CHAPTER VI

PROBLEMS AND CHALLENGES IN GINGER CULTIVATION
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6.0. INTRODUCTION

Lower Dibang Valley and Lohit are traditionally agro-horticultural districts due to its unique agro-climatic condition which permits growing of wide range of crops and horticultural products like rice, maize, oilseeds, pulses, ginger, oranges, jack fruits, peels and pineapple etc.. The study area has occupied first rank in production of maize, oilseeds and ginger in the entire state. As per records, the study area has more than 4000 hectares under commercial ginger cultivation and produced more than 35,000 metric tons of ginger during the year 2007-08\textsuperscript{17}.

Despite having been occupied first slot in production of ginger in the entire state, ginger cultivation and its marketing in the study area is not free from problems. Infact, it has got many nightmares to overcome. Present study has revealed many challenges pertaining to ginger cultivation and its marketing in the study area that require immediate attentions and solutions thereof. Problems are of both man-made and non man-made in character. In order to understand the various problems associated with production and marketing of ginger, a logical study with an extensive coverage of 200 sample ginger cultivators have been made with a structured questionnaire. As per the information collected from sample ginger cultivators, an attempt has been made in this chapter to discuss various problems and challenges faced by ginger cultivators in the study area.

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Production of ginger in the study area would have been better in absence of these problems. These problems have to be properly addressed and redressed if the study area has to represent North East Region of India in particular and India in general in terms of both volume of production and quality of ginger. Problems being gravely encountered by ginger growers in the study area basically start with growers’ ‘mindsets’ to ‘machines’ being used by them. Some of the prominent bottlenecks associated with ginger cultivation and its marketing in the study area are thrashed out as follows.

6.1. FINANCE PROBLEMS

The inadequacy of finance is one of the major problems being faced by the most farmers. Generally, there are two sources of credit available to the farmers- institutional and non-institutional. Institutional source of finance refers to loans and subsidy provided to farmers by co-operative societies and co-operative banks and commercial banks including Regional Rural Banks and through other sources of finance of recent origin like, Micro-finance, Kissan Credit Cards etc. Non-institutional or private sources of finance include moneylenders, traders and commission agents, relatives and landlords etc. It is revealed that only eight percent of sample ginger cultivators have taken institutional sources of finance which exhibit its poor performance in the study area.

However, non-institutional finance account for 92 percent in which own capital and borrowings from relatives share 73 percent and seven percent respectively. It is also remarkable to note that the relative has been the next major source of finance for commercial ginger cultivation. Co-operative bank and State Bank of India account for only five percent and three percent of institutional source of finance. It is distressing that the Regional Rural Banks and other group of formal financing institutions
had zero participation in financing ginger cultivation and its marketing in the study area. There is no scheme to provide soft loan to the ginger growers by commercial bank in the study area. Poor banking habits and low education of the most ginger growers may be the reason for poor contribution of Institutional finance in the production and marketing of ginger. Wretchedly, during field survey 18 ginger growers are reported to have abandoned ginger cultivation due to paucity of capital.

Therefore, it is urgently felt that NABARD, commercial banks, other financial institutions and private investors should come forward with special and attractive financial packages exclusively meant for ginger cultivators in the study area.

6.2. TECHNICAL PROBLEMS

There is non-existence of technical assistance and information from Government and other companies. There has never been training, seminar, workshop or other equivalents in providing technical education on cultivation and marketing of ginger in the study area. All ginger cultivators still follow traditional farming following either organic farming or slash cultivation or practicing follow land in producing ginger. There is no information and technical support including supply and availability of machines, tools, utilities, equipments, fertilizers and other agricultural implements and post-harvest technologies into this district from the state, central Government, private organization or NGOs. There is no quality control laboratory yet established in the district to tender Agmark or grades to ginger produced in the district. There is no evidence of ‘Agri-clinic’ whereby, Agricultural Extension Workers who are otherwise called as ‘Crop Doctors’ shoulder up a great responsibility to equip the ginger growers with diagnostic, practical and problem solving skills along with the idea of modern method of improved technology.
Therefore, state & central Government, private organization and NGOs should come forward to organize training camp, seminar and workshop etc, in providing technical education on cultivation and marketing of ginger in the study area.

6.3. LACK OF SCIENTIFIC CULTIVATION

Non availability of good quality, high yielding and disease resistant rhizomes or quality seed ginger to the farmers is one of the serious problems found in the study area. It is awful to note that there are zero percent uses of fertilizers, pesticides, herbicides among the ginger cultivators. However, average fertilizer usage varies from 2 kg in Arunachal Pradesh to 56 kg in Manipur, as against the national average of 104 kg per hectare. Zero percent usages of pesticides and fertilizer have resulted to considerable losses on yield of ginger in the study area. Even the plant protection measures are not taken very seriously among ginger cultivators. Only 23 percent of the sample ginger cultivators are found to have used maize or rohar plant either to provide shade to juvenile ginger plants or to maintain soil fertility. Therefore, district agricultural departments need to provide high yielding and disease resistant seed ginger, fertilizers and pesticides to the farmers in the study area in compounding ginger production.

6.4. LOW & UNSTABLE LOCAL PRICE OF GINGER

The price behavior of ginger in the study area is highly unpredictable and is subject to changes in between Rs. three to 26 per Kg throughout the study period. During the course of survey, it was found that the price of the ginger outside the Northeast India mounted up to more than Rs. 60 per Kg during harvesting season. This implies that the
ginger cultivators of the study area have to be contented with very low price of ginger. Ginger cultivators in the study area have to walk out with the average local price of Rs 12 per Kg of ginger throughout the reference period. The average lowest and highest prices of ginger prevailed in local market have been found at Rs five in the year 2001-02 and Rs 19 in the year 2009-10 respectively. Infact, ginger growers have to cultivate ginger under incredibly unpredictable environment without being confident of its price. Moreover, non-existence of government support or administered price on ginger has made many growers to lose confidence on it thereby, cease its cultivation in the study area. So, ginger cultivators have to remain pleased with low price for their product as well as cultivate it under highly capricious price environment without brawny government hold up. Thus, Govt. should provide minimum support or administered price of ginger to ginger cultivators in the study area to pour confidence and security over ginger cultivation to its cultivators.

6.5. MULTIPLE MARKETING MIDDLEMEN

Involvement of multiple middlemen in marketing ginger in the study area is one of the major problems dwindling revenue earned by its growers. There are many middlemen in between farmer to industry namely commission brokers or agents, retailers, speculators, and wholesalers who intervene in marketing of ginger in the study area. It is exasperating that, during harvesting season, agents keep on enquiring growers about the time, place and conditions of sale and convincing them to dispose-off ginger to them. Agents or commission are found persuading farmers to purchase ginger at easiest possible terms. Some time it so happened, agents purchase the whole field of ginger from farmers and sale it either to retailers or wholesalers setup nearby agricultural fields. There is great deal of speculation seen all around
during weeding period of ginger field. Speculators are found purchasing ginger at throw out price from helpless ginger growers who are debtstricken or in urgent need of money for medical\textsuperscript{18} or family reasons. It is awesome to find that, many ginger growers have got nothing left to them during harvesting season due to speculation in ginger in the study area. However, speculators are found subjected to either huge profit or loss during harvesting season. It is fascinating to note that, even some retailers were found roaming and convincing growers to make sale at easiest terms in order to fetch maximum possible profits with an intention to eliminate middlemen. It is discouraging that, a few ginger cultivators who are comparatively wealthier producing huge quantity of ginger could only sell their product directly to wholesalers. Sometime, middlemen are found unified and then, camouflage price of ginger in the study area. Reduction in numbers of marketing middlemen would have increased profits of its growers. Therefore, presence of different marketing middlemen of ginger has considerably reduced economic status of ginger cultivators in the study area. Therefore, it is urgently felt that, state Govt. should either purchase the ginger or provide marketing supports and information to its cultivators in the study area.

\textbf{6.6. HIGH COST OF PRODUCTION}

The cost of production plays an important role in the decision-making process of the ginger cultivators in either increasing or reducing area under ginger cultivation or even, to abandon ginger field. Ginger cultivators have to spend much money on Seed ginger itself, preparation of ginger field, ploughing, sowing, weeding, harvesting and transportation of ginger. It is discovered that, most ginger cultivators sell

\textsuperscript{18} Many workers of ginger field become sick during weeding season owing to hostile weather conditions.
their products on very low price during harvesting seasons on one side and then, purchase seed ginger at high prices during growing season due to non-availability of proper storages and warehouses in the study area. Infact, ginger cultivators had to spend the most on seed ginger as the average cost on it throughout reference period was Rs 77,790.

Wages is another matter of great concern making ginger cultivation a costly affair. Poor farmer are found to have paid Rs 50 per worker per day for preparation of ginger field\textsuperscript{19}, sowing and harvesting of ginger and Rs 60 for weeding at least twice\textsuperscript{20} in a year. The labor cost has been higher for ginger cultivation than other fields of agriculture in the study area because workers have to go for weeding during the peak of the summer and harvesting is executed in dusty field. In addition workers minds are already preoccupied that ginger is a commercial crop and thereby, to charge more to their bargaining power. Therefore, introduction of special inner line permit for labor off the state, early construction of warehouses and Govt. financial packages for commercial ginger cultivators are the need of hours that would reduces cost of production of ginger in the study area.

6.7. HIGH TRANSPORTATION COST

Transportation allows continual production and consumption of products leading to specialization. Infact, it has nexus with socio-economic growth and expansions of a particular area by accelerating trade and spread of people. In the context of transportation of ginger in the study area, land transport has been found to be the lone mode of transportation namely- bullock carts, tractors and trucks. Block cart is found to be the most used means of transportation of ginger in the study

\textsuperscript{19} Including cutting & burning of bushes and trees.

\textsuperscript{20} Weeding is performed at least twice on same ginger field.
area. However, in certain case tractor and truck are also found to have used resting upon volume of ginger to be transported and distance of ginger field. It is poignant to observe that, freight charges of agricultural products including ginger are exceptionally high in the study area. In the study area, freight charges of ginger is Rs 50 for carrying six standard sized bags of ginger for less than one Km and Rs 100 for a distance in between one Km to two Kms and so on respectively. Moreover, transportation of ginger is found necessary mainly during two seasons i.e., during growing season in transporting seed ginger to field and during harvesting season in transporting harvested ginger from field to Godown of traders. So, ginger cultivators have to pay freight charges twice a year on ginger which is a very costly affair of poor cultivators. In addition, the study area has still to be connected with railways and other mode of transports which would have supplemented present mode of transportation in stimulating ginger production in the study area.

Early construction of bridge over river Brahmaputra at Sadiya in Assam and State Govt. transport support etc, are sure to fillip saga of ginger cultivation in the study area.

6.8. WAREHOUSING & STORAGE PROBLEM

Warehouse is a place in which huge quantities of goods are stored and preserved in a systematic and orderly manner from the time of their purchase or production till their actual use or sale. Warehousing is one of the important auxiliaries to trade as it creates time utility by bridging the time gap between production and consumption of goods. Warehousing is necessary because it fulfill seasonal demand of goods; facilities quick supply of goods; ensure continuity in production of goods and maintain price stabilization.
Complete non-existence of cold storage or ginger processing unit is one of the prominent block roads to the development of ginger cultivation in the study area. There has been no evidence of warehouses for agricultural products throughout the district whether it is private, public, government, bonded or co-operative warehouses. Availability of cold storages wherein bulky production of ginger could be stored would have at least facilitated farmers to dispose their product after growing seasons. Raw ginger is found to have been sold away to the immediate traders at throw out price without even, being washed in the study area. However, farmers and traders have their own traditional storage for their agricultural produces. Farmers store their products mostly for seeds or for domestic consumption mostly in *Kumsung*\(^{21}\) or *Boral* in one hand and traders have their godowns in which agricultural product remain stay to the maximum of three months because, their storage are neither well equipped nor strongly built up. So, setting up public, govt., private or co-operative warehouses and cold storage is strongly felt necessary to spur commercialization of ginger in the study area.

### 6.9. WEIGHING & PACKAGING PROBLEM

In the context of ginger cultivation in study area, traders still practices traditional weighing system for any agricultural products including ginger. Modern means of weighing has still to get popularity among traders. In addition, there is no dock system in the entire study area in spite of huge production of ginger facilitating loading and unloading of agricultural products. Since, there have been no signs of ginger processing activities in the study area; packaging lost its significance and scope. Nevertheless, *basta*\(^{22}\) or gunny bags is found to have used widely

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\(^{21}\) Typical barn house of the local people of Lower Dibang Valley  
\(^{22}\) Big bags made of jute for agricultural products convenience for weighing and transportation.
for packaging before weighing and transportation of ginger. Basta as a package for ginger is either purchased by ginger cultivators or provided by traders to whom delivery is made. In the latter case, traders deduct cost of bastas from money to be paid to ginger growers. Therefore, there is urgency of early introduction of modern weighing and dock system in the study area.

6.10. ABSENCE OF GINGER PROCESSING UNIT

It is very true that, processing of ginger would bring about improvement in value chain on ginger and ginger Products and provide better income to the ginger growers. Ginger processing gives value addition to ginger and provide better market penetration and increases economic gain of farmer, trader and consumers etc. Processing activities of ginger like washing, grading, chopping, drying, weighing and coarse grinding are widely used in confectionery, perfumery, liquor and pharmaceutical industries etc.

However, so far no ginger processing unit has been identified in entire study area during the reference period. Raw ginger is found to have been directly sold away to the immediate traders at throw out price without even, being washed. However, weighing has been lone processing activity at the time of sale made by cultivators to traders. Presence of ginger processing unit in the study area would have helped growth of ginger based industries like, spice making, cosmetic, medicine, pickles and liquor firms etc.,

Therefore, setting up of modern ginger processing units is of paramount importance in providing value addition and better market competitiveness of ginger in one hand and better price and economic condition of ginger cultivators in other hand in the study area.
6.11. ABSENCE OF UNION OF GINGER CULTIVATORS.

It is well understood that, an individual people cannot bargain for his rights or to fight against exploitations to get justice. Infact, common platform or association of people is the essence of protecting economic interest and to bring about improvement in the conditions of people’ daily lives. Unfortunately, the study area does not have even a single instance of Farmers’ union. Absence of farmer’s union has been a perennial source of traders’ exploitation. There has been great paradox as regard to unionism is concerned in the study area as there is existence of strong and unified traders’ union on one hand but, non-existence of ginger growers’ union on the other hand. Unified traders’ union has been exploiting ginger growers by concealing market price of ginger and takes away the larger share of cake arising from ginger reducing economic benefit of ginger cultivators in the study area. For sure, existence of enlighten ginger cultivators’ union or association would have not only enhanced bargaining power of cultivators but, also help in arriving at joint consensus in making vital decisions like establishment of warehouses, cold storage, insurance company, joint marketing and ginger processing units etc, in the study area. Therefore, formation of ginger cultivators union or association itself is a challenge to be trumped over by cultivators in the study area.

6.12 ABSENCE OF RESEARCH & DEVELOPMENT

Agricultural Research and Development paves way for discovering new knowledge about agricultural products and practices and its application create new and improved agricultural products and practices fulfilling consumers’ demands etc,. However, in the study area, no sign
of research and development activities on ginger could be seen around during field study despite, occupying first slot in area as well as production of ginger in the entire state. Conducting research work would have indentified special problems and prospects on ginger cultivation which bring improvement in terms of quality as well as productivity of ginger in the study area. Nevertheless, some ginger growers have carried out their own pretty research using indigenous knowledge and ideas like covering ginger field with hays and dried leaves; changing rows and columns of ginger during planting seed ginger in every year when same plot of land is selected for more than one year; planting of rohar and maize in between two rows for shedding and fertility of soil etc. Unfortunately, no evidences of formal research works on ginger cultivation have been identified in the study area being carried out either by Govt. departments, NGOs or private agencies. Therefore, research and development activities under the aegis of State Govt. or any other agencies are felt essential to unveil important truths pertaining to commercial ginger cultivation in the study area.

6.13. INSURANCE PROBLEM

Insurance is a hedging instrument used as a precautionary measure against future contingent losses that may or may not take place, in return for relatively small, regular payments to the insuring body or insurance company. This instrument is used for managing the possible risks of the future. However, insurance has yet to touch the ginger cultivators of the study area. Fascinatingly, not even a single ginger cultivator has been found insured against ginger crop as a matter of facts, there is complete non existence of insurance companies in the study area. Even, most of the farmers are found unaware of insurance policies and its benefits
thereof, due to prevalence of ignorance and illiteracy among ginger cultivators. Ginger fields in the study area are susceptible to pest and insects and some ginger fields get damaged due to hostility of monsoon which compels ginger growers to abandon its cultivation. Moreover, some ginger fields are found to have looted by some thefts adding more fire to burning flames in the study area. Consequently, ginger growers have started seeking else other economic activities to earn their livelihood. Therefore, insurance of agricultural crops including ginger is one of the most urgently felt necessity in the study area in order to hedge ginger growers against probable perils or threats arising out of ginger cultivations and its marketing.

6.14. NATURAL AND CLIMATIC PROBLEMS

As a matter of fact, Indian agriculture is fully dependent upon the plays of monsoon and so is the case of ginger cultivation in the study area. It is hardly predictable about the volume of ginger and its productivity as it do vary from year to years despite using same area under ginger cultivation. Significant portion of ginger fields are found damaged due to hostile climatic conditions, which is quite volatile. The study area fall under high rainfall zone of the state which receives intense rainfall during monsoon season resulting into heavy infestation of insects and pests causing diseases in ginger plants especially; rhizomes rot. In addition, heavy rainfall also causes leaching of nutrients in ginger fields. Moreover, some patches of ginger field get dented due to excruciating sunshine during peak of summer in the study area. Brahmaputra River deserves special mention as there is still no bridge connecting two old Ghats of this river Viz. the Sadiya and the Dhola Ghat and motor ferry has been the lifeline of this river charging exorbitant fare and freight mostly under private ownership. So, hostility of monsoon and natural
6.15. LACK OF GOVERNMENT INITIATIVES & SUPPORTS

In spite of the fact that ginger is an important spice crop in the study area but, no major breakthrough has been noticed in boosting the production and increasing export of ginger. Ginger cultivators are yet to avail lot of governmental supports running from capital to knowledge in connection with ginger and its cultivation in the study area. State Govt. has not provided special package to ginger cultivators for purchase of quality seeds and other inputs required in ginger cultivation. Govt. through its agencies has also not conducted survey, diagnosis and design lands suitable for ginger in the study area. Govt. didn’t introduce indigenous and exotic high yielding quality of ginger that could resist to biotic and abiotic stress in the study area. Nothing has been done by State Govt. in introducing micro propagation and other propagation methods like workshop, exhibition, and training on different themes like use of Integrated Nutrient Management System, Post-harvest management, Agri clinic and Agri business, quality control measure, storage techniques, value addition and other technical knowledge etc, to motivate, educate and develop ginger cultivation in the study area. Moreover, State Govt. is still silent in regard to transportation and marketing supports to the ginger growers in the study area. In addition, establishment of warehouses and ginger processing units have been much expected need of hour in the study area under aegis of State Govt. Therefore, it is strongly felt that,
private players, NGOs and State Govt. should come forward to provide all possible helps ranging from capital to knowledge to commercial ginger cultivators of the study area.

6.16. CONCLUSION

The study area is the land of agro-horticulture owing to its unique agro-climatic conditions. It has occupied first slot in production of maize, oilseeds and ginger in the entire state. However, in spite of being occupied first place in production of ginger in the entire state, ginger cultivation and its marketing in the study area has still to triumph over many nightmares. It is sure that most of the problems could be brought to control by the virtue of special and focused attentions to each one of the challenges.

To sum up, lack of banking education & habits of the most farmers, lack of scientific cultivation, highly unpredictable price of ginger, existence of multiple middlemen, high cost of production, high cost of transportation, absence of cold storage, warehousing and ginger processing unit, absence of modern method of weighing and packaging, absence of ginger growers’ union, absence of research & development and insurance activities on ginger, lack of government initiatives and hostility of monsoon are some of the prominent challenges ahead of ginger cultivation and its marketing in the study area.