

51	Preparation of Action Plan for Agricultural Development of selected Char Areas of Barpeta & Nalbari Districts (Baghbor, Chenga & Barkhetri)	IIE, Guwahati	2005
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### **EXECUTIVE SUMMERY**

Of the widely diverse geographical areas of Assam the small river islands formed by sedimentation of the major rivers occupy an important place in terms of their contribution to the economy of the state. Locally called chars or chaparies these river islands have been an important contributor to the socio economic life of the state. The chars with their physical vulnerability present a geo- environmental situation quite distinct from the rest of the Brahmaputra valley of the state. The fertile soils being the main strength of these areas have attracted migrant labourers to these areas since the colonial era. In terms of agricultural production, these areas are an important contributor but over the years it is observed that due to the pressure of population, non-improvement in the production techniques and lack of diversification in the economic activities many advantages of these areas are no longer there. In spite of the importance of these areas in terms of their contribution primarily to the states agriculture, not much development has been achieved. Poverty and illiteracy is still very high and this necessitates a comprehensive policy to address all these problems, so that these areas can be put into the track of development. The physical vulnerability of these areas in addition to the social status of the people is seen as the root cause of this backwardness for which developmental endeavour always gets a back seat in these areas.

The present study is an endeavour to look into the major strengths as well as the problems of these areas so that a suitable action plan can be devised to develop these areas with a coordinated approach. The endeavor of the study is to:

- Develop a time bound strategy for implementing the action plan incorporating all basic developmental needs.
- Work out a strategy for providing training to the selected cultivators.
- Introduce probable variation in the cultivated produce and take up measures to infuse techniques of better agricultural management.
- The training requirement for shifting to other cultivable produce and techniques to be used for the same would be formulated in association with concerned departments and organizations.
- Arrangement for providing assistance for carrying out cultivation in terms of skill, technology, knowledge of fertilizers and crop diseases etc. and the probable linkages required would be framed.

The study looked into all the major aspects and devised a framework for coordinating various activities with the involvement of various organizations so that the desired objectives could be achieved.

The study adopted a methodology of analysing both primary and secondary data. The endeavour was to focus on all socio-economic aspects of the people of the char areas. The primary focus being on the status of economic activity in general and agriculture in particular. Special emphasis was given to bring out the important issues relating to the sector.

For the purpose a structured questionnaire, incorporating all important aspects and parameters was used so that all the issues are highlighted. Based on this sample survey was done in some selected villages under the blocks covered in the study. The size of sample for the study is as below:

<b>Particular</b>	<b>Barkhetri</b>	<b>Chenga</b>	<b>Mandia</b>	<b>Barbaradi</b>
No of GP	5	2	5	1
No of char villages selected	20	10	35	5
<b>Targeted number of respondents</b>	<b>160</b>	<b>80</b>	<b>270</b>	<b>40</b>

Both the primary and secondary data collected was analyzed to bring out the important aspects of the socio-economic status of the char areas. Based on this the Action Plan was framed which can address the major problems of these areas and ensure the economic development of the areas.

When looked into the socio-economic status of the areas it is seen that the growth in population and holding status of land are the major area of concern. As regards this the study revealed the following:

- The density of population of the char villages under study is found to be comparatively higher. This is having its impact on both the availability of agricultural land as well as on the per-capita availability of food-grain. This to some extent has eroded the advantages of the chars.
- If the composition of families is looked into it would be seen that maximum number of families have members aged below 6 years. As such it is apparent that the percentage of earning members in these families is quite less.
- It is observed that the percentage of unitary family is high in char and a change in the type of families is noticed. This is found to be yet another factor of the small size of holding due to the fragmentation of holding of both agricultural as well as household lands.
- The average size of family is comparatively higher in the char areas. If the block-wise average size of family is looked into it is seen that Barkhetri has an average family size of 8 members to be followed by the other three blocks with 6 members. The population growth rate is also found to high and it is mainly due to illiteracy, lack of family planning and traditional customs being followed in these areas. This can be regarded as an important problem that needs to be looked into.
- As far as holding of land is concerned it is seen that maximum char dwellers are without permanent holding rights. The study shows that the major type of holding is tauzi and eksonia patta. This is one important factor why availing of financial assistance is a problem for the people of these areas
- Literacy rate is very low in char area and the preponderance of illiteracy, ignorance has effected the development of the char areas in spite of the potential that these areas hold.
- As far as the economic status of the people is concerned it is seen that poverty is quite high. The percentage of BPL family is found to be 61.58% in Barkhetri, 67% in Chenga, 67.03% in Mandia and 60% in Barbaradi and this clearly indicates the economic status of the people.
- Economic activities other than agriculture are rarely practiced. Almost 88% of the char dwellers are cultivators and the rest are engaged in poultry, household industry, fishery and business.

- Even though poultry and livestock is reared these are not commercially utilised. Further household industry and other small business too is quite limited in the Chars.
- Healthcare facility is not satisfactory in chars. Even though some health centres are set up these are not found to be sufficient to meet the requirement of the people inhabiting these areas. The facilities available in these centres are not adequate and it is seen that in some places the minimum requirement for first aid too is lacking. Moreover the lack of awareness among the people is also keeping the health status at a low level.
- Transportation network is very poorly developed. Within the chars only a few km of kutch roads are there and It is seen that path frequented more by the people takes the form of roads in the chars. As far as the modes of communication is concerned within the char bullock cart and bicycles are the main mode of transportation and these are used for transportation of agricultural produce as well as for personal use.
- The char areas have also seen the growth of some seeds and fertiliser depots. However the supply of seeds, pesticides and fertiliser is not enough and satisfactory in these areas as the facilities created is not adequate.
- Availability of finance is a problem for the people and the main source of finance is the local moneylenders. The people have to pay a high rate of interest for the money borrowed and as such no improvement could be made in the agricultural sector from these borrowed money.

This is obviously having an effect on the productivity and production of agriculture. The study also looked into the pattern of cultivation in these areas so that a better understanding of these could be made which can aid in the formulation of the action plan. The major findings as to this are as below:

- It is seen that among those who own land major percentage of the cultivators own land of size between 5 to 10 bigha.
- The agricultural sector shows a trend towards unitary pattern of holding and the study reveals that maximum farming families are with unitary holding. As far as holding rights is concerned, majority of the char dwellers are without holding right. In case of those who have holding rights maximum is seen to be having temporary patta.
- For the non-availability of patta, it is seen that the cultivators cannot go for financial assistance from banks and other financial institution, which have held back the improvement in the agricultural practices. As such rural money lender are the main source for availing financial assistance.
- The cultivators are mainly using the traditional method of cultivation and an important fact noticed is that they are found to be using a traditional method of sowing dhumsa and sunguti which fix the nitrogen in the soil thereby increasing the fertility of the land.
- The soil type and texture of the chars is found to be suitable for the crops and vegetables and rabi vegetables are cultivated in a large quantity, occupying major area of the cultivated land during this season.
- During the kharif season, major percentage of cultivated land is under rice and jute. The cultivation of vegetables during this season is quite less.
- Though 75 to 80 percent of land is under crops, maximum percentage of land is kept fallow during July to September due to flood waters, which is found to be more than 70%.
- The people are not much aware of aromatic and medicinal crops though some traditionally grown medicinal plants are used. Practice of medicinal and aromatic plantation as such is rare inspite of having large scope for it.
- Though shallow tube well is found to be having wide utilization, 65% of the cultivators are found to be depending on rainwater. It is seen that the assistance provided by the government in the form of subsidy has helped the farmers to procure shallow tube wells. However the high cost of fuel is found to be the major reason for the low utilization of these facilities.

- The cultivators are found to be having very limited knowledge about the uses of chemical fertilizer and for this they mainly depend on the shopkeepers with very little assistance from concerned departments. The uses of organic fertilizers have decreased even though these have their positive qualities.
- Though arrangement for supply of seeds, fertilizer and pesticides have been made this is not found to be satisfactory as these are in most occasions not supplied in time.
- As far as supports sought are concerned, marketing support, finance and supply of improved varieties of seeds are found to be the major support, which the cultivators of these areas require.

In spite of the problems associated with the cultivation it is noticed that the production of particularly rabi vegetables is quite satisfactory leaving a considerable part of the produce as marketable surplus. However the problems related to marketing of the produce have reduced the encouragement level. When looked into this aspect

- Marketing the produces is found to be a major problem for the cultivators of the char areas. This is mainly due to the poor transportation network, lack of a support price, economic condition of the people and storage and other post harvest management facilities.
- Marketable surplus of produces mainly rice is found to be quite less as most of the production is used for domestic consumption. It is seen that more than 80% the rice is used for domestic purpose. However the rabi vegetables are mainly produced for the market and fairly a good production find its way into the market.
- The poor post harvest management and the lack of proper training as well as facilities for the same is one of the important reasons behind the wastage of produces noticed. As such the cultivators cannot market their entire produce.
- As far as the prices of the produces are concerned, the cultivators do not always fetch a reasonable price. The low holding period is one of the reason and within a season itself wide variation in price is noticed for almost all the crops and vegetables. The prices mainly fall during the period of bumper crops or when produces of all cultivators reach the market in later part of the season.
- The cultivators are found to be selling their produces mostly in the local market. The poor communication network is the major factor for this and this is one of the reasons why they fail to fetch a profitable price for the produces.
- It is seen that as in any other areas of the agricultural sector the middleman plays main role in price fixation. The cultivators therefore are at the losing end as they fail to get a good price for their produce.

- No support price for the crops and vegetables in char area, as a result they don't reasonable price.
- Due to the lack of storage facility the cultivators are forced to sell the produces and this is one of the reasons for low profit, wastage of produce etc. The large farmers are found to be earning comparatively higher profit than small and farmer because they can store the non perishable crops for a shod
- Besides the problem of transportation, the cost of marketing is another problem t marketing of produces in the city market where a better price could be fetched. It was found that in the city market the cultivators have to bear some extra charge besides transportation cost, which affects their profit margin.
- Group formation and existence of SHG is not seen, therefore the cultivator don't get advantage of bargaining power. Further the cost of marketing is also high since it is done at the individual level.
- In spite of having considerable potential the char dwellers cannot earn the reasonable profit due to lack of awareness, lack of market information etc. Moreover markets are not well connected from the chars and as such this is an important area that deserves to be given importance.

Therefore it is important that the action plan takes into consideration all these aspects and the problems as well as the strengths and weaknesses are analysed so that the action plan can touch upon the core issues and bring about upliftment in the socio-economic status of the people of the char areas. The study mainly categorized the problems into the following categories based on the analysis of the socio-economic status which the action plan envisages to address:

- ✓ Societal and Demographic Problems
- ✓ Economic and financial Problems
- ✓ Problems of infrastructure development
- ✓ Agriculture production and marketing

The study also analysed the strengths and weaknesses of the areas under study and the following are seen as the major ones along which growth can be planned and measures taken to remove the weaknesses.

***Strengths:***

- The geo-climatic situation of the chars is conducive for cultivation of diverse agricultural crops:
- The soil texture supports the growth of different crops and vegetables besides being conducive for horticultural plantation.
- The climate and rainfall in these areas is supportive to agricultural activity.

**Weakness:**

Food and erosions are the main weaknesses of the chars. Due to this:

- ✓ Cultivable period is small.
- ✓ Land has to be left fallow during monsoons.
- ✓ Damage to crops and wastage is high
- Transport and communication network to the areas are not well developed and linkage to these areas is difficult at times.
  - ✓ The people of the char areas are found to be continuing the traditional crops with no variations.
- Illiteracy of the people is a major weakness as:
  - ✓ • Receptiveness to change is limited.
  - ✓ • Awareness level of the people is less
  - ✓ • Information flow among the people is negligible
  - ✓ • Follow customs and tradition retarding progress

Infrastructure development is not supportive to agriculture and economic development .

- ✓ Permanent risk and uncertainty of the economic activity.

***Marketing network and market intelligence is weak.***

The action plan proposes to address these problems and build on the strengths and tap the opportunities that the chars offer. The Action Plan basically aims at capitalizing on the strength and maximum utilization of the available opportunities so that the economic

development of the people can be ensured. This also prescribes a time bound plan to remove the drawbacks and facilitating the development of the area through requisite intervention in diverse areas, particularly in the area of infrastructure facilities.

The primary emphasis of the Action Plan is to draw the road-map of development through the development of the agriculture sector, the core strength of the area. The plan aims at ensuring a sustainable development of the char villages with a comprehensive approach involving different government departments, organizations and other agencies working for the development of the sectors to be emphasized upon, under the plan. The target of the Action Plan would be to:

- Cover 30% of the villages in the first year, 50% in the second and 20% in the third.
- Around 30% of the households would be targeted to be covered within the three-year period.
- Not more than one member of a family would be covered under the action plan.
- Cover 70% of the cultivable area under HYV and improved variety of seeds during the three-year period.
- Extend farm mechanization to 80% of the cultivable land
- Expand use of fertilizer to 60% of the cultivable land
- Develop infrastructure so that the proposed activities could be adequately developed.

### ***Development of agricultural production***

This is envisaged to be taken up through intervention in the usage of better method of cultivation and high yielding varieties of seeds. The target for the same is as follows:

Villages to be covered	Targeted number of villages	Targeted number of cultivators	Targeted coverage of land area under ( in hectare)		
			HYV	Farm mechanization	Fertilizer
Year-1	42	5630	12901	15166	11060
Year-2	84	4990	12901	15166	11060
Year-3	36	3930	6450	7583	5583

### **Development of infrastructure**

Since this is found to be the major bottleneck in the development process, the action plan lays special emphasis on this and suggests the development of the following infrastructure during the period of the implementation of the action plan.

***Development of cool chambers:***

To cope up with the problem of wastage the action plan proposes the development of low cost cool chambers to store the produces of the cultivators. The initial effort during the three years period is to target and achieve the following:

<b>Year</b>	<b>Total no of villages targeted</b>	<b>Total no of storage facilities</b>
Year-1	80	843
Year-2	120	1264
Year-3	61	633

***Recommendation:***

It is seen that the chars under study, have considerable untapped potential, which needs to be utilised to bring about a change in the economic status of the people of the areas. However it is important that the major hurdles in the development process are removed so that the pace of development could be accelerated. Based on the s of the areas under study and the prospect of economic growth reflected by the s and opportunities, the study comes out with the recommendations as below:

A time bound Action Plan for development of the socio-economic status of the people of the char areas is taken up which can bring about the socio-economic development of these areas. This should incorporate all intervention measures as:

- Training on awareness, motivation and skill development
- Development of consciousness on health and hygiene
- Development of the requisite infrastructure in terms of better connectivity market infrastructure and storage facilities
- Developing linkages for market development
- Offering financial assistance
- Periodic monitoring and counseling to ensure proper development

The Action plan needs to put emphasis on activities, which have potential but have not been properly utilised as well as improvement in those activities, which are being carried out but deserve special attention. Some of such measures could be:

- Bringing about improvement in agricultural practices.
- Using better varieties of seeds and use of pesticides and fertilizers,
- Making provision for irrigation and other farm management
- Taking up cultivation of medicinal and aromatic plants.
- Developing fisheries.
- Better utilization of available resources
- Greater thrust on horticultural production and spices.
- Developing of service based enterprises through skill up-gradation

Since it is seen that both production and marketing is a problem as this is done on an individual basis, the study suggests the formation of self-help groups among the people to have a greater impact For this it is suggested that:

- People are identified, selected and groups are formed.
  - Training on group formation and management is provided.
  - Groups are trained to take up different active
- It is suggested that to ensure greater reach of the action plan, non-governmental organizations are involved which can carry forward the implementation process and provide constant monitoring and counseling. For this it is suggested that:
- NGOs are either identified or formed for the purpose.
  - These are trained specially on NGO management
  - Equipped fully for providing mentoring services
- A comprehensive effort has to be made by all departments and organizations involved in the development of agro-horticultura and allied activities. For this it is suggested that a Nodal Agency is assigned the responsibility of co-ordinating the role of these departments and organisations and overseeing the implementation.
- Infrastructure development should be given due priority and adequate facilities have to be created. For this, the study suggest sourcing of funds from the following:
  - Existing schemes and projects of different departments and organisations
  - M.P. Local Area Development Fund especially for development of transportation network and market infrastructure.
  - Establishing public-Private partnership to develop infrastructure facilities

It is suggested that the departments and organisations already working for the development of these areas play a more invigorating role and effort in this direction has to be made. Here the constant touch of the extension officers of the related departments can be suggested which could considerably address the problem. Here it is suggested that the beneficiaries are identified properly and the deserving ones are benefited.

