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**INTERIM REPORT**  
**OF THE**  
**NATIONAL COMMISSION ON AGRICULTURE**

**ON**  
**WHOLE VILLAGE DEVELOPMENT PROGRAMME**

**GOVERNMENT OF INDIA**  
**MINISTRY OF AGRICULTURE**  
**NEW DELHI**  
**(FEBRUARY, 1973)**



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## CONTENTS

	PAGE No.
SUMMARY OF RECOMMENDATIONS . . . . .	i—viii
SECTION I —Introduction . . . . .	1—2
SECTION II —The Approach . . . . .	3—13
SECTION III —The Programme . . . . .	14—20
SECTION IV —Problems of Indebtedness . . . . .	21—23
SECTION V —Organisation . . . . .	24—29
SECTION VI —The Projects . . . . .	30—49
SECTION VII —Acknowledgements . . . . .	50—51
 APPENDICES	
I —Composition of Central Study Group . . . . .	52—53
II —Location, Area and Population of Villages Selected for Whole Village Development (Musahri, Bihar) . . . . .	54—55
III —Illustrative List of Working Relations Among Various Parties Participating in the Programme (Musahri, Bihar) . . . . .	56—57
IV —Whole Village Development (Musahri, Bihar)—Esti- mated Financial Outlay . . . . .	58—59
V —Hundred Village Plan—(Mirzapur, U.P.)—Estimated Financial Outlay. . . . .	60—61
VI —Whole Village Development—(Tamil Nadu)—Estimated Financial Outlay . . . . .	62
VII —Whole Village Development (Orissa) Estimated Financial Outlay . . . . .	63
VIII —Pilot Studies for the Whole Village Development Programme—Socio-Economic Survey Schedule . . . . .	64—80

## SUMMARY OF RECOMMENDATIONS

### *The Programme*

1. The whole village development programme has to be built around the village community as a whole.

It should be based on community approach and common action towards development. The programme components of the whole village development approach should be:

- (i) Consolidation of holdings;
- (ii) overall land development plan for maximising water control and moisture preservation in dry areas;
- (iii) maximising irrigation support subject to per acre maximum limit of investment based on the need to repay investment credit by extra production possible; and
- (iv) cropping programme for the village for best use of irrigation and for ensuring best control of irrigation and drainage.

In order that there is optimum utilisation of land and water, the programme should be taken up for a village or an area comprising a cluster of villages to ensure best water-shed management.

(Paragraph 3.1)

2. Wherever voluntary consolidation is agreed to and carried out, the State should be prepared to give it quick legal recognition.

(Paragraph 3.3)

3. For ensuring social justice, in the whole village development plan there should be voluntary acceptance and enforcement of minimum wage rates to agricultural and non-agricultural labour and available waste land and extra land, if any, obtained by consolidation after allowing for common utilities should be distributed to the landless.

(Paragraphs 3.7 to 3.9)

4. For the same reason, the following extra commitments should also be aimed at in all programmes—gramdan or otherwise:

- (i) Out of the extra land unit value that will accrue in the village according to land consolidation principles by the implementation of the programme of land development

and irrigation, those in the top two deciles in the land holdings should donate at least 5 to 10 per cent of the extra unitage for distribution to the landless and those with sub-marginal holdings. This condition will be optional but the approach will have to work for it wherever possible, particularly in the gramdan areas.

- (ii) Irrigation facilities should be maintained on community basis. Irrigated lands under the system should be ensured protective watering for an agreed kharif crop only. If water availability is low, any second crop that can be grown on the irrigated land should be on a community basis, the method of community handling being left to the gramsabha or the village community. If the second crop area is known to be a fixed percentage of the kharif irrigated area, then a block system should be used to allow the second crop to be raised in different blocks in different areas in rotation. Alternatively, at the time of consolidation of holdings, the possibility of giving every holder a suitable plot in the limited area that can be irrigated for the second crop should be examined. Community share of both the first (kharif) and the second (rabi) crops should be set aside towards the payment of capital cost of the irrigation schemes.
- (iii) The village community should agree to give a fair deal to the share croppers. Equal sharing of costs by both share croppers and the rentier of input for improved agriculture including cost of water, if any, should be attempted wherever possible.

(Paragraphs 3.10 to 3.12)

5. The following extra commitments should be attempted in gramdan villages:

- (i) The members of the gramsabha should contribute one-fortieth of the crops for the gramkosh for community work.
- (ii) The gramsabha should also organise subsidiary occupation programmes and fit these into a State marketing programme.

(Paragraph 3.13)

6. The State's contribution in the interest of social justice should include the following:

- (i) *Irrigation*: While all successful wells should be paid for by the community, the risk of dry wells and insufficient discharge from the wells should be borne by the State.

The average cost of the completed wells can be debited to the community only when the well or tubewell discharges a certain quantity of water which can enable a cropping that will make it possible to repay the capital costs in reasonable annual instalments not exceeding say 15. For this, it would be necessary to reserve a certain percentage of the produce. When the discharge is less there should be a proportionate reduction in the charges. If the output is larger, there should be an option to charge more proportionately. In the settlement of accounts, whatever is not covered by the charges as well as the entire cost of the failed wells should be borne by the State. A risk fund of about 15 per cent of the entire investment in the well programme should be created for this purpose from Plan allocations.

- (ii) *Technical Support*: The State should earmark technical and supervisory personnel of a high standard for the project so that the programme does not suffer for lack of expertise at crucial periods.
- (iii) *Waste land*: The State should develop waste land before distribution to the beneficiaries and bear the cost.
- (iv) *House sites*: The landless should be given plots of land near the village abadi for their house sites and subsidiary occupation.
- (v) *Consolidation of holdings*: While the State should give quick legal recognition to the consolidation of holdings voluntarily agreed to, there should be enabling law in each State for compulsory consolidation which can be applied if a requisite number of villagers agree to the consolidation, where such law does not already exist.
- (vi) *Protection of share croppers*: It will be desirable to record the rights of share croppers wherever possible before the process of consolidation and land development begins. Wherever the programme is taken up, the revenue authorities should put their staff to dispose of the applications of the share croppers quickly and settle the rights. The land reform and consolidation laws in the States should be examined immediately to ensure that consolidation does not affect the basic right of the cultivating tenant in occupation until the Legislature decides on the exact extent of his interest in his holding.
- (vii) *Credit support*: (a) Long, medium and short term loans for the programme should be fully guaranteed and made available on the basis of the supervised credit programme.

The State will have to allocate margin money or funds to the Project (Implementation) Committee to enable it to avail of the loan facilities for the community programme which it will have to implement itself.

- (b) Subsidies should not be given to individual beneficiaries of the programme. The participants will be expected to repay their loans, but the subsidies that are allowed for such programmes in the State should be made available to the common fund for use by the Project (Implementation) Committee. The fund should be utilised by the village community to cover any risks in the programme and for the development of the section which earns the subsidy for the community. This fund will also provide the margin money required to avail of the institutional finance for the programme.

(Paragraphs 3.14 to 3.27)

#### *Problems of Indebtedness*

7. In order that the small and marginal farmers can participate in the programme, the State should take steps to free them from the pressure of their debts. The State should provide sufficient funds to the Project (Implementation) Committee at the village level for the settlement of the debts of the small farmers with the moneylenders. These funds should be given to the Committee at a very low rate of interest or at no interest.

(Paragraphs 4.4 & 4.7)

8. The Project (Implementation) Committee should go into each case of debt of small and marginal farmers, settle the accounts with the moneylenders and buy off the loans. The cultivators whose debts are thus settled would have the obligation to repay the amount to the Committee in suitable instalments. Where repayment of debt is beyond the capacity of the cultivator even after development, redemption should be considered.

(Paragraph 4.8)

9. In extreme cases where past exploitation has been glaring and the illiteracy and low level of knowledge of the backward classes and special tribes in financial matters has encouraged exploitation, it will be necessary for the State to provide legally for debt redemption.

(Paragraph 4.9)

10. There should be provision for advancing consumption loans by the Committee at the village level. A nucleus fund of about one

year's needs may have to be provided by the State which will go into the gramkosh and can be utilised as a revolving fund to meet the urgent consumption needs of the small and marginal farmers. In a bad agricultural year, this fund can be used for general relief with the concurrence of the Committee.

(Paragraph 4.10)

### *Organisation*

11. For every village in the programme, there should be a Project (Implementation) Committee which should handle the programme and secure the necessary agreement to various commitments. This should be a registered non-profit making development body constituted under the Societies Registration Act with a membership between 10 and 15. Unanimity or near unanimity should be the basis for the selection of members giving due representation to different sections of the village community taking part in the programmes of development.

(Paragraph 5.1)

12. The Project (Implementation) Committee should take up the programmes which relate to community investment and action for implementation. The investments made by the Committee for such programmes should be repayable to it from the proceeds of the production on an agreed basis. This should be translated into a binding agreement between each individual and the Committee. Each individual should further guarantee by agreement the performance of his individual part in the programme under the supervision and direction of the Committee subject to penalties for non-performance and interference in the combined programmes.

(Paragraph 5.2)

13. The membership of the Project (Implementation) Committee should be for 3 years. After this period, the membership should be changed on the basis of unanimity or near unanimity. In a gramdan village, the gram sabha should elect the Project (Implementation) Committee on these lines which should be given necessary statutory powers and made responsible for the whole village development programme.

(Paragraphs 5.4 to 5.5)

14. Where the programme is initiated in several villages, there should be a Project (Implementation) Union to organise and supervise the programme of development, services, supply and marketing for mutual benefit. The central organisation should be a federation to which the Project (Implementation) Committees of the villages



should be affiliated. This organisation should be given legal status and have definite objectives. It should also receive funds from the State and distribute them to the Project (Implementation) Committees. It should be accountable to the Government for the proper use of these funds.

(Paragraph 5.6)

15. Wherever a voluntary organisation is available and capable of organising the programme, it will be better to give it the responsibility for planning and implementing the programme. The voluntary organisation so entrusted should organise the Project (Implementation) Committees in the villages and the Project (Implementation) Union which will be the area agency. The area agency should be a registered society in which officers and representatives of various groups will be involved. The area agency may be at the district level or at the area level. It will be better to develop the area agency on a district basis so that it merges with the future district programme. When voluntary organisations are not available to handle the programme, the State should create the agency at the area level with officials, specialists, representatives of village committees and specialised institutions. The Project (Implementation) Committees should be set up in the villages through local leadership and involve all sections.

(Paragraphs 5.9 to 5.11)

16. The agency set up at the area level may be supported by institutional financing agencies for undertaking the programme, once the economics of the programme are fully established.

(Paragraph 5.12)

17. The State should provide adequate financial support to the Project (Implementation) Union for meeting the cost of administration and providing technical and other services to the Project (Implementation) Committees. A provision of about 10 per cent of the non-recurring expenditure of the project should be sufficient for this. The funding of the initial expenditure on organisation, survey planning and preparation of detailed schemes should be separately built into the total development plan. The State should give relief in registration charges and sales tax etc. to this programme where such facilities are given to other programmes for the benefit of small and marginal farmers.

(Paragraph 5.13)

18. Advantage should be taken of other programmes being implemented in the same area covered by the whole village development programme. This will avoid duplication of funds and efforts. As expertise, supplies and services will have to come from different

agencies for the programme, it will be necessary to ensure adequate coordination and timely action with overall support from State Government. If works are carried out by different agencies, it will be desirable if a proper tie up of operations is attempted, a time schedule prepared and a continuous watch kept on the progress to avoid holdups and ensure speedy implementation of the programme.

(Paragraphs 5.14 & 5.15)

19. A Coordination Committee at either the district or State level, the choice being left to the States concerned, should be set up to oversee the implementation and coordinate the activities of various agencies participating in the programme.

(Paragraph 5.16)

20. In the pilot stage, the area agencies should be linked to a Central Committee under the Planning Commission for periodical reviews at the national level. The Ministers of the States where the programme is undertaken should also be its Members. When the programme is undertaken on a large-scale in a State, there will be need for a State level organisation as a Committee of Direction and Committee of Aid. This organisation should have representatives from the area agencies both for gramdan and non-gramdan projects.

(Paragraph 5.17)

### *The Projects*

21. Pilot projects should be taken up in the last year of the Fourth Plan in the States of Bihar, Orissa, Tamil Nadu and Uttar Pradesh as recommended in this Report for which a lumpsum provision of Rs. 2 crores should be made in the Central Plan. Of this, an amount of Rs. 30 lakhs should be provided in 1973-74 and the balance during the Fifth Plan. Based on the experience of the working of these pilot projects such modifications as are necessary in the design of the programme should be made and certain models developed which could be tried throughout the country.

The allocation of funds for the project need not wait for the identification of small and marginal farmers and calculation of subsidies as adjustment of accounts with the Project (Implementation) authorities can be made as the work progresses.

(Paragraphs 6.2 to 6.6)

22. Adequate provision should be made in the Fifth Plan for the expansion of the whole village development programme to other areas. Provision should be made in the Fifth Plan for nucleus demonstrations of development and also for whole village development where such demonstrations lead to the adoption of the whole

village development programme. Moreover, adequate provision should be made for taking up additional pilot projects in the States which are willing to take up the projects on experimental basis. Considering the possibilities of extending the whole village development programme in the near future, a lumpsum provision of Rs. 10 crores should be made in the Fifth Plan in the Central Sector. Of this amount, a provision of about Rs. 46 lakhs should be made for taking up a demonstration-cum-development plan in one hundred villages in Dudhi tehsil of Mirzapur district.

(Paragraphs 6.7 to 6.10 and 6.44)

23. Bench-mark surveys should be conducted in the areas selected for pilot projects alongwith the preparation of resource inventory.

(Paragraph 6.11)

24. The concerned Department in the Government of Uttar Pradesh should take immediate steps to complete the settlement operations in the project area recommended to be taken up in Dudhi tehsil of Mirzapur district.

(Paragraph 6.37)

INTERIM REPORT  
ON  
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SECTION I

INTRODUCTION

1.1 According to the Terms of Reference given to the National Commission on Agriculture, the Commission is required to make recommendations for the improvement and modernisation of Indian agriculture with a view to promoting the welfare of the people. Various approaches to rural development and agricultural development in particular have been tried in the past with varying degrees of success. Recognising the urgency of increasing the productive capability in the rural areas and promoting the welfare and prosperity of the people through equitable distribution of the benefits of development, the Commission has been exploring the possibility of adopting a whole village approach to development for harnessing the growth potential of the villages.

1.2 The economy of the village centres round the village community. The central theme of the whole village approach is to build the programme of development around the community as a whole. It is felt that if the community can be enthused and stirred into common action towards development, the utilisation of the growth potential will be easier and quicker from which the community as a whole benefits.

1.3 The Commission discussed this concept with the Planning Commission, the Society for Developing Gramdans and Sarva Seva Sangh. It was felt that the approach could be tried on a pilot basis particularly in gramdan areas where the right to village lands was already common and a proper climate for common action might already be available. The Gramdan Organisation in their areas could give the necessary organisational support. If through common effort, growth could be shown in some selected villages, it was possible that the idea would get wider acceptance and attract neighbouring village to participate in such programmes.

1.4 While it was agreed that it would be necessary to try out this approach in pilot projects in the first instance, it appeared that study groups should be set up both at the Centre as well as in the

States to study the concept and feasibility of the whole village development and examine the actual economics, time phasing and the administrative problems that might be encountered in the pilot areas. Accordingly, the National Commission on Agriculture constituted a Central Study Group on Pilot Projects for Whole Village Development in September, 1971 under the Chairmanship of Shri P. S. Appu, then Land Reforms Commissioner, Central Ministry of Agriculture, with experts drawn from various fields as members. The composition of the Central Study Group is indicated at Appendix I. On the basis of its study, the Group was required to suggest to the Commission the approach, the programme content and organisational needs of the whole village development programme as well as pilot projects which could be taken up.

1.5 The Commission addressed all the States and Union Territories about this approach and in particular requested the States of Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and Tamil Nadu, where gramdan movement had shown good progress, to agree in principle to set up study groups at the State level for the purpose of the study and helping the Central Group constituted by the Commission. These States indicated their willingness to set up such study groups when required. At the instance of the Commission, the States of Bihar, Orissa and Tamil Nadu set up Study Groups at the State level to assist in the study and formulate project proposals.

1.6 The Central Study Group visited the areas proposed to be selected for pilot projects in the States of Bihar, Orissa and Tamil Nadu and had discussions with the local Study Groups. The Chairman and the Vice Chairman of the Commission along-with the Convener of the Group visited Mirzapur district in Uttar Pradesh where constructive work by a voluntary agency was being done.

1.7 On the basis of its study, the Central Study Group prepared a draft Report and discussed it at its meeting held on the 4th December, 1972. The Commission in finalising its approach has taken into consideration the views of the Central Study Group.

1.8 In this Interim Report, the Commission has discussed the approach to whole village development, its programme content and organisational needs and indicated the projects which could be taken up on pilot basis.

## SECTION II

### THE APPROACH

#### *Problems of Development*

2.1 The need for developing the rural areas is urgent for several reasons. Seventy per cent of the working population in the country depend on agriculture for their livelihood. In the immediate future, this percentage is not likely to undergo any drastic change. On the other hand, the absolute number depending on agriculture is likely to increase. The agricultural sector has, therefore, to provide for this large section of population. There is also an immediate need to increase agricultural production in the country both of food crops and cash crops, for feeding the millions and providing the raw materials for industry and for exports. Even now, about 45 per cent of our exports are agriculture based.

2.2 Another compelling factor is the growing disparity between the urban and rural areas. In 1954-55, the average income per person in the urban sector was 1.8 times that in the rural sector. By 1969-70 it had become 3 times. The income disparities are increasing and the shift from agriculture to industry has so far been only marginal. Within the rural sector, disparities are increasing between the more influential section and the small farm operators and agricultural labourers. Finally, unemployment is growing in the rural areas which, if not controlled in time, will lead to greater difficulties. The need for focussing our attention on detailed planning for development in the rural areas is, therefore, imperative.

2.3 The development of the village economy has so far been by bits. Various programmes have been designed from time to time to attend to specific aspects but at no time have the problems been tackled in a comprehensive manner. The results from these developmental programmes have, therefore, been limited. For instance, wherever irrigation facilities have been created, in most cases it has not been possible to make optimal use of the water facilities due to fragmented holdings and absence of programmes for consolidation, land shaping and soil conservation. The development of the village economy has, therefore, been slow. Moreover, it has also been uneven. The influential section has availed itself of the results of most of the development programmes and benefited individually. The

small and marginal farmers and the agricultural labourers, who predominate the rural scene, have not gained from the process of development. Imbalance has, therefore, developed. Holdings still remain fragmented and in many cases there has been over-capitalisation where tubewells have been sunk. Irrigation facilities are unevenly distributed. Land shaping and conservation have not yet been attempted in a planned manner. As a result, adoption of scientific agriculture has not been possible on a large scale.

### *Community Approach to Development*

2.4 This shows that there is a clear need for a package to make the best use of available facilities for scientific agriculture and higher levels of production. The development potential of the village can be utilised optimally only if such an approach is followed. The potentialities of the village are intimately linked with the availability of water, land shaping, availability of labour for various operations and availability of power including bullock power. Given these conditions, the optimum utilisation of facilities is necessary to achieve best results.

2.5 In order to reduce the disparities in the rural economy, planning for growth has to take into account the element of social justice. The development programme has to be suitably weighted in favour of the less-privileged. Keeping this in view, the package approach has to deal with the village economy as a whole. The small farmers, the marginal farmers and agricultural labourers form part of the village community and the programme has to be built around that community as a whole if full benefits are to be derived. The approach to whole village development arises from this community approach in which the interest of the entire village population is kept in view.

### *Development of Rainfed Areas*

2.6 The development of rainfed areas for better agriculture can be done by suitable addition of irrigation resources and soil conservation with land shaping and suitable drainage. If the programme can be taken up on the whole village basis, it will give the best results. When the irrigation is by open wells or by tubewells or lift irrigation from flowing streams, the expenditure has been left substantially to the private sector for the obvious reason that a heavy programme of this nature is beyond direct State investment. In the actual working of these irrigation programmes, certain difficulties have arisen in the field:

- (i) The holdings of the farmer are too fragmented for irrigation by a suitable unit source under the control of the farmer; and

- (ii) the farmer has insufficient holding to exploit the entire potential of a unit of irrigation on his lands and hence if he invests in the venture, it becomes over capitalisation in irrigation.

2.7 The solutions suggested are consolidation of holdings so that the farmer can have a compact holding which he can irrigate from one source and/or a community venture in irrigation so that the full potential of an irrigation source can be exploited. Both require tremendous organisation and a legal frame. Similarly for soil conservation and land shaping, it is accepted that the whole village approach including the communal and common lands is the best way of getting results. This again requires organisation and a legal frame to get everybody to join the programme.

2.8 There is bound to be a lot of upsetting of the traditional agriculture of most of the farmers in the village while the programmes of irrigation, consolidation of holdings and soil conservation are being organised. If litigation intervenes, the time for things to settle down may prove too long. If, therefore, the entire village agrees to join in a scientifically approved programme of cultivation and also agrees to the development of the village on the basis of a scientifically laid-down programme, it may be possible to solve the problem more effectively and quickly. A comprehensive programme of soil conservation and land shaping could be undertaken for the entire village and irrigation points could be located in common at the best locations so that for the water available, the largest area can be commanded effectively without waste. The advantages of this community approach are:

- (i) As the development progresses, even though a part of the village area may be unproductive, there may be greater production in another area because of development achieved and as a result there might be overall sufficiency of production;
- (ii) consolidation of the holdings will automatically follow the soil conservation and land shaping rather than the other way round. It will also enable the due reservation of land for communal purposes;
- (iii) irrigation sources will be common and a routine will be established for the best advantage of the village;
- (iv) the cropping programme can be so arranged as to maximise the output and also maximise utilisation of the agricultural labour in the village so that this class also benefits; and
- (v) a bank will be willing to advance long term funds for a comprehensive scheme of this nature duly supported by expertise from a State Department.



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The Karshak Sangham was entrusted with the supervision, working out the details of cost sharing and solving the problems faced in day-to-day operations. In addition, three field officers were posted to the area to supervise every operation and to alert the cultivators in adopting the schedule of operations at the proper time.

2.15. The viruppu crop under the programme was substantially higher than the normal yield. About  $2\frac{1}{2}$  to 3 times the normal yield was obtained from the area. Similar projects in other areas in the State also proved to be a success and the yield was raised substantially. Apart from the benefit of adopting certain agricultural practices in common, the scheme had the advantage of training the cultivators in intensive cultivation. This experiment showed that with effective leadership and proper technical guidance, it would be possible to organise the cultivators on an area basis into a system of scientific and intensive cultivation.

2.16 Patrenahalli, in Mysore, provides another example of a successful experiment by the Fertilizers and Chemicals Travancore Ltd. In this experiment the DENA Bank participated. Before the experiment was started, the maximum recorded yield of paddy was 15 quintals to an acre. As a result of the development effort, the yield levels have gone up considerably. The average yield was found to be 40 quintals per acre, based on a random harvesting of 10 cent area in every plot. One farmer recorded the highest yield of 45 quintals to an acre. The villagers have developed a sense of participation in the programme and are keen to join common programmes for development. Several good features have also come to light through the experiment. The villagers have become profit conscious through cost reduction and increase in production. While the cost of cultivation went down from Rs. 668 to Rs. 626 per acre over the year, profits went up from Rs. 1,744 to Rs. 2,813. The intensive cultivation has resulted in the improvement in the earning of the labourer also. He improved his earning from 18 paise for every rupee spent in crop production to 36 paise for every rupee. This experiment also led to the development of banking habits among the farmers and the use of production credit judiciously.

2.17 Yet another interesting example is provided by the experiment now being conducted by the Economic and Entrepreneurship Development Foundation assisted by the United Bank of India in West Bengal. The Foundation has taken up pilot projects in two areas in Howrah district of West Bengal, as part of their intensive and integrated agricultural development programme. The problem of these areas is drainage and the crops used to be lost due to waterlogging. The Foundation got the villagers agree to a development programme and constructed tubewells for providing water during the rabi season. The whole area had a successful Boro crop of paddy during the rabi

season which had been raised for the first time. The Greater Bagnan Integrated Scheme, of which this is only a part, has in its programme the utilisation of the ground water and the drainage of the excess water and prevention of flooding. According to the Foundation it was possible to raise the yield from about 2—6 quintals per acre to 10—14 quintals per acre by providing drainage and by introducing high-yielding varieties in the kharif season.

2.18 A more comprehensive programme is being carried out by the Agrindus Institute, Banwasi Seva Ashram in Dudhi Tehsil of Mirzapur district in Uttar Pradesh. Mirzapur area is chronically drought affected and is covered under the drought prone areas programme. Dudhi tehsil situated in the south of river Sone has large areas under forests. The land in this area is highly undulating, heavily eroded and of poor fertility. Irrigation is almost non-existent and agriculture entirely depends on rainfall. Crops often fail due to untimely rainfall although the average rainfall is about 1000 mm.

2.19 The people in the area are mostly tribal and backward castes. Apart from uncertain agriculture, they employ themselves in the collection of mahua flowers and tendu leaves from the forests. The whole sub-division of Dudhi has been covered under Gramdan campaign. But as there is no gramdan Act, the ownership of lands still vests with the individuals.

2.20 The Banwasi Seva Ashram was established in this tribal area in 1956 when the area was hit by a severe famine. An area of 258 acres of forest land was made available by the State Government to the Ashram through the State Bhoodan Samiti. The Agrindus Project was also founded by the Ashram under the auspices of Sarva Seva Sangh, Gandhi Samarak Nidhi and War on Want (U.K.). The aim of the project is integrated development of the area and prevention of further famine or starvation. The Ashram has been doing some constructive work in the area. The main activities are:

- (i) Agricultural demonstration;
- (ii) agricultural extension;
- (iii) agro industries;
- (iv) training in leadership;
- (v) health and family planning; and
- (vi) functional literacy.

2.21 The Agrindus has succeeded in sustaining the gramdan spirit although there is no statutory recognition of the gramdan. Gram swarajya sabhas have been formed in 100 villages and Gram-kosh (village fund) has been established in 76 villages. The gram

swarajya sabhas have formed *ad hoc* functional committees for the following purposes:

- (i) Resolving village disputes;
- (ii) redemption of mortgaged lands;
- (iii) supply and recovery of credit in cash and in kind;
- (iv) organisation of agricultural demonstration on farmers' plots;
- (v) construction of wells and irrigation reservoirs;
- (vi) organisation of evening adult literacy schools; and
- (vii) development of health and prevention of common diseases.

2.22 The land donated to the Banwasi Seva Ashram which has been registered as a society under the Registration of Societies Act, forms the nucleus of development. The Agrindus project has developed a base farm on 150 acres for demonstrating scientific methods of cultivation of different crops. It is a mixed farm with dairies and fisheries. The farm organises field trials in varieties of improved seeds, manurial dosages, irrigation lay outs, use of improved implements etc. Assistance of the following types has also been made available to the villagers:

- (i) Medium term credit for redemption of mortgaged land, purchase of animals and agricultural implements;
- (ii) seed bank facilities;
- (iii) food for work programmes for land reclamation and construction of community irrigation projects (bandhies); and
- (iv) construction of drinking water wells.

As a result of the extension work, 50 new dugwells have been constructed and 25 old wells have been deepened. Twenty five earthen dams and 45 small bandhies have also been constructed for irrigation. The lands beneath and around these bandhies have been levelled.

2.23 The result of these efforts towards development is quite evident. In 1967, the land donated by the State Government was wooded, covered with shrubs, undulated with 4 to 7 per cent slopes and divided by several gullies and hillocks. In that year hardly 3 acres were irrigated. But by 1970, 106 acres of land were cleared, levelled and irrigated. Earthen dams, gravity canals, channels, pipelines and pump sets provided the irrigation. The area under irrigation now is around 130 acres. Irrigation was possible by entrapping rain-water through a series of earthen dams (bandhies). They serve as soil conservation and irrigation tanks and besides catching silt washed down from the soils, prevent wells from going dry in the summer.

2.24 With the construction of bandhies and dugwells and bunding and levelling of land, it has been possible to adopt a rational rotation of crops and increase production. Thus at Gambhirpur village where a bandhi has been constructed, more land has been brought under cultivation and a substantial increase in production achieved as will be evident from the data provided below:

TABLE 1.—*Crop pattern adopted before construction of bandhi and after*

*Before:*

Serial No	Crop	Season	Area (Acres)	Net return per acre (Rs.)
1	Maize	Monsoon	10	140·00
2	Sawan	„	8	90·00
3	Other small millets	„	5	40·00
4	Paddy	„	3	175·00
5	Barley	Winter	8	50·00

*After:*

Sl. No.	Crop	Area (acres)	Cost of cultivation per acre (Rs.)	Value of the yield per acre		Net value realised per acre (Rs.)
				Grain (Rs.)	Fodder (Rs.)	
1	Paddy	34·00	550·00	960·00	80·00	490·00
2	Maize	20·25	345·00	517·20	50·00	222·20
3	Wheat	8·00	640·00	900·00	85·00	344·00
4	Berseem	2·00	250·00	—	—	250·00
5	Banana	1·00	1,300·00	3,000·00	—	1,700·00
6	Grapes	0·75	7,000·00	—	—	—
7	Paddy	8·00	550·00	960·00	80·00	490·00

The Table makes it clear that considerable yield increases have also taken place with the adoption of scientific cultivation. In this area, 25 to 30 acres are still waste land which can be reclaimed and brought under cultivation.

2.25 Again village Kirwani, a pumpset has been installed on a stream with an observed water flow upto the month of April. The total cost of installing the pumpset providing channels and pipelines and bunding and levelling of land has been Rs. 26,700. Of the 30 acres of land reclaimed after the installation of the pumpset, 14 acres are receiving irrigation in kharif and 4 acres in rabi. The position before and after the installation of the pumpset in respect of the production is as follows:

TABLE 2:—*Crop pattern adopted before and after the installation of the pumpset*

*Before:*

Serial No	Name of the crop	Area (Acres)	Season	Net return per acre (Rs.)	Total income (Rs.)
1	Paddy	4.00	Kharif	110.00	440.00
2	Maize	3.00	„	50.00	150.00
3	Sawan	6.00	„	30.00	180.00
4	Barley	7.00	Rabi	60.00	420.00
5	Gram	1.00	„	45.00	45.00
Total					1,235.00

NOTE—Part of the land remained fallow.

*After:*

Serial No	Name of the crop	Area (acre)	Season	Cost of cultivation per acre (Rs.)	Gross income per acre (Rs.)	Net profit Total (Rs.)
1	Paddy (IR. 8)	6.00	Kharif	295.00	525.00	1,380.00
2	Paddy (desi)	8.00	„	120.00	220.00	800.00
3	Maize	3.00	„	90.00	150.00	180.00
4	Sawan	2.00	„	80.00	110.00	80.00
5	Barley	6.00	Rabi	130.00	210.00	480.00
6	Wheat	4.00	„	320.00	800.00	1,920.00
7	Sugarcane	0.25	„	400.00	620.00	55.00
8	Vegetables	0.25	„	350.00	550.00	50.00
Total						4,925.00

The example shows that the net incremental income in this case is Rs. 3,690. This has been possible as a result of the development of irrigation and adoption of suitable cropping pattern.

2.26 We have drawn attention to these examples at various places with a view to underscoring the fact that given proper leadership, community agreement, organisational support and supplies and services, it is possible to secure through common action increase in production and lasting benefits to the villagers.



## SECTION III

### THE PROGRAMME

3.1 The whole village development programme has to be built around the village community as a whole. It should be based on community approach and common action towards development. The programme components of the whole village development approach should be—

- (i) Consolidation of holdings;
- (ii) overall land development plan for maximum water control and moisture preservation in dry areas;
- (iii) maximising irrigation support subject to per acre maximum limit of investment based on the need to repay investment credit by extra production possible; and
- (iv) cropping programme for the village for best use of irrigation and for ensuring best control of irrigation and drainage.

In order that there is optimum utilisation of land and water, the programme should be taken up for a village or an area comprising a cluster of villages to ensure best water-shed management. In some cases, the water shed as a whole may have to be covered. This will be particularly relevant in dry and semi-arid areas.

#### *Consolidation*

3.2 Holdings in this country are in too many parcels, which are also haphazardly laid out. This does not enable the optimal use of irrigation, where it is available, and hampers soil and moisture conservation in dry areas. Land development of the village has, therefore, to be based on consolidation of holdings. While consolidating the holdings, it will be desirable to bring the parcels into one or two blocks. It will be preferable to bring all the parcels of the small and marginal farmers in one compact block so that intensive development of this block is possible.

3.3 Consolidation Acts have been passed in most of the States but the progress in consolidation has been uneven and extremely slow except in a very few States. If the agreement of the community could be secured for voluntary consolidation, the process can be

much quicker. Once the community agrees to join in a common development programme it is possible that such an agreement will be forthcoming. In gramdan areas where there is already a psychological climate for common action it might even be comparatively easy to secure such voluntary consolidation. Once the process is completed through voluntary consolidation, the State should be prepared to give it quick legal recognition.

### *Land Development*

3.4 There has to be detailed planning for land development with soil conservation and land shaping. This will ensure maximum water control and moisture preservation in dry areas. The land improvement plans should include common lands and Government waste lands. This operation should precede the consolidation process. If land is properly developed, it is expected that any resistance towards consolidation will also wither away. Proper development will also enable a more rational consolidation than has been attempted so far.

### *Maximising Irrigation Support*

3.5 The maximum number of holdings in the village should be provided with irrigation support. However, it will be necessary to work on the principle that much of the investment in irrigation will be recoverable from the beneficiaries through a fair percentage of the extra production. This sets a limit to investment per acre which is feasible of repayment.

### *Cropping Programme*

3.6 A scientific cropping programme has to be established for the village which will make the best use of irrigation and moisture and best control of irrigation and drainage. The tendency to use scarce water resources for crops with high water requirements has made production uncertain. Appropriate technical expertise has to be brought in the guide the farmers in adopting the most suitable cropping pattern.

### *Concomitant of Social Justice*

3.7 The following minimum concomitant of social justice has to be built into the whole village development plan:

- (i) Voluntary acceptance and enforcement of minimum wage rates to agricultural and non-agricultural labour; and
- (ii) distribution of the available waste land and extra land, if any, obtained by consolidation after allowing for common-utilities to the landless.

### *Wage Rates*

3.8 In order that the benefits of growth are shared by all in the village, it will be necessary to ensure that the agricultural labour class, which is the least privileged, gets a fair return for its labour. We have seen that in the experiments made by FACT, labour has gained substantially through higher wage rates. Such labour arrangements are capable of being built into the system as development leads to extra production. If the community can be made to agree to a minimum wage rate for labour, it will smoothen the process.

### *Waste Land and Extra Land*

3.9 We have already recommended consolidation of land holdings and that land development should include waste land. Through consolidation some extra land may be obtained. Some of this land will have to be put away for common utilities. The remaining available waste land and extra land if any, obtained by consolidation should be distributed to the landless so that as many of them as possible can be brought into the productive process.

### *Extra Commitments for Social Justice*

3.10 Certain extra commitments for social justice should also be aimed at in these programmes. As a result of the implementation of the programme of land development and irrigation, extra land unit value is likely to accrue in the village. Agreement can be reached according to which the top two deciles in the land holdings will donate at least 5 to 10 per cent of the extra unitage for distribution to the landless and those with sub-marginal holdings. Although this is very desirable, we are aware that this agreement might be difficult to bring about. No doubt, the land development and irrigation facilities can be used as a lever to secure this agreement. But in view of the practical difficulties, we will keep these conditions as optional to be tried wherever possible. It may be possible to secure this agreement particularly in gramdan areas.

3.11 Irrigation facilities should be maintained on community basis. Irrigated lands under the system should be ensured protective watering for an agreed kharif crop only. If water availability is low, any second crop that can be grown on the irrigated land should be on a community basis, the method of community handling being left to the gram Sabha or the village community. Further, if the second crop area is known to be a fixed percentage of the kharif irrigated area, then a block system should be used to allow the second crop to be raised in different blocks in different areas in rotation. Alternatively, it is suggested that at the time of consolidation of holdings, the possibility of giving every holder a suitable plot in the limited area that can be irrigated for the second crop should be examined,

Community share of both the first (kharif) and the second (rabi) crops should be set aside towards the payment of capital cost of the irrigation schemes.

3.12 In spite of various legal protection, the actual condition of the share cropper is far from satisfactory. The village community should agree to give a fair deal to the share cropper. Equal sharing of costs by both share cropper and the rentier of input for improved agriculture including cost of water, if any, can be attempted wherever possible. This also should be possible if land development and water facilities can be used as a lever, to secure this agreement to the advantage of the community.

*Extra Commitment for Social Justice in Gramdan areas*

3.13 Gramdan areas have certain advantages in the community handling of a development programme. Certain extra commitments for social justice should, therefore, be attempted in gramdan villages where the whole village development programme is taken up. According to the Gramdan Acts, the members of the gramsabha are to contribute one-fortieth of the produce to the gramkosh for community work. This should be enforced. The gramsabha can also organise subsidiary occupation programmes like milk production, sheep and poultry development and fit this into a State marketing programme. This will considerably augment the resources of the farming community and raise their economic status.

*State's contribution towards Social Justice—Irrigation Programme*

3.14 The State has to take up certain commitments for social justice. In the irrigation programme in difficult areas, all wells may not be successful. There can be dry wells. Such dry wells should be charged nothing and such failures should be written off and the entire risk borne by the State.

3.15 The problem of risk can, however, be rationalised by following the method of installing community tubewells. In difficult areas where groundwater is scarce, the quantity of water may vary from well to well. The maximum benefit can be obtained by locating the wells or tubewells on a scientific basis. The full cost of well or tubewell will be debited to the community only when the well or tubewell discharges a certain quantity of water which can enable cropping that will make it possible to repay the capital cost in reasonable annual instalments, not exceeding say 15, by reserving a certain percentage of the produce. If the well gives this standard output, the community can be charged the average cost of the completed wells in the area. If the output is larger, then there should be an option to charge more proportionately.

3.16 All wells may not be equally successful. In cases where the discharge is less than the standard that would ensure economic cropping and repayment of loan, there should be proportionate reduction in the charges. In this case, the per acre cost becomes out of proportion to the output generated and there is a case for an overall subsidy to benefit the poorer sections. In the settlement of accounts therefore, whatever is not covered by the charges as well as the entire cost of the failed wells should be borne by the State. A risk fund for this purpose should be created. This may be about 15 per cent of the entire investment in the well programme. Money for this fund may come from plan allocations.

3.17 Alternatively, in the recovery of the cost of the successful wells, the annual instalments could be linked to the capacity to repay on the basis of a fixed percentage of the crop. Once a suitable cropping programme is introduced to make the best use of available water and moisture, it should be possible to enter a commitment to repay on the basis of extra production.

#### *Technical Support*

3.18 We have mentioned that the whole village development programme has to be based on scientific agriculture. Adequate returns are possible only if the components of the programme are efficiently implemented and best use is made of the available and potential facilities. Moreover, the changeover by the cultivators from tradition bound agriculture to agriculture on scientific lines will need expert handling and guidance. It is, therefore, necessary that the State should earmark technical and supervisory personnel of a high standard for the project so that the programme does not suffer for lack of expertise at crucial periods.

#### *Waste Land Development and Distribution*

3.19 We have already stressed that as many landless people as possible should be provided with land for cultivation so that they are brought into the main stream of production. We have also suggested that the waste land should be included in the programme and properly developed. This should be built into land development programme of the village. The State should develop such land at its own cost in the interest of social justice before handing it over to the beneficiaries.

#### *House sites for Agricultural Labourers*

3.20 All landless labour families cannot, however, be given land for cultivation. Our Interim Report on House Sites for Landless Agricultural Labourers has recommended that small plots of land near the village abadi be given to the landless for their house sites and subsidiary occupation including vegetable gardening, wherever possible. This feature should also be built into the development plan

Advantage could be taken of the house sites programme of the State for this purpose.

#### *Consolidation of Holdings*

3.21 In paragraph 3.3, the Commission has pointed out that the consolidation of holdings voluntarily agreed to should be given legal recognition quickly. In some State enactments, there is already a provision for compulsory consolidation if a certain minimum number of villagers are in favour of such consolidation. Such provision can be used with advantage in the whole village development programme after preparing the ground by suitable discussions. The Commission would strongly emphasise the need for introducing such a law, where no such provision exists. Where the provisions of compulsory consolidation are to be applied, the State should take adequate measures to bring about such consolidation in the quickest possible time so that the programme is launched without delay and the benefits are visible within a short span of time.

#### *Protection to Share croppers*

3.22 In areas of high incidence of share cropping pressures may develop to eject share croppers as personal cultivation becomes easier and more profitable following consolidation and land development. It will be desirable, therefore to record the rights of share croppers wherever possible before the process of consolidation and land development begins. The Commission would emphasise that in whichever village the programme is taken up, the revenue authorities should put their staff to see that the applications for recording rights of the share croppers are disposed of quickly and the rights settled.

3.23 We also notice that in some States like Bihar, the consolidation of holdings law as at present drafted will enable clever landlords to avoid the tenancies by agreeing to consolidation. This emphasises the need for an immediate examination of the land reform and consolidation laws in the States to ensure that consolidation does not affect the basic right of the cultivating tenant in occupation until the Legislature decides on the exact extent of his interest in his holding.

#### *Credit Support*

3.24 For the success of the programme credit in adequate quantity and at proper time has to be ensured. Long, medium and short-term loans for the programme should be fully guaranteed and made available on the basis of supervised credit programme. In the Interim Report on Credit Services for Small and Marginal Farmers and Agricultural Labourers, the need and utility of a supervised credit programme have been underscored. If a bank can be made to take

interest in the project, it can handle the supervised credit programme effectively in close collaboration with the Project (Implementation) Committee which has to be set up at the village level to implement the programme. We shall deal with the organisation of the Committee in a later section. The State Government will have to allocate margin money or funds to the Project (Implementation) Committee to enable it to avail of the loan facilities for the community programme which it will have to implement itself.

### *Subsidies*

3.25 What the participants in the programme will require is adequate finance and material support so that they can improve their agriculture and economy. The emphasis in the whole village development programme is, therefore, on the well coordinated arrangements to ensure the credit, input and technical support in adequate measure and on time and not on subsidies. Subsidies will not be given to individual beneficiaries of the programmes. The participants will be expected to repay their loans, but the subsidies that are being allowed for such programmes in the State will be made available to the Common Fund for use as described later. If the loan programme is suitably organised and recoveries adequately spread out, it should be possible for the participants to repay their loans in full out of extra production arising from development.

3.26 At present much of the investment for agricultural development is being financed by the State in the form of subsidies. Subsidies are available from Plan funds for various schemes. In the SFDA and MFAL areas, special subsidies are available to the small and marginal farmers for their investment programmes. The cooperative societies are provided with risk funds to cover losses.

3.27 The State has to support the programme of whole village development. We have already stressed in paragraph 3.16 that the State has to bear the risk of failed wells and insufficient discharge from the wells. This assistance and whatever other subsidies are available from the Government for various programmes should go to the funds of the village committee which will implement the development programme. In calculating the quantum of subsidies the rates applicable to small and marginal farmers in SFDA and MFAL areas should also be applied in the whole village development project areas. The fund thus created can then be utilised by the village committee to cover any risks in the programme and for the development of the section which earns the subsidy for the community. This fund will also provide the margin money required to avail of institutional finance for the programme. This is a new approach which, the Commission recommends, should be tried in the pilot projects suggested in this Report.

## SECTION IV

### PROBLEMS OF INDEBTEDNESS

4.1 The All-India Rural Debt and Investment Survey of 1961-62 indicated that at that time, for the country as a whole, 52 per cent of the cultivator families reported borrowings. The Survey further revealed that the private credit agencies viz., the agriculturist and professional money lenders, relatives and traders continued to provide a major portion (67 per cent) of the cultivators' borrowings. The agriculturist and professional money lenders between themselves accounted for 49 per cent of this credit supply.

4.2 The situation in the adivasi villages in Dudhi tehsil in Mirzapur district of Uttar Pradesh in 1972 appears to be far worse. A survey of five villages recommended later in this Report to be taken up for the whole village development programme reveals that out of 179 families surveyed 126 families (70 per cent) are indebted. Only one family has received a loan from a cooperative society, while seven others have borrowed from the Banwasi Seva Ashram, an organisation to which we made a reference earlier. The remaining 118 families are indebted to private money lenders. It has been estimated that the average indebtedness to money lenders per village may amount to Rs. 10,000. Table 3 shows the distribution of families by their indebtedness:

TABLE 3—*Pattern of indebtedness*

	Number of Families Indebted					Total	
	Bakulia	Khaira	Dhan- khor	Ghaghra	Jura	No.	%ago
Below Rs. 100	6	1	8	3	5	23	12.8
Rs. 100 to 500	12	6	20	22	9	69	38.5
Rs. 500 to 1,000	—	—	4	13	6	23	12.8
Rs. 1,000 to 1,500	—	—	1	4	—	5	2.7
Rs. 1,500 to 2,500	1	—	2	2	—	5	2.7
Rs. 2,500 to 2,623	—	—	1	—	—	1	0.5
						126	70.0



4.3 Another alarming fact revealed to the Commission is that private money lending agencies from outside the area have been infiltrating into this depressed pocket for the past 10—12 years and establishing their business. In the view of the Commission, this is a disturbing feature and should receive urgent attention.

4.4 Indebtedness is binding the weaker section in the rural society for generations. Yet the small and marginal farmers have the capacity to develop if they are given all facilities. Generally, the increased income arising from development will enable them to come out of the low economic level provided their old accounts are settled reasonably. Unless their indebtedness is controlled, the recovery of loans for productive purposes will become difficult and the prosperity after development will pass on to the money lenders. It is necessary to avoid such a situation. The settlement of old accounts is also necessary to improve the creditworthiness of the participants in the programme. The State has, therefore, to take steps to free the small and marginal farmers from the pressure of their debt including land mortgage wherever required in order to enable them to participate in the programme. Their present indebtedness should not stand in the way of getting fresh loan assistance under the programme.

4.5 The State will have to support a programme to rationalise the situation. In the case of institutional credit including credit from Cooperative/Government sources taken by the small farmers prior to development, there may be an agreement to recover from him the dues over a longer period to lessen the burden of repayment. Another way will be to put a moratorium on repayment of institutional credit for a specified period and provide relief in interest payment so that no interest charges accumulate during the period of moratorium. A third way of handling the situation will be to reduce the debt.

4.6 When loans have been contracted with the third party, a suitable approach of a similar nature has to be thought of to remove the checking effect of debts during the period of development. The results of the survey in the five villages referred to in paragraph 4.2 show that although the indebtedness is widespread, the problem appears to be manageable from the point of the amount involved. However, the general impression that one gathers about Musahri area in Muzaffarpur district, where certain villages are being recommended to be taken up for whole village development, is that indebtedness is a much bigger problem in that area.

4.7 The Commission, therefore, recommends that the State should provide sufficient funds to the Project (Implementation) Committee at the village level for the settlement of debts of small farmers with the money lenders. The State should give these funds to the Committee at a very low rate of interest or at no interest.

4.8 The Committee should go into each case of debt of small and marginal farmers, settle the accounts with the money lenders and buy off the loans. The cultivators, whose debts are thus settled, would have the obligation to repay the amount to the Committee. For this purpose, the Committee will phase the recovery keeping in view the repayment capacity of the cultivator and the reliefs discussed in paragraph 4.5. It may be necessary to provide special labour opportunities to these people to enable them to repay the debt. Where repayment of the debt is beyond the capacity of the cultivator even after development, redemption will have to be considered. The institutionalisation of loans by the village committee is likely to have a scaling-down effect on the quantum of debt. The public discussions involved in the process of debt settlement will scare the money lenders and have a restraining influence on them.

4.9 In extreme cases, where past exploitation has been glaring and the illiteracy and low level of knowledge of the backward classes and special tribes in financial matters has encouraged exploitation, it will be necessary for the State to provide legally for debt redemption.

4.10 Institutions have no provision for advancing consumption loans. But it is this very need which drives the small farmers to the money lenders. The settlement of their old accounts with the money lenders will be of no use if they have again to fall back on them for their urgent consumption needs. There should, therefore, be provision for advancing consumption loans by the Committee at the village level. A nucleus fund about one year's need may have to be provided by the State. This will go into the gramkosh which can be used as a revolving fund to meet the urgent consumption needs of the small and marginal farmers. In a bad agricultural year, this fund can be used for general relief with the concurrence of the Committee.

## SECTION V

### ORGANISATION

#### *Project (Implementation) Committee*

5.1 The whole village development programme which we have outlined earlier in this Report will be based on community approach and action. The entire village community has to be involved fully in the programme and its agreement has to be obtained for various commitments in it. For every village in the programme, there should be a project (Implementation) Committee which will handle the programme and secure necessary agreement to various commitments. This may be a registered body constituted under the Societies Registration Act, 1860 so that it has a legal entity of its own. This should be a non-profit making development body. The membership may be between 10—15. The members should be selected on the basis of unanimity or near unanimity giving due representation to the different sections of the village community taking part in the programmes of development. The detailed rules will have to be spelt out after this Report is issued and accepted.

5.2 Detailed planning will have to be done for irrigation development, water use, land development and cropping rotation. Various operations in these programmes will have to be chalked out for implementation. When the programmes are identified and accepted for the village and the programmes separated out into those for individual investment and action, the Project (Implementation) Committee will take up the programmes which relate to community investment and action. All investments for these programmes will be made by the Project (Implementation) Committee and should be repayable to it from the proceeds of the production on an agreed basis. This should be translated into a binding agreement between each individual and the Committee. The Committee will receive subsidies, if any, given by the State Government for such programmes and undertake to use them in the manner suggested in Section III. Each individual should further guarantee by agreement the performance of his individual part in the programme under the supervision and direction of the Committee subject to penalties for non-performance and interference in the combined programme. The details of the agreement to be entered into between each participant and the Project (Implementation) Committee will have to be worked out after this Report is issued and accepted.

5.3 It will be necessary to ensure that recoveries are made from extra production so that the resources could be used for further development. The method adopted by the Economic and Entrepreneurship Development Foundation in its experiment in Howrah District, West Bengal in respect of the recovery of dues is interesting and can be tried. According to the procedure laid down by the Foundation, the entire produce of the farmers has to be by agreement brought to the threshing floor of the Foundation where the recovery of the dues is made from the produce. This has worked well and ensured regular recovery. We are stressing this aspect in view of the limited resources that can be employed for the programme. The resources must not get locked through non-recovery and over-dues.

5.4 The membership of the Project (Implementation) Committee should be for three years. After this period, the membership should be changed but again on the basis of unanimity or near unanimity. The actual mechanics of the selection of members will have to be based on the local situation. However, one way can be to arrange the voting on the basis of agreed list of candidates and not of individual. Such a system, it is understood, is followed in the Communes in France.

5.5 In a gramdan village, the gramsabha should elect a Project (Implementation) Committee on the same lines. The Committee will be given necessary statutory powers and made responsible for the whole village development programme.

#### *Project (Implementation) Union*

5.6 The whole village development programme may have to be taken up for an area comprising several villages. This may be necessary from the point of view of the economics of development and operation. When several villages are taken up for the programme, there will be need for a central organisation in the interest of uniformity of policy and action and coordination. Such an organisation is expected to provide the necessary leadership in the programme and guide each village Committee. The Commission, therefore, recommends that where the programme is initiated in several villages there should be a Project (Implementation) Union to organise and supervise the programme of development, services supply and marketing for mutual benefit. This central organisation will be a federation to which the Project (Implementation) Committees of the villages will be affiliated. This organisation will be given legal status and have defined objectives. It will also be given the charge to receive funds from the State and distribute them to the Committees at the village level. It will be accountable to the Government for the proper use of these funds. A development agency like the Muzaffarpur Development Agency may be the right type of organisation for this purpose.

*Muzaffarpur Development Agency*

5.7 The Muzaffarpur Development Agency has been set up at Muzaffarpur, Bihar, under the Societies Registration Act, 1860, to organise and support the intensive development of the district. The important aims and objects of the Agency are:

- (i) To promote and encourage integrated development of Muzaffarpur district in general, and of the gramdan areas in particular, through a phased programme of agro-industrial development leading towards a self-generating economy;
- (ii) to prepare, plan and implement area development programmes, particularly with a view to providing gainful employment to landless agricultural labourers, small and marginal farmers, rural artisans, and such other poorer sections of the community;
- (iii) to help farmers, artisans, labourers, educated youth, entrepreneurs, etc. in obtaining all such supplies and facilities as are required by them, including credit and other inputs, implements, custom and managerial services, wherever necessary and possible;
- (iv) to undertake and secure for them facilities for storage, transportation, processing, marketing, etc.
- (v) to promote and set up, wherever necessary and possible, household or village industries, agro-industrial service agencies, etc;
- (vi) to promote, undertake and set up training centres, research evaluation, education, planning and extension in furtherance of aims and objects of the Agency;
- (vii) to promote, assist and strengthen gram sabhas commensurate with the ideas enshrined in the Gramdan Movement;
- (viii) to strengthen existing development agencies and foster development of new agencies wherever necessary and possible;
- (ix) to establish liaison and develop mutual areas of cooperation with different organisations—international, national, regional, state, local-voluntary and official agencies, specialised institutions, groups and individuals and such other associations in furtherance of the aims and objects of the Agency;
- (x) to secure and raise funds, including borrowing, aids and such other support, to carry out the activities of the Agency in furtherance of its aims and objects; and

- (xi) as a first step towards realising these objects, to implement and administer, with necessary support and assistance from governmental and non-governmental agencies, the Musahri Plan prepared by the Association of Voluntary Agencies of Rural Development (AVARD), New Delhi.

5.8 Representatives of Gramsabhas, Zila Parishads, Sarvodaya Mandals and technical organisations participating in the programme as well as local educationists and subject matter specialists are included in the executive committee of the Agency. The Constitution of the Agency also provides for membership of specialised institutions in the fields of research and development and for associate membership for institutions who might be desirous of being associated with the work of the Agency. In the experiment by the FACT to which we made a reference in Section II, two villagers from each village were represented on the central committee. Similar arrangements by which representatives of the Project (Implementation) Committees are made members of the central organisation will have to be worked out.

#### *Role of Voluntary Organisation.*

5.9 The planning and development programme can be handled either by voluntary organisations or by the State administration directly or through local leadership. The Commission feels that if a suitable voluntary organisation is available in the area, it will be better to work through it. Such an organisation may already have done some social work in the area and will be close to the people. It would have already created some sort of awareness among the people. It will be easier for this organisation to secure the unanimity and agreement to common action of the villagers, which is basic to this programme. If this body has the capacity to organise, it is better to give it the responsibility to take the leading role in the area agency for implementing the programme. The area agency should be a registered society in which officials and representatives of various groups will also be involved.

5.10 The voluntary organisation so entrusted should organise the Project (Implementation) Committees in the villages and the Project (Implementation) Union, which will be the area agency. The area agency can be at the district level organising the programme as in the case of Muzaffarpur Development Agency. Alternatively, the agency at the district level may set up a separate agency for this programme. Or where there is no district agency, a completely separate agency may have to be set up at the area level for this programme. The agency set up at area level can then expand with the expansion of the programme. It will be better to develop the area agency on a district basis so that it merges with the future district programme.

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## SECTION VI

### THE PROJECTS

6.1 In the preceding Sections, we have discussed the approach to the whole village development programme, its programme content and the organisation that will be necessary to support it. We have stressed that with proper leadership it may be possible to secure agreement to common action by the villagers which will remove a number of obstacles in the way of development and make the task easier. We have also outlined the responsibility of the State in this programme and its contribution towards social justice.

#### *Pilot Projects*

6.2 Field conditions vary from area to area. The pattern of investment and organisation will have to be adapted to suit different local conditions. Moreover, there are gramdan areas which have already developed some kind of community spirit and also non-gramdan areas where a proper climate for common action will have to be created. In order, therefore, to gain sufficient experience in the working of this programme under different conditions and gather more knowledge about the problems of organisation and implementation and financial implications, we feel that certain projects should be taken up on pilot basis initially. Based on the experience of the working of these pilot projects such modifications as are necessary in the design of the programme can be made and certain models developed which can be tried throughout the country.

6.3 The Central Study Group, in consultation with the concerned State Governments and the local Study Groups had identified certain clusters of villages in the States of Bihar, Orissa and Timal Nadu where pilot projects under the programme can be taken up. In Uttar Pradesh also a few villages in the Dudhi tehsil of Mirzapur district which has adivasi and backward caste population have been identified for initiating a pilot project.

6.4 The selected areas represent varying soil and climatic conditions with different needs and problems of development. While the areas in Bihar and Orissa are in high rainfall zones, the selected villages in Tamil Nadu are in the rainshadow region and represent a more difficult area. The rainfall in the area selected in Uttar Pradesh is also relatively low and uneven. The villages in Mayurbhanj district in Orissa and those in Uttar Pradesh are in hilly terrain. The villages selected represent both gramdan and non-gramdan areas. Unlike

others, the villages identified in Uttar Pradesh have predominantly tribal population. From the point of view of organisational support also, the areas have varying degrees of this endowment. In selecting these areas, the Commission has taken into consideration the different field situations obtaining therein. The areas selected for pilot projects in the first instance are as follows:

Name of the State	Area selected
I Bihar .. ..	23 villages in Musahri block of Muzaffarpur district*.
II Orissa .. ..	(i) Haripur and Sainasasan (including Dakhina Radas in Nimapara block in Puri District. (ii) Nampo in Jeleswar block in Balasore district. (iii) Deuli, Astia and Bansada in Saraskona Block in Mayurbhanj district.
III Tamil Nadu .. ..	Chinnakoilankulam, Naduvakurichi (Minor) Pattadakatti and Naduvakurichi (Major) villages and their hemlets in Sankarankoil taluk of Tirunelveli district.
IV Uttar Pradesh .. ..	Bakulia, Khaira, Dhankor, Ghagara and Jura villages in Dudhi tehsil of Mirzapur district.

6.5 The Commission recommends that in the areas selected, pilot projects be initiated in the last year of the Fourth Plan. The projects will run for a period of five to seven years. The total outlay envisaged in the projects is about Rs. 157.35 lakhs. The areawise details of outlay are as below:

Villages in Bihar	...	...	Rs. 8539,000
Villages in Uttar Pradesh	...	...	Rs. 15,11,700
Villages in Tamil Nadu	...	...	Rs. 39,37,000
Villages in Orissa	...	...	Rs. 17,47,000

The outlay indicated for Orissa is for the villages in Namapara Block. The State Government has been requested by the Commission to prepare estimates of investment for villages in the other two areas in the State selected for initiating pilot projects. In addition to this outlay, some funds will also be required to release mortgaged lands, reduce indebtedness and create a risk fund as well as a fund for consumption loans as recommended in this Report. The details of these requirements are to be worked out after assessing the problem in each area. Taking into consideration all the requirements, the Commission recommends that a lumpsum provision of Rs. 2 crores be made in the Central Plan for all projects, out of which Rs. 30 lakhs should be provided in 1973-74 and the balance during the Fifth Plan.

\*The list of villages is given in Appendix II.

6.6 The projects will earn some subsidies for the small and marginal farmers participating in the programme as recommended in this Report. The exact quantum of the subsidy will be known after these farmers are identified in each project and the scale of investment relating to them is worked out. The allocation of funds for the projects need not wait for this as adjustment of accounts with the project implementation authorities can always be made as the work progresses.

#### *Fifth Plan Provision*

6.7 Adequate provision will have to be made in the Fifth Plan for the expansion of the whole village development programme to other areas. The whole village development effort, if it can be organised on the lines indicated in this Report, will have immediate impact on the economy of the people of the area. The extra production and income arising out of the effort will have a demonstration effect on the neighbouring villages. It will then be easier to organise programmes on these lines in the villages also as they become more enthused by seeing the results. The Commission would, therefore, recommend that lumpsum provision should be made in the Fifth Plan for covering neighbouring areas, of the present pilot projects for whole village development programme.

6.8 It may not be possible initially to secure the total participation of all villagers in all areas where the programme of whole village development can be extended in future. In such areas, nucleus demonstration of agricultural development through common action resulting in improvement of the economy of participating farmers will be an effective tool for bringing about the necessary psychological climate for community approach to development. Wherever the project implementation authorities are in a position to organise a certain number of villagers into joining a common development programme, active assistance to put through such nucleus demonstration plans should be given. These demonstrations of development through joint effort will pave the way for taking up whole village development in these areas. Adequate provision will have to be made in the Fifth Plan for such nucleus demonstration plans and also for whole village development where such demonstrations lead to the adoption of the whole village development programme.

6.9 In Section I, we have mentioned that several States have indicated their willingness to try the experiment. The Commission, therefore, recommends that in the Fifth Plan adequate provision should be made for taking up additional pilot projects in the States which are willing to take up the projects on experimental basis.

6.10 Taking into consideration all these possibilities of extending the whole village development programme in the near future, the Commission recommends that a lumpsum provision of Rs. 10

crores be made in the Fifth Plan for this purpose in the Central sector.

#### *Bench Mark Surveys*

6.11 The Commission suggests that in areas selected for pilot projects, bench-mark surveys should be conducted alongwith the preparation of the resource inventory. This will enable a proper appraisal of the development efforts once the programme is put through. The various items of information both for the village as a whole and for individual households which can be collected at the base period as well as at the end of the project, or after a reasonable interval during the process of development are listed at Appendix VIII. The Government of Orissa has completed the bench-mark surveys in the areas selected for pilot projects in that State. The bench-mark survey is in progress in Tamil Nadu.

#### *Project Details*

6.12 In the following paragraphs, pilot projects recommended by us have been briefly reviewed.

#### *Bihar*

6.13 Twentythree villages in a few clusters have been selected for the pilot project in Musahri Block of Muzaffarpur District in Bihar. A list of the villages selected is given at Appendix II. This area has a suitable psycho-social and organisational base for community action as a result of the gramdan movement. The entire Musahri Block is a gramdan area, Gramdan Gramsabhas being statutory bodies set up under the Bihar Gramdan Act.

6.14 The total geographical area of these villages is about 8,500 acres of which 7047 acres comprise the net cultivable land. A total population of 25,544 is to be covered, the average per village working out to 1110.

6.15 Agriculture is the main-stay of the area. The principal crops grown are paddy, wheat, barley, maize, pulses, sweet potato and other vegetables. Sugarcane and tobacco are also raised on a limited scale. Since most of the land is under cultivation, the future agricultural development has to be in the direction of intensive cultivation through extensive irrigation facilities and agricultural extension—improved seeds, fertilisers, multiple cropping—and development of animal husbandry, poultry and fisheries.

6.16 About 10 per cent. of the land is at present under irrigation. However, there is ample scope for providing perennial irrigation in this area. While the average annual rainfall is about 118 cms., the spring level (below the ground level) fluctuates from about 5 metres in October to about 8 metres in June. The Buri Gandak flows through

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6.22 The plan envisages an investment of Rs. 85.39 lakhs for various programme components. The average investment per village works out to about Rs. 3.7 lakhs. It is expected that 7200 acres will be assured of irrigation facilities.

6.23 In order to meet the pre-project survey and technical planning costs, provision will have to be made for Rs. 75,000 i.e. about Rs. 3,300 per village. This includes consolidation plan costing about Rs. 23,000.

6.24 The programme will be administered by the Muzaffarpur Development Agency through the concerned gramsabhas which are affiliated to it. The Agency will be responsible for overall planning, supervision, coordination and implementation of the programme and will provide necessary administrative, managerial and technical assistance to the constituent gramsabhas. The gramsabhas will undertake to establish various relationships outlined in the Report. In Appendix III an illustrative list of the institutional arrangements detailing the working relations among the parties associated with the whole village development programme, namely, the individual beneficiaries, gramsabhas, the agency and other participating institutions has been provided. To implement the programme, the Agency will require Rs. 3,10,000 towards administration cost for a period of five years.

6.25 The costs of various programme components are summarised in Table 4. The details are provided in Appendix IV.

TABLE 4—Investment Plan (Bihar)

Serial No.	Item	Outlay (Rs.)
1	Irrigation Plan .. .. .	29,84,000
2	Revolving Crop Loan fund (Short term input loans) ..	51,40,000
3	Land shaping .. .. .	30,000
4	Pre-project survey and technical planning including consolidation plan .. .. .	75,000
5	Administration cost .. .. .	3,10,000
	Total ..	85,39,000

6.26 The benefits likely to accrue per village from the proposed irrigation and crop plans are indicated in Table 5.

TABLE 5—*Benefits of Whole Village Development*

Indicator	Pre* Plans	Post Plans	Per cent changes
<i>Per village net cropped area (acres)</i>			
Irrigated	48	227	372.9
Non-Irrigated	313	134	
Total	361	361	
<i>Per village gross cropped area :</i>			
Irri. + Non-Irri. (acres)	560	691	23.4
<i>Cropping intensity (No. of times)</i>	1.6	1.9	18.8
<i>Gross cropped area by crop season (acres)</i>			
Summer	14	181	978.6
Kharif	357	305	(- )14.6
Rabi	189	235	24.3
Total	560	691	23.4
<i>Per acre gross income (Rs.)</i>			
Summer	775	1,459	88.3
Kharif	437	1,466	235.5
Rabi	756	1,030	36.2

### *Uttar Pradesh*

6.27 We have indicated in Section II that the Banwasi Seva Ashram is engaged in a constructive programme in Dudhi tehsil of Mirzapur district in Uttar Pradesh. This tehsil has large tracts of forests. At the instance of the Commission, five villages in a compact

\*1970-71 estimates relating to eight survey villages.

block have been identified in this area for the pilot experiment of whole village development programme. These are Bakulia, Khaira, Dhankhor, Ghaghara and Jura. These villages cover an area of about 9 sq. miles and a population of about 1550. 94.4 per cent. of the population is composed of adivasis, harijans and backward castes. Out of 208 families, 178 are covered under the plan. The total land under cultivation is 2170 acres. The plan covers 1931 acres or about 89 per cent. of the land. 67.6 per cent. of the families covered under the plan have an average per capita income of below Rs. 150 and another 27.3 per cent. between Rs. 150 to Rs. 300.

6.28 Although the annual average rainfall is around 1,000 mm, the spread of rainfall has been very erratic and it often failed at the time when the crops now grown in the area needed it most. The land in these villages is undulating, heavily eroded and criss-crossed by numerous gullies and nalabs. The rain water flows down the slopes causing heavy erosion. The porous soils on these slopes are unable to absorb the moisture required for the crops. An intensive programme of land shaping, bunding and levelling is, therefore, necessary to ensure irrigation for the crops. It has been found that 4 acres of rain water is entrapped into a bandhi can irrigate one acre for two crops a year. As only 34 per cent. of the total land is under cultivation (the remaining being forest or fallow) 72 to 75 per cent. of the cultivated land can be irrigated if a series of earthen dams on irrigation reservoirs are made to entrap rain water which falls or flows through these villages. The plan is, therefore, to entrap all rain water to irrigate at least 50 per cent. of the total cultivated land within seven years.

6.29 The development will be taken up in three phases. During the first phase of two years, 73 small bandhis are proposed to be constructed in the five villages on tiny streams to irrigate 168 acres of land. The cost of irrigation by bandhis comes to Rs. 384 per acre. Three diesel pumpsets are also proposed to be installed to lift water and 12 existing wells are to be deepened and repaired. The plan also provides for land shaping, work bullocks, seeds and fertilisers, assistance towards village industry etc. A small beginning towards the development of animal husbandry is also envisaged. It is further proposed to redeem the farmers of all their previous loans, releasing at the same time all the land mortgaged to the money lenders, for integration into a single loan and repayment out of extra production and wages. The project also plans a central godown and working capital for a sale and purchase cooperative.

6.30 The expenditure planned in the first phase of two years is about Rs. 3.3 lakhs. The cost of irrigation per acre works out to about Rs. 488. The financial outlay for the first phase is indicated in Table 6 on page 39.

TABLE 6—*Investment Plan (Uttar Pradesh)*

Serial No.	Item	Nos.	Outlay	
			Rs.	Cost (Rs.)
1	Irrigation—			
	(i) Small bandhis	73	64,400	
	(ii) Wells : new or old deepened	12	7,300	
	(iii) Persian Wheels	6	5,100	
	(iv) Diesel Pump sets (5 H. P.)	3	22,500	
			99,300	99,300
2	Land shaping, bunding and levelling	138		35,400
		acres		
3	Work bullocks	136		34,000
4	Cows, buffaloes & goats	446		20,900
5	Seeds, plants & fertilisers (Revolving fund)			20,600
6	Redemption of loans & social obligations			49,300
7	Village industries			1,800
8	Sale & Purchase Cooperative			20,000
9	Agricultural implements			7,000
10	Survey and preparation of work plans			20,000
11	Cost of administration			23,400
			Total	.. 3,31,700

6.31 As a result of the first phase of development which is of two years duration, a total incremental income of Rs. 1.86 lakhs is expected to be generated. This will raise the per capita income from Rs. 136 before development to Rs. 266 after two years of development. During the plan implementation, 50,000 man-days of employment are expected to be generated. An additional annual employment of 19,000 man-days is expected after the implementation of the plan.

6.32 The Banwasi Seva Ashram has drawn up the plan in consultation with the respective Gram Swarajya Sabhas. The Ashram will act as the Project (Implementation) Union and implement the plan through the Project (Implementation) Committees which will have to be set up in each village. It has been mentioned that there is already agreement to the plan from the villagers who are being covered. While the broad contours of the plan have been identified, detailed

work to establish the various relationships outlined in this Report will have to be undertaken by the Ashram in collaboration with the Project (Implementation) Committees set up by the Gram Swarajya Sabhas before initiating the work.

6.33 The second and third phases of this plan will be of three years' and two years' duration respectively. During the second phase an additional 20 per cent. (about 400 acres) of the land is expected to be brought under irrigation. Forty per cent more land will be bunded and levelled and high yielding varieties of seeds introduced on about 40 per cent. of the land. With the development in the third phase, a total of 50 per cent. (about 1000 acres) of the cultivated land under irrigation will be reached. Bunding, levelling or grading will be completed on all the land and intensive cultivation practices with high yielding varieties of seeds and balanced crop rotations will be introduced on 60 per cent. of the land under cultivation.

6.34 During the second phase, more emphasis will be placed on animal husbandry and pisciculture will be introduced in some of the bandhis which will retain water throughout the year. Family units of poultry with deep litter method will be given to interested families. A few acres of land will also be brought under fodder cultivation in each of these villages. Moreover, a limited number of good milch animals will be given to those families who are ready to take to the milk programme and are willing to have such animals on hire-purchase system. By the end of the third phase, about 100—150 milch animals of suitable breeds will be introduced in these villages with a proper milk collection and marketing unit. A feed mixing unit may also be established in one of these villages during this phase. The industrial complex at Renukoot will provide a flourishing market for the products of animal husbandry, poultry and fishery.

6.35 A forest labour contract society will be set up. The society will become functional with a membership of about 150 persons in the third phase. The society is expected to absorb most of the surplus man-power from these and also from the surrounding villages and should be able to take up contracts of public works on a substantial scale. The purchase and sale organisation set up in the first phase will also be strengthened. By the end of the third phase the average per capita income in these five villages is expected to be around Rs. 540 (at 1972 prices).

6.36 The total requirement of funds for the second and the third phases of the five village development plan is estimated at Rs. 11,80,000 of which Rs. 7,54,500 will be required in the second phase and Rs. 4,25,500 in the third phase, as will be seen in Table 7 on page 41.

TABLE 7—*Second and Third Phases of Development**Investment Plan Outlay*

Serial No.	Item	Total amount (Rs.)	Requirements	
			IInd Phase (Rs.)	IIIrd Phase (Rs.)
1	Irrigation, land shaping, etc.	7,20,000	4,80,000	2,40,000
2	Work bullocks	1,20,000	60,000	60,000
3	Seeds & fertilisers	1,00,000	60,000	40,000
4	Animal husbandry	67,000	34,500	32,500
5	Village industries	20,000	20,000	—
6	Forest labour contract society	20,000	20,000	—
7	Consumption loan	50,000	30,000	20,000
8	Administration and contingencies	83,000	50,000	33,000
Total		11,80,000	7,54,500	4,25,500

6.37 The Commission would also like to draw attention to an important feature in this area. A lot of forest banjar land is presently under occupation by the villagers. For some land deeds (pattas) giving occupation rights have been issued but there are many plots for which these have not been given. Even where the pattas have been given, they do not confer absolute right to the beneficiary. If this matter is not settled quickly, there will be friction with the Forest Department when development work is taken up. It is understood that settlement operations are proposed for this area. The Commission feels that there should be prior settlement in the villages where the programme is to be taken up. Otherwise, the unsettled conditions will act as disincentive to investment and hamper the programme. The Commission, therefore, recommends that this matter be attended to straightway by the concerned Department in the State.

6.38 In paragraph 6.8 we have recommended that suitable plan allocation should be made for starting nucleus demonstrations of agricultural development in villages outside the whole village development area wherever the project authorities are capable of handling such programmes. The Agrindus Project, Banwasi Seva Ashram has prepared a plan for 100 tribal villages scattered over the forest area of about 1,000 sq. miles and overing a population of about 50,000. The objective of the plan is to start nucleus demonstrations of agricultural development in 100 villages selected in this drought prone area and to organise on the spot training for about 1000 far-

mers in rain water harvesting, construction of earthen dams and percolation tanks, land shaping, intensive cultivation on wet and dry lands, organisation of sale, purchase and self-employment programmes through cooperative etc. These demonstrations will be primarily organised as a mass training programme for the tribal farmers on their own fields. This programme will prepare the ground and is expected to lead to the whole village development programme in these 100 villages which can ultimately be integrated into a regional development plan for the development of the total area.

6.39 The plan, which will be of a duration of three years, will cover about 1000 enthusiastic farmers in the hundred villages who are proposed to be constructed on rain streams with an observed flow. Nearly 2,000 acres of almost waste land will come under irrigation and intensive cultivation and the thousand agricultural demonstration plots that will be organised will be an example for all other farmers and encourage them to join the whole village development plan.

6.40 The plan envisages construction of 600 bandhis to entrap rainwater for irrigation of about 1500 acres. The cost of irrigation per acre from a bandhi works out to Rs. 700 including the cost of masonry construction, pipelines and channels. Moreover, 50 jackwells are willing to work and cooperate in the whole village development, upto February or March and 50 persian wheels will be provided on suitable wells. Community pumping sets will be provided on suitable jackwells, each set providing irrigation to the land belonging to a group of farmers. Moreover, 10 pumping stations will be installed on suitable sites at a cost of rupees one lakh. About 2,000 acres of land which will thus be brought under irrigation are proposed to be bunded, terraced and levelled at a cost of Rs. 500 per acre.

6.41 The viability studies conducted by Agrindus Project show that the nucleus demonstration of agricultural development will lead to considerable increase in income of the farmers who will participate in the programme. As a result of scientific farming and proper crop rotation after irrigation development it is seen that a farmer utilising the waters of a bandhi will have an annual incremental net income of Rs. 558 per acre after paying for the cost of cultivation. In the case of a jackwell fitted with diesel pumpset of 5 HP which will irrigate about 8 acres of land, the net incremental income after development is reckoned at Rs. 3780 over Rs. 365 before development, while the economics of a jackwell fitted with persian wheel shows that with the irrigation of about three acres of land, the total net income due to development will be Rs. 1,565 compared to Rs. 185 before development.

6.42 The plan also provides for milch animals to enable the farmers to take to the milk programme. In addition, three units of processing industry each with one rice huller, an oil press and a flour mill to process the agricultural produce mainly for home consumption and partly for marketing have been included.

6.43 Among other important elements of the plan are the release of mortgaged land from money lenders, development of a sale and purchase cooperative, leadership training and job-oriented training in agriculture, provision for seeds, fertilisers, agricultural implements, transport and other equipment, service workshop, socio-economic survey and preparation of technical work plans.

6.44 This nucleus demonstration plan is also an agricultural development plan aimed at improving the agriculture in limited areas in 100 villages. It is expected that by bringing 2,000 acres of land under irrigation and intensive cultivation, an additional production of approximately Rs. 15 lakhs in value can be realised. The construction activities connected with earthen dams and wells, land shaping, godown construction and intensive cultivation will considerably improve the employment opportunities. The training programme envisaged in the plan will also initiate the tribal people into better methods of farming and conservation. This demonstration-cum-development plan will require a total amount of Rs. 45,66,000, the annual requirement being Rs. 17,40,400, Rs. 17,55,300 and Rs. 10,70,300 during the first, second and third years respectively. In keeping with our recommendation in paragraph 6.8, the Commission recommends that this amount be provided in the Fifth Plan for this project. The detailed breakup of the financial outlay is provided in Appendix V.

#### *Tamil Nadu*

6.45 The pilot project in Tamil Nadu will be located in the Melaneelithanalu block of Sankarankoil taluk in Tirunelveli district. The following villages and settlements (hamlets) will be covered:

Name of village	Settlements (Hamlets)
(i) Chinnakoilankulam ..	Chinnakoilankulam
(ii) Naduvakurichi (Minor) ..	Soorangudi Arunachelapuram Pudugramam
(iii) Pattadaikatti ..	Pattadaikatti Thattankulam Vendringapuram Sakkaraikulam
(iv) Naduvakurichi (Major) ..	Naduvakurichi Vallampuram Dharmathoorani



6.42 The plan also provides for milch animals to enable the farmers to take to the milk programme. In addition, three units of processing industry each with one rice huller, an oil press and a flour mill to process the agricultural produce mainly for home consumption and partly for marketing have been included.

6.43 Among other important elements of the plan are the release of mortgaged land from money lenders, development of a sale and purchase cooperative, leadership training and job-oriented training in agriculture, provision for seeds, fertilisers, agricultural implements, transport and other equipment, service workshop, socio-economic survey and preparation of technical work plans.

6.44 This nucleus demonstration plan is also an agricultural development plan aimed at improving the agriculture in limited areas in 100 villages. It is expected that by bringing 2,000 acres of land under irrigation and intensive cultivation, an additional production of approximately Rs. 15 lakhs in value can be realised. The construction activities connected with earthen dams and wells, land shaping, godown construction and intensive cultivation will considerably improve the employment opportunities. The training programme envisaged in the plan will also initiate the tribal people into better methods of farming and conservation. This demonstration-cum-development plan will require a total amount of Rs. 45,66,000, the annual requirement being Rs. 17,40,400, Rs. 17,55,300 and Rs. 10,70,300 during the first, second and third years respectively. In keeping with our recommendation in paragraph 6.8, the Commission recommends that this amount be provided in the Fifth Plan for this project. The detailed breakup of the financial outlay is provided in Appendix V.

#### *Tamil Nadu*

6.45 The pilot project in Tamil Nadu will be located in the Melaneelithanalu block of Sankarankoil taluk in Tirunelveli district. The following villages and settlements (hamlets) will be covered:

Name of village	Settlements (Hamlets)
(i) Chinnakoilankulam ..	Chinnakoilankulam
(ii) Naduvakurichi (Minor) ..	Soorangudi Arunachelapuram Pudugramam
(iii) Pattadaikatti ..	Pattadaikatti Thattankulam Vendringapuram Sakkaraikulam
(iv) Naduvakurichi (Major) ..	Naduvakurichi Vallampuram Dharmathoorani

6.42 The plan also provides for milch animals to enable the farmers to take to the milk programme. In addition, three units of processing industry each with one rice huller, an oil press and a flour mill to process the agricultural produce mainly for home consumption and partly for marketing have been included.

6.43 Among other important elements of the plan are the release of mortgaged land from money lenders, development of a sale and purchase cooperative, leadership training and job-oriented training in agriculture, provision for seeds, fertilisers, agricultural implements, transport and other equipment, service workshop, socio-economic survey and preparation of technical work plans.

6.44 This nucleus demonstration plan is also an agricultural development plan aimed at improving the agriculture in limited areas in 100 villages. It is expected that by bringing 2,000 acres of land under irrigation and intensive cultivation, an additional production of approximately Rs. 15 lakhs in value can be realised. The construction activities connected with earthen dams and wells, land shaping, godown construction and intensive cultivation will considerably improve the employment opportunities. The training programme envisaged in the plan will also initiate the tribal people into better methods of farming and conservation. This demonstration-cum-development plan will require a total amount of Rs. 45,66,000, the annual requirement being Rs. 17,40,400, Rs. 17,55,300 and Rs. 10,70,300 during the first, second and third years respectively. In keeping with our recommendation in paragraph 6.8, the Commission recommends that this amount be provided in the Fifth Plan for this project. The detailed breakup of the financial outlay is provided in Appendix V.

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Name of village	Settlements (Hamlets)
(i) Chinnakoilankulam ..	Chinnakoilankulam
(ii) Naduvakurichi (Minor) ..	Soorangudi Arunachelapuram Pudugramam
(iii) Pattadaikatti ..	Pattadaikatti Thattankulam Vendringapuram Sakkaraikulam
(iv) Naduvakurichi (Major) ..	Naduvakurichi Vallampuram Dharmathoorani

6.42 The plan also provides for milch animals to enable the farmers to take to the milk programme. In addition, three units of processing industry each with one rice huller, an oil press and a flour mill to process the agricultural produce mainly for home consumption and partly for marketing have been included.

6.43 Among other important elements of the plan are the release of mortgaged land from money lenders, development of a sale and purchase cooperative, leadership training and job-oriented training in agriculture, provision for seeds, fertilisers, agricultural implements, transport and other equipment, service workshop, socio-economic survey and preparation of technical work plans.

6.44 This nucleus demonstration plan is also an agricultural development plan aimed at improving the agriculture in limited areas in 100 villages. It is expected that by bringing 2,000 acres of land under irrigation and intensive cultivation, an additional production of approximately Rs. 15 lakhs in value can be realised. The construction activities connected with earthen dams and wells, land shaping, godown construction and intensive cultivation will considerably improve the employment opportunities. The training programme envisaged in the plan will also initiate the tribal people into better methods of farming and conservation. This demonstration-cum-development plan will require a total amount of Rs. 45,66,000, the annual requirement being Rs. 17,40,400, Rs. 17,55,300 and Rs. 10,70,300 during the first, second and third years respectively. In keeping with our recommendation in paragraph 6.8, the Commission recommends that this amount be provided in the Fifth Plan for this project. The detailed breakup of the financial outlay is provided in Appendix V.

#### *Tamil Nadu*

6.45 The pilot project in Tamil Nadu will be located in the Melaneelithanal block of Sankarankoil taluk in Tirunelveli district. The following villages and settlements (hamlets) will be covered:

Name of village	Settlements (Hamlets)
(i) Chinnakoilankulam ..	Chinnakoilankulam
(ii) Naduvakurichi (Minor) ..	Soorangudi Arunachelapuram Pudugramam
(iii) Pattadaikatti ..	Pattadaikatti Thattankulam Vendringapuram Sakkaraikulam
(iv) Naduvakurichi (Major) ..	Naduvakurichi Vallampuram Dharmathoorani

TABLE 9—*contd.*

Nature of land	Total area in acres to be benefited	Total pro- duction	Net Addi- tional pro- duction	Value of additional production
	(Acres)	(Tonnes)	(Tonnes)	(Rs.)
<i>Nadwakurichi (Miron)</i>				
Wet lands	30	60	33	19,300
Garden lands	100	53	36	90,500
	270	216	188	82,660
Dry lands	1000	605	500	1,36,110
<i>Pattadaikatti</i>				
Wet lands	160	320	112	67,200
Garden lands	530	143	128	3,21,500
	280	387	326	2,37,600
Dry lands	800	440	409	1,37,100

The number of farmers expected to be benefited in the four villages has been put at 2,000. Most of these beneficiaries come under the category of small and marginal farmers. It will be seen from Table 9 that the irrigation which is expected to be developed will not only stabilise the otherwise uncertain crop in the area and ensure stable income to the agricultural households but also augment production with the use of a combination of water, seed and fertilisers. A second crop will also be possible in a part of the area and add to the general well-being of the people. Necessary arrangement for the use of water for a possible second crop will have to be worked out by the Committees. The Bhoodan organisation which will assist in the programme has indicated that willingness to come to some agreement is already there.

6.52 The project report prepared by the local Study Group has also touched on the animal husbandry, rural industry and common utilities programmes. We feel that the initial effort should be concentrated on the agricultural development and the other aspects of the programme could be taken up after a reasonable progress is attained in that direction.

#### *Orissa*

6.53 In consultation with the State Government and the local Study Group, the following villages have been identified in Orissa for undertaking the whole village development programme:

- (i) Haripur and Sainasasan including Dakhina Radas in Nimapara block of Puri district;
- (ii) Nampo in Jaleswar block in Balasore district;
- (iii) Astia, Deuli, Bansada in Saraskona block in Mayurbhanj district.

The project report has been prepared for Haripur and Sainasasan vil-lages. Details of the project for other areas are under preparation.

6.54 The villages of Haripur and Sainasasan are centrally locat-ed in the command of an area recently brought under irrigation. Other advantages are their proximity to urban centres, availability or the potential for such infrastructural facilities as irrigation, elec-trification, communications and cold storages. The Puri Nimapara Central Cooperative Bank or the Pipli branch of the State Bank of India can be involved in the programme to meet the credit needs. Thus, credit, storage and marketing can be linked to the advantage of the farmers.

6.55 The villages selected for the programme have a population of 2311 and cover an area of 1722 acres. Of this, 1327 acres (net) are under cultivation. The areas under irrigation during kharif and rabi are 995 acres and 449 acres respectively. The unirrigated high lands are put under autumn paddy followed by kulthi or bidi. In the irri-gated high lands, autumn paddy is grown followed by a vegetable crop. Where irrigation is available, a second crop of paddy or wheat or vegetable is taken.

6.56 The area under Nimapara block is canal irrigated. The water table is high and there is considerable potential for increasing crop production if canal irrigation can be supplemented by well irrigation at crucial periods. Water use in the area is not scientific and has ample scope for improvement. With the introduction of canal irrigation to this area, it is necessary to bring home to the culti-vators the method of economic use of irrigation water, the construc-tion of field channels and common drainage system. There is scope for providing irrigation to the non-irrigated patches through shallow tubewells and dugwells. Water can also be lifted from the river Bhar-gabi.

6.57 The basic element of a programme in this area will have to be consolidation of holdings, land shaping, provision of irrigation and agreed cropping pattern. The project, therefore, provides for 25 dugwells to irrigate 125 acres, 10 tubewells to irrigate 250 acres, con-struction of field channels and drainage channels and direct lift irri-gation from the river Bhargabi.

6.58 Nimapara area is covered under the intensive cattle devel-opment programme. Due to the locational advantage of the area it is proposed to take up animal husbandry programme as subsidiary occupation. A dairy cooperative society of 100 members will be form-ed, each member supplied with cows, buffaloes or heifers. The dairy development will be a part of the cross-breeding programme and link-ed up with the milk programme. Two milk collection centres will be established in this area.

6.59 Landless agricultural labourers would be encouraged to take to poultry development for which necessary inputs would be supplied and marketing facilities organised. Similarly, the villages having ponds will be encouraged in fishery development.

6.60 The programme will require considerable support in the form of extension and technical assistance, credit, inputs and supplies etc. The organisation and leadership therefore assume crucial importance in this area. Presently, both are weak. In the absence of a voluntary organisation in this area which is capable of handling this programme, the State Government has to take the initiative and organise and implement the programme. For this purpose, the State Government should set up a Project (Implementation) Union for these villages as well as the villages in two other areas, referred to in paragraph 6.4 on which there should be representatives of the Government and the local leadership. The Union should have under its control necessary administrative and technical staff for planning, extension and implementation of the programme. There should also be Project (Implementation) Committees in each of the villages through which the programmes will be implemented.

6.61 In order to ensure adequate coordination amongst various departments which will be involved in the implementation of the programme a Review Committee at the State level under the Chairmanship of the Commissioner, Special Projects, will be set up. The concerned Secretaries and Heads of Departments will be members of this Committee. This Committee will review the progress of different programmes and suggest the course of action for different departments.

6.62 The financial outlay estimated for this project will be Rs. 17,47,000 as indicated below. The details are provided in Appendix VII.

TABLE 10—*Investment Plan (Nimapara Block, Orissa)*

Serial No.	Item	Estimated Outlay (Rs.)
1	Agricultural Programmes .. .. .	4,83,000
2	Short-term inputs (Revolving fund) .. .. .	2,75,000
3	Subsidiary occupation programmes .. .. .	7,65,000
4	Rural artisans .. .. .	40,000
5	Cooperatives .. .. .	74,000
6	Planning and Survey .. .. .	10,000
7	Administration cost .. .. .	1,02,000
	<b>Total .. .. .</b>	<b>17,47,000</b>

6.63 We have indicated in previous paragraphs the broad details and financial estimates of the projects recommended in this Report. Each project will organise the various activities in keeping with our recommendations and prepare detailed work plans for implementation. Moreover, funds will have to be provided to the projects for the settlement of debts and creation of a risk fund as well as a fund for consumption loans. These will be additive. We believe that given adequate State encouragement and support, these projects will succeed in bringing about a rapid transformation in the economy of the villages covered. The programme, if implemented on the lines suggested, will break new ground in the development of rural areas in the country.

## SECTION VII

### ACKNOWLEDGEMENT

7.1 The Commission takes this opportunity to thank the Chairman and Members of the Central Study Group on Pilot Projects for Whole Village Development for their valuable work and assistance in analysing the problem and developing the concept. Thanks are also due to Shri C. O. Mathews for the services rendered by him as a Consultant in the Commission. We also thank the officers of the State Governments of Bihar, Orissa, Tamil Nadu and Uttar Pradesh and Members of the State Study Groups for their help in studying the problem and preparing the project reports. Our thanks are also due to the Planning Commission, the Society for Developing Gramdams, Bhoodan organisation, Association of Voluntary Agencies for Rural Development and Banwasi Seva Ashram for their interest and co-operation.

7.2 The Commission also thankfully acknowledges the suggestions received from Shri Jayaprakash Narayan, Shri C. Subramaniam, then Minister of Planning and Dr. B. S. Minhas, Member, Planning Commission, who had evinced keen interest in the development of the concept and formulation of the programme.

7.3 We also wish to place on record our appreciation of the commendable work done by Shri S. K. Mitra, Joint Director in analysing the problem and assisting the Commission in the preparation of the Report. Shri Chaman Lal, Research Investigator, also assisted in this work.

Sd/- NATHU RAM MIRDHA  
*Chairman*

Sd/- B. SIVARAMAN  
*Vice-Chairman*

#### *Members*

Sd/- S. K. MUKHERJEE

Sd/- H. R. ARAKERI

Sd/- P. BHATTACHARYA



Sd/- RANDHIR SINGH  
Sd/- T. A. PAI  
Sd/- M. V. KRISHNAPPA  
Sd/- Z. A. AHMAD  
Sd/- M. S. SWAMINATHAN  
Sd/- D. P. SINGH  
Sd/- B. S. NAG  
Sd/- A. M. KHUSRO  
Sd/- HARI SINGH  
Sd/- N. K. PANIKKAR  
  
Sd/- J. S. SARMA  
*Member Secretary*

NEW DELHI,  
*February 27, 1973.*

## APPENDIX I

### *Central Study Group on Pilot Projects for whole Village Development*

- |     |                             |    |  |
|-----|-----------------------------|----|--|
| 1.  | Shri P. S. Appu .. ..       | .. | Land Reforms<br>Commissioner* Chairman<br>Ministry of Agriculture,<br>New Delhi.                                     |
| 2.  | Shri Radhakrishna .. ..     | .. | Secretary,<br>Society for Developing Gramdams,<br>New Delhi.   |
| 3.  | Shri K. Arunachalam .. ..   | .. | Gandhi Muscum,<br>Madurai-2.   |
| 4.  | Shri M. Zaheer .. ..        | .. | Member,<br>Board of Revenue,<br>Uttar Pradesh.   |
| 5.  | Shri C. O. Mathews .. ..    | .. | Regional Manager,<br>M/s. Fertilisers and Chemicals (Travancore)<br>Ltd., Vellore.                                   |
| 6.  | Shri J. K. Jain .. ..       | .. | Joint Commissioner,<br>(Minor Irrigation).<br>Ministry of Agriculture,<br>New Delhi.                                 |
| 7.  | Shri A. J. S. Sodhi .. ..   | .. | Managing Director,<br>National Seeds Corporation,<br>New Delhi.  |
| 8.  | Dr. N. D. Rege .. ..        | .. | Joint Commissioner,<br>(Soil Conservation).<br>Ministry of Agriculture,<br>New Delhi.                                |
| 9.  | Shri K. Sundararajulu .. .. | .. | Special Officer (Cooperatives),<br>Rural Electrification Corporation,<br>New Delhi.                                  |
| 10. | Shri R. S. Srivastava .. .. | .. | Director,<br>Progress and Evaluation,<br>Dte. of Economics and Statistics,<br>Ministry of Agriculture,<br>New Delhi. |
| 11. | Shri Ranjit Gupta .. ..     | .. | Research Director,<br>Association of Voluntary<br>Agencies for Rural Development,<br>New Delhi.                      |

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\*Now Commissioner, Kosi Division, Bihar.

APPENDIX I—*contd.*

- |                             |    |    |   |
|-----------------------------|----|----|---|
| 12. Shri P. M. Mathai*      | .. | .. | Director,<br>Office of the Development Commissioner,<br>(Small Scale Industries),<br>New Delhi. |
| 13. Shri V. K. Balakrishnan | .. | .. | Deputy Commissioner,<br>(Credit Division),<br>Ministry of Agriculture,<br>New Delhi.            |
| 14. Shri S. K. Mitra        | .. | .. | Joint Director, Convener,<br>National Commission on Agriculture,<br>New Delhi.                  |

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\*Shri Mathai has retired. Shri S. Bandopadhyay, Deputy Director (RI), Office of the Development Commissioner (Small Scale Industries), New Delhi participated in the visits and discussions,

## APPENDIX II

### *Location, Area and Population of Villages Selected for Whole Village Development—Musahri, Bihar*

Name of Village	Location : Dis- tance in Km from		Popu- lation (No.)	Total Geog- raphical Area (acres)	Net Cultivable Land			
	Distt. Hqs.	Block Hqs.			Total	Irriga- gated	Non ir- rigated	
1	2	3	4	5	6	7	8	
<i>North-West</i>								
1. Ashram Tola*	..	12	18	704	402	333	131	202
2. Gandhi Tola*	..	10	16	893	472	400	70	330
3. Kasba Tola*	..	10	16	1266	455	382	65	317
4. Bakri Harpur	..	6	12	297	75	54	..	54
. Chak Gazi	..	6	12	293	182	134	9	125
6. Akbarpur	..	5	10	610	168	140	..	140
<i>South-West (Urban fringe)</i>								
7. Bhagwantipur	..	6	11	381	70	49	10	39
8. Mithanpurlala	..	2	2	599	175	158	40	118
9. Bela Chapra*	..	4	5	1002	435	315	10	305
10. Madapur	..	16	10	1535	431	360	25	335
11. Chansima	..	5	11	777	183	155	31	124
12. Susta	..	2	8	1452	254	179	..	179
13. Taraura	..	7	1	997	259	222	9	213
<i>North-East</i>								
14. Manike Harkeah	..	9	2	2013	661	562	12	550
15. Narauli Dis	..	10	4	815	331	256	48	208
16. Meminpur	..	10	4	586	288	280	26	254

\*Villages intensively surveyed for preparation of whole village development plans.

## APPENDIX II—contd.

1	2	3	4	5	6	7	8
17. Dumari .. ..	11	5	2605	871	825	68	757
18. Budhnagra Ragho*	20	10	2257	775	625	70	555
19. Budhnagara Jagannath .. ..	12	6	2234	778	625	48	577
<i>South-East</i>							
20. Chapra Rupnath*	15	8	792	300	222	11	211
21. Chapra Bankul* ..	15	8	834	309	251	2	249
22. Baikatpur ..	12	6	1067	194	160	8	152
23. Madhopur* ..	16	10	1535	431	360	25	335
Total ..	..	..	25544	8499	7047	718	6329
Per village ..	9.5	8.5	1110	370	306	31	275

\*Villages intensively surveyed for preparation of whole village development plans.

### APPENDIX III

#### *Illustrative list of Working Relations among various parties participating in the programme (Musahri, Bihar)*

1. Individual beneficiaries will be eligible for project assistance on following terms:

- (a) Authorise the gramsabha to recover loan dues from them, maintain and manage community works created in the village, regularly pay the charges, water levies, etc. imposed by the gramsabha for operation and maintenance of project works. Agree to donate the part of land falling within the base of community irrigation works to the gramsabha.
- (b) Hypothecate land and/or other movable/immovable property to the commercial bank-lending institution for medium-term (5 yrs) and long-term (10—12 yrs.) development loans.
- (c) Consolidate holdings and accept common cropping programme on land irrigated by community works.
- (d) Agree to abide by and respect the authority of gramsabha in all matters relating to the village.
- (e) Voluntary acceptance and enforcement of minimum wage rates to agricultural /non-agricultural labour, which should be substantially more than the present rates.
- (f) Accept as the objective of equal sharing of costs by both share cropper and the rentier of inputs for improved agriculture including cost of water, if any wherever possible.
- (g) Available wasteland and extra land, if any, obtained by consolidation after allowing for common utilities, to be distributed to landless labourers.
- (h) Authorise the gramsabha to transact/negotiate on their behalf and arrange for distribution of inputs/supplies/service.
- (i) Agree not to install private tubewells in the command area of proposed schemes.

2. Gramsabha will be responsible for—

- (a) Identify individual beneficiaries as per technical requirements of the scheme.
- (b) Wherever necessary and/or proposed by MDA, organise such beneficiaries into appropriate groups (e.g. for shallow/deep tubewells, groups of 8—12 household belonging to the category of marginal farmers i.e. with holdings below 2.5 acres —or 5—8 households if they are small farmers i.e. with holdings between 2.5 and 5 acres).
- (c) Undertake and manage community works for the benefit of the village, particularly small and marginal farmers.
- (d) Ensure proper distribution of inputs/supply/services as per technical plan. In case of any failure in this regard, MDA will be authorised to take appropriate steps.
- (e) Recover loan dues from individual beneficiaries and disburse/supply inputs and other services as per technical plan.

APPENDIX III—*contd.*

- (f) Affiliate itself with MDA and agree to accept/honour the technical plans/schemes suggested by MDA.
  - (g) Collect such information/maintain such records as are asked by MDA.
  - (h) Ensure enforcement of all conditions stipulated in above.
  - (i) Ensure proper maintenance and management of all works created in the village.
  - (j) Prevent construction of private tubewells in the command area of community irrigation works created by the project.
  - (k) Operate and manage the gramkosh and the revolving fund for consumption loans to small and marginal farmers.
  - (l) In collaboration with the Agency, settle and buy off the debts of small and marginal farmers and recover the dues from the debtors the amount out of extra production in suitable instalments.
  - (m) Generally assist MDA in all its programmes and activities relating to the village.
3. The Muzaffarpur Development Agency (MDA) will be responsible for—
- (a) Overall supervision, policy making and implementation of the programme and its decisions will be binding on the constituents gramsabhas.
  - (b) In all group/community works involving loaning, assistance from commercial banks / other institutions, the gram sabhas shall authorise and empower MDA to transact/handle all such funds on their behalf according to technical requirements of approved plans/schemes/works. Tripartite legal agreement to this effect shall be reached and signed between the concerned parties; gram-sabhas, MDA, commercial bank/other lending institutions.
  - (c) On behalf of constituent gramsabhas MDA will maintain and prepare periodic progress reports and statements of accounts.
  - (d) Until a scheme/work taken on under this programme is fully completed, the responsibility for its execution and completion will vest with MDA, and all its decisions in this regard will be final and binding on the concerned gram-sabhas / individual beneficiaries.
  - (e) MDA will provide technical support for proper and timely maintenance and operation of completed community works in the initial years, and in case of works involving earth-work undertake necessary repairs at its cost in the first year following the completion of the said work (MDA will not be normally responsible for such works after this period. It will normally be the responsibility of the concerned gramsabha/individual beneficiaries). MDA will however continue to enjoy technical and supervisory/ authority over all such works until the loans extended for their construction/installation are fully repaid by the individual beneficiaries/gramsabhas.
  - (f) In case of any major technical breach in the construction of works, MDA will be responsible for correcting the fault and putting the work in order at its own cost.

APPENDIX IV

WHOLE VILLAGE DEVELOPMENT (MUSAHRI, BIHAR)

*Estimated Financial Outlay*

*Irrigation*

Scheme	No. of Units	Command Area (acres)	Per acre Investment Costs (including channels) Rs.	Outlay (Rs.)	
Deep tubewell	80	4200	500	21,00,000	
Tank renovation	4	100	450	45,000	
Lift irrigation :					
Manikanan	1*	2000	284	5,68,000	
Baikatpur	1* 2/3	900	301	2,71,000	29,84,000

*Revolving Crop Loan Fund  
(Short-term input loan seed, fertilisers, and plant protections)*

Crop Season	Total Cropped area as per plan (acres)	Per Acre Loan (Rs.)		
Summer	3473	390	13,54,000	
Kharif	7015	270	18,94,000	
Rabi	5405	350	18,92,000	51,40,000

*Land Shaping/Soil Conservation*

An area totalling 300 acres at Rs. 100 per acre			30,000	30,000
Total	..			81,54,000

\*These works will provide irrigation not only to a group of project villages but also to other gramdan villages in the area.



APPENDIX IV—*contd.*  
*Pre-Project Survey and Technical Planning Costs*

	Cost per village (Rs.)	For 23 villages (Rs.)
Socio-economic survey including resource survey	400	9,200
Technical irrigation work plans	1,500	34,500
Consolidation Plan	1,000	23,000
Soil and agronomical survey for crop and input supply planning	150	3,450
Land shaping/soil conservation plan covering 300 acres in 5 villages	ad-hoc	4,850
Total ..		75,000
<i>Project Establishment Costs</i>		
(a) Recurring for 5 years	2,75,000	
(b) Non-recurring	35,000	
Total ..		3,10,000

**APPENDIX V**  
**HUNDRED VILLAGE DEVELOPMENT PLAN (MIRZAPUR—**  
**U.P.)**  
*Estimated Financial Outlay*

Items	Qty.	Total cost	Requirements		
			Ist year	IInd Year	IIIrd Year
		(Rs.)	(Rs.)	(Rs.)	(Rs.)
<b>1. Irrigation (2000 acres)</b>					
(i) Small bandhies ..	600 nos.	10,50,000	5,25,000	5,25,000	..
(ii) Jackwells ..	50 nos.	1,00,000	30,000	40,000	30,000
(iii) Diesel pumpsets (5 H.P.)	20 nos.	2,00,000	1,00,000	1,00,000	..
(iv) Diesel pumpsets (10 H.P.) with nos. pipelines	10 nos.				
(v) Persian wheels ..	50 nos.	50,000	..	25,000	25,000
<b>2. Land shaping ..</b>	2000 acres	10,00,000	2,50,000	2,50,000	5,00,000
<b>3. Work bullocks ..</b>	300 pairs	1,50,000	1,00,000	50,000	..
<b>4. Milch animals ..</b> (cows & buffaloes)	300 pairs	2,00,000		1,00,000	1,00,000
<b>5. Release of mortgaged land</b>	300 acres	1,50,000	50,000	1,00,000	..
<b>6. Seeds &amp; fertilisers ..</b>	2000 acres	5,00,000	1,00,000	2,00,000	2,00,000
<b>7. Agricultural Implements</b>		35,000	35,000	..	..
<b>8. Godowns ..</b>	6 nos.	1,50,000	50,000	1,00,000	..
<b>9. Village Industries ..</b>	3 units	1,50,000	..	75,000	75,000
<b>10. Service Workshop ..</b>	1 no	50,000	50,000	..	..

APPENDIX V—*contd.*

Items	Qty.	Total cost	Requirements		
			Ist Year	IIInd Year	IIIrd Year
		(Rs.)	(Rs.)	(Rs.)	(Rs.)
11. Sale & purchase cooperative	1 no.	50,000	..	50,000	..
12. Truck .. ..	1 no.	80,000	80,000	..	..
13. Tractor .. ..	1 no.	50,000	50,000	..	..
14. Transport office equivalent		75,200	75,200	..	..
15. Techno-economic survey..		1,00,000	1,00,000	..	..
16. Job training (Agri.) ..		1,00,000	36,600	31,700	31,700
17. Leadership training ..		6,000	2,000	2,000	2,000
18. Administration ..		2,89,800	96,600	96,600	96,600
19. Contingencies .. ..		30,000	10,000	10,000	10,000
		45,66,000	17,40,400	17,55,300	10,70,300

APPENDIX VI

WHOLE VILLAGE DEVELOPMENT (TAMIL NADU)

*Estimated Financial Outlay*

Serial No.	Schemes	No. of units	Unit cost (Rs.)	Total cost (Rs.)
1.	Contour bunding .. .. .	5140 (acres)	80	4,11,200
2.	Application of tank silt .. .. .	1490	300	4,47,000
3.	Sinking of new wells .. .. .	60	8,000	4,80,000
4.	Renovation of old wells .. .. .	90	4,000	3,60,000
5.	Pucca wells in tanke .. .. .	8	40,000	3,20,000
6.	Installation of pumpsets .. .. .	150	3,000	4,50,000
7.	Cement lining of main channels <sup>1</sup> .. .. .	200	250	50,000
8.	Ponds .. .. .	5	20,000	1,00,000
9.	Seeds .. .. .	..	..	76,000
10.	Fertilisers .. .. .	..	..	7,74,000
11.	Pesticides .. .. .	..	..	1,64,000
12.	Demonstration .. .. .	..	..	11,£00
13.	Training camps .. .. .	10	400	4,000
14.	Survey and planning .. .. .	..	..	25,000
15.	Administration cost .. .. .	..	..	2,64,000
Total			..	39,37,000

APPENDIX VII

WHOLE VILLAGE DEVELOPMENT (NIMAPARA BLOCK,  
ORISSA)

*Estimated Financial Outlay*

Serial No.	Item	Outlay (Rs.)
1.	Irrigation :	
	(a) Dugwells 25 nos. .. .. .	1,00,000
	(b) Tubewells 10 nos. .. .. .	1,50,000
	(c) Construction of field channels .. .. .	80,000
	(d) Construction of drainage channels .. .. .	83,000
2.	Godowns .. .. .	12,000
3.	Demonstration Training etc. .. .. .	58,000
4.	Short term inputs .. .. .	2,75,000
5.	Subsidiary occupation :	
	(a) Dairy development .. .. .	5,00,000
	(b) Poultry development .. .. .	2,15,000
	(c) Fishery development .. .. .	50,000
6.	Cooperatives .. .. .	74,000
7.	Rural artisans .. .. .	40,000
8.	Planning and survey .. .. .	10,000
9.	Administration cost .. .. .	1,00,000
	<b>Total</b> .. .. .	<b>17,47,000</b>

**APPENDIX VIII**

**NATIONAL COMMISSION ON AGRICULTURE**

**WHOLE VILLAGE DEVELOPMENT PROGRAMME**

**SOCIO-ECONOMIC SURVEY SCHEDULE**

1. Village .....
2. Taluk/Tehsil .....
3. C.D. Block .....
4. District .....
5. State .....

SCHEDULE I

(A) SOME NOTABLE FEATURES OF THE VILLAGE

---

*Particulars :*

1. Location		
2. Total geographical area (acres)		
3. Total population	1961	1971
Male (No.)		
Female (No.)		
4. Proportion of working population to total population of the village		
Male workers as proportion of male population		
Females workers as proportion of female population		
5. Sectoral distribution of working force (as proportion of total workers)		
Primary Sector		
Secondary Sector		
Tertiary		
6. Sectoral distribution of households—		
Primary		
Secondary		
Tertiary		
Total		
(Indicate separately how many households in the primary sector are landless)		
7. Net cultivated area (acres)		
Irrigated		
Unirrigated		
Total		
8. Irrigated area as proportion of net cultivated area.		
9. Area under rabi (acres)		
Irrigated		
Unirrigated		
Total		
10. Area under kharif (acres)		
Irrigated		
Unirrigated		
Total		
11. Double cropped area (acres)		

---

SCHEDULE I—*contd.*

## 12. Cropping pattern :

Crop	Khariif Area Production	Rabi Area Production	Summer Area pro- duction
------	----------------------------	-------------------------	--------------------------------

## 13. Cumulative percentage of cultivating households by size of holding.

Operational holdings (acre)      Ownership holdings (acre)

Below :

1·0  
2·4  
4·9  
9·9  
14·9  
29·9  
49·9  
Over 50·0

14. Spring level (Below ground level)      In June      In October

15. Ordinary columns of water in masonry wells

16. Area Irrigated by Source :

Source	No. of units	No. of units in use	Av. Area irrigated by unit in use	Cropwise area irrigated (acres) by total units in use			Remarks (Pl. specify whether and how the unit in disuse could be revived)
				Khariif	Rabi	Summer	

Masonry wells

Tanks

Tubwells

Hand tubewells

Pump sets

5 H.P.

10 H.P.

Others (specify)

Canal                    X      X      X

River                    X      X      X

## 17. Prevalent daily labour wage rates.

Agricultural labour

Masonry

Carpentry



SCHEDULE I—*contd.*  
(B) FACILITIES, AVAILABLE

Serial No.	Type of Facilities	Whether existing in the village Yes/No	Distance from the nearest place where it is available	If existing in the village
1	2	3	4	5
1	<i>Credit facilities</i>		No. of units	Facilities extended last year
	1·1 Cooperative			
	1·2 Banks			
	1·3 Indigenous money lenders			
	1·4 Others (Specify)			
2	<i>Input facilities</i>		No. of units	Facilities extended last year
	2·1 Seed			
	2·2 Fertiliser			
	2·3 Pesticides			
	2·4 Custom Service			
3	<i>Warehousing &amp; Storage facilities</i>		No. of units	Capacity utilised last year
	3·1 Government			
	3·2 Cooperative			
	3·3 Others (Specify)			
4	<i>Roads</i>			Length (in Kms)
	4·1 Pucca			
	4·2 Kucha			
	4·3 Feeder			
5	<i>Electricity</i>		Uses in Kwh.	
			Agri.	Industry
				Domestic
6	<i>Market Centres :</i>			
	6·1 Produce			
	6·2 Cattle			

SCHEDULE I—*concl'd.*

1	2	3	4	5
7	Nearest Town/Urban Centre			
8	V.L.W. Office			
9	Block Office			
10	Police Station			
11	Bus stop			
12	Railway Station			
13	Family Planning Centre			
14	Veterinary dispensary 14·1 Stockman Centre			
15	Primary School			
16	Secondary School			
17	<i>Source of drinking water</i>			
	17·1 Handpump			
	17·2 Tubewell			
	17·3 Well			
	17·4 Tank			
	17·5 River			
	17·6 Others (Specify)			

SCHEDULE II  
INTERVIEW SCHEDULE

INTERVIEW NUMBER

SN.

YEAR

**I. IDENTIFICATION PARTICULARS :**

- (a) House No.
- (b) Census No.
- (c) Full name of the respondent :
- (d) Relationship of the respondent to the head :
  - Head
  - Housewife
  - Son
  - Others

**II. INTERVIEWING PARTICULARS :**

- (a) Date(s) of interview :
- (b) Duration of interview
- (c) Non-response due to :
  - Vacant house
  - Illness
  - Not at home
  - Refusal

SCHEDULE II—*contd.*

III. FAMILIES PARTICULARS

Sl. No.	Relationship of members to head	Marital status	Age	Education			Occupation last year		If not employed, reason for it	Total No. of days worked	Full or partial employment
				Primary School	Secun- dary School	College education	Primary	Secondary			
1											
2											
3											
4											
5											
6											
7											

## SCHEDULE II—contd.

## IV. HOUSING

(a) Did you any member of your family own/possess any time during last year building for residential and/or commercial purpose?

Yes No

If yes:

(b) How many houses did you own ?

Residential :

Others :

(c) What are the types of houses ?

Residential			Others		
Kacha	Pucca	Mixed	Kacha	Pucca	Mixed

(d) No. of houses under construction :

(e) Cost of houses :

Residential		Others	
1. Cost of plots	Rs.	1. Cost of plots	Rs.
2. Cost of materials	Rs.	2. Cost of materials	Rs.
3. Cost of labour	Rs.	3. Cost of labour	Rs.
4. Total cost	Rs.	4. Total cost	Rs.

(f) If purchased during last year—value of purchase in Rs. ....

## V. INCOME FROM AGRICULTURE :

(A) Land owned and/or cultivated in Acres

1. (a) Did you (or any other member of family) own agricultural land during last year ?

Yes No

2. (a) If yes, how much was owned ? . . . . . acres

(b) Did you cultivate any land (owned/rented/shared) ?

Yes No

(c) If yes, what was the size of the land cultivated by your family last year ?  
Acres

1. Owned
  2. Shared
  3. Rented
  4. Mortgaged
- Total -

## SCHEDULE II—contd.

3. (a) Did you receive in lease or rented out any agricultural land last year ?

Yes No

(b) If yes, what was the size?

Leased in

Rented out

4. What was the area sown during last year ?

<i>Once</i>	<i>Twice</i>	<i>Thrice</i>
-------------	--------------	---------------

5. What was the extent of irrigation last year ?

In gross acreage :

How much more area can be brought under irrigation ? \_\_\_\_\_acres.

6. (a) Did you own any land under forest, fallow and pastures during last year ?

(b) What were the crops you raised in kharif season ?

(c) What were the crops you raised in rabi season ?

(d) What were the crops raised in between kharif and rabi ?

(e) Do you resort to irrigation from channel/well?

(f) How many dugwells/tubewells you own ?

(g) For lift irrigation do you use electricity/diesel energy ?

(h) Are you satisfied with present irrigation methods ?

(B) Receipts From Crops

Sl. No.	Items produced	Area under	Quantity produced in quintals/KGs.	Quantity sold	Price realised
1	2	3	4	5	6

1 Cereals

(a) Paddy

(b) Ragi

(c) Jowar

(d) Bajra

(e) Maize

(f) Millets

2 Pulses

(a) Bengal gram

(b) Black gram

(c) Green gram

(d) Horse gram

(e) Other pulses



SCHEDULE II—*contd.**(D) Receipts from Livestock Products :*

Sl. No.	Items produced	Local units	Total quantity	Quantity sold	Price
(a)	Milk				
(b)	Ghee/butter				
(c)	Other milk products				
(d)	Meat				
(e)	Bones & horns				
(f)	Other products				
	Total				

*(E) Receipts from other Agricultural Operations :*

1. (a) Did you have income from other pursuits such as, fishery, poultry or sericulture?

Yes      No

(b) If yes, what were the gross receipts last year ?

Amount in Rs.

(a) Fishery

(b) Poultry

(c) Sericulture

(d) Others

2. (a) Did you have any income from hiring out assets such as animals and other equipments ?

Yes      No

If yes, total amount in Rs.

(b) Did you receive any rent from land rented ?

Yes      No

If yes, total amount in Rs.

(c) Did you have any other receipts from agricultural operations including sale of livestock?

Yes      No

If yes, total amount in Rs.



## SCHEDULE II—contd.

## VI. OPERATING EXPENSES

## (A) Operating Expenses for Crops.

Sl. No.	Item	Quantity in local units	Cost
1	Home produced seeds		
2	Purchased seeds		
3	Manures—		
	(a) Fertiliser		
	(b) Organic manure		
4	Land rent paid in cash kind.		
5	Land revenue, irrigation charge, betterment levy, etc.		
6	Cost of animal feeds.		
7	Expense on transport, storage and marketing		
8	Hired labour—		
	(a) Permanent		
	(b) Temporary		
9	Hire charges of farm equipments.		
10	Repair and maintenance charges.		
11	Any other		
	<b>Total</b>	..	

## (B) Expenses for other Agricultural Operations :

	Amount in Rs.	
1 Fishery	...	...
2 Poultry	...	...
3 Sericulture	...	...
<b>Total</b>	...	...

## VII. INCOME FROM SELF-EMPLOYMENT

1. Were you or any member of your family engaged in any craft/business/self employment?

Yes      No

If yes, what was the nature of self employment?

2 What was the total income from the above last year?

	Amount in Rs.	
Income	...	...
Loss	...	...

SCHEDULE II—*contd.*

VIII. INCOME FROM SALARIES

1. (a) Did you or any member of your family receive income from salary at any time during last year ?

Yes          No

(b) What was the nature of employment ?

(c) What was the total income received during last year ?

Amount in Rs.

IX. INCOME FROM WAGES

1. Did you or any member of your family receive income from wages at any time during last year ?

If yes, what were,

	Sl. No. of Family Member as given in III	Amount (Rs.)
1. Type of activity		
2. Periodicity of payment		
3. Period of employment		
4. Mode of payment		
5. Other receipts		
<b>Total wages earned</b>		

X. INCOME FROM OTHER SOURCES

1. Did you rent out any house during last year ?

If yes, what was the rent received ?          Rs. ....

2. Did you spend any money for repairing or maintenance of the rented building ?

If yes, what was the expenditure ?          Rs. ....

3. Did you or any member of your family receive anything in cash or kind ?

If yes, what was the amount/value ?          Rs. ....

4. Did you receive any income from any other source not mentioned here ?

If yes, what was the amount/value ?          Rs. ....

Total

SCHEDULE II—*contd.*

## XI. CONSUMPTION EXPENDITURE

Sl. No.	Item	Quantity in Kgs/ litres	Value per Kg/ liter.	Total value in Rs.
1	2	3	4	5
1	<i>Cereals—</i>			
	(a) Rice			
	(b) Rice flour			
	(c) Other rice products			
2	(a) Wheat			
	(b) Wheat flour			
	(c) Other wheat products			
3	(a) Jowar			
	(b) Jowar flour			
	(c) Other jowar products			
4	(a) Maize			
	(b) Maize flour			
	(c) Other maize products			
5	(a) Ragi			
	(b) Ragi flour			
	(c) Other ragi products			
6	Any other cereals or its products			
7	Pulses			
8	Oils			
9	Oilseeds			
10	Milk and milk products			
11	Meat and meat products			
12	Fish and fish products			
13	Eggs			
14	Sugar/jaggery			
15	Garlic			
16	Turmeric			
17	Chillies			
18	Gur			
19	Salt			
20	Coffee			
21	Tea			
22	Cigarettes			
23	Fuel			
24	Snuff			
25	Liquor			

SCHEDULE II—*contd.*

1	2	3	4	5
26	Clothing			
	(a) Dhoties			
	(b) Shirts			
	(c) Pants			
	(d) Pyjamas			
	(e) Underwears			
	(f) Saris			
	(g) Shirts (children)			
	(h) Frocks			
	(i) Woolen clothes			
	(j) Towels			
	(k) Any other household linen.			
27	Toilet articles			
28	Medicine			
29	Ceremonies			
30	Conveyance			
31	Gifts			
32	Rent			
33	Furniture			
34	Utensils			
35	Footwear			
	<i>Others</i>			
36	Entertainments			
37	Education--			
	(a) Fees			
	(b) Books			
	(c) Miscellaneous			

## XII. DEBT AND INVESTMENT

1. (a) Did you take any loan for agricultural purposes, education, festivals, ceremonies, medicines, etc.

Yes      No

If yes, how much did you borrow ?

Rs. ....

For what did you borrow

From where did you borrow ?

SCHEDULE II—*contd.*

- (b) Did you invest any money in shares, bonds, cooperative societies membership, savings certificates, etc.
- Yes      No
- If yes, what was the amount ?
- Rs.
- What was the mode of investment ?
- (c) Have you taken any insurance policies ?
- Yes      No
- If yes, in whose name :
- What is the premium ?
- Rs.
- (d) Have you got any Savings Bank Accounts ?
- Yes      No
- If yes, with which bank ?

**XIII. FAMILY POSSESSIONS :**

Do you possess any of the following ?

- (a) Wooden plough  
 (b) Iron plough  
 (c) Spraying equipments  
 (d) Bullock cart  
 (e) Radio sets  
 (f) Cycle  
 (g) Tractor  
 (h) Storage facilities  
 (i) Any other modern implements.

**XIV. ATTITUDE ON COMMUNITY ACTIONS**

- (a) Are you willing for joint cultivation ?
- Yes      No
- If the answer is no, why ?
- (b) What are your difficulties in increasing the production per acre ?
- (i) . . . . .
- (ii) . . . . .
- (iii) . . . . .
- (c) Are you aware of the disadvantages in having fragmented holdings ?
- Yes      No
- If answer is yes, then what are those ?
- (d) Are you willing for consolidation of holdings if it will bring about improvement in your earnings ?
- Yes      No
- (e) What do you think about 'community action' for agricultural prosperity ?
- (f) Do you believe that community action will succeed in your village ?
- Yes      No
- If not, why ?
- (g) Are you willing to share a portion of your land for landless labourers ?
- Yes      No
- If answer is no, why ?
- If answer is yes, how much can you spare ?

SCHEDULE II—*concl'd.*

## XV. ANY OTHER RELEVANT INFORMATION

## GUIDELINES TO THE SURVEYOR

*Ref. I*

- (a) Each family of a particular village is considered as a unit for this survey.
- (b) In each family, there ought to have a family head. In his or her absence/inability, another person should be subjected to the interview.

*Ref. III*

- (c) The number of full working days in a year as well as partial working days should be entered.

*Ref. IV*

- (d) Mud-walled and thatched houses which are non-durable may be considered as 'kacha' while brick-walled with rooms separated may be considered as 'pucca' for practical purposes.

*Ref. V*

- (e) The 'area sown' refers to single cropping, double cropping or triple cropping.
- (f) The terms 'Kharif' and 'Rabi' used in this schedule are not purported to be the only terminology indicative of these two agricultural seasons.
- (g) 'Annual' receipts from various crops will have to be entered.

*Ref. XI*

- (h) The consumption expenditure on food items may be estimated for a month and then multiplied by 12 to arrive at annual figure.

*Ref. XIV*

- (i) Community actions may include organised efforts for sharing of the irrigation facilities, joint operations for controlling disease by pests, construction of irrigation and drainage channels, consolidation of holdings, and rehabilitation of the landless. The surveyor is expected to keep a brief on community action for the respondent.

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