Chapter 9:

PROBLEMS OF AGRICULTURAL DEVELOPMENT OF BIRBHUM DISTRICT
CHAPTER IX

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9.1 Introduction

The surveyed area has more than eighty percent of rural population. The absence of valuable mineral and major industries, the main economic activities of the region is centered on and around agriculture with nearly eighty percent of workers being directly engaged in agricultural only without proper utilization of landed property i.e. agriculture on plane land, pisciculture on wetland and check dams, horticulture on banks of wetland and floriculture on highland etc. Therefore, the rural development schemes requires special care for the upliftment of rural areas in the context of agri-horticultural development of the study area is not in a position to fulfill the demand of its population.

9.2 The basic agricultural problems of Birbhum district:

a) As both flood and draughts are perennial problems in the district of Birbhum. There are some pockets in the south east region of the district particularly Bolpur sub division that are subjected to inundation and occasional floods because, as low lying pockets where rain water accumulate and in absence of good drainage, from beels, where cultivation in the kharif season is very difficult. Western part of the district is a draught prone track covering the thanas of Murari, Nalhati, Rampurhat, Mayureswar, Md Bazar, Rajnagar, Khoyrasole. Due to undulating topography the rocks of Chotonagpur plateau have been extended into western portion of this area which are not served by canals of Mayurakshi River Project or Hinglow Irrigation system. Irrigation facilities are minimal in this area and availability of ground water is uncertain in many pockets. The area is rocky and water retention is a problem. For this cause cultivation is too much difficult in this area of Birbhum district, particularly for crops which require large volumes of water.

b) Uncertainty of rainfall due to erratic monsoon is to be impeding for agricultural growth.

c) The district is basically a monocrop district, because of its limitation of ground water availability in many regions of the district.
d) The various Irrigation Projects in the district may be classified into
   i) River lift irrigation (RLI);
   ii) River valley project (RVP);
   iii) Deep tube wells;
   iv) Minor irrigation;
   v) Shallow irrigation schemes and
   vi) Tank irrigation.

In spite of this inadequate irrigational facilities hamper agricultural growth.

e) Lack of proper channelization of agricultural products from village to market
   and to town due to absence of proper planning and management.

f) The social composition of land ownership affects the agricultural situation.
   During the field survey, it has been found that in 2001 census, distribution of
   operational holdings according to size-class is marginal. Number of holding is
   2,00,265; small number is 63,374; semi medium number is 23,114; medium is
and number of large holdings is only 54 out of total number of holding 289776 and area holding 3,06,431 hectares.

g) Lack of effective agricultural policies and programmes though Panchayat has potentiality, but its role in agricultural development of the area is not very encouraging.

h) Poor communication facilities are also major problems and for agricultural activities. There are only 123 km of national highways; State high way of 228 km; District roads are only 283 km and village roads of 543 km. Total length of road is 1177 km which is maintained by P.W.D; 1858 km roads are maintained by Zilla Parishad; 4117 kms roads are maintained by Gram Panchayet and Panchayet Samiti and 535.56 km road are maintained by Municipalities. This is not sufficient to meet the demands of local people.

i) In the study area the pressure of population (e.g. in 1991 census total population was 25, 55,664 and it increased in 2001 census to 30, 15,422) is rapidly increasing on the limited land resources, while the available resources are not being extensively used. In 2001 census total area was 4545 sq. km. Population density was 664.

j) Due to traditional unsustainable system of agriculture, per unit area, production of crops is not quite satisfactory, although the yield of rice, wheat and other dominating crops have increased due to more landuse out of forest cover and wetland.

k) Some problems regarding the availability of power also exists, due to improper distribution of network as well as instability of adequate supply.
l) Western part of the district is covered with red laterite soil which is infertile. As a result growth rate of agricultural production is too much low, but if used for fruit and flower cultivation, good scope is there.

m) Old traditional technology, patterns of agriculture and the depth of underground water table is also responsible for partial set back of agri-horticultural development.

n) Due to ill maintenance of rivers and wetlands, most of the river beds are silted and raised which has a bad effect upon agricultural fields.

o) Agricultural co-operatives are not helpful to meet the needs of the farmers.

9.3 General Agricultural Scenario In Birbhum District:

In all respects agricultural field, such as, cropped area, production and yield of principal crops, there is an increasing trend. During the period of 2000-2001 and 2002-2003 cropped area under rice has increased from 318.2 thousand hectares to 401.5 thousand hectares. The production of rice was 796.5 thousand tons in 2000-2001 which has increased to 1146.6 thousand tons. Productivity of rice has increased from 2503kg/hec to 2856kg/hec. Next to rice is the potato which show a increasing production trend. After potato mustard, rapeseed and wheat are important crops.

It is quite interesting that inspite of droughts, floods and outdated technology, the agricultural situations of Birbhum districts is quite satisfactory. This has happened mainly due to effectiveness of Panchayat in rural development and Land Reforms.

Table No. 9.2 Production of Crops in Different Year

<table>
<thead>
<tr>
<th>Name of the principal crops</th>
<th>Area under principal crops (in thousand hectares)</th>
<th>Production of principal crops (in thousand hectares)</th>
<th>Yield rate of principal crops (Kilogram per hectare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>318.2</td>
<td>401.5</td>
<td>796.5</td>
</tr>
<tr>
<td>Wheat</td>
<td>26.9</td>
<td>27.1</td>
<td>77.7</td>
</tr>
<tr>
<td>Other cereals</td>
<td>0.6</td>
<td>0.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Total pulses</td>
<td>20.2</td>
<td>15.4</td>
<td>16.8</td>
</tr>
<tr>
<td>Rape and Mustard</td>
<td>35.7</td>
<td>34.5</td>
<td>41.3</td>
</tr>
<tr>
<td>Other oil seeds</td>
<td>1.7</td>
<td>1.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Total fibre</td>
<td>0.4</td>
<td>0.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>0.8</td>
<td>1.1</td>
<td>52.7</td>
</tr>
<tr>
<td>Potato</td>
<td>12.8</td>
<td>11.5</td>
<td>26.6</td>
</tr>
<tr>
<td>Chillies (dry)</td>
<td>0.5</td>
<td>0.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Ginger</td>
<td>0.3</td>
<td>0.3</td>
<td>0.6</td>
</tr>
</tbody>
</table>

9.4 Proposed Mitigation of Agricultural Problems:

Based on detailed field survey at micro-level for the purpose of studying agricultural problems in Birbhum district. I would like to suggest the followings for further agricultural development in Birbhum district. Such as-

1) The rivers should be made silt free as far as possible by dredging which may be cost effective.

2) Conversion of ponds and wetlands into agricultural fields in proper way or better if utilized for pisci-culture and the banks for horticulture.

3) As both floods and draughts are perennial problems in the district, emphasis should be on management of floods and draughts.

4) To prevent loss of lives and properties in these areas embankment on the river Ajay, Mayurakshi and Bansloi require major strengthening. Some drainage schemes are also necessary in these areas.

5) Increase irrigation potential development and disseminate old technology and input better facility for dry land agriculture and horticulture.

6) Implementation of agricultural land ceilings; distribution of surplus land, complete compilation of land records by removing all the administrative and legal obstacles.

7) Improvement in the existing agricultural conditions is needed through sustainable modernization, including proper distribution of seeds, bio-fertilizers, manure pesticides, management and rotation of crops, irrigation, transport, marketing, cold storage facilities etc.

8) Area Development Programmes has to be put into effective practice to concentrate on adverse ecological conditions so as to evaluate the cultivators to raise their land productivity and income. (eg. Draught Prone Area Development Programme)

9) It is necessary to provide better quality of seeds, chemical fertilizers, composts, bio-fertilizers, insecticides for increasing the output of agricultural production.
10) More emphasis should be given to encourage for double and triple cropping so that intensive agricultural production takes place and cropping can be increased.

11) For effective utilization of canal irrigation the cropping pattern and food habit has to be properly planned so as to reduce canal irrigation for kharif paddy and greater coverage under rabi cultivation can be done.

12) In laterite zones with poor ground water availability, surface water has to be utilized by constructing small check dams for growing fruits, vegetables and flowers long with medicinal plants utilizing drip and peacher irrigation systems.

13) The flood prone areas have to be protected by constructing drainage schemes and embankments and check dams under proper watershed management.

14) For increasing gross-cropped areas in the region covered by Mayurakshi Irrigation System the cropping pattern has to be planned suitably with greater emphasis on modern hybrid varieties of paddy such as Swarnamasuri, IR-36 etc.

15) In the laterite zone, draught-resistant varieties of crops which may be planted by direct seeding such as Jowar, Bajra etc, firewood cultivation should also be encouraged.

16) Suitable soil conversation measures should be adopted specially in the laterite zone to prevent loss of productivity.

17) Unless floods and draughts are controlled and modern scientific technology, irrigation facilities are provided, agricultural development is not possible.

18) Programmes should provide special assistance and support to the economically and socially depressed sections of people (e.g. scheduled tribe, scheduled caste people) to enable them to improve their mere income and low level of living.

19) Those persons who are unemployed or under employed should be given jobs in making improvements of a capital nature in our land and water resources, in animal based industry and in non agricultural pursuits. There has to be additional emphasis on the process of agricultural raw materials, by products and waste materials.

20) Review and effectively enforce minimum wages for agricultural labours.

21) Supply of drinking water to all the problem villages
22) Make special efforts to increase the production of pulses, vegetable and oilseeds, utilizing less amount of water (a critical resource) but getting a better yield.

23) For unemployed poor people, short-term training courses production centers/institutes for imparting in rural bio-technology is essential where people can be trained in composite fishery which include fishery, goatery, duckery, piggery, fruits, and vegetable cultivation, nursery management, making compost out of village wastes, vermin composts, low-cost food preservation, integrated pest and fertilizer.
management, api-culture etc. All these short term trainings have immense possibility in uplifting rural poor of Birbhum by providing direct and indirect employment for even women particularly in animal husbandry.

24) To make the above mentioned programmes successful the local co-operative Banks and branches of Nationalized Banks, Panchayats should come forward to provide micro-level credit with due follow up system.

25) To increase agri-horticultural employment without increasing the risk of fluoride and arsenic pollution emphasis should be on irrigation by surface water i.e. by harvesting rain water in small check dams using water directly and indirectly through recharging at shallow level.

26) Solid waste management at village level by ladies of “Self help group” at every village market to make composts for providing organic manure for agriculture at a low price.

27) In every village community Bio gas plants and government toilets for human use should be increased in number which will generate gas for lighting and cooking and also provide manure for agriculture.

28) “Farmer’s Club” with assistance from “NABARD” to be organized to have agricultural impact at right price and also to provide technical assistance to the farmers.

9.5 Classifications of farmers:

During the few survey, it has been found that in 2001 census distribution of operational land holding according to size-class is marginal, number of land holding is 2,00,265; small land holding number is 63,374; semi medium land holding number is 23,114; medium land holding number is 2969; and number of large land holding is 54 out of total number of land holding 2,89,776 and area holding is 3,06,431 hectares.

9.6 Types of Irrigation:

The various irrigation projects in the Birbhum district may be classified into:-

a) River lift irrigation (RLI)
b) River valley project (RVP)
c) Deep tube wells (DTW)
d) Minor irrigation system (MIS)
e) Shallow irrigation schemes (SIS)
f) Tank irrigation schemes (TIS)
References:


