cultivation and to those whose services are not.

In Form 8 the details of the sale of the farm produce were noted. There was no provision to distinguish the sale of current year's produce from that of the previous year's produce. Besides in some cases it is feared that the sales had been under-reported, for the total of initial stocks and production was found to be much larger than the aggregate of sale and other disposals in kind and the final stock in the case of even cotton which is usually not consumed in large quantities.

Forms 9 and 10 were meant for recording other receipts and disposals in kind. There was little response to these schedules and in the case of even the few entries that had been made, the nature of receipts and disposals in kind had not been recorded. Further, as pointed out before, there was a confusion in the mind of the students as to which Baluta payments should be recorded on page 7 and which on page 9. In practice they have recorded almost indiscriminately.

Form 11 of the Day book was a weekly record of changes in live-stock position and feed and fodder consumed. In the case of fodder consumed by live-stock, often only the total quantity consumed was recorded and its break up as consumed as plough and milch cattle could not be noted as required in the form, as probably, it was difficult for the student himself to make a correct breakdown. In some

cases it was found that even when there was an addition or subtraction in the number of live-stock the corresponding change in the fodder account was not noticeable.

In this Form under column milch cattle the number of milch cattle and their young stock was required to be noted; but many trainees had recorded in that category, only the cows in-milk and some others, only the milch cattle; but not their young stock.

Form 12 was a weekly record of production and desposal of live-stock produce. Here too the response was quite good. However, in some cases the production and sale of poultry produce was very much under-reported. In this schedule no provision was made for live-stock products like dung, dung cakes, manure and wool which were to be recorded directly in the ledger. The exclusion of these items from the Day book, it was found, resulted in a great under-estimation of their production.

Form 13 was meant to record raw materials purchased for use in farm production. Purchases of seed, manure, feed and fodder, etc. had been generally satisfactorily noted. So they were in agreement with the particulars given in Form 1.

Form 14 was meant to record cash expenditure and receipts. This was one of the most neglected of the forms.

Even the expenditure items like rents, and land revenue were mostly left, unrecorded.

The last form of the Day book, No.15 was meant to record domestic expenditure. The trainees were specially enthusiastic about this account and have recorded regularly even the smallest transaction. However, in the case of credit purchases they were sometimes recorded twice, first at the time when they were made and again when the credit was extended between cash payments.

### CHAPTER III:

#### The new Account Book - Primary Part.

As detailed in the last chapter we had 2 accounts books to be filled in by the trainees. Our experience showed that the work becomes unwieldy. Therefore we have devised a revised account book which we hope will be much easier to be filled in and made use of than the former set. From the operational point of view this account book consists of two parts. The first consisting of about 9 forms may be considered as the essential part. Another consisting of 6 forms may be termed as secondary or optional portion. These 6 forms mainly consist of the types of data which the student trainees found greatest difficulty in writing and which could be considered as not very essential part for understanding of the farm business and as such which can be taken up or dropped at will. If, however, the training in farm accounts is planned to be a two years course for the village schools, it may be recommended that in the first year the students should be required to undergo training in the filling of the compulsory forms only, while in the second year, they may take up the filling of the complete account book. Simultaneously they should be taught the uses to which the account book can be put.

#### 3.2 The Different Sections.

The new account book can be divided into the following

sections with respect to the subject matter. The first section deals with the investment and asset position of the cultivator at particular points of time; the second section deals with the economy of the various enterprises; the third one is a kind of cash account and the fourth deals with the household accounts.

### 3.3 Investment asset section.

#### Land:

The most important asset of a cultivator is his land. As far as his net worth is to be judged the area owned by him is of crucial importance, while the size of his business may be judged by the extent of his cultivated holdings.

Page 1 of the account book gives the details of the area owned by the cultivator as well as that which is leased in by him together with the details of uses to which the holding has been put. All this information is to be noted both at the beginning as well as at the end of the year.

The owned land has been classified into that actually owned and that which is on mortgage. For the latter type of land the terms of the mortgage are also to be noted in the remarks column. Further, the details of the land rented out to others are also to be noted. The net cultivated area should include, besides the owner cultivated land, the land taken for share and cash rent also. The total cultivated area has been further divided into that cropped in the year, that left as current fallow and the extent to which there is permanent fallow. The permanent fallow may be grazing land, or the land under well or the one on which roads or buildings



have been constructed. All the various type of uses to which the land has been put should be noted therein.

We have provided, two places where this inventory of land can be taken. They should be taken at the beginning and at the end of the accounting period to which our account relates. The difference between two will give us the net changes both in the net worth of the farm owned as well as the changes in the scales of business between the accounting period. For agriculture, which is an annual business par excellence the period of accounting should be in general, a year. We can expect the conditions just after a year to be similar of there is neither an extension nor a contraction of the net worth as well as of the business. We can start the account at some convenient time when the amount of work relating to the previous season is hardly outstanding and when the work relating to the coming season is still to start. That will mean that we shall have complete accounts for most of the enterprises involved. In India such natural season begins for most of the parts from 1st of May. By that time, the transactions due to previous Rabi season are almost over, and the preparations of the soil for the coming Kharif begins to start. If we take our accounting period from 1st May to 30th April, it will avoid overlapping more than any other yearly period. Nevertheless the choice of the accounting period depends on the cropping pattern of the holdings for which the accounts are being kept. With vastly varying conditions from region to region and from holding to holding within a region no general

prescription on that score can be made. For instance, a sugar-cane farmer may find a calendar year as a most convenient period for the purpose, while as the schools start from July, to a large number of student trainees the most convenient period for keeping accounts will be from 1st July to 30th of June though by 1st of July most of the preparatory operations for Kharif crop would have been over and in a majority of cases even sowing would have been done. But from practical administrative point of view, it may not be possible for the teacher-cum-instructor to catch hold of a student who is studying in a lower class two months before he becomes his student and groom him for the purpose. In the parts where two crops are usually grown, the details of tenancy on different plots of land may change from season to season. Thus some plots which may be leased out for Kharif may be resumed for owner-cultivation in the Rabi season and similarly some leased in plots may also be given back. In such cases it may be advisable to note down these details for both the seasons separately, in the remarks column provided there.

To get the net worth on account of ownership of agricultural land it is necessary to note down the value of land. The value of the land depends on quite a few factors, such as its location, elevation, fertility of the soil, water supply, conditions of improvements if any, location of the available markets, roads, etc. While valuing the plot, all these factors should be taken into account. Even

then the value shall remain largely subjective, although help may be taken from the values fetched by those similar plots which had changed hands recently. Value of the plots should be conceived on a long term basis. Any paper profits or losses from temporary changes in land value should not confuse the farm records. Unless and until some large-scale changes affecting the land have taken place the value of the same plot should not be changed from year to year.

In case some of the plots are under joint ownership with some other family, the fact should be stated in the remarks column with the details of the arrangements that have been made for cultivation of the same. The net value to be credited due to such a plot in the account of the concerned family should of course be in the same proportion to the total value of the plot as the proportion of the share of the family.

For the purpose of accounting, the definition of a cultivated holding may be taken as all lands directly cultivated by the family either by the labour of the family or that of the hired employees. In cases where whole of the holding is cultivated by two or more families jointly, the accounts should better be kept for the joint holding as if it was an individual holding. For the purpose of business the families should not be considered as different though for consumption and other purposes they will have to be treated differently.

There might be the case where only a few fields are cultivated jointly while each family has got some fields

which are individually cultivated. In such cases, the share of the joint cultivated area proportionate to the share of the family should be considered as constituting a part of his holding. But as far as the detailed accounts of the working of such plots are concerned, they should be kept for the full plot without trying to allocate a share of the cultivator whose accounts are being kept in the business. This fact should be noted on the forms concerned and at the time of the final disbursement from its produce the total produce as well as the joint expenses should be proportionately allotted to the cultivator whose accounts are being kept and then added up to the account of other enterprises of his business.

#### 3.4 Buildings and Other Capital Assets.

Apart from the land, the most important fixed property of a cultivator is the buildings. A space has been provided for noting the details of these on Schedule No. 2. Therein, against each building the details about the manner in which it is used, the area occupied by it, the materials of which its walls and roofs are made, the year of construction and the annual rent if rented out are to be noted. Its value is also to be noted in the proper place.

The problem of valuation of a rural building is very difficult due to the absence of a ready market. The valuation can be done on a just subjective basis, estimating the value that it would fetch if a customer can be found for it. Another way of valuing the building is to take the value at the cost of construction minus the depreciation. In the

villages, for most of the houses it is very difficult to estimate the cost of construction unless and until detailed accounts of the same have been kept at the time the building was constructed, because a great amount of labour spent in the construction of a typical rural house is either contributed by the family or obtained on exchange and it is not easy to recollect all of that afterwards. Further, a part of the material used in its construction might have been obtained just for the collection of it or gratis. Therefore, to estimate the historical cost of any building standing at a particular time is as good a guess as any other of its value. Instead a guess can be made about the cost of constructing a similar construction at the present time. For making this guess, details of the materials and the labour necessary for the construction of the same will have to be guessed and then valued. This valuation will be as good as any guess estimate of the historical cost. And this will further take into account any marked changes that would have taken place in the cost of materials or of labour since the house was actually constructed.

The next problem is to allow for depreciation at a proper rate. Here again the durability of the structure will have to be estimated on the basis of gathered experience of the life of a similar structure in the village. This life of a structure will be different for different materials used in the construction of the building. A 'pucca' klin baked bricks may construct a building which is about 10 times more durable than that constructed with the help of

unbaked bricks. Similarly straw roof may require to be changed every third year while the more stable roof of corrugated iron sheets or of bricks may last several times that period. Further the durability is also dependent on the climate of the region. A similarly constructed house will have a different life span in different climates of the country. Due to the above things any general recommendation about the rate of depreciation of buildings cannot be made; but once an estimate of the life of the building has been made, then such depreciation should be allowed every year that at the end of the period the whole cost involved may be recovered. The most common method for charging depreciation rate is the straight-line method which enjoins the charging of equal depreciation every year. This means that if the estimated life of the building be say, 10 years  $1/10$ th of the cost of construction minus the scrap value should be charged every year for depreciation. Thus the present value of a house constructed 5 years before will be half of its construction cost or of the cost at which similar construction can be constructed now plus half of its scrap value at the end of ten years, which is algebraically equivalent to the sum of the whole of the scrap value and half of the difference between its value when new and its scrap value.

Scrap value of the building will designate its value after it has served its useful life. This may mean the value of the land and of the material which can be salvaged from that building.

The yearly value of a house when new should be considered more than a similar house which is old, both as regards pleasures of living as well as its utility because older the house the more worry it will give due to continuous repairs necessary for the same. The method of depreciation provided above makes equal allowance for every year. Therefore some people prefer another method of depreciation which does not allow equal depreciation every year but a constant proportion of the value of the building at the beginning of the year is allowed for as depreciation for that year. For instance if a building costs Rs. 1000 and the rate of depreciation is one tenth then in the first year 100 rupees will be charged as the cost of its use, while in the next year the charge will be 10 percent of the depreciated value i.e. of 900. Thus the charge for 2nd year comes to Rs. 90 only. Similarly, the depreciation charge will go on diminishing as the building becomes older and older. The account-keeper at any period of time it will have some value - however small and thus will not be just written off. The account keeper can choose between the above two methods according to his subjective judgement. It may be necessary to charge different rates of depreciation for different parts of the building. For instance a thatched roof may last for only three years while the rest of the house might have a much larger life.

Similarly the period for which depreciation may be accounted for may be different for various portions. A roof may have been changed only a year back while the rest

of the house may be a decade old. Depreciation should be calculated differently for them and then added up to get total depreciation.

All the repairs as well as major changes done to the buildings during the period of account have also to be noted on this form. If the work involved is comparatively small the results of it as well as its expenses can be denoted directly here. But if any major construction work has been undertaken which may last over a period of time, say more than a week a detailed account of the daily work and its material as well as labour expenses become necessary to be kept. For that purpose the enterprise account form discussed hereinafter can be suitably adopted. If any such necessity arises an extra enterprise account form should be filled in for this construction of buildings. Then the total result from that form may be transferred on this form as the net addition to the building wealth during the year.

Apart from the buildings a space is provided in this form for other fixed capital assets like wells, terraces, gardens, mango, orange, banana or other plantations, etc. The details of each as existing at the beginning of the year are to be noted. A suitable provision for the depreciation of each will have to be made as the part of the cost of its maintenance during the year. As stated above, the depreciation should be provided in a way that the whole of the cost minus its value at the end of the useful life is recovered as depreciation during its useful existence.



Thus, if a plantation is on a land worth a thousand rupees and another 1500 rupees has been spent in plantation, its total cost will be Rs. 2,500/- just after it was planted. It is expected that this will last for say, 5 years, and a straightline method of accounting for depreciation is adopted, then every year Rs. 300/- should be charged, so that after five years Rs. 1500/- would have been charged in depreciation and the land worth Rs. 1000/- would be left. Thus, the depreciation charge will be only on Rs. 1500/- and not on Rs. 2500/- the total value of the plantation.

If any major work of plantation of crops or of building of other forms of fixed capital assets or of reclamation of any land is undertaken during the accounting year, a separate enterprise form may be filled in for each separate work during its progress. After the end of the work its final accounts are to be transferred to this particular form as in the case of new construction activities. Thus this form will give the position of all the fixed assets (excluding land which has been dealt with in the previous form) at the beginning of the year as well as at the end of the year together with the details of any changes in between.

### 3.5 Implements and Machinery.

The next important items of farmers inventory after the land, building and other real assets are implements and machinery. Form 3 provides for recording the details of each type of implements. A list of 58 implements is provided for recording each with a further space for three

or more types if there are any. A space has been provided for recording each type of implements, the number of implements at the beginning of the year their replacement value as well as their present value, and also their age and purchase price. The replacement value is that value at which a new implement of that type can be purchased in the market, while the present value will be the depreciated value of that implement which is in use. The depreciation has to be provided in a similar way as that was done in the case of buildings. The approximate age of each type of implements has to be determined on a subjective basis; then the depreciation can be calculated either on a straightline method or on a proportionate basis. The present value of the implements is to be noted both at the beginning and at the end of the year together with all the new purchases of the implements as well as all the sales during the year in the columns provided for the same. The value at the end of the year will include that of the new implements and will exclude that of those which are sold. Apart from these the expenses incurred on repairs of each type of implements are also to be recorded on this schedule itself. If the expense of repairing is not a direct cash expense, but also involves some kind payment as well as putting in of some family labour, the details of these should be noted in the remarks column; but if such general payments like Baluta are to be made yearly for the repairs of the implements and where the payment is not connected with the amount of repair work, it should be taken up as a overhead cost and

should not be allotted to individual implements repaired during the year. As such conventional payments are to be made irrespective of the fact whether there is a repair work or not.

### 3.6 Livestocks.

The form No. 4 of the account book deals with the livestock inventory and changes in it during the year. A separate line has been provided for noting down the details about each major animal. If, however, it is found that the number of animals of a certain category are more than the lines provided for them their details should be entered on the lines provided for some other category which may happen to be than the lines provided for it; but in all such cases the point should be definitely noted on the very first column so that no future confusion might result on that account. In the villages there is a practice to name most of these animals and it is proper that such names should be entered to facilitate reference. The age of each animal at the beginning of the accounting period should be noted in the appropriate column. The details about all the young stock which are born after the commencement of the accounting period should also be given in separate lines for each of them. For them in the column entitled age at the beginning of the year, their date of birth may be noted instead. For the animals which were purchased during the year there should be no noting in this column. Their date of purchase should be given in the column "when purchased". Similarly in the column for the value at the beginning of the year

the value of only those animals which have been there at the beginning of the accounting period should be noted. For all the animals purchased during the year or those born during the accounting period, this column should remain blank. In the next column, a space has been provided for noting down the depreciation or the increment of the value of each animal. In the case of increment, the increment should be noted with a positive sign while in the case of depreciation negative sign should be prefixed. For the livestock the rate of depreciation has again to be subjectively fixed, taking into account the general experience about the changes in value over age for different types of livestock. Until a particular animal reaches the age of 3 years, he or she are not useful to the farm business. Therefore, expenses on it can be considered as expenses on livestock breeding business and no depreciation on the same should be charged. Every year, we shall have to charge some increment in its value due to expenses incurred on it. There is no necessity to designate a rate of appreciation for it. Because it will be different for different individual calves. The best way to estimate its increase in value is to estimate the extra price that it may fetch in the market, now as compared to the last year. It will be seen that in this way, the appreciation during the first year may be much less than than in the subsequent years. A useful practice may be adopted to charge neither a depreciation nor an appreciation between the ages 3 to 5 years. Because their value in the market will be more or less stable during the period.

After 5 years a rate of depreciation of 20 percent of the value may usually be charged. The above specifications are only made in a general way and if a particular farmer feels that he has ~~got~~ got sufficient reasons, either to have a different rate of depreciation or to charge it from a different age he should entirely feel free to do so. For instance in some cases a farmer may feel that even after three years the value of his bullocks and cows are increasing say upto 4 years or in some cases even upto five years, then he may make the decision on the merits of the case that he should accrue some appreciation due to it.

The value at the end of the year for the animal will be its value at the beginning of the year plus or minus the appreciation and depreciation of its value during the year. For those animals which were purchased during the year, the value at the end of the year will be the price at which there were purchased plus or minus a proportionate depreciation charge on them for the period of the year in which they were on the farm. That is, suppose an animal has been purchased before 6 months of the closing of the account, the depreciation on its purchase value should be charged only after the date of its purchase that is half of that which would have been charged on it, if it would have been on the farm from the beginning of the year. If the animal is sold during the year, the difference between its selling price and the estimated price at the beginning of the year should be put in the column of depreciation or increment of value during the year. As such the changes in the value given in this particular column will not only represent theoretical

depreciation or appreciation but also any profit or loss sustained due to the sale of the animal at other than its estimated price. The value of the animals which have been sold will not be entered in the column "value at the end of the year". Similarly, the estimated value of the animals which died during the year should be shown in the column of "Depreciation and increment of the value during the year". The whole value is a loss sustained by the farmer which is its depreciation in the net worth of the livestock that he had been having. All the details about the changes in the livestock and its price brought otherwise than by direct purchase or sale, or depreciation or appreciation, should be noted in details in the remarks column against the particular animal. Such as for the milch animal sent out to a neighbouring village for being tended during the dry period, its value at the end of the year will be its estimated value at that particular time minus the charge that the owner will have to pay for tending but the fact that at the moment the animal is not with him should be noted in the remarks column. Though in adding up the total value at the end of the year of the animals possessed by the particular farmer, the value of such animals has to be taken account of.

Next portion of this form constitutes the details about the minor animals like goat, rams, ewes, hens, duck, etc. The owners of the same are expected to have them in larger numbers and therefore a single line for each of them has not been provided. Further, the value of these animals is not expected to be much different from animal to animal

and so, not much information is lost by grouping the animals of one type for accounting purposes. Information about these animals is to be given in 3 blocks. In the first one the detailed position at the beginning of the year is to be noted; while in the second one the changes brought about during the year are to be written in details. In the last block the detailed position about these animals at the end of the year should be noted. All the points mentioned about the depreciation and appreciation of bigger animal should be taken account of for these animals also. Though the age upto which the appreciation should be charged and the age after which the depreciation should be charged as well and the mode of charging the depreciation will have to be determined for each type of animal separately.

### 3.7 Financial Assets.

The next schedule provides a space for noting down the financial assets and this is the last schedule of the set giving the details of the assets of the farmer. These schedules taken together give the details of all types of assets except those kept in the shape of inventories of particular crops.

In the first half of the schedule the details about the financial assets are to be noted. The financial assets have been classified as deposits in the bank, national saving certificates, shares in cooperative societies, any other shares, insurance, and miscellaneous. In respect of each the date at which the accounts were opened, or shares purchased or insurance policies taken should be noted, and

in the next column the value of the each of these assets at the beginning of the accounting period should be given.

In the case of insurance policy the problem of valuation is somewhat ticklish. If a person has taken a policy of Rs. 1000/- the next day it cannot be said that his assets have been increased by thousand rupees. For him to get back his thousand rupees, he will have to regularly pay a premium for a specified period or for the whole of his life, though in the even of his demise the family is entitled to a thousand rupees. One way of valuing an insurance policy is to take its surrender value acquired by it at that particular time. Though this valuation gives the amount that may immediately become available to the insurer if he wants. This really errs on the conservative side in estimating the net worth of the insurer. According to general practice of the insurance companies the surrender value of a life insurance is nearly zero for 3 years after the policy has been taken, and then also for quite a few years, it is a small proportion of the amount that has been already paid.

And thus when the insurance policy will be due to be repaid a major portion of that will have to be reckoned as windfall. Alternatively, the net value of the insurance policy may be estimated as that proportion of the total amount insured the years for which the premium is already paid is to the total number of years for which premium is required to be paid. The estimation in this way is a bit



complicated; but may be considered appropriate for the purpose. Thus for instance if there is any policy for Rs.1000 for which 20 premiums are to be paid and 5 premia of the same have been paid; that may be valued at Rs. 250/- because the premia have been paid for 1/4th of the years required; but in a life policy this may not depict the real situation in cases where the premia are to be paid whole of the life. A simpler approximate way which may be adopted for the purpose is to value an insurance policy as equivalent to total amount of premia paid until that day. Estimates arrived in this way will not be far from the truth and will be much more easily understandable.

During the period of the year if any additions or subtractions in these financial assets are made, they should be noted in the column provided for the same. A space has been provided for two additions and two subtractions for each type of financial account. In the case of insurance, if the total of premia paid is taken as the valuation, extra premium paid during the year should be noted in the column for additions. Ordinarily there will not be more than two additions during a year in the National Saving Certificates etc. Similarly it is not expected that a farmer will dispose of shares more than two times a year; but in the case of deposits in banks, there might be any number of transactions and for that purpose the space for two entries may prove to be insufficient. Therefore a few lines have been left blank after this item so that if there are upto 10 withdrawals or upto 10 deposits during the

period, it can be noted in the succeeding lines. If there are more transactions than these, the cultivator may be considered as sufficiently bank-minded. In that case, he need not keep the details of the banking transactions on the account book. Only he may note the amount at the beginning of the year and the amount at the end of the year. The details about his bank transactions would be there in the appropriate passbook of the bank. The source of money put in the bank, and the reason for taking it out at a particular time will be noted in the form provided for the cash account of the account book.

The other portion of this form provides for the details of indebtedness as well as of the loans given. Each transaction done during the year as well as each loan outstanding at the beginning of the year should be noted in a separate column. A space has been provided for noting 8 loans taken and for 4 loans given out. For the loans taken during the year the row of "loans outstanding at the beginning of the year" will have to be kept unfilled, and for those which are taken as well returned during the year the row of No. 11 "which remaining at the end of the year" will also be kept vacant. If there are any other conditions apart from the rate of interest attached to the loan they should be written in detail in row 5. Some time it happens that the purpose of borrowing is different but when the money comes in the hands, it is spent in a different way. This is very important from the point of view of planning of one's own farm business. It is better if such contingencies

should not arise; but for each loan it is a good practice to write down both the purpose of borrowing as well as how spent so that it may prove to be a good guide for future.

### 3.8 Total Assets.

All the five forms detailed above deal with the capital resources of the farmer. All the resources of the farmer except in the form of ornaments or stocks of individual commodities are taken account of in these forms. Ornaments should not be considered as resources for the farming business. They are of a more intimate character and are assets to the household as against the farm business. They are to provide for the business, only in abnormal circumstances. As such it is not necessary to enumerate them while taking account of the business assets and liabilities of the farmer.

Same thing can be done for the National Savings Certificates, shares, insurances and even for loans given out. We have included them because there is likely to be much less hesitancy in giving their details to a younger member of family who is keeping such accounts. In the case of debts and loans such hesitancy may be there; but the detailed knowledge of indebtedness is very necessary for evaluating the business and its net worth and therefore, it is not thought advisable to omit the same. However, in the case of ornaments if a farmer feels that he should also record the details about them he can do so in the miscellaneous rows of the Form 5.

The next item of capital asset not included in these forms is the information about the stocks of the various commodities. Apart from the stocks required for consumption or for seeds, kind payments etc. for the next season, these stocks are there either to cover the risk of the coming harvest or for the speculative purpose. They as such do not affect the size of the business either in the short or in the long run. For understanding the various business operations of the cultivator, they give a minor help and as such they have been relegated to the 'kind account' form to be described afterwards. If a farmer wants to know the total stocks at the beginning and at the end of the year, he can add the values given in the form relating to each kind of crop to get them. Their difference will give net addition or subtraction in stocks.

From the total columns of the above five forms, a farmer can get the values of his own land, real estates, tools and implements, livestock and other assets both at the beginning of the year as well as at the end of the year. Any additions or subtractions from each during the year can also be extracted. The total value of these will give the net value of the fixed assets of the farmer and its changes over the year. The total value of his deposits, the value of the shares and insurance minus the net debt will give the financial capital at the disposal of the farmer both at the beginning and at the end of the year. These two together will give an insight into the condition of the business during the period. They will easily inform the farmer whether

he is getting prosperous in the business or otherwise but for the details of why he is doing good or bad in the business for which he will have to look into the details of the enterprise account to be described hereinafter. Even if a cultivator keeps only these accounts which are comparatively much easier to keep he will at least keep tract of the direction his business is running.

3.9 Permanent Labour Force.

After accounting for the details of assets and liability position, the next important thing to know about the farm business is the details about permanent labour force available for farm operation. Schedule No. 6 has been designed for noting the details not only for the productive labour force available, but also for all the consumption units that depend upon the income of the particular holding. In this form, the details of all the members of the household can be noted together with their relationships with the head of the family, civil conditions, education, whether they are working in the family occupation of the cultivator, whether they are also doing some other occupation, on part-time or full-time basis, and if so, the details thereof. In this list all the persons who have been the members of the household for any duration of time during the year should be included. A household may be defined as a group of persons whose foods are prepared jointly. The preparation of food jointly has been taken as an outward symbol of a joint planning of expenditure by that group

of persons. If some people go out of the household during the year the point should be noted in details in the space provided for the same. Similarly some people come for only a small period in the household but behave as a member of the household during the period of their stay. Their details should also be noted together with the period that they have spent outside. Similarly permanent farm servants should also be considered as a part of the household and the details about them should also be noted in this particular form. Most of the permanent farm servants are provided with the food in the household. When two households defined as such are doing joint cultivation, we have provided that their joint account of the business should be written. In such cases the details of the members of both households should be written on this form but the fact that they really form two separate units should be clearly stated as well as the members belonging to each unit should be marked as such.

### 3.10 Enterprise account.

In the preceding the cultivators capital account and permanent labour account have been discussed. From the point of view of the current working of the business, it is the account of individual enterprise which is important. To an intelligently plan farm business there should be sufficient data available to determine the profit or loss on different farm enterprises or on any one farm enterprise. Keeping the enterprise account on fragments of farm business may some times mislead if not utilised together with the

information contained in the farm account as a whole. In fact certain particular farm enterprises may not show any profit at the end of the season yet they may utilise labour, both human and bullock as well as equipment which would have otherwise remained idle. As such though on a strict profit or loss consideration we may not justify them, they may necessarily be a part of the farm business as a whole, which helps to distribute the fixed expenses of the farmers and thus help to make the business profitable. Similarly a particular enterprise may show sufficient profits yet may be coming in the way of profitable execution of the business as a whole. Therefore, that a particular enterprise shows a profit year after year is not in itself a sufficient reason for conducting it, as the enterprise may conflict with other enterprises in the utilisation of labour, land, bullocks and capital which would make even greater net returns. Thus we see that a single enterprise study though very valuable for understanding a part of the farm business cannot in itself be considered sufficient for the planning of the business as a whole. With this necessary precaution, it will not be an exaggeration to say that the kernel of keeping farm accounts is the enterprise study. We have planned to take down the details about different farm enterprises in two sets of forms. The first form will deal mainly with farming activities on individual plots and the second one will deal with the animal husbandry aspect of the farm business. In the conditions prevailing in India, the two aspects cannot be very much divorced from each other. Economy of the farm

depends to a considerable extent on the bullock economy as its main motive force and also as a supplier of most commonly used manure, that is the farm-yard manure. On the other hand, there may be a few regions where milk economy may itself be an important constituent of the business; but for a large tract of the country milk economy is only perepheral and the main importance of cows is as the mother of bullocks rather than as the supplier of milk. Therefore in assessing the outcome of the farm economy as a whole it will be found necessary in most of the cases to assess both animal husbandry and farming as an integrated activity of the cultivator.

Form No. 7 has been devised for recording the details of different farm enterprises. For the purpose of filling this form, a farm enterprise may be defined as the activity of growing a single or mixed crop on a plot. It means that if the same crop is grown on more than one plot in the same holding, the enterprise on each plot should be taken as different. On the other hand if on one plot more than one crops are sown in different demarcable portions of the plot the number of enterprises on that plot will not be one, but will be the same as there are crops on the plot. On the other hand if some crops are sown mixed in a way that no different area can be demarcated for the separate crops the whole is to be taken as a single enterprise, viz., the enterprise of growing a mixed crop. Thus a single enterprise will not only include those crops where the seeds of different crops are intermingled before sowing, but also include the crops which are sown intermittently after a few



lines. Thus for instance, cotton may be sown mixed with Tur (a kind of pulse) in a way in which every five rows of cotton are followed by two rows of Tur and then another set of five rows of cotton. Now here in this case, the area of tur and cotton for operational purposes cannot be separated though notionally we can say that in  $2/7$ th of the area Tur was sown and in  $5/7$ th, the cotton. Further, it may be possible that the proximity of the Tur lines may have some effect on cotton and thus the product of cotton sown with Tur in this way may be more than what could have been produced if pure cotton were sown on the plot, for the Tur sown in this way acts as a wind-breaker for cotton. Therefore all such cases should be taken as that of the sowing of a single mixed crop on the field and should be taken as a single enterprise for the study of its economy. This particular arrangement may not be very useful from the point of the compilation of the area statistics for different crops as the compiler will be overwhelmed by the very large number of (running into hundreds) combinations of various crops in the country and therefore for reporting purposes a suitable way has been defined for estimating the area of the individual crops concerned, in each combination. But from the cultivator's point of view those methods need not be followed. For him the material point is not as to how much area he has sown for each individual crop but about the profit and loss and other aspects of economy of this and of other individual crop combinations which are possible to be sown on his holding.

This form No. 7 is designed so that all the information concerning the particular enterprise may be noted on this. However, some overall cost of the farm business may not be capable of being directly assigned to individual enterprises and as such they will not form the part of the noting on this particular schedule. As far as the question of comparison of one set of crops with respect to the economy of their production is concerned, these overhead charges may just be taken out of consideration. The comparison will be mostly based on that portion of the economy of the individual crops which can be directly assigned to them. Further, in the working of an individual enterprise, it is not very essential that a farmer should know the details of the overhead cost unless and until some portions of that are directly attributable to this particular crop. For instance, the traditional payment of Baluta (kind payments to artisans and others) are made by a cultivator, mostly irrespective of the crops sown on the individual plots. In working out the total cost of production on that particular plot, it will be necessary to apportion the cost of Baluta payment on it; but as far as the intelligent appraisal of the farm business and the business of the particular enterprise is concerned, it does not make any difference whether the Baluta payment has been apportioned or not. So it is proposed to note all the direct costs to the particular enterprise on this form.

For each plot details about its area, soil type, assessment, any other cess like water tax, interest

chargeable directly to it, etc. should be noted on the top in the space provided. Further an approximate value of the plot should also be noted down. The tenancy under which the crop has been grown for the particular season should be written in detail. By tenancy, it is meant whether that particular plot is also owned by the cultivator or is leased in, the terms and conditions of the lease should be clearly noted; e.g. whether it is cash rented or kind rented; if cash rented at what rate; if kind rented what percentage of the produce will have to be given to the landlord. It should also be noted that how much of the material used in the cultivation of that produce, the landlord has agreed to provide as well as how much share of the hired casual labour will be borne by the landlord; further, whether any responsibility for the payment of land revenue or of any other cess rests on the cultivator apart from the payment of the rent or that will be completely borne by the landlord from his share.

If a particular plot is cultivated more than once in a year a separate enterprise account for each crop should be kept and the season for which the particular account is meant should be very clearly noted in the space provided for the same. If any crop combination is grown on the plot in the sense defined above, the details of it should be noted. If the seeds of different crops have been mixed then the proportion in which they have been mixed should be noted. If, however, the different crops of the mixture are sown in different lines, then the method of sowing should be detailed.

The details of each item of the work done on the particular enterprise should be noted on a separate line together with the day on which it is performed. The material used for any type of farm-work should be noted in the space provided together with the information as to how much of that has been used from his own store, how much has been provided by the landlord and how much has been purchased. Both the quantity and value of each material should be given. If more than one material is used in a particular activity the details about each material should be given on separate lines.

The value of owned material and of that provided by the landlord should be taken at the market value on the day of sowing. It is not necessary for farmer to run to the market to find out the value on each day any material is used for the purpose of recording. He can get an idea of the general prevailing prices and that should suffice for his purpose. Because, we are only interested in the working of the economy from the point of view of general prevailing price level at the time each operation is performed, rather than what the farmer would have to pay on any particular favourable or unfavourable day when he happens to use it. Thus it is not essential that the daily fluctuation of the price should affect the accounting but the seasonal fluctuations of prices should make themselves felt.

Some people hold the opinion that for the owned material used the farmer should value them at their cost to him in the

last season or according to the value prevailing at the harvest time when that particular produce was harvested by the cultivator himself. This procedure though will give all the profits of the farmer in the context of the enterprise, will really include his profits due to storage and waiting ability in the profits due to that particular enterprise. It will further lead to the valuing of the same type of material at the same time by two rates i.e. that owned by him at one rate and that purchased by him at another rate. This will create complications for him if he wants to use input and output and production function analyses, which might have to be done in the value term for most of the small items.

Apart from the materials used the details about the hired human labour as well as the hired bullock labour should be noted for each operation date-wise. Not only the type of the hired casual labour, that is whether they are males females or children should be noted but the number of each type that worked on the particular plot together with the total receipt for work done by them should also be noted. The total number of workers that worked anytime during the day on that work should be given and not the notional number based on the total number of hours of the work done. Thus if 4 casual labourers have worked on a plot for 3 hours on any particular day, the number given should be 4 and the hours of work should be given as  $4 \times 3 = 12$ . If more than one type of hired casual labour is employed for any one type of work they should be noted in separate lines. The wages payable to the hired labourers should be noted against the date for which they

are payable. It has been found that sometimes an account-keeper writes the wages only on the day they are actually paid and not on the day for the labour of which they become payable. It is necessary for the analysis of individual enterprise accounts that the wages should be noted against the date on which they become payable and the notice of them should not be differed until the time they are actually paid. In the latter case, there are also the chances of completely forgetting to note them down. The details about the date of the actual payments of the wages are to be noted down in the cash account of the farmer and if for a particular operation the wages are differed the fact should be noted in the remarks column.

Together with the hired human labour, the details about the hired <sup>bullock</sup> labour should also to be noted. In case a man is hired together with a pair of bullocks and the wages given are joint wages, the wages should be credited only to the hired bullock labour account and the point should be noted in the remarks column.

The details about receipts for the work done by the family labour, the farm servants, or any labour received in exchange or gratis for each item of work should also be noted in this form. A column has been provided separately for farm servants, males, females, children, and non-hired bullocks separately in which the hours of the work done by

each should be noted. In the case of a pair of bullocks worked say for 8 hours, the hours noted should be 16 and not 8, because two bullocks had worked for eight hours each. Exchange labour and the labour received as gratis have been treated on par with the family labour in this particular form. If the particular cultivator wants that he should distinguish between the family labour and the labour received in this way another form in this account book has been provided for noting the same.

Only the hours spent in actual operation should be recorded on this particular form. It has been found that sometimes a cultivator also recording the time spent in transit from plot to plot or from his house to the particular plot concerned in the hours spent doing that type of work. But this mixing up confuses the analysis and does not lead to the right results. For this purpose hours spent in transit or in supervision of the work done by casual labourers, should not be included here but should be included in the former recording the details of how the working time of the individual family member is spent.

The totals of these columns over the season will give an idea of the extent of the use of various factors in the particular enterprise. The total value of material cost together with the material expenditure on bullock labour will provide the cost of that particular enterprise to the economy; but if the farmer wants the distribution of material cost in greater

details, he will have to make a separate tabulation for the expenses incurred on different items like seed, manure, fertilisers, etc. but it should not be difficult to pick them out from this account. Because for each of such items will be given one or at the most a few entries; for instance, for seed, there will be only one line for each type and the figures for such can be directly noted from there. For manures, there will be at least one line for each type of manure and it may have been applied in two or three instalments. To get the total cost of the manure, these different items will have to be added. Another way of the distribution of the materials, i.e. according to the source from which they have come is directly available in the column totals. The proportion of the material cost purchased or provided by the landlord can be directly got from there.

A greater difficulty arises in finding out the material cost involved in the utilisation of the bullock labour. This is a complicated affair and we shall discuss it more fully while discussing the livestock schedule. In the first stage of the analysis of each enterprise it is the total number of bullock hours used by each enterprise that is required and is directly available from the schedule. A cultivator may be interested in the distribution of the bullock labour, that he has got, over the various enterprises and that can be got directly as the column total in terms of own-bullock-labour hours utilised for each enterprise.



Another direct cost on the cultivator is that of hired casual labour, the total value of which is also available in the column totals directly. Again if he is interested in apportioning that cost according to whether male, female or child labour has been employed, he will have to pick up individual items from the detailed account and add separately for each of these. Similarly, if he is interested in the casual labour requirements for each type of work of farming activities he will have to do the same. For hired bullock labour also, the total expenditure as well as hours of work done are directly available in the column totals.

For the family labour and the labour available without direct payment the distribution according to the type is directly available from the column totals. Again if the family and exchange or gratis labour is to be distributed according to different types of activity or according to different months, the relevant entries will have to be picked out from the detailed account and added. If the total labour components for individual activities of the enterprise or in different months is to be found, the distribution of hired casual labour hours will also have to be added to these.

It will be seen from the above that for most important types of factors their cost and distribution is directly available from the column totals while if further detailed analysis is necessary, other types of tables will have to be constructed by picking out the data from the account. Thus,

a primary analysis about costs will be directly available to the account keeper from this. To get a complete picture of the enterprise. Other direct information about it should also be noted at the end of this form. There, a space has been provided for noting down the gross produce of individual crops, from that particular plot. Similarly, the share to be paid to the landlord in each type of crop and its value may also be noted, therein, as well the value of cash rent, if any, with respect to that particular plot. The total direct cost of the farmer on that particular enterprise will be the total value of the material used plus wages paid to hired casual labour and hired bullocks together with the share and rent paid to the landlord, land revenue, if paid by himself, and other cess. This will give the direct cost of that enterprise which subtracted from the value of gross produce will give gross returns to the farmer from that enterprise. It will be seen that two items of the direct cost have not been included in this. One is the cost of maintaining the owned bullock labour and other is the cost of keeping farm-servants. Though both these costs can be apportioned nicely to each enterprise, these have got the characteristic of overhead cost also, in the sense that the direct apportionment is only of the hours worked by them while the cost on them is to be incurred work or no work and is not directly proportionate to the work done by them. Thus we may classify them as overhead costs and the apportionment of them to different enterprises may only be done at a later stage.

3.11 Livestock enterprise account

Livestock enterprise may be considered as consisting of two more or less different enterprises. One is that of draught animals which provide the motive power for the farm business. A detailed account of the labour power provided by draught animals for different enterprises of farm business to be noted with the individual enterprise account of this labour power use for other purposes is not considered to be very essential for the understanding of the farm business and requires quite detailed notings and therefore, in accordance of the principles adopted for the construction of this account book, it has been relegated to the secondary part.

Another sub-enterprise is related those animals whose main products are physical commodities like milk, eggs, wool, etc. Dung-manure and dung-cakes are the by-products of both these sub-enterprises. As many expenses done for draught and other animals are not easily separable it is advisable that they be noted together on one schedule and then apportioned according to some principles. Form No. 8 has been designed for this purpose while in form No. 9 all the receipts of the livestock except that due to labour may be entered. Thus due to inseparability of various items of various sub-enterprises the usual practise of having both inputs and outputs of an enterprise on the same form had to be abandoned in this case. As the routine of the work for the up-keep of these animals as well as their consumption do not change frequently,

their details may as well be taken weekly instead of having almost repetitive entries every day. Accordingly these forms are designed to be filled weekly instead of daily. All the details are to be taken as far as possible separately for draught animals, milch animals and others. These detailed distributions of the items should only be given if it is possible to distinguish them. Otherwise only totals need be filled in. Thus if it is known exactly how much fodder is consumed by draught animals and how much by milch animals, it should be noted as such but if it is not possible to distinguish, then the total amount of fodder consumed by livestock in the week should only be noted. Similar is the case with the human labour hours used for their maintenance. If the labour can be attributed definitely to one or the other, it should be noted in the appropriate column; but if that is not possible only the total labour spent on livestock should be written down.

A space has been provided for noting down different varieties of fodder and concentrates that are fed to the livestock. The labour spent has also been classified as that of farm servants, male, female and child family labour. A separate column has been provided for noting down the grazing fees paid and the hours of labour spent in looking after the animals while grazing, therefore should not be included in the labour account due to livestock if any, as grazing fee is being paid for the same. If grazing is looked after by

the children of the family the hours should be noted in the child labour hours. There is a system prevalent in several villages where members of different families go turn by turn to look after grazing of the village livestock. If such cases only the hours of work done by the members of the family should be noted and then it may be taken that it represents the total work of grazing of the livestock of the household, for, other people look after the grazing of the livestock of the household in exchange to this work of the family members.

In noting down human labour hours spent per week or livestock account, the daily hours spent by different categories of persons should be multiplied by seven to get weekly hours; but this multiplication should be done only for the routine hours which remain the same throughout the week. On the other hand if the farm servants have worked say for four days and other family males for three days on a particular work for livestock involving three hours per day, 12 hours should be noted against farm servants and 9 against the male family members. Such care is very much required for the types of work which are sometimes done by the farm servants, sometimes by the males and sometimes by the females of the household.

The total of the various columns here will give total material cost on livestock as well as the total hours of labour spent on them during the period. These two together constitute the cost of maintaining the livestock.

Some convention may be made for the distribution of the total cost of the various types of animals if the details for those various types are not otherwise available. The following convention was adopted in the Survey of Farm Business in Wai Taluka by D. R. Gadgil and V. R. Gadgil. The bullock was considered as one animal unit. Other animals are converted into animal units (A.U.) as follows :-

Buffalo (male) = 1.0 A.U.

Buffalow (female) = 1.0 A.U.

Cow = 0.7 A.U.

Bull = 0.6 A.U.

Buffalo-Heifer = 0.5 A.U.

Buffalo-Bull = 0.5 A.U.

Heifer = 0.4 A.U.

Cow-calf = 0.14 A.U.

Buffalo-calf = 0.14 A.U.

Goat = 0.14 A.U.

Ewe, ram = 0.14 A.U.

Lamb or kid = 0.7 A.U.

100 adult poultry = 1.00 A.U.

200 chicken = 1.00 A.U.

After the above conversion the total number of animal units in the herd can be determined and on that basis both field as well as labour hours spent on one animal unit can be determined. Then they may be allotted to different types of animal units in proportion of the number of animal units

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contributed by them to the herd. The above conversion is only illustrative. If a farmer has a reason to differ from that he should certainly do so; for instance some farmers may have a very strong pair of bullocks whom he feeds more than the double to other cows. Then he should allot them as 1.4 animal unit when a cow is allotted .7. Similarly for some cows of good breed or the cow and buffalo giving yield of milk a farmer may be feeding much more proportionately than is allotted for in the above scheme. In all such cases, he should adopt a scheme suitable to his practice.

**GOKHALE INSTITUTE OF POLITICS & ECONOMICS**  
Poona 4.

**FARM ACCOUNTS BOOK**

Beginning of the year End of the year  
 Cultivator Age Caste Subsidiary Occupation, if any  
 Village Postal Address  
 Account Keeper's Name Age Relation with the cultivator  
 Instructor, if any Last examination Passed If studying, in which class.

**FARM ACCOUNTS : Form No. 1**

Classification of cultivated area

	Plot No.	Survey No. Plot, sub-plot	Area less pot-kharab	Assessment	Other Cess Type Amount	Soil Type	Current Value	If purchased when & at what price	Tenancy Status	Terms of tenancy, if any	Rates		Remarks
											Tenancy Status	Terms of Tenancy, if any	
1(a) Land Owned	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
<b>Total</b>		X			X	X		X	X	X	X	X	
1(b) Land Possessed on mortgage	1												
	2												
	3												
<b>Sub-Total</b>		X			X	X		X	X	X	X	X	
<b>Total land possessed</b>	X	X			X	X		X	X	X	X	X	
Of which Cash rented out	X	X			X	X		X	X	X	X	X	
Of which Share rented out	X	X			X	X		X	X	X	X	X	
<b>Total Owner-cultivated land</b>	X	X			X	X		X	X	X	X	X	
Leased in land	1							X					
	2							X					
	3							X					
	4							X					
	5							X					
	6							X					
	7							X					
	8							X					
<b>Sub-Total</b>		X			X	X		X	X	X	X	X	
<b>Total Cultivated Land</b>		X			X	X		X	X	X	X	X	

Of which cropped area ..... Current Fallow ..... Area Permanent Fallow 1) Grazing land .....  
 2) Under well .....  
 Area under road .....  
 under building ----

1) Under tenancy status it shall be mentioned whether the particular plot is owner cultivated; rented in for cash rent; rented out for cash rent and rented out for share rent.  
 2) If any plot is purchased or sold during the period, the fact should be noted in this column together with the date of transaction and the price.



**FARM ACCOUNTS : Form No. 2**

Buildings No. and Identification	Particulars of its use	Area of its roof	Materials of			Cost of**			Year of construction	Total depreciation upto the beginning of the period	Value at the beginning**	Depreciation in the current year	Repairs and extensions done during the year***	Value at the end of the period	R E M A R K S
			Plinth	Walls	Roof	Plinth	Walls	Roof							
T o t a l															

**Other Fixed Capital Assets**

Type of Assets	Land Occupied Survey Area No.	Value of land occupied	Cost** of the work done	Year of asset formation	Total depreciation upto the beginning of the period	Value at the beginning	Depreciation during the period	Work done*** during the year		Value at the end of the year	Remarks
								Type	Cost		
1) Well											
i)											
ii)											
2) Garden and/or plantation											
i)											
ii)											
iii)											
iv)											
v)											
3) Any other fixed capital asset (specify)											
i)											
ii)											
iii)											
iv)											
T o t a l											

\* Either replacement value or original costs should be written here according as which is planned to be used as base for depreciation accounting.

\*\* Value at the beginning will be equal to 'construction cost' minus total depreciation upto the beginning of the period plus the value of the site and of any other accessories with the building.

\*\*\* Cost of any extensions of these assets done during the year is to be noted in this column.





Livestock Inventory

Type	Name	Age at the beginning of the year	Breed	Home-bred or purchased	If purchased		Value at the beginning of the year	Depreciation (-) or appreciation of value during the year	Value at the end of the year	If sold during the year			If died during the year		Remarks	
					When	Price				Reason	To whom sold	Price received	Date	Cause		
<b>Bullocks</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
	No. 5															
	No. 6															
	No. 7															
	No. 8															
<b>Other Draught Cattle</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Total draught animals</b>			X	X	X	X				X	X		X	X		
<b>Milch Cattle</b>																
<b>She-buffaloes</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Cows</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Total Milch Cattle No.</b>			X	X	X	X				X	X		X	X		
<b>Buffalo Calves Males</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Buffalo Calves Females</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Cow Calves Males</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Cow Calves Females</b>																
	No. 1															
	No. 2															
	No. 3															
	No. 4															
<b>Total Calves No.</b>			X	X	X	X				X	X		X	X		

Other Animals

Type	No. at the beginning of the year	Of which purchased	Total purchase price	No. home-bred	Total value at beginning of the year	No. born during the year	Purchased during the year	Sold during the year	Depreciation (-) or appreciation of value during the year	No. of deaths during the year	No. at the end of the year	Of which purchased	Purchase price	No. Home-bred	Total value at the end of the year	Remarks
She Goats																
He Goats																
Rams																
Ewes																
Cocks																
Hens																
Ducks																
Any other (write name)																

State the type of the animal before No. If born after the commencement of accounting, give the birth-date in this column

Financial Assets and Debts

Type of Asset	Date of starting the account or purchase of asset	Amount at the beginning of the year	If any additions			If any subtractions			Amount at the end of the year	Remarks									
			Date	Amount spent	Sources of money	date	Amount spent	Sources of money			Date	Amount received	Reason	Date	Amount received	Reason			
1. Deposits in bank																			
2. National Savings Certificates																			
3. Shares in Co-operative Societies																			
4. Any other Share																			
5. Insurance																			
6. Miscellaneous																			
<b>Total</b>																			

DEBTS (including grain-loans, if any)

	Debt No.								Total	
	1	2	3	4	5	6	7	8		
1. Original debt (Amount)										
2. Date of borrowing										
3. Money lender										
4. Rate of Interest per annum										
5. Terms and conditions of the loan										
6. Security of the loan										
7. Purpose of borrowing										
8. How spent										
9. Outstanding at the beginning of the year (₹)										
(a) Principal (₹)										
(b) Interest (₹)										
10. Of which repaid during the year (₹)										
(a) Month of repayment										
(b) Principal (₹)										
(c) Interest (₹)										
11. Outstanding at the end of the year										
(a) Principal (₹)										
(b) Interest (₹)										
12. Remarks, if any.										

Loans given

	Loan No.			Total
	1	2	3	
1. Original Amount				
2. Debt of lending				
3. To whom given				
4. Rate of Interest per annum				
5. Terms and conditions of the loan				
6. Security of the loan				
7. Why given				
8. Outstanding at the beginning of the year (₹)				
(a) Principal (₹)				
(b) Interest (₹)				
9. Of which repaid during the year (₹)				
(a) Month of repayment				
(b) Principal (₹)				
(c) Interest (₹)				
10. Outstanding at the end of the year (₹)				
(a) Principal (₹)				
(b) Interest (₹)				
11. Remarks, if any.				

**Members of the Family and the Farm Servants**

**Serial Number**

1      2      3      4      5      6      7      8      9      10      11      12

1. Name
2. Sex
3. Age
4. Relationship with the Head of the family
5. Civil condition
6. Education :  
(For family members only)
7. If earner -  
    Occupation 1  
    Occupation 2  
    Occupation 3
8. If non-earner, reasons thereof
9. If temporary migration-  
    i) Place of migration  
    ii) Date of migration  
    iii) Date of returning  
    iv) Nature of work
10. If second temporary migration-  
    i) Place of migration  
    ii) Date of migration  
    iii) Date of returning  
    iv) Nature of work

**For Farm Servants Only**

11. Date of joining
12. If not stayed full year,  
    period of stay during the year
13. Payments made to him  
    i) Cash  
    ii) Food                   (Value)  
    iii) Grains               (Value)  
    iv) Clothing              (Value)  
    v) Bedcover, etc.       (Value)  
    vi) Footwear              (Value)  
    vii) Pan, Tobacco       (Value)  
    viii) Miscellaneous     (Value)  
    Total                    (Value)
14. Any other items of engagement
15. Remarks, if any

Individual Farm Enterprise Account<sup>(5)</sup>

Plot No. .... Survey No. .... Area ..... Tenancy ..... Season ..... Crop grown ..... Variety ..... If mixed, Details of (i) sowing methods

Date	Type of work	Material used					Hired Casual Labour					Hired Bullock Labour				Owner Exchange or Gratis (hours) <sup>(4)</sup>					REMARKS
		Type	Owned (Qty.)	Borrowed (Qty.)	From Landlord (Qty.)	Purchased Qty. Value	Total Qty. Value	Type	No.	Hours of work	Cash wages	Kind wages	No.	Hours of work	Cash wages	Kind Wages	Farm servant	Male	Female	Child	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)									(4)	(4)	(4)	(4)	(4)

Total	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Gross Produce	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)													
Type <sup>(6)</sup>																					
Quantity																					
Value																					

Item	Amount	Paid by	Paid to Landlord		
Land Revenue			1) Cash		
Any other cess			2) Kind	Type	1 2 3
1.				Quantity	
2.				Value	
3.					

- (1) If more than one material is used for an operation, use one line for each material.
- (2) If any material is borrowed, detailed terms should be noted in remarks column.
- (3) Male, female, or child, use one line for each type.
- (4) Only hours spent in actual operation should be recorded. Hours spent in supervision and transit should not be recorded here.
- (5) A separate sheet should be used for each plot and a separate sheet for unclassified work. Joint in respect to more than one plot should be allotted to the concerned plots proportionately.
- (6) Type of product produced on that single plot, e.g. cotton, jowar, tur, kadba, etc., if sown mixed.
- (7) Paid by self or landlord.
- (8) Give the type of cess.

**FARM ACCOUNTS : Form No. 8**

**Livestock Expenses**

Last date of the week	Animal Group	Labour used for livestock (in hours)			Grazing Fee	Miscellaneous expenses		Dry fodder			Grass		
		No. Farm serv-ants	Male	Female		Child	Type	Amount	Type	Quantity	Value	Dry or green	Quantity
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												

(Continued below)

(Continued from above)

Last date of the week	Animal Group	Other type of fodder			Oil cake			Pulse meal etc.		Cattle feed			Remarks
		Type	Quantity	Value	Type	Quantity	Value	Quantity	Value	Type	Quantity	Value	
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												
	Draught												
	Milch												
	Rest												
	<b>Total</b>												

1. If the daily routine is the same throughout the week, the weekly hours are seven times the daily hours.
2. If some animals are sent outside the village for a few weeks or months for grazing, the total expenditure incurred for that should be included in grazing fee and details may be noted in 'Remarks'.



Livestock Produce and its Disposal

Kind of Produce	Last date of the week																										Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
1 She-Buffalo's milk	Q																										
2 Cow's milk	Q																										
3 Goat milk	Q																										
4 Other milk Type -	Q																										
5 Total milk	Q																										
5(a) Milk sold	Q																										
6 Ghee made out of home-produced milk	Q																										
6(a) Ghee sold	Q																										
7 Any other milk-products made (i) Type	Q																										
7(a) Milk-product sold (i) Type	Q																										
8 Another milk-product made (ii) Type	Q																										
8(a) Milk-product sold (ii) Type	Q																										
9 Eggs	Q																										
9(a) Eggs sold	Q																										
10 <del>Dung manure</del>	Q																										
11 Dung cakes	Q																										
11(a) Dung cakes sold	Q																										
12 Any other produce Type	Q																										
12(a) Other produce sold Type	Q																										
13 Any other produce Type	Q																										
13(a) Other produce sold Type	Q																										

Q = quantity, V = Value. Write down the unit in which quantity is measured just below the name of the produce.

## Chapter IV

### ANALYSIS AND PLANNING OF FARM ACTIVITIES

As has been pointed before, the detailed planning of the farm business should be done on an overall basis rather than the basis of individual enterprises. Some enterprises may themselves not yield any profit or even sustain some loss if their cost is computed on business principles, but those same enterprises may provide extra employment opportunities for the family labour and bullock-labour. If those enterprises would not have been there, the bullock labour as well as the family labour would have been employed for a lesser period and thus the remaining enterprise would have to bear their extra cost making in the process the farm business less profitable. Similarly some enterprises may not be profitable from the point of view of a single year production. They may be essential to a rotation comprising two or more years. It may be essential to have a particular crop so that the fertility of the land may be maintained and next year another much more profitable crop can be sown. Some enterprises are just complimentary to the farm business and in themselves may not give reasonable profits, such as green fodder crop.

For having a better insight into the farm business and for being helpful in the taking of various types of decisions the costs have been divided into three parts. Each

of these three types of costs may be computed for each enterprise. Firstly, there are direct costs which are attributed directly to the enterprise in question and which would have been saved if that enterprise would not have been undertaken. Then there are semi-direct costs which are to be incurred by the farmer for each enterprise but if a particular enterprise is singly abandoned savings on their account would be almost negligible. These costs however can be apportioned to individual enterprise if proper accounts are kept on the basis of the utilisation by each enterprise of the relevant factors. Thirdly there are indirect costs which cannot be directly apportioned to individual enterprises by any utilisation criteria and therefore are apportioned to them on the basis of some ad-hoc criteria like the proportionate area under the enterprise.

#### 4.2 Direct costs

Direct costs in cultivation include the cost of seeds, manure, hired human labour, hired bullock labour, land revenue, any other cess, rent if payable, irrigation charges, etc. directly attributable to the cultivation on each particular plot. Direct costs may be divided into cash costs and kind costs. Both direct cash costs as well as direct kind costs can be directly got from the enterprise schedule (Form 7). Cash account which involves the accounts of purchases of seeds, manures, fertilisers, etc. as well as account of the payments

for casual labour and/or hired bullock labour can be considered as the very core of accounting of a farm business together with the accounts of cash sales of the produced commodities. This account gives the direct cash cost about each enterprise. Evidently for the analysis they do not suffice by themselves. The direct kind cost and kind return have also to be taken into account. The seed or manure supplied from stores is as much a direct cost to that particular enterprise as purchased seed or manure. Similarly an inventory of produced goods in the house is as much an income as the money received from selling a part of the commodities produced. Rent and land revenue, etc. are also a direct cost on the cultivator. These costs are not technologically determined; but are institutional in their origin. It is necessary from economist's point of view to classify them separately than other direct costs. But from the farmers' point of view when an institutional change is not likely to take place in the short term, the direct incidence of these costs is as important as that of any other, and if he wants to take up the cultivation of any particular crop he will have to judge its profitability after taking into account these institutionally determined direct cost also.

4.3. Semi-direct costs

In these may be included the labour of family members; those of permanent farm servants as well as the labour put in

by own bullocks. This cost is not directly dependent on the work being done on any particular plot. A farm servant will have to be paid on a monthly or annual basis and the decision whether to keep him or not depends on the overall condition of the farm business and not on the work of any particular plot economy. Similar is the case for livestock. Even if an individual plot is not taken up for cultivation the livestock may have to be maintained for the running of farm work. Similarly the value of the family labour is an imputed value based on certain considerations. It is not for that imputed value that the family labour works but for the overall returns which the family gets from the working of the farm business. However, once the total hours worked by all these three types of labour on each particular field are known, their cost to the working of the different plots can be allotted in proportion to the total hours worked therein. As such a separate cost of this nature can be attributed to each individual enterprise. Though how much each enterprise will have to bear the burden of indirect cost is not only determined by the work done for that particular enterprise but also by the total work done on the farm business as a whole; the changes in all the size and the quality of the farm business will affect the per unit cost of this semidirect cost to the individual enterprise.

#### 4.4 Indirect Costs

Indirect cost to the farm business are those which

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could not be readily apportioned to individual crop enterprise. In this category should be put the customary payments to Balutedars either for the direct farm services or just the traditional services; general marketing expenses for bringing in seeds and manure, storage expenses, expenses due to implements and their repairs, expenses incurred on making irrigational canals for the whole field as well as those for making bunds which benefit whole of the farm business. The whole of the expenses on some of the above heads may not be chargeable on a single farm business but a due amount of depreciation for the same should be chargeable every year on the farm business as its total costs are to be charged to it during its useful life. These costs cannot be directly apportioned to individual enterprises though in practice they can be allocated to them in proportion to the area under each.

#### 4.5 Concepts of Farm Income

The above discussed division of the costs of various farm enterprises enables us to derive various concepts of the income of the farmer from his various enterprises. These different concepts of income are useful to the cultivator in understanding his farm business more thoroughly. Further as has been shown below, different income concepts are useful for different types of decisions taken by the farmer. The four income concepts described below are (1) Gross Direct

Income, (ii) Farm Business Income, (iii) Family Labour Income, and (iv) Profits.

#### 4.6 Gross Direct Income

Gross direct income from the cultivation of a particular plot can be taken as a rough measure of its value to the cultivator. It can be defined as the gross value of the produce from the plot minus the direct costs of the production on it. However, if the gross direct income of various plots is added up <sup>it</sup> will not be equal to the gross income of the farmer but will be more than that because the farmer has to spend quite a bit in the maintenance of his bullocks as well as he has to pay salary to the permanent farm servants together with some perquisites. All this cost is not accounted for while gross direct income is calculated. But as discussed above, gross direct income may be taken as the additional income that a farmer gets by putting that particular plot under cultivation. If he is cultivating on all other plots except the one for which gross direct income is calculated, his cost will be reduced only by the direct cost of cultivation of that plot. In most of the cases this assumes that the extra cost of maintenance of bullock labour or of permanent farm servants in cultivating that plot is zero, and also that if that plot had not been under cultivation the family members would have just idled away the extra time which they have worked on this plot. This means

that the marginal cost of family and bullock labour is practically zero. In places where this particular situation does not hold good gross direct income will not give the estimate of the extra income to the farmer of working on this particular plot. Thus, in a sense gross direct income becomes the marginal income due to the cultivation of a particular crop on this plot and as such can be used as a guide for alternative uses. This particular measure not only judges the profitability of a particular enterprise but also job opportunity which it creates for the family members, farm servants, and owned bullocks.

#### 4.7 Farm Business Income.

As seen above, it is not the sum total of the gross direct income that will give the measure of the total income from the farm business as a whole to the cultivators. For that purpose, a measure of income is required which measures the total returns to the family due to farm business. For calculating this the expenses incurred on the draught cattle maintenance as well as the cash and kind payments to the farm servants shall have to be deducted from the total of gross direct income on various fields. Apart from this, the total indirect cost made up of depreciation on various capital assets and implements used up for production purposes as well as the expenses on repairs and maintenance of these capital assets will also have to be deducted from it. Also if any loan has been taken for the purpose of production, the interest on that should be deducted to get farm business in-



-come of the cultivator. This farm business income represents whatever the cultivator gets as the return of his entrepreneurship, the labour of his family as well as rent on his own land and interest on his own working capital used up in the farm.

This total farm business income can be thought as the total of the farm business income contributed by different plots under some conventions. For instance, the bullock expenses can be allotted to different crops in proportion to the hours of work done by the bullocks on those particular fields. Similarly expenses due to permanent farm servants - their salaries and perquisites cost - can be similarly allotted in proportion of their work in different enterprises. And indirect expenses can be allotted to different crops in proportion to the area under each. This measure gives an idea of average income from each plot while on the other hand the gross direct income gives an idea of the extra income from the same under certain assumptions.

#### 4.8 Family Labour Income.

Farm business income includes the returns due to ownership of land as well as those due to the entrepreneurship and labour of the family apart from the interest on his capital. Now if the farmer alternatively leases out his land for rent he can get some income without himself being in the farm business. Therefore, the extra income that his family earns due

to running of the farm business should not include the rent on his own land that it could get even otherwise; similarly the interest on his own fixed capital as well as working capital the farmer could get by lending the money to other people or putting it in government loans.

Therefore, family labour income can be thought as farm business income of the farmers family minus the rent that he can get by leasing out his own land minus the interest that he will get by lending out the money which is locked up in the working of his farm business. The rate of interest on this money, however, should be calculated conservatively because a high rate of interest which is prevalent in the rural areas also takes account of the risk of nonpayment of the money. Therefore, in calculating the same the rate of interest may be taken as that given in the Post office saving account.

#### 4.9 Profit

For calculating the notional profit an imputed value of the family labour should be subtracted from the family labour income. It may happen that <sup>an</sup> imputed value of family labour may be more than the family-labour-income and in that case we can say that the farm business has run at a loss equivalent to the difference between the imputed value of the family labour and the family-labour income, provided that the family labour income is itself positive which is likely

to be, in most of the cases. However, if family labour income itself is negative the loss can be put as family-labour-income plus the imputed value of the family labour.

The differences of opinion as to how the imputation of value for the family labour should be done. Some hold the view that it should be calculated at the rate of employing casual labour for a similar type of work at the same time. However, it is well known that a farmer does not employ casual labour, even if he has no time, for all the work that he does himself. The marginal value of the work done by the farmer is in most cases sufficiently lower than the marginal value of the work of casual labour. He puts in more hours of work simply because there is no alternative employment for him at that time. If he thinks that the productivity of his extra labour put in the farm is anything more than the value that he puts on his idling away of his time, he will do that extra work. Thus it will over-value the family labour if it is to be evaluated at the rate at which the casual labourers are paid. The only labour which is somewhat more akin to the family labour in these conditions is the labour of the permanent farm servants. Therefore, the cost of family labour per hour may be taken as equivalent to the cost of per hour labour of a family farm servant. This might also lead to a bit overvaluation for the similar reason but here this will probably be much less than the former. On the other hand we have no means to estimate the

salary that should be imputed to the managerial function performed by the cultivators. In the absence of any suitable method to account for the same, we may just rely on the mutual cancelling effect of the undervaluation of the managerial function and the overvaluation of his labour.

For the calculation of the imputed value as detailed above, it will be necessary first to find out the total hours of work done by the farm servant during the year and the total emoluments received by him, including the value of the perquisites. On that basis the cost of per hour work of a permanent farm servant can be calculated and then the hours of work done by the farmer may be calculated at the same rate. Every cultivator who is keeping the account is not also employing a permanent farm servant. In these cases, however, the per hour cost of the work of the farm servants may have to be taken from the experience or the records of per hour cost of a neighbouring keeping farm servants in the same village. Mostly, males are employed as permanent farm servants in the Indian conditions and as such the above procedure leaves the problem of valuing female and child labour as there is no guide available for the same. However, the proportion of wages that female or child casual labour gets to the wage of a casual male worker may be applied to the per hour wage of the permanent farm servant calculated as above for getting the rate of imputation for female and child family labour.

#### 4.10 Planning of Farm Business.

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Whether a person should enter into a farm business or not mainly depends upon other alternatives available in his situation; but if the question is of entering into the farm business anew he should take into account firstly the investments that are required for it and secondly, the farm business income that he is likely to earn. These things are to be compared with the alternatives available to him.

Once it is decided to enter or to do the farm business next problem is about the size which may be most efficiently cultivated. The selection of the size depends on many factors. The most important of them are his own holdings and his resources of manpower and of bullock-power. Though on own holding a farmer gets more income than renting in mainly because he has not to pay any rent, he can alternatively get some income by leasing it out. Therefore, the extra income that he gets by working himself on the own holding is only that what we have designated as family labour income above. Of course the own holding gives an opportunity to work which is much more certain than that given by leased in holdings, because of so many imperfections in the land market, and as such for a permanent farmer it is always advisable to have as much portion of his cultivated holding as possible under his ownership. Similarly, if he has got a large chunk of owned holdings, he can plan his agriculture with the longer time perspective than is

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possible with leased in land; whose availability next year depends on the whims and circumstances of some other person.

But the human and bullock resources are much <sup>more</sup> important for getting the broad idea of the size of the cultivation holding that a cultivator shall contemplate to have. It is not implied that once the size of the permanent labour force and the bullock-labour force available is known the optimal size for cultivation can be precisely determined. It is only determined in a very rough way. While planning the expansion of cultivation, which requires increase in either of these factor, the farmer should take into account the extra family labour income that he will be able to get by expanding his business, and this should be compared with the foregoing income of the extra family members who will be now engaged only in agriculture. However, if the expansion is contemplated with the help of permanent farm servants this consideration would be automatically taken in while calculating the extra family labour income accrued. If, however, the changes contemplated are marginal which will not require any extra permanent labour or any extra bullock labour, it is the gross-direct-income that is to be taken into account while taking a decision on the issue.

Once the size is determined the next important step is to plan for the crop pattern that the farmer is to put in. Various considerations about the cropping pattern shall have to be kept in mind before a decision can be made. If the

planning is done for several years at a time, this will very much help the cultivator to determine the most probable way of using his farm resources taking care of the fact that the fertility of his land is not reduced. The second important consideration will be the gross direct income that can be got by putting different crops on the individual plots. Here again as the farm business data only give the historical cost and the historical receipts, the changing situation from year to year will have to be taken into account. The farm situation changes in two ways, unless and until major innovations in farming technique have been adopted. Firstly, the change is due to change in the price structure from year to year and secondly, due to climatic factors which account for good crop in some years and bad ones at other times.

As far as climatic factors are concerned nothing much is known at the time of planning the crop. A farmer has to go by an average experience of the last few years. It does not only mean that in the production estimations the average of several years production should be put in while calculating the gross returns. This of course has to be done but there is another aspect of the situation. It has also to be ensured that if the year turns out to be a bad one, the loss is as small as possible. This points out to the necessity of diversification of the cropping pattern. Some crops which do not give good returns even on the average

performance may give some returns even in the days of bad seasons in which the so-called better crops have little yield, as different sorts of natural climates may affect different types of crops differently. Therefore, it becomes very necessary to have a diversified crop pattern as an insurance against the bad day that will be fetched by the crops. The prices that will be fetched by the crops are mostly unpredictable at the time of sowing. The only idea that can be got is from different relations in the prices of output of different crops in the past few years. A farmer should see that even if the most unfavourable price relations to his cropping pattern prevailed at the time of harvesting he will not be a broke. In the case where the percentage of crops marketed is fairly small, the cultivator need not worry much about the resulting price situation. The importance of the concern with it increases in the direct proportion to his marketable crops.

In determining the crop pattern another important consideration is employment of human and bullock labour. Some combination of different crops will require much more equal work throughout the year from both permanent man power as well as bullocks, while another set of crop combination may concentrate most of the work to be done by these in a few months. It is evident that with the later type of crop pattern much less area can be cultivated than with the former type of crop pattern though per acre the later type of crop



pattern may be much more yielding. Thus in final the determination of the crop pattern the work distribution for different crops should be taken into account. On this criteria the crop pattern most suited to a farm will be changing with the size of the farm,

Thus we have seen that with certain reservations the farm records can be very useful for the purposes of planning farm enterprises provided they are intelligently used and not mechanically.

## CHAPTER V

### The Reduced Accounting System

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In the scheme of work outlined in the preceding chapters, the most time consuming and difficult part of account keeping is that of noting down the hours of work done by different types of labour in the enterprise account and that of noting down depreciation, etc. in the various capital accounts. Without these things also a rough system of farm accounting can be practiced which may be sufficient for quite a few practical purposes though it will not be naturally as good or as complete as the detailed accounting system discussed above. Therefore, if some cultivators find themselves unable to keep the detailed account here in described, it will be very useful for them to keep a reduced account at least as described below. For this reduced account a detailed allowance for various depreciation charges need not be made. Similarly in the enterprise form (form 7) detailed accounting of labour hours spent by bullock labour, permanent farm servants casual labour as well as family labour need not be kept. This will leave us with a list of all the capital items and assets, real as well as financial, together with the changes therein during the year. In the enterprise account this will mean the noting down for each enterprise each type of work done together with the data on which it was done and

the materials used as well as any casual hired labour paid. This will also require the noting down of the end products of each enterprise. It will be seen that this will enable the farmer to calculate his gross direct income as defined above for each plot. This will give a handy measure for judging whether the individual enterprise is worthwhile or not.

But as regards other items of cost are concerned, this type of account has got obvious limitations. It is not possible to know the hours of work done by owned bullocks on various plots during the year and as such a most obvious method of allocating the cost of bullock labour to the various enterprises is not available. However, an allocation can be done on much more rough basis. As a first approximation, the cost of bullock labour may be allotted in proportion to the area under each plot. This will give a rough measure of bullock cost but it will treat all types of crops and land as if they require the same amount of bullock labour for cultivation purposes. Some adjustments however can be made for some well known gross differences. For instance, a wheat crop may require three ploughings before being sown while the Jowar crop may require only a single ploughing. In this known case the per acre bullock cost for wheat can be taken as three times that for Jowar; while making this type of allowance we may take the area under jowar as the standard area and the area under wheat will have to be multiplied by three to convert it into the standard acreage

for this particular purpose. In this way the total acreage of the cultivators may be converted into the standard acreage and the total cost incurred on the maintenance of bullock labour may be divided by this standard acreage to get the cost of bullock labour per standard acre. This per standard acre cost of bullock labour may be allocated to the plots in accordance with the standard acreage of that plot and not in accordance with its actual acreage.

This alternative method of allocation may be much more nearer to the reality than the previous one, but it requires correspondingly large amount of calculation as well as more or less subjective element of conversion of the actual acreage in the standard forms. As in the case of bullock-labour, the labour of the farm servants can be allocated to different crops by any of the two methods described above. Either the cost of the permanent farm servant can be allotted to different crops in proportion to the area under each or in proportion to the standard area under each. It should be noted that the standard area for the purpose of the allotment of the cost of permanent farm servants will usually not be the same as that for the allotment of the cost of bullock labour. It shall have to be again determined on the basis of the judgement as regards the proportion of the permanent farm labour employed on different types of crops and land. Further, in the case of permanent farm servants, their total cost cannot be allotted to the farm business as such because they also work for livestock. So, firstly a rough estimate of the proportion of the time

they spend on livestock should be made. Their total emoluments then may be divided between the farm business and the livestock business in that proportion. Only the emoluments allottable to the farm business should be divided to different enterprises in one of the two ways described above. While emoluments for the work on livestock will have to be further divided into that for draught animals and for milch animals and included in the cost of rearing those animals.

The most difficult problem in the case of these reduced accounts is the cost of family labour. It may be recalled that the per hour value of family labour was taken as equivalent to the per hour cost of labour of permanent farm servants. In this reduced account, there is no way of calculating the per hour value of permanent farm servant labour and therefore the above method of valuation cannot be applied. If, however, we have reason to believe that the family members working in the farm business are putting in more or less the same amount of labour as the permanent farm servant, we can evaluate the monthly value of the family labour as being the same as that of the permanent farm servant, and allocate it to the cost of various enterprises of the cultivators in the same way as the labour of permanent farm servants has been allocated. If, however, the family labour is working much less or much more than the permanent farm servants, the above method obviously cannot be used. Then we may first estimate the proportion of work done by the family member as compared to the work done by the permanent farm servants, and the value of the work done by the family labour may be taken

as the same proportion to the wages paid to permanent farm servants.

Thus even with the reduced accounting system, we shall be able to calculate in a rough way the costs of the cultivations. But it should be remembered that this is much more useful than keeping of no account. The only type of analysis that cannot be done, even in a rough way from the reduced accounts will be the time distribution of the family and owned bullock-labour. But that may not be considered as a big sacrifice in view of the simplifications achieved by this device. In contrast to the countries where land and capital are plentiful in Indian condition in Indian conditions, the decision of farm planning may not depend on the scarcity of human labour. But for the considerations of cash and kind expenses and of land may be of paramount importance.

It will be noticed that the costs and incomes arrived at by the use of the reduced accounting system are not even comparable to those arrived from non-reduced system. For in the former they do not include or account for the depreciation charges. Thus the various types of incomes derived from the reduced accounting system are gross of depreciation and not the net income which are available to the cultivator for consumption or fresh investment purposes. However, even then they will serve the same purpose for the planning of the farm business as the refined estimates.

While using these reduced accounts a cultivator will have to bear the incidence of depreciation in fits. While in the previous accounts some reasonable funds are set aside for depreciation every year, an implement or bullock has to be replaced only at intervals. If depreciation is not set aside every year, the whole cost of these replacements will fall in the particular year, in which they are made. Therefore while using reduced accounting system, the cultivator should keep the above possibility in mind, and take precautions accordingly.

Chapter VI

THE NEW ACCOUNT BOOKS-SECONDARY PART

In the previous chapters we have discussed the constitution of the primary part of the new account book as devised by us for being kept by educated cultivators. We have also discussed how the salient features of that can be analysed so as to help the farmer both in understanding his past farm business and also in planning his future farming.

As mentioned in Chapter III we have divided the new account book into two parts, viz. the primary part, which should be kept by all as far as possible and the secondary part consisting of 6 forms, which may be kept only by those cultivators who have developed a better understanding of the complicated accounting processes. It does not mean that from the farm business point of view this second part is in any sense superfluous. Really this is almost as important as the primary part for a grasping of the whole farm business as well as for understanding how the various factors of production are utilised throughout the year. This has been put as optional because its accounting is a bit more complicated and it is considered that even though the cultivators who can keep the account detailed in the primary part will also benefit quite a lot by it. Efforts, however, should be made by the cultivator keep both the parts of the accounts, if possible.



## 6.2 Composition of Secondary part

The secondary part consists of 6 types of accounting forms dealing with the day-to-day work of permanent farm workers, owned bullocks, the account of exchange labour, the cash account, the kind account of each important agricultural product, and the family budget account. It will be seen that quite a few of the items to be noted in these accounts are also to be noted in the primary accounts in connection with each individual enterprise. For instance, any payment in cash for casual labour or for purchases of materials used in a particular enterprise will be noted both in enterprise form (7) as well as in the cash account form. Similarly any kind earnings or expenditure will be entered in its commodity account as well as in either that enterprise account which is responsible for the particular transaction or if it is received as a kind wage, it will appear in the day to day work account of the particular farm worker. However, it is necessary to note in one place all the utilisation of labour, - human or bullock as well as all the cash and kind transactions of a similar kind, irrespective of whether they were due to any business enterprise or consumption activity or anything else. From these accounts one can get the idea of the total availability of any factor at any point of time and also of how the human and bullock labour have been employed at any particular period. These accountings not only keep an important check on the data recorded in the previous part, but also by themselves give a valuable guidance in using the various scarce

factors for production at various times. They thus enable one to know readily the various uses to which these factor of production (labour, material and cash) have been put at various times.

Below each of these secondary account forms are explained in brief.

6.3 Exchange or Gratis Labour Account.

When a cultivator receives some type of labour in exchange or gratis he really contracts an obligation explicit or not, to return the labour at a suitable time. He will be much helped if he can keep a clear account of the same in which he notes down the names of persons giving him their labour, the type of work that they have done for him together with its timing and extent. Similarly he should also have the details about the bullock labour obtained in exchange or gratis together with the name of the owner. On the other hand, he should note down the details of a similar labour given by him or his family members or his permanent farm servants as well as that given by his bullocks together with the name of the person for whose work the labour was done. By the help of this he can at any time make a record of how much labour he has given for any particular person, and similarly how much labour that particular person has given in exchange for his work. Form No. 10 has been devised for the purpose of keeping this type of accounts.

#### 6.4 Permanent Farm Workers Time Account

Form No. 11 is meant to record the daily work of the family members and farm servants. A separate form will have to be filled in for each working member; on each day the hours of work done by him are to be noted, together with their distribution in different types of work. If he has worked on wages outside the family business, the details of the cash and kind wages earned by him are also to be noted on this form.

The time spent daily in transit for reaching the place of work, as well as the time spent in supervising the work of casual labour and also that spent on guarding a crop should be noted in this form. It is necessary that a farmer should know the details of time spent on such miscellaneous tasks in working of his farm business, so that he may at a future time, if any opportunity arises, be able to reduce it by reorganisation of the farm business. For instance, if the different fields are at a distance from themselves as well as from the house of the farmer sufficient time will be required for transit. If some scheme of consolidation of holdings could be worked out or some leasing in and leasing out operation be so arranged that the cultivated holdings of the farmer come nearer to each other and/or nearer to his house, the time spent on this item can be reduced. Apart from any possibility of such reorganisation, it will be sufficiently useful for a cultivator to know the effect of the time spent on such miscellaneous tasks on the amount of total farm work that he

can do. This will also give him precisely as to how much of the difference in the labour inputs that he can put in and that are being put in by his neighbours can be explained by these factors.

The detailed breakdown of the hours of work done by all the workers on the home farm according to the type of work done as well as according to the plot on which that work has been done, must have already been noted down in the accounts relating to the individual enterprises. The purpose here is to collect at one place the total number of hours worked by each individual on his family holding irrespective of the type of work done or the particular plot on which it was done. From this form it will be interesting and helpful to find out the proportion of the working hours spent actually on farm work in different seasons by the workers of the holding.

As in the case of the hours of work done on farm, the hours of work done for cattle by all the workers are noted down in the form No. 8, giving livestock expenses. There those hours of work have been split up according to whether the work had been done for draught, milch or other cattle. In this form the same hours of work are to be distributed in accordance with the person doing the work.

The availability of the work on wages outside one's own holding does not depend upon the working of one's own business but on the other economic activities that are being carried on in the neighbourhood. But whether a person can

be spared for these sundry work depends on the level of the activity in the home enterprises. The relationship between the total number of hours worked with those worked on wages will be important in understanding the place of own business in the economy of the household and in that of each individual worker. Further the distribution of the hours of work done on wages according to the type of work in various seasons will give a good idea of the types and scope of miscellaneous jobs available.

The wages earned by an individual by working for somebody else are individual earnings in contrast to the joint earnings of the family received from the family enterprises. It does not matter much whether such earnings are put in the common pool for domestic expenditure or kept by the individuals as their pocket money. But in the latter case, the fact may be noted down in the remarks column. The wages noted down in this form are over and above the earnings of the family enterprises and to get the total income of the family they will have to be added upto the enterprise income.

The wages earned by the permanent farm servant from the family holding are not additional to the income from the family enterprise and therefore should not be noted in these forms. Similarly the work done by him on the family farm or for the family cattle is really a work on wages. But for the reasons stated above they should not be put under the column "work on wages" but should be noted as if the permanent

farm servant is a member of the family. However, if the permanent farm servant works outside the holding to which he is attached on wages, the type and hours of work done by him in this way should be noted in the said column and the wages earned by him in this capacity only should be noted in the column "wages earned". Such wages earned should not be added up to get family income unless and until they are handed over to the head of the family.

6.5 Record of the work of owned Draught Animals

As in the case of human workers of the family, it is useful to know the working time and its breakdown for the owned draught animals also. Form 12 of the account book has been devised for the purpose. This form can be filled either for a pair of bullocks or for a single bullock. If a pair of bullocks always work together it may be advisable to fill in a single form and avoid a needless duplication. But if some-time they work together and sometimes separately, separate forms for each bullock are to be filled. Similarly if the farmer owns more than two bullocks and an individual bullock works sometimes with one bullock and sometimes with another, separate accounts will have to be kept of the work time of each bullock. If, however, the bullocks are paired off in the sense that the same pair works always together, the duplication of the entries may be avoided by keeping a single account. In case a single account is kept for a pair of bullocks the hours entered should be that of the work done by

the pair. Therefore whenever the bullock hours of the work done has to be found out the hours entered in such schedules will have to be doubled. However, in the column of wages earned, the wages earned by the pair as such should be noted, therefore if per bullock wage rate is desired to be found out the wages earned will have to be divided by two.

A seasonal distribution of the total hours of work done by the bullocks can be constructed out of the columns of the total hours. But within each season the pattern of the distribution of the working time is to be constructed with the help of the other entries.

As in the case of human labour the hours of work on the home farm by the bullocks are also available in the enterprise account form. But there the distribution is according to the plots and crops on which the work was done while here it will be in accordance with the bullock working.

In case a pair of bullocks and a family worker are jointly hired out the total wages earned by the plough unit are to be noted down in this form. But the fact should be noted down in the remarks column together with the name of the person whose services were thus hired out. While making the final account of the earnings of the bullocks and those of the family members, all such cases may be picked up and the total amount thus earned allotted to bullocks and human labour on some basis. A good basis may be to allot the

the prevalent wage rate for human labour and the residual for the bullock one. The rationale for this is the fact that the market for the casual human labour is relatively much more perfect in the Indian villages as compared to that of bullock labour, and as such a wage rate for human labour is determined by the general market and institutional conditions, while that for bullock labour is whatever they are able to fetch by individual contracts.

6.6 The Cash Account

Form No. 13 is designed to note down all the cash transactions irrespective of the activity of the cultivator to which they relate. This form keeps the account of the liquidity of the farmer at any particular time and of its changes between any two points of time. As such this account can be considered as of greater help to the cultivator than any other account, taken individually. Most of the cultivators who do keep account, keep the details of the cash transactions only. But mostly these accounts are kept under a single column of receipts and another one for expenditure. To get an idea of the liquid position at any particular time even this much account keeping is sufficient. But as soon as a need of knowing further about the nature of receipts and expenditure arises, a lot of selective tabulation becomes necessary, which is mostly beyond the capacity of an average educated cultivator. And even if some cultivators are able to do the same it is found to be so much time-consuming that it is mostly



left undone. Thus quite a lot of useful information to the cultivator remains buried in the account books.

Here, therefore, an attempt has been made that the various transactions may be noted in accordance with their nature, so that the distribution of receipts and expenditure for any period may be readily available whenever desired.

Most of the transactions to be noted in this form would also have been noted in some other form in connection with the economic activity they represent. For instance wages received will also be there in the form No. 10 in which the economic activities of each worker is noted and it is only from there that the details of the activities for which the wages were received would be given. To make a cross reference easy, a space has been provided in this form itself where the form No. in which the details are available should be noted. If there are more than one form of the same No. sub-No. of the particular form should also be given.

Under sales and purchases of assets should be included the sales and purchases of fixed assets like land, building, etc., implements and livestock respectively. That is, all the sales and purchases of items given in forms 1 to 4 should be noted down in these columns. The details about the sales and purchases of livestock and implements must have already been noted in forms 3 and 4. But these details are to be noted only in the remarks column for the fixed assets detailed

in form No. 1 and 2. In each case it will be useful that in this form not only the form No. in which these items are already recorded be noted, but also the item number affected as given in that particular form.

The purchases and sales of the financial assets should be noted under the financial transactions. They are of the same nature as incurring or repaying of debts or lending and receiving back the amount. In these columns the money taken out or put in the saving bank account and other transactions specified in form 5 may also be noted.

The idea of immediate liquidity, that is cash in hand can be got from the totals column. But while doing any planning, the data about the financial transactions will have to be studied in greater details. The money in the saving bank account may be considered almost as liquid as cash. While considering the availability of that put in shares and/or National Savings Certificate, their effects on the working of the farmer's economy as well as the time required in liquidating them will have to be examined. The money in insurance etc. can be considered as completely liquid until the time of its maturity. Similarly the liability and the availability of the debts taken or the loans given should be considered in details for each such transaction before one can get an idea of the liquid money that can be available for the working of the enterprises or for consumption in the stipulated period.

## 6.7 The Commodity Account.

As in the case of cash, it is very useful to have an idea of the disposal and receipts and thus of availability at any particular time of all the important commodities a cultivator deals in. It will be useful to keep the detailed account for all the commodities which enter into the business of the cultivator. Only the commodities used for consumption purposes and not produced by the cultivator himself may be left out from this detailed account keeping. In this case the only transaction will be purchase for domestic consumption and that will be taken care of by the cash and family budget accounts (form No. 13 and 15). However if the cultivator feels that some of the commodities produced by him are of minor consequence and do not effect his business and enter directly into family consumption, he may not keep an account of the same on this form. If he finds that it is too much bothersome to keep an account for each of the remaining commodities, he may choose a few for which this detailed account should be kept. It all depends upon the number of commodities in whose disposals and receipts he thinks he is interested. Care should be taken that no commodity account be omitted for which a cultivator may be sorry afterwards when any necessity for the information for the same may arise.

Account may be kept of all the important farm products irrespective of the fact that the main purpose of its cultivation was to satisfy consumption demands of the household, to meet his cash requirements, to meet other liabilities or to raise fodder for the livestock. For keeping the records

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a separate form should be used for each commodity, whether grain, or a cash crop or fodder.

Accounts are to be kept of the quantity of each commodity in the storage. All additions to it or withdrawals from it should be noted down. Thus weekly or fortnightly withdrawals from the same for household consumptions are to be noted at the date of the withdrawal and not as they are consumed. If the latter practice is to be adopted, it will entail daily measuring of the quantities consumed which will lead to much more additional work without corresponding advantages. Therefore the recording of the quantities consumed every day is not recommended. The stocks of the commodity entered into the book, therefore, will exclude the quantity of the commodity lying in the kitchen from which that for daily consumption is taken out.

Though in general, this form deals with the incomings and outgoings from the stocks; the total produce of the commodity on the farm should be recorded in it and not only that portion which is brought home from the threshing floor. This quantity will also be noted in the particular enterprise form. Its form No. with sub-No. if any, should also be noted for cross reference. Together with the total farm produce, all its disposals at the threshing floor, should also be noted in the appropriate column for the date on which they were made, though those disposals were not made from the stock as such.

Similarly all the kind receipts such as share rent, wages, purchases, etc. of the commodity in question should be noted down in the schedule irrespective of the fact whether they have been put in the storage or have been kept for current consumption and/or disposed of by sale or by payment as wages, or as share to landlord, or have been used as material in the farm business, etc. But in the latter case where they have not been put in storage their disposal on the same date under the relevant column should be noted down. In effect this means that all the transactions of the commodity done by the farmer as business should be written down in this form while those for his consumption activity should only be noted down when the commodity is transferred from stocks and not as it is consumed.

#### 6.8 Domestic Account

This is the last account of the proposed account book. In this are to be noted all the items purchased or otherwise acquired for being used for the satisfaction of the household requirements. The keeping of this account is relevant to even a salaried person who gets a fixed amount of income every month and as such whose sources of income are not so varied as that of a cultivator. But for him cash account and the domestic or household account become identical, for all his acquirements of goods for domestic use is against cash payments. There are however, some credit transactions, but this

fact can be easily mentioned on the accounting form.

As against this a farmer has got several modes of acquiring different commodities for the consumption purpose. He may directly harvest it for consumption; he may take it out of stores, which is a part of his business; he may purchase it for cash or credit like others; he may get it as kind wages or as a customary payment on the part of others (Baluta) to him. It is desirable that he distinguishes between the different modes of acquiring the commodity, for analytical purposes. If he is keeping a commodity account (form No. 14) also for the commodity in question, all this information will be available from that schedule. But if he is not keeping any such account, provision has been made in this form to note down the same under the column marked 'mode'.

Ordinarily a family budget account is kept without any classification, entering in it different items one after another in accordance with the time they were acquired for the household consumption. This method makes its further analysis difficult and prohibitively time consuming. On the other hand if we make a separate column for each item of expenditure, the whole thing becomes formidable due to the large number of items only. Further, to grasp the significance of so many values given by such a vast number of classifications is beyond the capacity of an average mind. And as such any analysis with that much number of items ceases to be meaningful.

Keeping this in mind, all household expenditure has been divided into ten meaningful types. Sub-totals of all of them will provide a breakdown of the total expenditure, from which some meaningful conclusions about the pattern of household consumption can be directly drawn. And it will inform the members of the household whether they are using their consumable income in the most useful way they can. When there is a necessity to study the consumption expenditure on the individual items, it is better studied along with the consumption expenditure of the other items in its own group. For instance in connection with the study of the total budget only the total expenditure on cereals, for instance, is necessary to know. And this much information is also sufficient when the general expenditure pattern is being studied. When it is desired to study the expenditure on, say, Jowar, it is to be studied in relation to the total expenditure on cereals and its distribution among individual cereals, and not with general expenditure pattern for getting easily understandable results.

It will be seen that most of the groups are concerned with food. As many as eight groups out of ten cater for food items. This is an indication of the importance of food in the family budget of the comparatively poor peasantry of our country. Non-food purchases are few in number and to have many columns for the same may be just a waste of space. Being few in number they can be easily picked out for further classi-

-fication, if necessary. On the other hand the number of purchases and other acquisitions of the food items are large in number. Due to the large number of such transactions, it is advisable to have a breakdown of them in greater number, so that those large number of transactions may be studied in greater details.

The non-food items have been grouped into two groups, viz. 'other products' and 'other expenditure'. In this by other products is meant the non-food tangible products acquired for household use such as cloth, fuel, soap, footwear, cycle, cots, etc. They are to be distinguished with the 'Other expenditure' incurred on services etc., such as on transport, or payments to barber, washerman, etc. or the payment of the house rent, or payment for household services, etc.

## 6.9 Conclusion

The first three accounts (Form No. 10, 11 and 12) of the secondary part of this farm account book were concerned with the distribution of the hours of work by the workers and bullocks belonging to the household. While the next three accounts (form Nos. 13, 14, and 15) deal with the receipts and disbursement of cash and commodities. They are designed to describe when and how a cultivator gets hold of cash or various commodities and when and how he uses them up.

In the primary part of the account book the economics



of agriculture as an individual firm, with its capital, and labour structure and the processes of production were sought to be studied. In the first three forms of the secondary part, on the other hand, the activities of the cultivators' family as the provider of the human and bullock labour are noted, while the last three forms are meant to keep the account of transactions between the cultivator and all the rest as well as within different economic activities of the cultivator himself such as his consumption, production and storing activities.

Exchange or Gratis Labour Account

Exchange or Gratis Labour Given						Exchange or gratis labour received					REMARKS	
Date	To whom given	Exchange or gratis	Type of work	Family labour Name of the giver No. of hours worked	Bullock labour No. of bullocks Total No. of hours worked	Date	Who gave (name)	Exchange or gratis	Type of work	No. of hours worked		Of bullocks No. Total hours
1						1						
2						2						
3						3						
4						4						
5						5						
6						6						
7						7						
8						8						
9						9						
10						10						
11						11						
12						12						
13						13						
14						14						
15						15						
16						16						
17						17						
18						18						
19						19						
20						20						
21						21						
22						22						
23						23						
24						24						
25						25						
26						26						
27						27						
28						28						
29						29						
30						30						
31						31						

Name :

Age :

Man/Woman/Child

Month

Date	W O R K (Hours)							Wages earned**			Remarks, if any	
	On home farm*	On transit to work	Supervision Of la-bour	Guard-ing etc.	For home Cattle	Work on wages Ty-pe	Other work*** Ty-pe	Total number of hours worked	Cash	In Kind		Value
						urs	urs		Type	quantity		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

\* Hours entered under this column should be those already entered on Form 7. Give in bracket the sub-number of form 7 to which it relates.  
 \*\* In the case of farm servants only the wages earned from outside, if any, should be noted.  
 \*\*\* Work on exchange should be entered as other work.

Record of work of owned Bullocks and Buffaloes

Month .....

Bullock\* Number 1 Name 1 Age 1  
 Buffalo 2 2 2

Date	W O R K (Hours)								Total No. of hours worked	Wages Earned***			Remarks
	On home farm**	On transit to work	Exchange Labour		For Wages		Other Work			Cash	In Kind		
			Type	Hours	Type	Hours	Type	Hours			Type	Quantity	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
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20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
Total			X		X			X				X	

\* If a pair of bullocks is always jointly worked only one form need be kept for both of them; otherwise their time accounts should be kept separately on two forms.  
 \*\* Hours entered in this column should be those already entered in form 7. Give in bracket the sub-number of Form 7 to which it relates.  
 \*\*\* If the wages earned are jointly for a pair of bullocks and a family member or farm servant, they should be entered in the bullock account, and should not be repeated in the account of the individual member, and the fact should be mentioned in the 'remarks' column.



Sub-No. .... Receipt and Dis  
Quantity at the beginning .....

Disposal of .....  
Quantity at the end .....

		R E C E I P T								D I S P O S A L																
Date (1)	Month	Farm Produce		Share rent		Wages		Any other kind rec		Int(2) ty Form No.	Purchases		Total	Sales		Share to landlord		Wages		Used as material		Taken out for home consumption (3)	Any other disposal (2)		TOTAL	Quantity in storage at the end of the day (4)
		Quantity	Form No.	Quantity	Plot No.	Quantity	Form No.	Type	Quant		Quantity	Value		Quantity	Value	Quantity	Form No.	Quantity	Form No.	Quantity	Form No.		Quantity	Form No.		

- (1) This form need not be filled in daily but only on those days when some transaction is made.
- (2) Such as receipts and disposals from customary payment (baluta), receipt of materials from the landlord etc. or giving to tenants etc.
- (3) That amount is to be entered that is taken out of the stock and put at place from where daily consumption requirements can be taken out.
- (4) It should be equal to the quantity given in the previous entry plus total receipts minus total disposals.

Expenditure Domestic Account

Month .....

Date	Cereals		Value		Fruits & Vegetables		Condiments etc.		Milk and its products		Non-vegetarian food		Sugar and Gur		Other Food Products		Other Products		Remarks		
	Mode	Type	Qty.	Value	Mode	Type	Qty.	Value	Mode	Type	Qty.	Value	Mode	Type	Qty.	Value	Mode	Type		Qty.	Value
	1.	2.			1.	3.	1.	4.	1.	5.	1.	6.	1.	7.	1.	8.	1.	9.	1.	10.	

1. Mode means mode of acquisitions i.e. whether it has been taken out stock, or harvested for consumption or purchased. In this column in bracket the form number and sub-number of the in which the information is also entered should also be given (such as cash account form or enterprise account form).
2. e.g. rice, wheat, jowar, bajri, maize, etc.
3. e.g. gram, tur, urid, mung, etc.
4. e.g. potatoes, onion, mango, banana, etc.
5. e.g. chillis, ocpra, spices, salt, etc.
6. e.g. Milk, curd, ghee, khoa, etc.
7. e.g. fish, mutton, pork, beef, egg, etc.
8. e.g. sugar, gur, khandsari, rab, etc.
9. Oil for consumption purposes, Hydrogenated oil (Dalda etc.), Tea, Coffee, Pan, Supari, Groundnut and other oil seeds etc.
10. Non-food products like soap, hair oil, kerosene, clothings, footwear etc.
11. Expenditure in return of which no tangible product is got e.g. that incurred in transport while paying social visits, payments for personal services such as those to barber, washers etc., etc.