

Ginger In Arunachal Pradesh: Prospects And Challenges – A Case Study Of Lower Dibang Valley District

Nong Tayeng

Assistant Prof. of Dept. of Economics

JN College, Pasighat Arunachal Pradesh-791103

ABSTRACT: This paper highlighted the prospects and challenges of ginger production in Arunachal Pradesh with special reference to Lower Dibang District of Arunachal Pradesh. This paper is an attempt to analyse the Scope of Ginger Cultivation in the district as an economic means for the cultivator. It also highlights the high productivity, role and importance of ginger cultivation as an alternative to traditional Agriculture Practices in the district in particular and state as a whole. It also examined the ginger productivity compare to others horticulture crops by analysing secondary data. This paper also highlighted the central and state govt. role in providing horticulture scheme and policy to augment the welfare of the farmer. The paper is based on secondary data, reports from state agriculture department, journals and books related to the topic and personal experience.

Keywords: Production, ginger productivity, Prospects, Challenges, scope

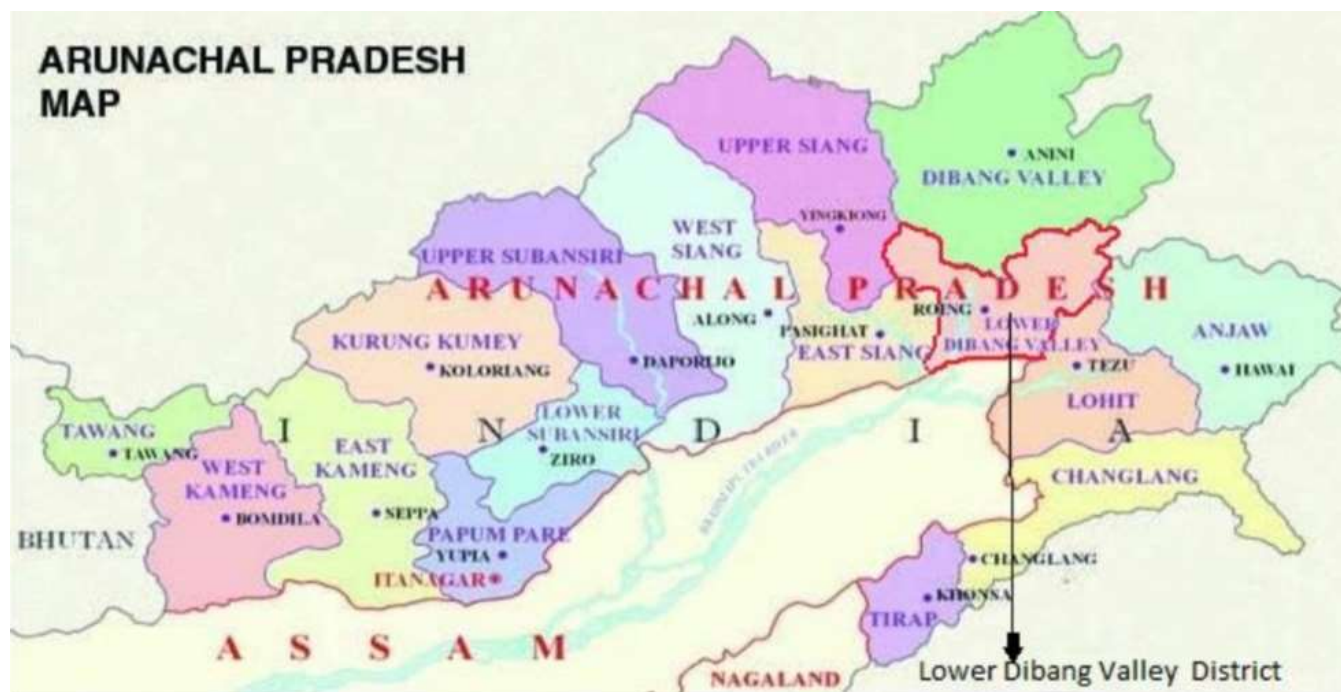
I. INTRODUCTION:

The case study area i.e., Lower dibang valley district is located in eastern part of Arunachal Pradesh. The aim of the paper is to examine the prospects of Ginger production in lower Dibang valley district. It also analyzes the data published in govt establishment or agency regarding ginger production in the district of Arunachal Pradesh with respect to area, production and productivity. The paper shows ginger production has the possibility to raise the income of the farmer and enhance the state horticulture share and also examine the possibility of ginger as an alternatives to traditional agricultural earning source which apparently has low income generation compare to it. In most areas of the under Lower Dibang Valley district the climatic condition are suitable for ginger cultivation. The mentioned district area can be explored with modern technique and by giving incentives and encouragement to the ginger cultivator the state can become the leading exporter of the product. It not only benefits the farmer rather it enhances the income of the state simultaneously. However, ginger cultivation have problems like Lack of quality seed, diseases like Rhizome rot (Soft rot), volatility in ginger price, market access issue, inadequate capital, post harvest loses etc. This paper also focuses on viable suggestions and possible remedial measure to solve the problems confronting the ginger cultivation in the state. It also highlights the govt scheme and policy towards horticulture development.

II. DISTRICT PROFILE:

The Lower Dibang Valley district is one of the districts in Arunachal Pradesh and has the total land area of 3900 km² (15000sq mi). It has a total population of 54,080 as per 2011 census and density of 14/km² (36/sq mi).

Map of Lower Dibang Valley:



Source of Map: LDV, Inventory of Agriculture 2015

III. OBJECTIVE OF THE STUDY:

- I. To assess the prospect of ginger production in AP with special focus on lower Dibang valley.
- II. To analyse the secondary data related to level of ginger production in AP.
- III. To examine the challenges confronting ginger production in AP.

IV. THE GINGER PRODUCTION IN ARUNACHAL PRADESH CAN BE SEEN FROM THE DISTRICT WISE ACHIEVEMENT REPORT ON GINGER AS FOLLOWS:

The Following table highlight the district level ginger production in the state in terms of areas in hectare and production in metric tonnes and yield in Qntls/ Hect during the year 2017-18 as follows:

Table no 1. Show Ginger production in AP in terms of Area, Production and Productivity/yield.

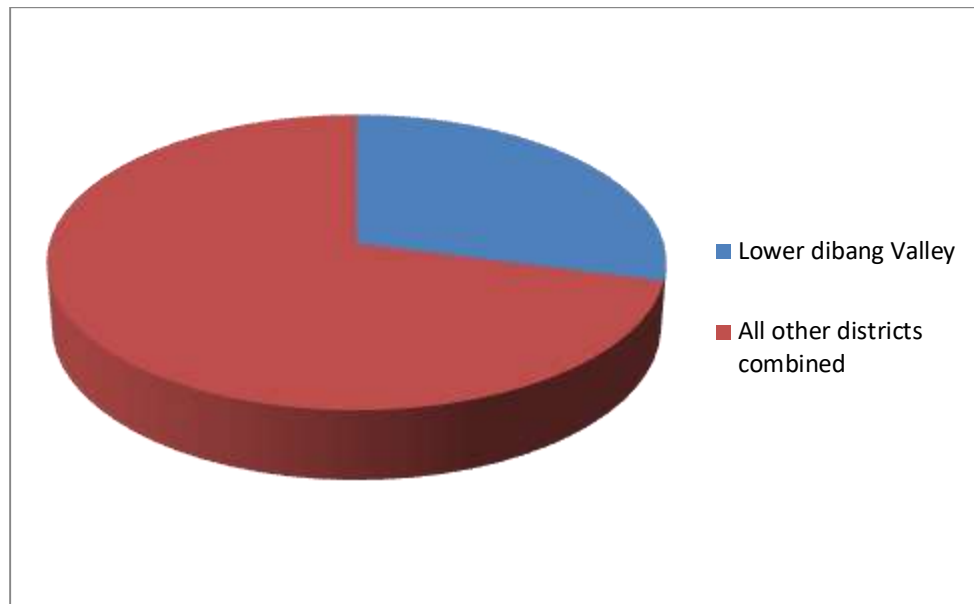
| SL.No | Districts | Area | Production(M.T) | Yield |
|-------|---------------------|------|-----------------|-------|
| 1. | Tawang | 124 | 427 | 34.44 |
| 2. | West Kameng | 121 | 960 | 46.29 |
| 3. | East Kameng | 139 | 634 | 45.61 |
| 4. | Papum Pare | 230 | 1726 | 75.04 |
| 5. | Lower Subansiri | 263 | 1436 | 54.60 |
| 6. | Kra dadi | 21 | 125 | 59.52 |
| 7. | Kurung Kumey | 18 | 99 | 55 |
| 8. | Upper Subansiri | 236 | 1677 | 71.06 |
| 9. | West Siang | 200 | 1400 | 70 |
| 10. | Upper Siang | 302 | 1459 | 48.31 |
| 11. | East Siang | 951 | 7108 | 74.74 |
| 12. | Lower Dibang Valley | 2955 | 22836 | 77.28 |
| 13. | Dibang Valley | 160 | 765 | 47.81 |
| 14. | Lohit | 159 | 1163 | 75.03 |
| 15. | Anjaw | 67 | 317 | 47.31 |
| 16. | Namsai | 784 | 6065 | 77.36 |
| 17. | Changlang | 576 | 4177 | 72.52 |
| 18. | Tirap | 46 | 224 | 48.70 |
| 19. | Longding | 43 | 274 | 63.72 |
| 20. | Siang | 465 | 3334 | 72.32 |
| | Total | 7860 | 55806 | 71 |

Sources: page no 42, Statistical Abstract of Arunachal Pradesh 2018

Implications of the data:

1. During the year 2017-18, among the ginger crop in AP, Lower Dibang valley district was the highest in terms of area and production.
2. Lower Dibang valley was followed by East Siang, Namsai and Changlang District respectively in terms of area.
3. In terms of ginger production, Lower Dibang valley was followed by East Siang, Namsai, Changlang and Siang Districts respectively.
4. In terms of Productivity, Namsai district top the list followed by lower Dibang valley by a small margin and followed by East Siang, Papum Pare and Lohit district.
5. Kurung Kumey and kra dadi districts registered lowest in term of area of ginger cultivation.
6. Tawang district registered lowest in term of productivity of ginger in the state during the period.
7. The average productivity of the ginger during the period registered as 71 in the state.
8. The total state production of ginger registered at 55806 metric tonne.
9. The Total State ginger cultivation area registered at 7860 Hectare.
10. Kurung Kumey registered lowest in term of ginger production.

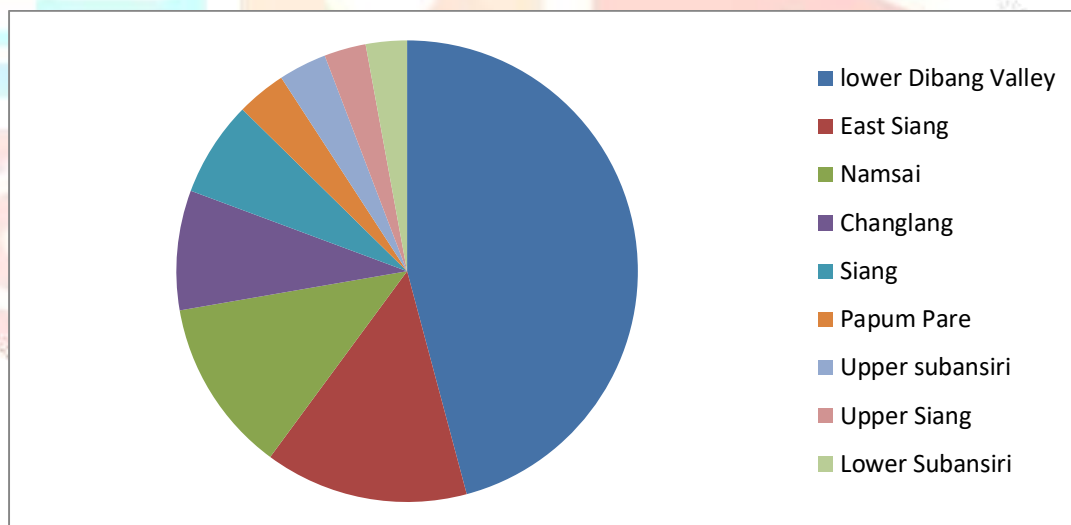
2. a) Pie Chart showing ginger cultivation share of lower Dibang district out of the all the districts combined in the state as follows:



The lower Dibang districts constitute 41.06% of ginger production in the state during 2017-2018.

The Districts produced ginger at 22836 metric tonne out of 55806 metric Tonne in the state during the period.

2. b) Top 10 Ten ginger producing districts in AP showing in pie chart:



In the above given pie chart, it is clearly shown that lower Dibang Valley district has the highest level of production of Ginger among all the districts in AP during the period 2017-18.

2. c) Area, Production and productivity of major crops in lower Dibang valley (2015)

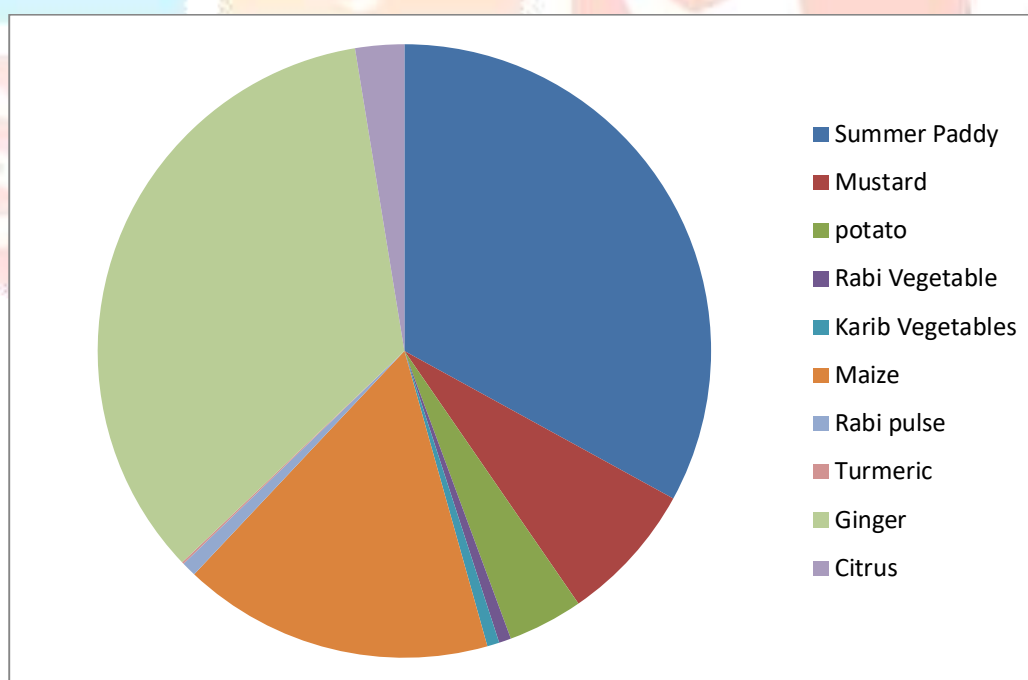
| SL No. | Name of Crops | Net area sown(ha) | Production(q) | Productivity (q/ha) |
|--------|-------------------|-------------------|---------------|---------------------|
| 1 | Summer paddy | 11180 | 206400 | 18.46 |
| 2 | mustard | 5150 | 46350 | 9 |
| 3 | potato | 310 | 24800 | 80 |
| 4 | Rabi Vegetables | 200 | 4000 | 20 |
| 5 | Kharif Vegetables | 200 | 4000 | 20 |
| 6 | Maize | 7885 | 102510 | 13 |
| 7 | Rabi | 650 | 4870 | 7.4 |
| 8 | Turmeric | 92 | 644 | 70 |
| 9 | Ginger | 2880 | 216000 | 75 |
| 10 | Citrus | 905 | 83 | 10.9 |

Source: Inventory of agriculture 2015, Lower Dibang Valley, Krishi Vigyan Kendra Balek, LDV P.O Roing.

Implication of the data:

1. Out of many commercial crops in the district, the ginger covered 2880 hectare in area.
2. The ginger production stand at 21600 metric tonne during the period.
3. The productivity of ginger stood at 75 during the period.
4. The Ginger Production comes under top 5 out of all the commercial crops in the district.
5. The Summer paddy, Maize, Millet, Ginger are the crop who remains the highest in the district in terms of areas as well as production.

2. d) Pie Chart Showing Production of major crops including ginger during 2015 in lower Dibang Valley District of AP.



The ginger production remains high in the district in terms of Production as shown in the chart.

In the above given data and graphs it is clearly seen that there is high prospect of ginger cultivation in the district. The people are engaged in ginger cultivation as the land and climate is suitable for the same. The Farmer are earning income from the ginger cultivation. There are many other commercial crops which attract farmer but ginger remains one of the most popular commercial crops in the districts as in 2017-18, It represent almost half of the ginger production in the state.

V. CHALLENGES:

Despite its economic prospect and huge income avenue the ginger cultivation remains tough for the farmer for the followings reasons as follows;

1. Price Fluctuation:

The price volatility is one the factor which discourage farmer to engage in ginger cultivation as it is like gambling, any time it used to change year wise even month or week wise which often led to either windfall gain or total loss.

2. Problem of Intermediary:

The middlemen often purchased the product at a lower price and sell it in higher price at the market which capture the profit while farmer receive lower profit. The small and marginal farmer cannot afford to cultivate large track of land and generally they sell the ginger even before the harvest due to financial problem at a very low price.

3. Inadequate Marketing Facility :

Sometimes the small and marginal farmer sell the ginger to the middleman is mainly because of the lack of market access or facility. The market is located in town area or in Assam whereby the farmer cannot access it due to distance or transportation problems or financial problem to manage vehicle. It is easy for farmer to sell the product at the door step as often middlemen reaching their location. However, it is at the cost of selling product at very low price.

4. Post harvest losses:

There always remain a risk of post harvest losses due to changing price, in handling, in transportation, in storage. Therefore even after harvest also always proper care is needed to avoid it.

5. Diseases:

In ginger cultivation, one of the main challenges is the Rhizome rot (Soft rot) which destroy the crops. Many Farmer loses due to it and sometimes it is unavoidable due its unpredictable occurrence. Extra care is needed for it and sometime heavy downpour or lack of rain affect the crop which brings many issues.

6. Quality Seeds:

Another issue is the lack of quality seeds as there are many types of seeds in ginger like Maran, Himachal, Rio-de- Jenerio etc which may help farmer to enhance the level or volume of production but most farmers used local gingers which shape and size is smaller in comparison to high breed variety.

Central/State Govt role in providing scheme to developed Ginger cultivation:

Followings were the Central/state govt scheme to improve the ginger cultivation in the state:

1. Mission for Integrated Development of Horticulture (MIDH) (2014): In this scheme central Govt provide 85% and state govt provide 15% of the total outlay. The scheme promotes horticulture development in the country.
2. Horticulture Mission for North East and Himalayan States (HMNEH). (2001-02): This Mission is to create financial, logistics and holistic development support to enhance the growth of Horticulture development in North eastern region.
3. Rashtriya Krishi Vikas Yojana (RKVY).(2007):

It is an Umbrella Scheme initiated by Central Govt in 2007 to give holistic development to Agriculture and allied sectors like Horticulture in India. Its gives or allow states govt to choose their own agriculture and horticulture sector development and can focus on targeted area or districts and included in their state govt agriculture plan. In this scheme, the funding pattern in the ratio was done 60:40 between centre and state since 2015-16.

Conclusion/Suggestion/Findings:

As per the data available and personal experience, the ginger cultivation has a huge potential in the eastern part of Arunachal Pradesh because the districts like lower Dibang valley, Namsai, Changlang and East Siang and west Siang exhibit high achievement record in term of cultivation areas, Production size and productivity. Overall, Arunachal Pradesh can become one of the leading exporters/producers of gingers in the country. The state govt need to step up the incentives required especially in providing credit facility. The above stated problems should be address categorically. Road transport communication facility must be given priority especially in rural areas. To minimise the role of middle men, market facility must also be extended and price volatility issue must be addressed for better promise of return with consistency without any problem.

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