CHAPTER VI

FINDINGS AND SUGGESTIONS
6:1 Findings

Sector Review

The horticulture sector has been thoroughly studied in-depth and reviewed. The sector review is divided in two parts, status of horticulture in Mizoram and outcome of field visits, studies and discussions.

The area under horticulture crops has increased from 11,538 ha. in 1987-88 to 22,424 ha. in 1992-93, this is almost double. In 1992-93 fruits covered 10,211 ha., vegetables including root crops (3,151 ha.) 8,354 ha., and spices 3,859 ha. Horticulture crops covered 16.04% of the total cropped area in 1987-88. This has increased to 21.29% in 1992-93. Almost the entire area under vegetables and spices is under perishable crops (excepting dried chillies and turmeric). There are negligible perennial spice crops.

Mizoram accounts for only 4.1% of the area under fruits in the north east region, 1.5% of vegetables and 5.2% of spices. All crops account for only 2.9% of the NER area under these crops. Mizoram therefore has only insignificant contribution in this field.

The yield of horticulture crops is also poor. Productivity of fruits in Mizoram is about 4.28 tonnes per ha. against 8.60 tonnes in the North East. The average all India yield is about 9 tonnes.

As a result of field visits and studies it was found that some additional crops like passion fruit, pear, tung, large cardamom and black pepper could be expanded rapidly. At least 50% of the new coverage should be under high value low volume crops.
Border trade needs special attention. Efforts should be made to enter into practical agreements with Myanmar and Bangladesh for this purpose. At the same time all out efforts be made to integrate the economy of Mizoram with the rest of India in the real and practical sense. Infrastructure required for this purpose be built quickly by Govt of Mizoram and Border Roads Organization, as funds have already been released by Ministry of Commerce and Industry.

Problems, constraints and shortcomings

The horticulture industry in Mizoram is facing serious problems on which account the growers have not been able to take full advantage. These include geographical situation and location of Mizoram very far away from main markets, inadequate technology input, exploitation by middle-men, absence of regular international trade agreement, etc. besides these basic constraints there are several other serious problems in almost all sub sectors of horticulture.

Special package of technology for Mizoram

While using the latest technologies for the modernization of horticulture, the existing land and water resources, which are dwindling, should be used at optimum level. At the same time the set-back which the basic land resources, environment and ecology have received in the recent times should be offset. Thus the exploitation of land resources will be consistent with a marked improvement of soil resources, soil fertility, environment and ecology.

The special technologies to be developed for Mizoram should
include (i) soil and moisture conservation in situ; (ii) planting of vegetative hedges and crops on contour; (iii) stabilization and improvement of soil and environment and ecology (iv) organic farming (or natural farming) and organic tree crop farming.

The implementation of these simple, cheap, replicable and dynamic technologies will revert the soil, land and other natural resources (environment, ecology, etc.) to its original level besides meeting the economic needs of the population. The nature and its habitants will be back to its original relationship.

It has been proposed that about 10% of the 6.31 lakh ha., suitable for horticulture should be brought under horticulture crop by 2015. Because of the geographical situation of Mizoram, major emphasis in the action plan is being on high value low volume durable crops so that post harvest handling, storage and marketing pose least possible problems.

Out of the area of 63,000 ha., it is proposed to cover, fruit and spice crops which are expected to cover 34.3% each (21600 ha.), tung 10% (6300 ha), vegetables 15.9% (10,000 ha) and root crops 5.5% (3500 ha). This includes the existing area of 22424 ha. under all horticulture crops. Thus an additional area of 40,576 ha., will be covered by 2015.

The percentage of area under fruit crops will drop from the existing level of 45.5 to 34.3 in 2015. On the other hand the spices will increase from 17.2% (1992) to 34.3%. As in case of fruits, percentage of area under vegetables will decrease from 23.2 (1992) to 15.9 in 2015. Similarly, there will be decrease in percentage terms in case of root crops.

In absolute terms, area under fruit crops will increase from 10211 ha., (1992) to 216,000 ha., and vegetables from 5203 ha., to 10,000 ha. On the other hand, area under spice crops will increase from a mere 3859 ha., to 21,600 ha. Main attempt is to encourage more coverage under high value low volume durable products. About 51% of 63000 ha. should be
brought under durable crops. The present percentage is only 13%.

At present almost the entire 3859 ha. is under annual spices. This pattern is proposed to be changed to durable high volume low volume perennial spice crops like cardamom (large) and black pepper. Both of these will cover 67.6% of the total spice area in 2015. The seasonal spice crops of chilli, turmeric and ginger will also be primarily marketed after drying and dehydration. The sale of fresh spices will be negligible.

The perishable horticulture crops like fruits and vegetables have to be generally sold in fresh form and as such pose serious problems of post harvest handling and marketing. As such the area under these has been kept low. A good part of the production will be required internally. At the end of 2015, fruits and vegetables production may be 172,800 and one lakh tones respectively. Internal needs to meet the basic nutritional requirements will be about 1.03 lakh tones in 2015. The main part of the production of vegetables will be for internal consumption. However, whatever is surplus can be easily marketed with the advanced technologies and facilities being introduced.

Because of the introduction of new land-use pattern or technology the spacing and density of plantations will slightly change. The optimum density for each crop has been given in the text. More trees per unit area will be accommodated. Major emphasis is to have maximum possible bearing surface per unit area.

Total requirements of planting material needs to be estimated and given fruit wise. The planning for procurement and propagation of the planting material should also include seeds, bulbs corms etc., and be made well in advance, say 2-3 years ahead.

The area expansion programs may also include on farm development, establishment of 8000 home and 1200 school gardens and improvement of
existing orchards (1000 ha.) for increasing the productivity and quality of production. Most of the expansion should take place in compact blocks to facilitate the development of horticulture estates.

Organic Horticulture Farming (OHF) may be given special attention as this not only suits the Mizoram conditions admirably well but also is the emerging trend not only in India but also the world over. Successful implementation of this program will result in pride of place and leadership for Mizoram in the country. A combination of livestock and horticulture has been suggested under this component.

Institutional, infrastructural and essential production support inadequacies must be taken care of. Provision be made for the establishment of (i) one variety foundation to serve as a germ plasm bank for the plants of outstanding merit, (ii) three centers of excellence for the demonstration and training of horticulture technology; (iii) on farm technology centers (about 1000 each for new and existing orchards, 1000 vegetables and 200 for floriculture). (iv) substantial training and orientation facilities for the staff and growers; and (v) establishment of labs for soil and tissue and analysis, integrated pest management and post harvest technology.

Some of the crops potentially important for Mizoram have been neglected and ignored so far. These include passion fruit, pear and tung. In fact even perennial spices like cardamom (L) and black pepper have been neglected so far. All these have not been paid the attention they deserve.

Research base is indeed poor. This has to be strengthened. There should be close liaison with the ICAR stations at Barapani and Kolasib. The Govt. of Mizoram should make efforts to remove problems and constraints of the Kolasib station situated in the state and should be
established with the Mizoram University or NEHU, Shillong.

Apiculture needs close attention as it is important for the fruitfulness and yields of many horticulture crops. The extension workers and progressive growers need special encouragement so as to make them dedicated and committed to their duties.

**Marketing and Processing**

Marketing is key to successful farming. So far the marketing facilities did not keep pace with the expansion of production. Modern marketing system is the performance of all business activities involved in the flow of goods and services from initial production point to consumer. This involves about 13 or more stages of handling the perishable produce.

The perishable continue to respire and live even after harvest. Rate of respiration differ under varying conditions. Temperature, humidity and handling conditions at various stages affect the maintenance or deterioration in quality and spoilage. The produce and tissues of each fruit or vegetable (or even flower) must be kept healthy, sound and alive throughout the marketing chain. The growers of Mizoram face serious problems in marketing of their surplus produce. The markets are situated far away, nearest being Silchar, 185 Kms from Aizawl. Silchar is not the main consuming area. It acts as a distribution point to other markets. Similar produce also comes from Tripura and Manipur. There is exploitation by the middlemen due to the absence of organization of the producers and coordination between the producing states.

The modern marketing system recommended takes care of all the shortcomings and problems. It will ensure better prices, reduction in marketing expenses, and spoilage and maintenance of quality. The main
facilities to be introduced are (i) maintenance of garden freshness upto consumer level; (ii) introduction of right packing maturity standards; (iii) application of grading specifications: (iv) establishment of 20 collection and forwarding centers and (v) setting up of two pre-cooling units.

Storage is an integrated part of marketing system. However, cold storage in Mizoram will be very costly. Some space could be hired in Silchar. The efforts should be made to have temporary storage in ventilated air-cooled stores or zero energy stores which are cheap. About 100 kms of link roads have been provided for horticulture wherever production is concentrated and investments on link roads are justified.

Market intervention to prevent crash in prices and manipulation by middlemen has been recommended. This will help in getting fair deal for the period and more scientific and controlled marketing operations. The state does not have any serious problems for crop husbandry and forest based products like Cotton, Sesamum, Teak, Bamboo, Cane and Broomsticks. A well organized marketing is necessary for some of these products like sesamum, cane, bamboo and broomstick. Efforts will be required to be made for direct linkages with the area of consumption.

Sericulture products in itself are a high value, low volume and have a good market if the latest trends in commodities and designs are kept in view.

The role of NEC and NERAMAC has been indicated. Their involvement is necessary and will be useful for the state. Data base for marketing of produce is inadequate and unreliable. It is recommended that The Trade & Commerce check post setup at Vairengte should record all outgoing commodities. The Govt of Mizoram has rightly decided to introduce Mizoram State Agricultural Produce Marketing Act. 1996. Though exhaustive it needs some minor additions to cater to the needs of the horticulture produce in
the state. Aizawl should be developed as a distribution market for fruit and vegetables for the entire country. It should provide facilities to the growers and include their marketing organizations in its board and committees.

Regulations of Silchar market (which serves Mizoram, Tripura, Manipur and others) should be pursued with the Govt. of Assam. A provision for the nomination of growers representatives on its board be made and these should be from the growing/producing states. This will reduce the exploitation of the growers. Govt should be persuaded to help in modernizing Silchar market. Directorate of Agri. Marketing, Govt of India and the National Horticulture Board can play a crucial role in this respect.

Six processing factories (units) have been established in Mizoram. They have not been successful in achieving their objectives. Already the management has changed hands in several cases. The Govt of Mizoram has created MIFCO to manage the processing plants and they seem to have started in the right earnest. A new plant for juice concentrated of passion fruit, pineapple and orange and other allied activities has been installed at Chhingchhip. The project has been prepared by the CFTRI. Mushroom component is being added. The plant also proposes to manufacture single strength juice and squashes. This should be done with caution as such drinks (single strength) may not be economical in the terminal markets outside the state.

In addition to processing plants, community canning service should also be started. It will help in local consumption of fruits, vegetables and their products. Interested persons should be encouraged to set up kiosks for the sale of fresh and processed products. Training of home drying of fruits and vegetables should also be given.
Organization and Management

The present organizational set up of the Directorate of Horticulture does not meet even the technological requirements of the existing horticulture industry, what to talk of the needs of the proposed expanded horticulture industry. A new set up may be proposed which will be efficient and competent enough to meet the requirements of the modern horticulture industry. The new set up may have several important divisions such as (i) Division of Horticulture Technology Development and Extension (ii) Division of Horticulture Planning, Marketing, Economics and Statistics (iii) Horticulture Information Service and should also constitute project steering committee to coordinate and oversee the implementation of the proposed programme.

Implementation schedule

It is necessary to draw up implementation schedule for all the components of the programme to ensure timely action and review of the different activities.

Costs, Returns and Benefits

At the farm level two principal costs are the establishment cost and operational cost. For the four major fruits, establishment cost per ha. work out to be Rs. 12,580 for orange, Rs. 13,800 for passion fruit, Rs. 10,500 for pear and Rs. 12,100 for banana. Operational cost at full bearing work out to be Rs. 6,355 per ha. for orange, Rs. 4,435 for pear and Rs. 4,900 for banana. In addition to the two principal costs allowance is to be made for land rent, depreciation/ interest on fixed and working capital.
Thus, at full bearing the cost for the four fruits viz. orange, passion fruit, pear and banana, work out to be Rs. 8,562, Rs. 6,100 and Rs. 7,197 respectively, as against the fruit-wise costs, returns on production at full bearing at farm gate price give a set of gross return for each fruit. Net returns (gross value minus total cost) per ha. fruit-wise are estimated to be Rs. 21,438 for orange, Rs. 10,865 for passion fruit, Rs 14,900 for pear and Rs 21,803 for banana.

The increased area under horticulture project till 2015 and the technological back-up are likely to result in substantial gain to the farm sector. The increased horticulture production in turn will generate corresponding economic activity in the middle rung (between the farm sector and the consumer) who gain much higher returns than the farm sector. Plantations and vegetative hedges suggested will improve the soil and ecology, increased fruit and vegetable production will improve health standards of the people.

**Special Recommendations**

The package of practices for crops be revised and new crops be suggested. It would be desirable if the write-up is illustrated and is in ‘do yourself form’. The idea is to help the producers to follow the technologies and not for general public consumption.

An evaluation of the ongoing schemes including those which have been completed and closed should be undertaken to find out the extent of success or failure and real impact of the investments. These will provide good guidelines for future. A nursery manual covering all aspects of propagation of all crops be prepared for the guidance of staff and growers. A
modern horticulture museum showing all aspects of progress and plans in future be set up.

A very close liaison, coordination and linkage be established with other NE states particularly those which have common markets for planning production and marketing strategies. Similar contacts be made with regard to NEC and NERAMAC.

It is recommended that a small trade and commerce marketing cell be created in each of the Mizoram House. They should be well trained and efficient people so far as requirements of Mizoram are concerned. A show room may be arranged to display Mizoram products attractively. Because of limited financial resources, it would be advisable to train the staffs of Mizoram Houses in marketing or say in trade and commerce. Additional staff can be posted when the apex marketing organization can afford this.

Studies

Area coverage should be estimated in prescribed format every 5 years. Annual estimates of yields of all important crops and production in respect of each crop be carried out. Study and survey of marketing channels, cost of marketing and returns of all important crops be carried out. This should also include economics of each crop. Market profiles of all important terminal markets for Mizoram product be compiled. A detailed survey be carried out for identification of important herbs and medicinal plants and their potential in Mizoram. New introductions, if required, be suggested.
6:2 Suggestions

An extensive study has been made of the problems and prospects of agricultural marketing in Mizoram with a prelude to the agricultural background of the State, Rice, being the most important crop and the staple food of the people of the State, occupying 85% of the total agricultural produce and 82% of the gross cropped area, the focus of attention has been given more on the production and marketing of this crop. The study leads to the identification of certain peculiar features which will have to be tackled in shaping the future mode of production and the development of a sound and healthy marketing system in the State.

The agricultural background of the State, viewed together, can be summed up under three heads viz., agriculture in the economy, institutional frame and the technological base.

**Agriculture in the Economy:** Agriculture and allied activities are the single largest occupation and the source of livelihood of the people. With 40% of the people depending on it, this sector takes in more than it can absorb leading to overcrowding and unfavourable man-land ratio. What is more important is the existence of a large number of chronically unemployed and underemployed manpower in the sector. Agriculture is important in that it generates a big portion of the State's income and employs more than 77 per cent of the total number of workers. However, this 'importance' also carries within it elements of its 'unimportance' or bottleneck and it is the latter which characterises the agrarian scene in the State at present. In fact, fluctuations in agricultural production and
dependance on other States for most of the essential consumer goods are the two main drawbacks of agriculture in this State.

**The Institutional Frame:** The status of the actual tillers of the soil is largely determined by the pattern of the institutional relations in agriculture which was largely semi-feudal in character in the past. A large number of the tillers hold very small and uneconomic plots of land while a few rich own large plots. Three forms of production relations have been associated with such a system of land ownership-owner cultivators, leaseholders, and share-croppers. It is this high skewness in the land ownership pattern that bares the fact that many cultivators are poor and weak in socio-economic status. From such a system of production relation, there arisen what may be termed the institional dualism i.e., owners who cultivate their own lands and owners who get their lands cultivated by others on leasehold basis or on the basis of sharing the produce. The second category, as it covers the larger part of the cultivated land, is of considerable importance.

**The Technological Dualism:** The existing agrarian structure also displays a technological dualism in respect of the mode of production. Generally, the tenants, small and marginal farmers use family labour for maximising production. They adopt the traditional techniques to the maximum possible extent. The second mode of production is based on wage labour and contract labour by the bigger owner-cultivator. They apply partly the modern techniques and partly the old practices.

Already with these dualisms, agriculture in the State is mainly monocropping in pattern with a sprinkling of old double cropping, resulting
mainly in the dependence of agriculture on the vagaries of the monsoon. Inspite of a number of medium irrigation projects taken up during the plan period (all ongoing schemes), Mizoram has very limited irrigation potential built up so far (and still less extent of utilisation). One result of it is the difficulty in the introduction and application of modern methods of cultivation on a large and commercial scale. Whatever little application is made is also confined to rice mainly and the share of other important agricultural and horticultural crops is lacking for want of adequate water supply through irrigation.

No doubt, there has been considerable progress during the plan period regarding modernisation of agriculture in the State. A breakthrough in agriculture overcoming all these problems, demands a total agrarian reorganisation and reformation, substantial increase in the area under High Yielding Varieties (HYV), per hectare productivity and enhancing the cropping intensity. Similarly, agricultural productivity in Mizoram is not very low, and presumed by many people without proper scrutiny, although there is still room from further improvement.

Mere extension of the area under cultivation will not solve the problem fully unless we increase the per hectare productivity and yield rate of agriculture. For increasing the yield and the productivity of the soil, monsoon agriculture is to be progressively replaced by canal cultivation. A continuous and regular supply of water is the ‘sine que non’ of all successful cultivation. The introduction of modern methods of farming such as the Japanese type and the application of high yielding varieties of seeds with the maximum use of chemical fertilizers and manures, changing the mono-cropping pattern into double and diversified ones,
etc., all depend on the development of irrigation facilities and the generation of regular and timely supply of water in the fields. In this connection, there is considerable scope for improvement in the matter of the slow progress in building up of irrigation potential and the still slower progress in the utilisation of irrigation potential in the State.

Attempts should, therefore, be made to bring more lands under irrigation so that the existing irrigated land can at least catch up with the all-India percentage of 26. The irrigation projects and schemes that have already started construction works should be completed, and commissioned at an early date. Ways and means of constructing other new schemes should also be looked into on a top priority basis.

There is again the problem of huge wastages that results from the poor storage facilities, attack by rate and pests and weevil infestation, etc. The predominance of rice and the singularity in the character of consumption of the people are also responsible for the low marketable surplus of paddy/rice in the State, it is because of the fact that with lack of subsidiary income generating activities, selling the little quantity of paddy lying in the corner of the paddy barns becomes the ultimate resort to meet the various items of current expenditure of the majority of the small and marginal farmers in the State.

In view of the rapid increase in population and a growing number of rural and urban non-manual mouths, there is the urgent and immediate need and importance of increasing the marketable surplus to a larger extent by adopting both intensive and extensive cultivation, regulate and check the concentration of agricultural trade in the bands of only a few traders/profiteers should be taken up by the State Government.
In the study of the pattern of agricultural marketing in the State, there had been the predominance of the middlemen traders and profiteers in the primary as well as secondary stage of marketing. Retailing in individual capacity by the cultivator's womenfolk is the common practice in the village, local and central markets. As these markets are unorganised and unregulated, there is a long chain of middlemen with wide marketing margins, the result of which is reduction in the share of the producers in the sale of their produce and enrichment of the middlemen at the expense of the actual tillers of the soil.

The problem of harvest time gluts is always present in the marketing of vegetables and fruits, the impact of which is to compel the grower-sellers to sell unremuneratively and at a much reduced price. In the absence of cold storages and soundly functioning canning and processing factories, the degree of wastages and the extent of marketing margins will still be wider in the marketing of such perishable commodities. In addition to the harvest time gluts, there is also the problems of market day gluts because of the absence of storage facilities where the unsold stocks can be stored safely at a nominal charge and sold on the next day. This problem is particularly faced by those sellers who come from distant village where there is the inadequacy of transport services.

For avoiding these problems and difficulties, regulation and control of markets is highly called for. Safe and scientific godowns and storage facilities need be constructed and provided both in the villages and in the central markets so that the fear of attacking the seeds by pests and weevil infestations may be avoided and the staying power of the growers may be strengthened. For eradicating the malpractices in the markets leading to the unremunorative selling of the growers'
produce, the Government should encourage the formation and strengthening of co-operative sale societies and producers' co-operatives so that they can bargain remuneratively with the shrewd traders on the one hand and provide pledge loans to the members on the other and in the process, they can postpone the sale of their produce till prices are favourable to them. The Government can also advance crop loans, etc., to these growers on a more extensive basis and thus link credit with marketing and eliminate progressively the role of the middlemen traders for the maximum advantage and welfare of the producer-sellers.

Analyses of agricultural prices in the State reveal the differences in prices unduly from one place to another place and from one commodity to another. The trade in rice and other essential agricultural commodities has been very much centralised and concentrated in the hands of only a few mahajans and private traders with a more or less laissez faire attitude toward its distributional aspects. Of the factors influencing prices, credit position of the farmers and the distance from market centres have had a great force in the mode these factors which lead to the concentration of trade in a few hands, the ultimate result of which is undue fluctuations in prices in the economy.

The general trend of rising prices, in recent years, is further accentuated by blackmarketing and artificial scarcity conditions in the market frequently created by profit-hungry traders and middlemen. Farm harvest prices rise faster than the consumer prices. But the fruit of it is reaped by the profiteering middlemen traders who collect and stock the major quantity of the produce at the time of harvest. The anti-inflationary measures of the Government are ineffective in such circumstances. The result is continued poverty for many in rural areas and hardship for the
majority of the poor consumers. Thus, the combined forces of natural and artificial factors cause dualism in agricultural prices in the State. This dualism, with the already singular character of consumption of the people and the very low elasticity of demand for foodgrains, always works to the disadvantage of the consumers.

In view of the importance of agricultural prices in the State's economy, there is always the need for controlling and checking the spiralling rise in prices and reducing the wide differences in the prices of foodgrains and other agricultural commodities like ginger, chillies, sesame etc. in the State. The Government can stabilise prices and keep them under control, though not fully, by regulating private trade through the procurement of foodgrains and buffer stock operations mostly in the open market.

For collecting maximum quantity and attracting the sellers to its side, the procurement price should be on par with the ruling market prices. This voluntary procurement is a wiser and better policy than the compulsory procurement policy through levy system. But, if the former policy becomes not so effective, the Government can very conveniently adopt the latter policy distribution system through fair price shop must be considerably strengthened extensively as well as intensively in terms of increased coverage - commodity wise, quantum wise and area wise - so as to enable it to play its countervailing role in a really effective manner.

Another weapon of price stabilisation in the hand of the Government is the buffer stock operation. The buffer stock operation consists of both buying and selling practices of the Government according to the prevailing circumstances. Whenever prices tend to fall in the State or in
a particular area or locality, the buffer stock organization should step in and start purchasing maximum quantity at reasonable prices. In the same way, when prices tend to rise, the organisation should sell again at reasonable prices. The vary fact that the Government is in command of agricultural produces may itself act as a strong deterrent against all speculative activities on the part of the private traders, profiteers and middlemen.

The continuous and abrupt rise in the prices of essential commodities, particularly of ginger in recent years, has hit hard the small and marginal farmers, agricultural labourers and the other consumers with small menas.

With the underdeveloped and unsatisfactory nature of financing activities of the institutionalised agencies, the agriculturists borrow heavily from the money lenders and traders generally on the security of the standing crops, and also on the bond of their immovable properties and sometimes, without any security at all.

As they are heavily indebted, when the crops particularly ginger vested, major quantity of the produce is collected by the traders and money lenders. In the event of failing to repay the indebted amount, the cultivators are often compelled to resort to distress sales of their lands and even homesteads. Such cases are not so rare in the State. Because of the predominance of the money lenders and the middlemen both in the primary and in the secondary stages of marketing, when sowing season commences shortly there after, they start borrowing from these non-institutional sources on the terms and conditions described above and the cycle repeats in the next season until they gradually fall into the ranks of the landless agricultural labourers.
For reducing the problems of poverty and indebtedness of the majority of the agriculturists and for saving their lot from the clutches of the money lenders, a faster rate of economic growth coupled with a more equitable distribution is very much essential. And also for removing the hurdles in the marketing of the produce of the petty agriculturists that arise from their indebtedness, emphasis is to be laid on the co-operative solution of the rural problems and intensive measures for integrated rural development.

A clear strategy will have to be evolved to ensure that agriculture receives a very high priority in all policies and programmes. The projected increase in output is expected to result from increase in area under irrigation and high yielding varieties, a substantial increase in the consumption of chemical fertilisers and adoption of a system approach for consolidating the gains already achieved and extending the benefits of the new technology to all categories of farmers. Along with the growth in production, the structure of production will have to be diversified with a view to remedying the imbalance in the relative growth of different crops, in particular by accelaration of the growth rate in the output of pulses and oilseeds, enabling a sustained rise in output and incomes and helping the marketing efforts. All available instruments of policy will have to be geared to ensure that crop production is remunerative to the farmers through adoption of appropriate measures concerning the pricing of agricultural inputs and outputs, arrangements for supply and distribution of inputs, adequacy and timeliness of credit as well as marketing support, intensification of research and extension services.
Agricultural marketing has also been very much influenced and affected by the means of transport and communication available at present in Mizoram. Not only the length of connecting roads is inadequate but their condition is also very deplorable because of poor maintenance and lack of timely repairing and so transportation of agricultural produce over these roads all the year round cannot be done easily. Of the means of transportation of agricultural produce in the villages, bullock carts in the valley and headloads and sledges pulled by buffaloes in the hills are the most common forms. As a result of the topographical difficulties of the hills and poor conditions of the roads, transport cost in the State is one of the highest in the country.

Not to talk of trucks, even wheel carts cannot ply on most of the villages roads due to the steep roads. The slow growth of market towns in Mizoram is mainly due to its transport bottlenecks. This slow growth of market towns again widens the rural-urban gap, But, as we have seen above, the main function of marketing is to narrow down this gap.

Because of the difficult and disadvantageous nature of transporting the agricultural produce, prices vary from one village to another by more than the transport cost. This gives a chance to the middlemen traders and village retail grocers to charge unduly high prices particularly during the rainy lean months. Rich and potential resources are still lying untapped in the far-off and isolated areas of the State for want of the cheap and easy means of transportation. This reduces the marketability of the commodities lying there and that can be grown there productively and people inhabiting in such areas grow only a very limited number of crops they need for their consumption and seed purpose and not more. Thus, transport bottleneck hinders
the development of a sound and healthy system of agricultural marketing in the State.

For a healthy development of agricultural marketing and also to exploit the rich resources of the State, there is always the need for the development of a well-connected road transport system in Mizoram. The socio-economic life in Mizoram is such that not only is Aizawl the heart of the State but is the hub of all economic activities also and as such the importance of connecting different places in the periphery with Aizawl cannot be over-emphasised. Moreover, decentralisation of administration and planning at the grass-root level also requires a good road communication network. So, measures for road development on a war footing are the immediate need of the moment.

The approach of the Government in the field of road transport and communication should be two-fold. The first one is opening of a number of new areas through construction of new roads and the second one is a phased programme. More village roads are required to be constructed so that they can be connected with the motorable points for the easy transportation of the produce available there. New road construction activities are to be linked more closely to the various productive programme that will be undertaken for economic development in the various sectors.

In view of the fact that economically Mizoram is the most underdeveloped of the States in India, it is imperative that the all-India norm of linking up all villages with a population of 15000 or more and 50 per cent of other villages in the population group 1000-1500 by all-weather roads should be considerably relaxed in respect of this State under the Minumum Needs Programme.
Side by side, with the opening of as many as new roads as possible, a phased programme of strengthening and improvement of the conditions of the existing roads will also have to be taken up. The missing, broken and weak bridges and culverts are to be constructed and replaced. Regular and timely repair and reconstruction works should be taken up in relation to both the newly opened village approach roads and the old link roads so that they can be in the service of the people all the year round production and marketing of agricultural produce may not suffer from want of a proper transport system in future in the States.

Apart from quantity, quality is also an important factor to be kept in view. It is common knowledge that the crust of even the State Highways and major district roads in Mizoram are at present not adequate to bear the intensity of the traffic. A phased programme of strengthening these and all other kinds of road in the State is, therefore, very much called for apart from extension of the road transport network in new areas.

Agricultural marketing in Mizoram still suffers a lot from the medley use of weights and measures. There is still the maximum use of local dry measures with the evil custom of extra payment. This system always results in the disadvantage of the grower-sellers. The ill-informed and simple village sellers fail to bargain remuneratively with the well-equipped and shrewd traders who use various measures of varying contents. Under the practice of using bigger measures when buying and smaller measures when selling, the majority of the grower sellers face the inescapable problem of double loss - selling at a bigger measure when prices are low in the early part of the season and buying it at a smaller measure when prices are higher during the sowing and rainy lean months.
Even when correct weights are used, the profiteer traders use various devices to cheat in weighing and thus enhance their profit margins at the expense of the poor and needy producer-sellers and consumer-buyers. One of the most disadvantageous characters of the multiplicity in the use of weights and measures is the failure to sell at a correct price with a correct measure. This results in great handicaps in the collection of data on price movements, the study of relative levels of prices in different markets, the estimation of the volume of agricultural production, etc., and thus it seriously affects the accuracy of statistical calculations in the State. It is the weak and the inefficient enforcing machinery of the standard weights and measures of the Government and the costly nature of these measures that result in the medley practice of using the still familiar traditional and time honoured dry measures at large. Rooting out and doing away with the use of such traditional time-honoured measures from the marketing scene without public consciousness and cooperation is not an easy task on the part of the Government. However, in view of the disadvantageous character of these measures, the Government should adopt all possible measures and find ways and means for the early stoppage of the fraudulent malpractices in weights and measures.

For popularising the use of the standard weights and measures, the Government with its Weights and Measures Wing of Food & Civil Supplies Department must plan to provide enough and as many numbers of these measures at cheap and reasonable prices in every nook and corner of the State. Hardly 3 percent of the families in a village of 100 households have such units of measurement at present. The existing number of inspectorial and enforcing units should be increased. In
areas where there are notified market towns, the market committees should be empowered to check and supervise the units of measure used in these markets. It will be very effective and successful to train the elected members of the village council etc., about the benefits of the use of the Metric System of Weights and Measures and propagate and adopt it in the villages concerned. The Block personnel such as the Village Level Workers, The Village Council Secretaries, and other voluntary organisations like YMA, MHIP, MUP etc., also can do a lot in this direction. Measures can also be taken up to supply Metric Weights and Measures and install weight bridges in the villages through the registered clubs, the village authorities, etc., so that the grower-sellers can weight their produce before taking it to sell either in the village or in the market and thus they can evade weight cheating of any sort. But the success of these measures lies on the strict enforcement of the new system with serious legal punishment by the Government and the willing acceptance and cooperation of the people.

The organisation and development of marketing cooperatives - the grand panacea for protecting the interest of the small producers and saving them from the evils of the unhealthy trade practices are very slow and unsatisfactory. The working or functioning of the few marketing co-operatives existing at present is also very weak, passive and indirect. In fact, these few societies are dominated, controlled and handled by only a handful of elite, rural rich and educated personnel. They hardly work in the true spirit of cooperation except running and manipulating some file work so that they may get loans, share capital from the Government, etc., and use the society as a tool for their own personal enrichment.
Not to talk of the small and subordinate marketing co-operative scattered in the far and near areas of the State, even the Apex Marketing Society situated in the heart of the capital city, failed to function properly and discharge the works of purchasing, processing, grading, storing and procuring the product of its members as well as the products of other producers except dealing in Management of Super Market and sale of POL, LPG etc.

Political elements of neglect and pressure in the representation of the Board of Directors and working of the Agricultural and Horticultural Marketing Cooperatives often act as an obstacle to the smooth functioning and development of marketing cooperatives in Mizoram. The supply of power is not only inadequate but also very irregular.

Hardly one per cent of the total agricultural produce is marketed through the co-operative sector as against the 70 to 80 per cent in some western state like Maharashtra, Haryana, Punjab, Gujarat, etc. As a result of this slow growth of marketing co-operatives and the poor performance of the existing ones, the majority of the producers and consumers are still falling into the environ of the greedy private trader and thus they cannot escape from the intricaciones of the existing marketing system.

The grower-sellers ought to be very conscious of the evils caused to them by the existing unorganised and unregulated nature of marketing of their produce. The only way they can defend themselves from these evils is selling their produce through the regulated markets and the marketing co-operatives. As the former is absent in the State, they are to adopt the latter. The organization of marketing and sale societies should make rapid progress. For the smooth and rapid development of
co-operative marketing in the State, the following suggestions may be offered:

(i) There should be easy terms and conditions of registration of such societies. Registration Offices should also be increased by opening branches in the remote areas also so that the prospective growers can form and register the co-operatives with less difficulty of coming to Aizawl.

(ii) The Government should give special interest and take special measures to popularities the growersellers - particularly the small and marginal ones to join the co-operatives and sell through the co-operatives for their maximum returns and benefits.

(iii) For covering as many commodities as possible by the co-operatives, as many villages and producing areas as possible should also be covered by such sale societies and the existing credit societies in the rural areas should be linked with such marketing societies so that they may not fall into the hands of the traders and profiteers for want of credit.

(iv) Marketing co-operatives should be encouraged and incentives may be given in such a way that the purchase of agricultural and horticultural products by the Government for its various uses should be made from the co-operatives at a little higher price than the ruling market prices and in the process the individual grower-sellers would be attracted to join the societies and sell their produce through the co-operatives.
(v) Regular training of a short duration in co-operation of the growers will also be very helpful and effective in the development of marketing co-operatives. A first hand knowledge of co-operation and the present rural economy of Mizoram will create an atmosphere of better management and organisation of such societies in future.

(vi) There should not be favouritism or nepotism either in management or in the representation of members or in the grant of loans or in sharing the profits and responsibilities. Political pulls and pushes should be kept away. ‘Honesty is the best policy’ is to be the principle of the office bearers of such societies. Otherwise, such co-operatives organised in the name and interest of the participating members will become a tool and a source of benefit of only a few previledged classes and the rural rich section.

Frequent inspections of such co-operatives by the presonnal of the Registrar of Co-operative Societies will prove effective. Matters of mismanagement of funds, violation of the rules of Registration of Societies, differences of opinion among the members, etc. can be settled promptly and in an amicable way. And in the process, the members, particularly the managing body, may be warned against the repetition of such unwanted practices in future and be advised to work with a sense of oneness and discipline to get all the benefits of marketing thorough co-operatives.

Under the existing situation of agricultural marketing in the State, though the role of the State Government is great indeed and its participation is highly called for from various points of view as discussed above, the share of the ‘Government in this field at present is very minimum,
almost negligible and indirect, too. The Government can certainly play a more effective role in the matter.

The organistaion and institution of regulated markets are still under shadow. There is the repeated question of the feasibility of setting up regulated markets wherever necessary in the State by the Directorate of Marketing and Inspection, Government of India. There is nothing of any sort of regulated markets for agricultural products except supplying an almost negligible quantity of rice, sugar, atta, etc., through what is known as the Public Distribution System.

And hence, even if there is a bright prospect of increasing the marketability of agricultural resources in the State, so long as the role of the Government is passive and indirect, the existing defective system of agricultural marketing will still continue resulting in the instability of the agrarian economy as a whole.

In view of the importance of marketing of agricultural produce in the economic life of the people and also as a part of the development effort of the Government, it is incumbent on the part of the Government to put agricultural marketing on heal their lines and remove the highly chaotic conditions that exist at present in the marketing of our agricultural commodities.

The first and foremost thing that the Government ought to do is to procure and stock enough foodgrains at the time of the main harvest. The procurement price should be on the basis of the ruling market price otherwise the small and marginal producers who retail their produce for meeting their various cash requirements will prefer selling their produce in the open market rather than selling to the Government. Strengthening the public distribution system is a must for the success
of the price support operations of the Government. As for other agricultural produces like ginger, chillies etc. the Government interference should be only at fixation of floor rates, price support, transport subsidy etc.

Marketing sheds of both pucca and kutcha types should be constructed as sufficiently as possible so that the majority of the sellers without roofs can protect themselves from the sun, rain, etc. Arrangements for the construction of adequate storage and warehousing facilities should be made in the immediate future to protect the interest of the grower sellers who come from distant villages. In the process, the Government can earn extra incomes also.

Stringent measures should be taken up to control the anti-social activities of the hoarders and profits. Prices fixed by the Government should be enforced properly. The standards of Weights and Measures should be implemented effectively. Adequate road network to be provided and constructed for the commercial exploitation and easy transportation of the agricultural produce. Increasing number of distributing agents and fair price shops should be appointed and opened particularly in the far-flung rural areas. Strict legal punishments are suggested against the disobedience and any violation of the government measures and policies. Over and above all these measures, the setting up of regulated markets and the formation of increasing numbers of co-operative marketing societies will be the cornerstone for the ultimate success of agricultural marketing in the State.

To conclude, in an agricultural State like Mizoram where markets are yet to be regulated properly nor a development system of co-operative marketing and agriculture is not commercialised, besides providing infra-structures for the development of agricultural marketing, there is
need for greater strategic Government indirect interventions by providing facilities to the traders from time to time in the field of agricultural marketing than so far. In this direction, the Government has still to do a lot before the problem can be solved and agricultural marketing can proceed along the right line.

The main thrust will have to be on popularisation of the regulated markets system in terms of both more markets and more commodities to be brought with in the regulations; strengthening and streamlining of the arrangement for enforcement and inspection to ensure a regulated system of open auctions, trading practices and margins of intermediaries and establishment of rural markets in areas where such facility is not available within a reasonable distance. Particular emphasis will have to be given on bringing within the fold of regulation as many of the primary markets as possible. Establishment and development of new rural markets on a sufficiently wide spread basis is of particular importance to the small producer sellers who cannot go to the distant market town for want of available marketable surplus and is obliged to sell his produce at lower prices to the local traders. Though the legal framework has already been provided through the Weights and Measures Act. These acts and rules have yet to be properly implemented to ensure fair trade practices on a reasonable degree of price discipline. The aim should be to establish a marketing system which can protect the interests of both producers and consumers. Such a system of agricultural marketing must have three essential elements, viz. (a) a suitable structure of support prices for various agricultural commodities, adjustment from time to time in the light of the changing cost of production with view to ensuring fair minimum price to the primary
producers; (b) adequate arrangements for procurement of agricultural produce at support prices if the market prices fall below that level; and (c) an extensive and regulated infrastructure of marketing which will ensure fair minimum prices to the producers in open market conditions and eliminate or at least reduce the non-functional marketing margins of intermediaries.