

CHAPTER VIII

8.0 PROBLEMS AND STRATEGIES FOR AGRICULTURAL DEVELOPMENT

8.1. Introduction

The economy of Koch Bihar district is dominated by agrarian activities. About 67% of district's work force is engaged in agriculture. It is a major source of employment in the economy. Being the largest economic activity, agriculture serves as the index of district's economic progress. Other sectors of the economy cannot escape from the impact of the fluctuations in the fortunes of agriculture. Therefore, agriculture has accorded top priority in almost every five-year plan. It has registered quite impressive growth since the mid eighties. However, in spite of all the efforts, agriculture continues to remain, largely, undeveloped and backward.

8.2. Problems of Agriculture

Some of the main features associated with the problems of agriculture in the district are as follows:

8.2.1 Excessive pressure of population:

One of the major causes of backwardness of agriculture in the district is the excessive pressure of population on land. The district shares 3.09% of the state population with just about 3.85% of the total area of the state. The man-land ratio as per 2001 census stands 1:0.83 in the district (in terms of Bigha). It is estimated that out of the total work force of about 909577 people (2001 Census) in the district, about 67% engaged in agricultural sector as cultivators, agricultural labourers and in allied activities. The percentage of cultivators to total workers was 37.45% in 2001, the highest in the state. On the other hand, the percentage of agricultural labourers to total workers was 29.5%, slightly higher than the state. This shows high degree of dependency on agriculture and causes further fragmentation of land holding that in fact prevents improved farm practices and have negative impact.

8.2.2. Stagnation and low productivity

Agricultural stagnation has been a bane of the British rule in India. The Britishers never made any serious efforts to develop the agrarian economy of India. They only brought about some reorganization in this mainly to meet the raw material requirements of their own industry. Further, under the growing pressure of population on one hand and lack of investment on the other, Indian agriculture started showing signs of decay. Productivity in many crops in the district found to be remarkably low in comparison of the other districts of the state and the pattern of land use, the organisation of farming, the tools and implements used are all outmoded thereby persisting stagnation in this sector.

8.2.3 Uneconomic land holdings

Land holdings in the district are very small and uneconomic. Continued process of fragmentation has made the land holding ridiculously small and, in many cases, unfit for cultivation. Moreover, the holdings upon which cultivation is carried on do not provide enough income to the farmers even to meet their basic minimum requirements. Small and marginal peasants dominate the agrarian sector. In fact, the numbers of large holdings as well as area accounted for are very negligible and have steadily declined in the district over the years. In the year 2004-05, 75.53% of the holdings in the district are below 2 hectares covering 95.56% area of the total operated area. This indicates a shocking picture that a large proportion of about 47.9% holdings in 2004-05 are marginal (below 1 hectare) accounting for 35.62% of the total operated area. Another 14% are small holding (1-2 hectare) taking up 39.91% of the total operated area Medium holdings (2-4 hectare) accounted for only 5.75% of the total holdings but covered 19.55% of the operated area. It is also found that large size holdings (> 4 hectare) account for 4.44% of the total number of holdings covering only 4.91% of the operated area.

The average size of holding in the district at present is 0.62 hectare, which is lower than the state average of 0.82 hectare. The size of the holdings will further decrease with the infinite subdivision of the land holdings. The main reason for this sad state of affairs is our inheritance laws. The land belonging to the father has divided among the sons. Such division of plots often accelerates the processes of fragmentation. Different tracts have different levels of fertility are to be distributed accordingly. If there are six tracts, which to be distributed

between two sons, both the sons will get smaller plots of each land tract. In this way, the land holdings become smaller and more fragmented with each passing generation. Subdivision and fragmentation of the holdings is one of the main reason low agricultural productivity and backwardness of the agriculture in the district.

8.2.4 Subsistence nature of agriculture

Since over three-fourths of operational holdings are small and uneconomic and productivity in agriculture is extremely low; the farmers takes to farming more as a way of life rather any commercial or profitable activity. The tiny farms in agriculture are in the nature of subsistence farms because the meager production is insufficient for self-consumption of the cultivators. The district is mainly identified aman paddy crop district i.e. that is to say dominance of food crops in the agricultural scenario is more than the commercial crops. Tobacco and jute important commercial crops do not show substantial increase in terms of area and productivity. Even the share of aman paddy as marketable surplus is not remarkable in comparison with the other districts West Bengal. The production of important commercial crops like potato, jute and other vegetables mainly depends on the exported seeds. The marketing of potato, jute and tobacco is controlled mainly by brokers (middlemen) who are always ready maximizing their own profits not the farmers. As a consequence, farmers are cheated by these brokers and the farmers try to avoid cultivating these crops in additional land. Cold storage facilities are inadequate for potato and other vegetables and farmers normally sell at harvest time to dispose of their produce. Hence, there is a little scope for commercialization or profit oriented production in a large segment of agriculture.

8.2.5. Uncertainties in Monsoon rain

Indian agriculture is aptly described as a gamble of monsoon. In spite of continued expansion in irrigation potential, nearly 70% of area under cultivation is still dependent on rainfall, which is uncertain, erratic and confined to about four months in a year. Any year of bad rains spells disaster to agriculture and brings misery to millions of people engaged in dry areas. Lack of assured irrigation deters agricultural production and restricts the possibility of double or multiple cropping. Irrigation facilities cover only 24.33% (99163 hectare) of the total gross cropped area. Only 39% of the net cropped area (253863 hectares) is under

irrigation in the year 2004-05 which is lower than the state average of 59.21%. As there is no major irrigation projects, cultivators mainly depend on minor irrigation schemes. The existing sources of irrigation in the district are private tanks and wells, deep tube wells, shallow tube wells and river lift pumps.

Therefore, irrigation is a major lacuna to enhance the productivity of different crops in the district. Because only 39% of the net cropped area (99163 hectare) and 24.33% of GCA have been brought under irrigation in 2004-05. It is a matter of grave concern that about 75000 hectare of cultivable land still remain fallow or used for such crops which give low return to the farmers in rabi season mainly due to lack of irrigation facilities.

8.2.6 Inadequacy of fertilisers

Cultivated land in Koch Bihar has been found not properly been manure as cow dung is mostly burnt as fuel. There is a strong prejudice against the use of night soil as manure. Chemical fertilisers are not still within the reach of most of the marginal and small farmers. The N.P.K. ratio of the district is not balanced and is below the ideal level in comparison to national consumption level and state level. The result is that fertility of land has considerably deteriorated and there is agricultural decadence.

8.2.7. Problem of soil erosion

Large tracts of land suffer from soil erosion. The top level of the soil is washed away through rains or floods. Such lands become unfit for cultivation. The evil is especially serious in many blocks of the district. The demand of land is increasing to accommodate the exponential growth of human population to meet the need of non-agricultural land use. The per capita area of gross land is decreasing which is otherwise affected the arable land. To meet the common needs, lands are being over used causing soil exhaustion and degradation of soil status. Further faulty management land resources become susceptible to physical and chemical degradation. On the other hand, eroded soil materials affect the surface water bodies and drainage system increases the stream bank erosion and flood occurrence. The extent of degraded land in non-forest area in the district has been estimated by 12.15% mostly caused by soil erosion and in particular river bank erosion. The river bank erosion is very much pronounced in Raidak, Torsa, Dharla, Gadadhar, Kaljani, Singimari rivers. The villagers viz.

Satgachi, Tetulchera, Maheshmari, Sangarbari, Paglarhat, Mirapara, Paglimari, Singimari, Madankura, Gitaldaha, Narayanganj, Lotefela, Chengmari, Krishnapur, Balabhut, Madhyabalabhut, Jhaukti etc. are mostly affected by flood every year.

8.2.8. Problems of labour

The labour input in agriculture sector is also considered as critical due to its tremendous impact in overall profitability. Unfortunately the cultivators/labourers in the district are less competent than their counterpart in other places mostly due to poor in health vis-à-vis food intake and often fall an easy prey to diseases. They are illiterate, conservative and superstitious. Devoid of any powerful materialistic attitude, they are content with low income and continue to cling with old methods and practices. Little wonder the agricultural labourer of the district is less efficient. The pattern of labor-use in agriculture in respect of family labor and hired labor depends on the size of land holdings that the farmers operate and on the type of farm technology and techniques that they use. The farmers are still obliged to pursue subsistence farming that is retarding not only agricultural productivity but also breeding unemployment and poverty. The genesis of unemployment and poverty ultimately also lead to leave the farmers their villages and gather to maintain the livelihood in the urban areas or to migrate outside the district. It has observed that labourers frequently used to move outside the district for a guarantee of job. As a result scarcity of agricultural labourers often find during the peak time of season.

8.2.9. Problems of capital

The tools and implements used by the farmers are also old and outdated. Improved implements are uncommon. Agricultural machinery is not in use. The cattle of the cultivators are also of poor quality. They are under-fed, suffer from diseases and are, therefore, inefficient. Nor does the cultivator use good varieties of seeds. He is indifferent to quality. Facilities for the provision of rural credit are also defective. The most common agency for the purpose is the moneylender whose methods of money lending are proverbially vicious. Co-operatives and credit societies are not properly developed and also they are not well functioning to help the farmers. It is found that only 20% of the district's total farmers are under agricultural credit facilities mainly provided by the nationalized banks and co-operative societies. Thus majority of farmers suffer from the lack of financing facilities.

8.2.10. Problem of organisation

Agriculture is a seasonal occupation. The cultivator is out of work for about six months in a year. There is no subsidiary industry which might help him in supplementing his income. The marketing of agricultural produce also suffers from manifold defects. The marketing of agricultural produce primarily depends on the flow of its marketable surplus which in turn, depends on a number of factors, such as the size of operational holdings, productivity of land per hectare, family size, socio-economic necessities and obligations, types of crops grown. However, of all these factors, the size of operational holdings that the farmers cultivate is the most significant in determining the flow of marketable surplus. The cultivator receives not more than half of the price of the agricultural produce paid by the consumer. The poor unorganized cultivators with small quantity of products are helpless amongst the powerful organized traders. The cultivators do not get the competitive and remunerative price for their products due to unlawful deductions and cuts, arbitrary grading, lesser bargaining power and other malpractices adopted by the traders.

8.2.11. Low Degree of mechanisation

Large-scale use of machinery and power in agriculture has been a major contributing factor to higher productivity, high farm incomes and higher living standards of rural population in advanced countries like the USA, Canada, Australia and New Zealand. However, in agriculture of Koch Bihar district, use of machinery is extremely limited. On the average, there are 430 wooden ploughs per 10000 farmers while only 10 steel plough per 10000 farmers in the district. The density of wooden plough in Koch Bihar was 33 per sq. km. in 2005 in compare to 21 of the state of West Bengal. Every 10000 farmers have 14 wheel hoes and 33 chaff cutters operated manually. It is observed that the farmers of the district have to share some of their agricultural implements with others, which indicate that they do not possess the implements that further demonstrate their socio-economic backwardness. Number of modern implements like tractor and power tiller is insignificant, although the numbers have been increased marginally during the last two decades. It is noted that every 10000 farmers possess only 2 and 1 tractor and power tiller respectively. On the other hand, every 10000 farmers have 51 manually operated sprayer duster. There is a significant increase in the diesel pump sets which accounts for every 10000 farmers having 67 machines. It is needless to say that all such modern implements like agricultural tractors, diesel pump sets,

electric pump sets, and sprayer dusters are mostly owned by rich farmers in the district. The number of tractors and diesel pump sets in the district is one of the lowest in comparison of the other districts of West Bengal.

Small size of farms, surplus of human and cattle population and scarcity of finances have all inhibited the use of mechanical methods in agriculture. Consequently, the farm productivity and rural incomes have remained extremely low contributing to backwardness in the district's agriculture.

8.2.12. Problem of transport

Koch Bihar district is not well developed from the viewpoint of transport facilities. Excepting some main roads, the district has no good all weather roads. The district is interwoven with a number of rivers and rivulets. Villages are not well connected throughout the year. The existing roads are bridged at frequent intervals. These bridges are mostly of wooden structure and cannot be expected to cope with wrath of hilly rivers, especially in the rainy season. Every year during rainy season, a number of bridges in the district washed away due to flush flood causing disruption of the transport system. The total length of total roads was 3457.8 km in 2005 out of which 53% was un-surfaced. Railways are also quite inadequate in the district. The total length of railway track in the district was only 127 km. The villagers or *Fariahs* carry the produce from the fields to the village markets or hats or storehouse of the *Aratdars* (middlemen) by bullock carts, rickshaw vans, handcarts and by head loads. Of these bullock carts are the prime means of transport by which commodities carried to the village markets and nearest hat (50%) and 30% by rickshaw vans and the rest 20% are mainly pulled by either by head load or with the help of *Bankua*. Hence, the interaction between the rural and urban centers due to lack of efficient road and railway network within the district is not significant. Absence or inadequacy of roads and railways is responsible for non-utilisation of the agricultural and other resources in rural areas. There is considerable scope for improving the link roads around a market.

It is thus clear that agricultural backwardness in the district is not attributable to any one single factor. It is the collective and the cumulative result of several defects prevalent in agricultural land, labour, capital and organisation.

8.3. Strategies for Agricultural Development

Koch Bihar district has identified as low productivity agriculture areas in West Bengal. In order to improve agricultural productivity of Koch Bihar district for overall agricultural development it is necessary to take some comprehensive measures. The measures should be taken based on the preliminary works undertaken like Bench Mark survey, site visit, identification of the appropriate problems and necessary discussions with the farmers to fulfill the objective of overall development of the agricultural sector of the district. This approach actually needs the following corrective measures:

8.3.1. Infrastructural improvement

The importance of infrastructure in agriculture is well accepted. Adequate infrastructure leads to agricultural expansion by increasing yields farmers access to markets and availability of institutional finance. Therefore, provision of adequate and quality infrastructure in rural areas is necessary for increasing the productivity and efficiency of agriculture. The following approaches actually need to improve the infrastructural facilities in the district:

- In order to ensure better crop and water management among the farmers and to teach better crop management, the agricultural extension service should be expanded. The role of extension service is not only to introduce farmers to newer inputs but more importantly to educate them about crops which can fit in to an intensive rotation resulting in the increase of cropping intensity and hence overall agricultural production. The extension worker should play the appropriate role between the farmers and institutional research.
- Agricultural marketing credit should be immediately provided to the farmers.
- To provide storage facility for the vegetable items multistoried storage facilities immediately should be arranged.
- Road construction and networking should be enhanced.

- Self help group formation is urgently recommended.
- Co-operative marketing facilities should be introduced.
- Co-operative societies should be strengthened for the benefits of the farmers.
- Multipurpose cold storage should be immediately set up in different part of the district to minimize the market glut of vegetables.
- Timely availability of credit loans from bank and supply of inputs to the farmers in time should be assured.
- Understanding the availability of the source of capital for cultivation of crops.
- Out of total 25000 hectare of vegetable area, cabbage and cauliflower alone occupy 1300 hectare. Every year during peak season market glut forced cattle grazing. If refrigerated transport facility can be made possible, it can be easily sent to distant market profitably.
- Poor recovery of credit demoralized the society / bank to set up fresh finance in the fear of further accumulations of non-performing assets, which naturally affects smooth implementation of district credit plan. This situation can be resorted out largely with better coordination between societies and government departments.
- The district has wide scope for vegetable marketing specially tomato, chilli, cauliflower and cabbage by rail and road transport.

8.3.2. Farm modernization

It is observed that the scope for increasing agricultural production to match rising population, with the existing technology, is difficult. As the net cropped area at 75.91% of the reporting area is the saturation level, the scope of addition of reporting area in to the net cropped area is almost closed and, therefore, the future increase in food production must come from increase in yield and cropping intensity. Hence, the following modernization methods are urgently needed to gear up the present agricultural pattern in the district:

- Awareness among the farmers for higher production technology.
- Meeting with the farmers on regular basis for the introduction of new technology in the agricultural practices.
- Converting traditional seed varieties to HYVs.
- Necessary extensive training cum demonstration programmes to the farmers in time.
- There is always a scarcity of fertilizers in this district during Rabi season. The one and only complex fertilizer producing factory is located at Dinhata, which is not sufficient to meet up the demand. Always the farmers of this district depend on import of fertilizer from outside unscrupulous fertilizer dealers always take the opportunity of this situation. Total amount of N P K fertilizer consumption in the district was 67,806 MT in 2004-05.

8.3.3. Land management vis-à-vis land use control

The district is drained by many fast flowing rivers such as Sankosh, Raidak, Gadadhar, Kaljani, Torsa, Tista and their tributaries. These rivers often have a tendency to deposit debris in their beds which cause flooding and problems of river bank erosion. As a result, periodical inundation occurs over a large agricultural lands damaging agricultural crops and creating agricultural lands unfit for agriculture by sand deposition. In addition to these, as soils of the district are mostly of coarser texture of sandy loam and silty loam, subject to frequent erosion hazards. This situation demands comprehensive measures for soil and land development to increase agricultural productivity of the district. The following measures are recommended for this approach:

- Adequate consciousness about the soil status among the farming communities.
- Providing comprehensive action plan for agricultural practices.
- Understanding and proper follow up of the existing management practices.

- Correction of soil acidity with application of dolomite and organic manures. Soil conservation measures should be implemented for reducing soil erosion. For improving the overall soil health *Dhanaicha* and Cow-pea crops can be cultivated extensively in the field.
- 74.9% of the total cultivable soil of the district has been classified as light textured and as the annual rainfall of this district is quite high (2500-3000 mm) the soils of Koch Bihar are very much prone to erosion. To prevent loss of top soil, soil conservation measure needs further strengthening.

8.3.4. Environmental measures

In order to increase the production and productivity of various crops, the farmers indiscriminately use chemical fertilisers, pesticides, herbicides in their fields. The application of these along with other high cost inputs has undoubtedly increased the production but there is growing concern over the adverse effects of the use of chemicals on soil productivity and environment quality. This calls for effective agricultural strategy in the district and recommends the following measures:

- The indiscriminate use of chemical fertilisers and pesticides should be discouraged.
- The concept of organic cultivation for larger market base and high price may be popularized which will eventually help in propagating the integrated nutrient system.
- Location specific alternative land uses shall be identified and popularized for adoption in marginal lands as well as the lands under the fragile ecosystems. Depending on the situations, these land uses may be agri-horticulture, agro-forestry, silvi-pastures.
- Incentives for production of good quality organic manure, bio-pesticides, bio-fertilisers and green manures may be strengthened.

8.3.5. Sustainable surface water based Irrigation

- Comprehensive watershed development programme should be started in this region to prevent land degradation.

- Rainwater harvesting using traditional method for irrigation in the agriculture fields should be popularized among the farmers.
- Farmers should avoid one time flood irrigation in their fields and instead should give more number of irrigation at intervals of higher output.

8.3.6 Restructuring of cropping pattern

- Determination and identification of specific problem faced by the farmer in the production of various crops.
- Identification of limitations in farming with assured productivity of crops.
- To reduce dependency on Aman paddy diversification of crops should be given utmost priority. Keeping self-sufficiency in clean rice production emphasis given on increase in area under wheat, oilseeds and pulse crops.
- To increase the productivity of Aman paddy and wheat certified seed should be used during sowing. It has proposed to bring at least 50% of seed under seed treatment programme. In the case of wheat, use of quality seed, timely sowing, maintenance of optimum plant population, nutrient management including Boron are the main point to be looked into. At present only two-variety viz. Sonalika and PBW-343 are under cultivation as other varieties prevailing found unsuitable. Additional new variety should be evolved for this district.
- Attention should be given for expansion of area under wheat, maize, pulses and oilseeds.
- Jute is the predominant pre-kharif crop (55,000 ha.) of Koch Bihar. A considerable portion of family engaged in jute growing being utilized for diversified purpose. In Koch Bihar II at Chakchaka , one processing unit now producing a range of product namely rope, certain, Hessian etc. this small scale industry can be given special encouragement.

- Area increment under pulses and oilseeds will be possible by way of release of land after the harvest of short duration HYV Aman paddy.
- Field performance of recommended varieties for pulses suitable for this district is not satisfactory. It should be taken in research programme of KVK/SAU.
- Besides this, timely sowing, better micronutrient and need based plant protection should be the thrust for increase of pulse and oilseed productivity and production.
- Jute based industry should be set up immediately to save the jute growers.
- The district has wide scope for vegetable marketing specially tomato, chilli, cauliflower and cabbage by rail and road transport.
- Out of total 25000 hectare of vegetable area, cabbage and cauliflower alone occupy 1300 hectare. Every year during peak season market glut forced cattle grazing. If refrigerated transport facility can be made possible, it can be easily sent to distant market profitably.
- Cattle contribute a part of income to the farming community. However, due to lack of awareness among the farmers, less attention has given to organized fodder production. A significant portion of cultivable waste land (4333 ha) and homestead land (23,785 ha) can be utilized for fodder production (Hybrid Napier, Oat, Maize to feed large number (9,35,899) of cattle population.

8.4 Conclusion

Koch Bihar district is predominantly an agricultural district. The present study is a humble endeavor in analysis of agricultural land use pattern in the Koch Bihar district at block level. This attempt helps to understand the nature of cropping pattern for proper and efficient land use to meet the demand of food for the increasing population in the district and to identify the agricultural regions for future planning.

The study reveals that during the period of 25 years, paddy is the principal crop of the district. *Aus* paddy cultivation has drastically declined in its percentage coverage

replacing by *boro* cultivation. In spite of being the staple food, rice has placed in the loser side. Crops like wheat and maize, oilseeds are claiming increasing more acreage. Cash crops like vegetables and potato are gradually gaining significant position while tobacco cultivation is losing the ground. The increase in net sown area and area sown more than once both have profoundly positive changed on the increased acreage. The cropping pattern is lop-sided in the case of jute and pulses. As the number of marginal farmers and agricultural labourers forms the largest proportion of farming community co-operative societies should be strengthen for micro financing. Farmers often choose the cropping pattern keeping in mind the imperative of insuring against bad seasons and hence ready to dispose towards limited diversification. The modern agrarian inputs have been an influential component in the consideration of cropping pattern. The traditional crop group as food crops as well as commercial crops has changed and cultivation of some of the food crops has become commercial in the wave of modern farming inputs. Small farmers grow commercial crops only after meeting their food grains requirement except vegetables as it help to earn cash money for maintaining their daily requirements.

While considering the trend of production of rice it remarkably noted for surplus production. Production of wheat is quite merger which reflected the scenario of whole of West Bengal. Production fluctuated mainly due to erratic monsoon. Similarly, the target for pulse production is far below the total requirement of the district. In fact, of the view special endeavor can be taken for horizontal expansion of oilseed and pulse production.

There is always a scarcity of fertilizers in this district during *Rabi* season. The only fertilizer producing factory of the district is located at Dinhata, which is not sufficient to meet up the demand. The farmers of the district depend on fertilizer from outside and unscrupulous fertilizer dealers always take the opportunity of this situation. Jute is the predominant pre-*kharif* crop of Koch Bihar. A considerable portion of family engaged in jute growing being utilized for diversified purpose. In Koch Bihar II at Chakchaka, one processing unit now producing a range of product namely rope, curtain, hessian etc. this small scale industry can be given special encouragement.

The farmers are usually bound to sell their agricultural produce to village traders and moneylenders. They often sell their produce in hats or bazaars to the local mahajans (*Pykars*) and *aratars*. Every year during peak season market glut forced cattle grazing. If refrigerated

transport facility be made possible, it can be easily sent to distant market profitably. There is need for a guaranteed supply of credit, particularly to small farmers. However, poor recovery of credit demoralized the society/bank to set up fresh finance in the fear of further accumulations of non-performing assets, which naturally affects smooth implementation of district credit plan. This situation can be resorted out largely with better coordination between societies and government departments. Cattle contribute a part of income to the farming community. However due to lack of awareness among the farmers, less attention has been given to organized fodder production. A significant portion of cultivable waste land and homestead land can be utilized for fodder production (Hybrid Napier, Oat, Maize) to feed a gigantic number of cattle population.

As the annual rainfall of this district is quite high, the soils of Koch Bihar are very much prone to erosion. To prevent loss of top soil, soil conservation measure needs further strengthening. Correction of soil acidity with dolomite and organic manures and soil conservation works should be implemented for reducing soil erosion.

While fixing up vision for next five years primary thrust has been placed for economic development of farming community. To reduce dependency on *Aman* paddy, diversification of crops should be of utmost priority. Keeping self-sufficiency in clean rice production emphasis given on increase in area under wheat, oilseeds & pulse crop. To increase the productivity of *Aman* paddy and wheat certified seed should be used during sowing. It is proposed to bring about 50% seed under seed treatment programme. In the case of wheat, use of quality seed, timely sowing, maintenance of optimum plant population, nutrient management including Boron are the main point to be looked into. At present only two-variety viz. Sonalika and PBW-343 are under cultivation as other varieties prevailing found unsuitable. Sincere efforts shall be taken to evolve and introduce new variety of paddy.

Area increment under pulses and oilseeds will be possible by way of release of land after the harvest of short duration HYV *Aman* paddy. Field performance of recommended varieties for pulses suitable for this district is not satisfactory. It should be taken in research programme of KVK/SAU. Besides this, timely sowing, better micronutrient and need based plant protection measures should be the main thrust for increase of pulse and oilseed productivity and production.