



A REVIEW

Prospects and challenges in ginger cultivation: Livelihood of the rural farmers in Dima Hasao district, Assam

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Abstract : Ginger is an important cash crop which has gained a popular status among other major commercial crops for its profitability. Ginger cultivation provides additional income to households especially for the rural farmers in North Eastern India. The present study is an attempt to explore the prospects and challenges in ginger cultivation with special reference to Dima Hasao district of Assam. The major challenges that affects ginger production and marketing in the area under study is price fluctuation and inconsistent of ginger. Other factors like low innovation specific for ginger cultivation, lack of storage facilities, land tenure system affect the production as well as marketing of ginger. On the other hand the prospect of ginger cultivation is attributed to its profitability with very low investments. Since the cultivation of ginger in the area under study employs traditional method it requires no fertilizers and crop is easily maintained. The climatic condition in Dima Hasao district is ideal for growing ginger so, with the right approach and policy implementation, ginger has the potential to promote livelihood of the poor rural farmers on the district. Ginger cultivation can also be cultivated to provide supplementary additional income along with other crops. Promotion of livelihood in Dima Hasao district in order to secure the livelihood of the people within the traditional framework is a primary concern of the study.

Key Words : Ginger production, Livelihood, Shifting cultivation, Marketing issues

View Point Article : Panme, Phyllis Haizeutuale and Thangjom, Lalzo S. (2021). Prospects and challenges in ginger cultivation: Livelihood of the rural farmers in Dima Hasao district, Assam. *Internat. J. agric. Sci.*, 17 (2) : 724-728, DOI:10.15740/HAS/IJAS/17.2/724-728. Copyright@2021: Hind Agri-Horticultural Society.

Article History : Received : 02.03.2021; Accepted : 19.03.2021

INTRODUCTION

Agriculture is the primary source of livelihood for many farmers in rural India and it plays a major role in the overall economy of the whole country. Apart from providing food grains it also plays a vital role in employment generation, influences the national income, provides raw materials to the industries and is an indispensable part in the country's international trade. For majority of the rural Indian population, their livelihood depends on their agricultural activities. Livelihood in

simple terms is making a living, securing life to live life with dignity. The final outcome of livelihood is food security, increased well-being and decrease in vulnerability of the people. Livelihood is directly linked to human capability and mankind adopts strategies for their livelihood based on those capabilities. Quality of life depends on the valued activities and the capability to perform these valued activities. When livelihood is deprived, poverty rises and the people are socially affected. The same trend is seen in the district of Assam,

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Dima Hasao where agriculture generates livelihood opportunities for majority of the people and shifting cultivation is the major process of agriculture practiced by the rural farmers. Identification of capabilities and assets along with prospects and constraints are a prerequisite for livelihood promotion. Promotion of the income generating livelihood activities will require different and multiple interventions at different levels. The present study is an attempt to explore the prospects and challenges in ginger cultivation with special reference to Dima Hasao district of Assam.

Review of literature :

MART (2011), a leading livelihoods and marketing consultancy conducted a study on ‘*Livelihood Based Agri Business and Market study*’ in Sikkim which was commissioned by North East Rural Livelihood Project (NERLP) under Ministry for Development of North East Region (DONER), GOI with an objective to assess the economic opportunities in both farm and non-farm activities in the project area. The study found that Ginger is the principal cash crop grown in the study area along with a wide range of agriculture and horticulture crops all across the state. Most villages have village level traders who procure the produces like ginger and squash and sell them to town traders. The study presented a value chain map of ginger cultivation depicting the input stage for production up to the stage where the product reaches consumers. The study also presented an implementation plan for promotion of ginger cultivation and also explored the possibilities of partnership with wholesalers, progressive farmers, financial institutions and other departments such as HCCD and SIMFED.

Mawlong (2017) in a research study titled made an investigation of how the cultivation of ginger influences the rural livelihoods in Umroi, Ri Bhoi District of Meghalaya. The study revealed that farmers in Umroi prefer ginger cultivation as it gives good returns from less expenditure as the cultivation process is purely traditional and does not require application of manure, pesticides, etc. The study also revealed that ginger growers are in much need of assistance from the government and Non-government agencies to aid in trade and marketing of ginger.

Rehman *et al.* (2009) emphasizes on ginger as an important cash crop and how North East India is emerging as an important ginger hub by producing tonnes of ginger annually. According to the study large number of tribals still practise the traditional method of ginger cultivation

such as jhum lands, jabo lands, terraced lands etc and ginger is cultivated in slopes as well as in plains. The study pointed out a major challenge in ginger cultivation, the decrease in rhizome yield due to rhizome rot and it has lead to many farmers has given up ginger cultivation.

NdaNmadu & Lekwot (2013) examined the profitability and efficiency of ginger cultivation in the in selected Local Government Areas of Kaduna State, Nigeria. The study suggested that in order to attain the production frontier of the most efficient farmer, farm size should be scaled down or additional quantity of other inputs should be employed. The study pointed out that price fluctuation, unavailability of farm input, poor remunerative price and poor access to credit were the major constraints faced by ginger farmers in the study area. The study revealed that there is need for policies aimed at encouraging extension education, commercial farming, access to credit, and transport facilities.

Dewanarayana and Wimalaratana (2018) pointed out the major challenges in ginger cultivation like marketing issues including price fluctuations, land ownership related issues, unavailability of quality seeds, scarcity and high prices of fertilizer and other inputs. The study also revealed the prospects of ginger cultivation such as high profitability, less workload for farmers, small scale friendly crop cultivation, high attractions among the new generations and natural resistance to diseases.

MATERIAL AND METHODS

The present paper is a descriptive study based on secondary data collected from surveys, prior research studies and relevant materials related to livelihood and agriculture activities. The paper is aimed at provoking discussion by exploring the prospects and challenges for livelihood of the people in the rural district of Dima Hasao, Assam. The present paper focuses on ginger cultivation from the livelihood generation perspective to uplift the small and marginal ginger growers. The present paper is limited to fresh data due to the present Covid-19 pandemic restrictions and also limited to resources on the topic and prior studies on this particular district.

Brief profile of the study area:

Dima Hasao district earlier known as North Cachar Hills District is a beautiful hilly district in Assam with its district headquarter at Haflong (a famous hill station located in Assam). According to the Census India 2011,

the total population of the district stands at 214,102 where the rural population is 151,613 and urban population is 62,489. Majority of the population belongs to the scheduled tribes, as defined in the constitution of India.

There are four towns under this district namely- Haflong, Mahur, Maibang and Umrangso. The district has five Community Development Blocks spread over a total of 695 villages which are namely- 1) Jatinga Valley Development Block, 2) Diyung Valley Development Block, 3) Harangajao ITD Block, 4) Diyungbra ITD Block, and 5) New Sangbar Development Block, Sangbar.

The district was constituted under the provisions of the sixth schedule to the constitution of India and the District Autonomous Council administers the autonomous district. The Autonomous Council is a powerful body and controls all departments of the government except the police and Law and Order is under the control of the state government. Four important roads connects Dima Hasao district with other parts of the state or region namely-(1) Haflong-Garampani Jowai-Shillong-Guwahati, (2) Haflong- Silchar (3) Haflong-Lumding, (4) Garampani-Lanka- Nagaon roads. The climate in the district is characterized by humidity and abundant rainfall nearly all the year round and makes weather pleasant all throughout the year. The district is rich in forest wealth and thus its economy greatly depends on forest. The agriculture practice adopted by majority farmers in the district is shifting cultivation on sloppy terrains and by default the practice is organic farming. According to the Statistical Hand Book Assam, 2012, total geographical area of Dima Hasao District is 488800 hectares out of which the total cropped area is 56483 hectares.

Livelihood asset and strategy:

Land is generally understood as the main source of life. Land is considered a gift and by tradition, land in the tribal societies either belongs to an individual or a community. Community here may mean “a family”, “a clan” or a group of people. The socio-cultural and economic life of tribal societies revolves mainly around land and its resources. The tribal villages in North East India are mostly located in the far remote hilly areas and these tribal societies surround themselves with nature including water bodies and forest resources on which they depend for their livelihood.

Shifting cultivation or *jhum cultivation* still continue to be the dominant land-use form in many of the hilly areas of North Eastern region and the same pattern is

followed in Dima Hasao for agricultural farming. Every year, a particular block is selected to be cultivated by the community and certain rules are set in order to avoid spread of fire outside the designated areas due to the slash and burn activity. Like all the conventional indigenous tribal societies, the farmers in Dima Hasao district avoid cultivation of rice or any other crops beyond two years in order to maintain a proper and good fallow cycle. After site selection of land on the designated blocks by the farmers, the *jhum* cycle starts with slash and burn after which the land is cleared of its post fire residues and seeds are sown. Weeding occurs at intervals or as and when necessary (depending on the intensity of weeds) till the crops are ready to be harvested. The period from one slash till the next slash is called a *jhum* cycle. After two years of cultivation, the land is left fallow to allow the soil to regain its fertility.

Ginger Cultivation and Ginger trade:

At present India ranks no.1 among the highest ginger producers in the world and according to the Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers' Welfare, the productivity of ginger in Assam for the year 2017-18 was 8.91 MT/Ha. The report also showed consistency in the production of ginger from 2015-16, 2016-17 and 2017-18.

Ginger is a spice crop and choice of farmers in the study area. It is a commercial crop and makes a great livelihood asset. Apart from the rhizome, all the parts of the ginger plant are edible apart from the rhizome, the leaves and the buds and fetch good incentives. In some cases ginger is cultivated as a secondary crop cultivated in parallel with rice/paddy. Ginger can be cultivated to earn additional income for the household in addition to other activities. The cost of ginger may vary from Rs. 15/kg when the demand is low and it may go up as high as Rs. 60/kg when the demand is high. Cultivation of ginger follows the same patterns as any other crop by slash and burn method. The method employed is purely traditional and in the *jhum* lands the farming is purely organic and requires no fertilizers. After the land is tilled and when the early monsoon rain commences, the seed rhizomes are cut into small pieces and are sown as early as February and the sowing continue till the month of April. Ginger is grown as a mix crop along with other major crops like rice and other vegetables like brinjal, chili, pumpkin, etc. The mixed cropping pattern produces desired quality of ginger. Weeding is done at regular

intervals or depending on the intensity of the weeds. Since the shifting cultivation is a rain fed process, the crops depend on rainfall during crop cycle. The tender ginger buds are sometimes plucked once the budding starts which are then taken to the local market for sale as a fresh vegetable.

Harvesting of ginger depend on the prevailing market demand, market price and purpose for use. The peak harvesting time is 8-12 months after sowing. Once harvested ginger is cleaned by removing soil from harvested rhizomes and transported to the nearest market where it is sold to the brokers and suppliers who then transports the commodity to different places. Ginger is sold only in fresh form in the area under study due to lack of storage facility and processing units in the region.

Challenges in Ginger production and marketing:

Access to market and market information:

Markets play a key role for development and yet in many cases farmers have limited access to them. The same is experienced by farmers in Dima Hasao District. Many villages are located at remote locations and in order to sell their produces in the market they have to go through many hardships for transport of their goods to the market.

Issues in marketing:

Marketing of produce is the most important activity for the ginger growers. This is true in case of small marginal farmers in the district who have small surpluses for marketing. Price fluctuations are one of the major challenges for the ginger farmers in the district. In case of emergencies and under financial crisis the farmers are unable to wait till the market conditions stabilize and the price of ginger go up as desired, the farmers harvest the ginger which are sold at very cheap prices to the local traders or dealers. There are instances when the farmers suffer loss due to lack of storage facility, wherein the harvested produces are sold to brokers at very cheap prices, say Rs. 10/Kg at the weekly market, thereby affecting the farmer's income. Basic needs such as proper facilities for storing and sorting the ginger, holding capacity to be able to wait till the price of ginger gets better, adequate and cheap transport facilities for transport of ginger to the nearest market, access to clear market information is a need of the hour for the existing farmers.

Small land-holdings and land tenure:

Because of the hilly and sloppy terrain the size of land holdings are considerably small and under such circumstances, the farmers take as many crops as per their requirement from the same piece of land leading and crops cannot be cultivated in a large scale. A major setback of shifting cultivation is deforestation, soil degradation and depletion of forest base resources. Since majority of the farmers employ shifting cultivation for ginger farming and, the livelihood strategy is not permanent. A jhum land is deserted after 2-3 years in order to let the soil retain its fertility which takes about 5-10 years. In recent years, the jhum cycle has reduced considerably due to which the quality of soil has reduced.

High rainfall:

High rainfall received during monsoon period hinders the crop leading to heavy infestations with weeds in the ginger farms, pests and diseases resulting in leaf spot or rhizome rot.

Lack of funds:

The ginger growers do not have access to financial support or credit facilities from the government to procure large quantity of seeds and quality seeds including other necessary input. Interventions for credit facilities and ease of access to loans for farmer will help the farmers grow ginger on a large scale as well as produce desired quality of ginger.

Prospects:

Ginger cultivation has attained a popular status among the farmers of Dima Hasao district. Ginger can be cultivated as a secondary crop along with rice which is a staple food in the region. The income derived from ginger cultivation has helped many poor households to meet their household basic needs such as educational expenses of children, to build better houses and other needs to live a life of quality. The cultivation of ginger gives high yield and profitable returns from very less investment.

Conclusion:

The study was focused on the challenges and prospects of ginger cultivation as a cash crop with special reference to Dima Hasao district in Assam and hence it can be concluded that there are challenges as well as prospects in ginger farming. Formulation of policies by

concerned departments regarding the land tenure system and emphasis on settled cultivation practices with proper irrigation facilities should be laid. Implementations of policies and schemes aimed at promotion of livelihood particularly in ginger cultivation for the rural farmers should be emphasized. Further, infrastructure for credit facility and proper facilities for storage, processing and sorting of ginger for the region would help meet the challenges in ginger cultivation. Since the district is rich in forest wealth and the soil and climate is ideal for growing ginger, hence there is potential for ginger cultivation to improve livelihood of the farmers in the district.

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