

An Analysis On the Present Status Of Betel Nut Production in Barpeta District Of Assam

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Abstract: In Assam, agriculture is one of the major sources of income and the backbone of the economy. In this sector of India, the population is growing at a rapid rate, and it increases the importance of planning agriculture. Betel nut is a native of Assam, and it is cultivated on a large and small scale. Large quantities of betel nut are also exported from Assam to different states of India and some neighboring countries like Bhutan, Bangladesh, etc. The current study is based on primary data. In this paper, an attempt is made to bring out the present status of betel nut growers in the study area (Barpeta District and its neighboring areas) using cross-sectional data of 300 betel nut growers for the year 2022. The data were analyzed through simple statistical tools, and the study revealed that betel nut cultivation is done by both marginal and small growers in these study areas. The overall status of the betel nut growers in the Barpeta district is very good, as they have mentioned that the returns from betel nuts are quite satisfying for them. Moreover, the study shows that the cultivation does not need continuous efforts like other crops, and the betel nut tree always feeds them with abundant fruits.

I. Introduction:

The betel nut seed is found in the fruit of the areca palm. Supari, pinang, paan, and paan-gutkha pinlang are other names for it. The betel nut's scientific name is *Areca catechu*. Several betel nut formulations, common names, and specific ingredients are used depending on the ethnic group and individual using it. Several scientific researches have proved that the continuous use of betel nut speed up the brain and the body's signal-processing system [5]. Once the seed has been

separated from the fruit's outer shell, it can be eaten raw, dried, cooked, baked, roasted, or preserved. The most common method of eating betel nuts is to roll them in a betel leaf with crushed seashells or slaked lime (powder). Various terms for this leaf package include betel quid, betel nut chew, betel chew, betel pan, and betel paan (India) [1].

In many regions of south and south-east Asia, as well as the Asia Pacific, chewing betel nuts is a

prominent cultural tradition. It has always been important to cultural rituals, religious practices, and social customs. Some of the locals who have moved to other countries and established houses there have continued to practice betel nut consumption. From the first century AD, Sanskrit medicinal texts claimed that betel nuts have 13 characteristics that could only be obtained in the heavenly area [2].

It has a potent flavor that is salty, spicy, bitter, sweet, and astringent. In addition to stoking passion, it kills worms, removes phlegm, subdues offensive odors, beautifies the mouth, and brings about purification. Because of its CNS-stimulating qualities, betel nut is used in a manner similar to how Westerners use caffeine or tobacco. Some of the effects of betel quid chewing, such as alertness, enhanced stamina, a feeling of well-being, euphoria, and salivation, are caused by arecoline. Digestion is aided by chewing the nut, which increases salivation. An appetite stimulant alternative is betel nut. Recently, there has been some negative propaganda around areca nut, which claims that a specific chemical found in the nut is carcinogenic, or the root of cancer.

The areca tree, a feathery palm that reaches a height of about 5 meters, is widely grown in tropical India, Bangladesh, Japan, Sri Lanka, south China, the East Indies, the Philippines, and some regions of Africa, etc. The nut can be eaten fresh, cooked, roasted, dried, or baked. India is a resource-rich nation where agriculture is the main industry. Agriculture expansion has a direct impact on the eradication of poverty. Also, its expansion helps to lower inflation, increase agricultural earnings, and increase employment.

An estimated 60% of the population in India depends on agriculture for their livelihood, making it the country's major employer [3].

India produces the maximum betel nuts worldwide, despite the betel nut palm being widely grown in China, Bangladesh, Myanmar, Thailand, Malaysia, Indonesia, Philippines, and Sri Lanka. In India, betel nut growing is particularly common in the states of Assam, Meghalaya, Karnataka, and Kerala. These states together make up about 83 percent of the total betel nut production area in India. Additionally, according to reports from the Directorate of Economics and Statistics, Government of Assam, only Assam produces 14.82% of all betel nut production in total India's production [4]. Its contribution to total production is around 73.87 thousand metric tons which formed almost 10 percent of all India production in 2014-15. India is also the leader in catechu production worldwide. The country exported 6517.26 MT of Betel Leaves to the world for the worth of Rs. 45.97 crores/ 6.17 USD Millions in 2021-22 [6]. India also exported 7539.31 MT of Betel Nuts to the world for the worth of Rs. 169.25 Crore/ 22.68 USD Million in 2021-22.

Barpeta and its surrounding areas in Assam have the greatest potential for betel nut cultivation. It offers many direct work prospects, as well as indirect employment to numerous traders who participate in its trading activities. However, there are various issues that act as a barrier to both betel nut production and marketing. Therefore, the main **objectives** of this study are to investigate the status of betel nut cultivation and numerous issues that betel nut farmers encounter both throughout

the production process and during the selling of their products.

Organization:

The rest of the paper is organized into the following sections. The introduction about the betel nut cultivation is mentioned in Section I. Section II & III describes the area of study and methodology used in the survey. The result and analysis of the survey is mentioned in Section IV. Finally, the paper is concluded in Section V.

II. AREA OF STUDY

For the study's convenience, we have chosen the Barpeta and its nearby area in Assam, where a significant betel nut output is evident. By growing this crop, farmers in these locations are able to earn a respectable income. Assam's Barpeta administrative district has a total size of 2243.96 sq. KM. and the total area that is planted with crops is 263747 ha with a cropping intensity of 160% [7, 8].

III. Methodology:

Barpeta and the surrounding region of Assam were specifically chosen for the study due to the region's significant betel nut cultivation. The majority of the study's foundation is primary data. Three hundred sample producers from the study area provide the primary data, which are gathered through the direct interview approach with the aid of a questionnaire. A Likert-type scale technique with five degrees of agreement or disagreement,

such as strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree, was utilized to achieve the study's aims.

IV. Analysis and Interpretation:

This paper presents a cumulative statistical analysis of the collected data obtained during the survey of our research. From Table 1, it is clear that 70% of the total respondents strongly agreed that they had faced the problem of "loss due to animal attack" in betel nut cultivation, and the squirrels played a significant role in it. Squirrels damage the fruits by girdling the tree and their branches which can lead to reducing yields of both the betel nut tree and its leaf.

Farmers in Assam often struggle with the lack of a suitable platform for marketing and selling their products. The situation is similar for cultivators of betel nuts, and more than 50% of them concur that there is no market for betel nuts. Farmers have to charge a nonstandard price for their goods because there is no standard selling platform. Additionally, neither our local government nor anybody else appears to be interested in promoting this crop. Due to government incompetence, there is no local market where betel nuts may be sold, and farmers only receive minimum wages. Due to the absence of a controlled market, many middlemen and

smugglers take the profit and reduce the advantages to farmers. However, greater than 50% of the respondents agreed that betel nut cultivation is a profitable business with minimum human involvement.

a). Analysis of Area of Betel nut cultivation in acres:

The bar chart in Figure 1, provides an analysis of the overall area of Betel nut cultivation land (in "Bigha"). This bar graph makes it evident that just 6.5% of producers have betel nut gardens that are between 7.5 and 15 Bigha in size, while 93.5% of growers have betel nut gardens that are below that size. No grower was discovered to have a garden larger than 15 Bigha. This suggests that there are no betel nut gardens that are cultivable that are larger than 15 bighas, indicating that the bulk of betel nut growers were marginal and tiny producers.

One observation made during the survey was that the area of betel nut cultivation land is gradually

shrinking due to the increased rate of population, and it is directly affecting the overall productivity.

b). Analysis of Market Place:

The marketplace is an essential requirement to improve the economy of an area; in this section, we have analyzed the different available marketplaces for betel nut cultivators in our surviving area. According to the poll, 20% of growers sell their products to local consumers in small local markets. However, over 50% of farmers sell betel nut in dry supari format to vendors coming from different parts of the country for gutkha production.

As mentioned in Table 2, a small portion of the farmers (around 16%) supply their products in different formats to the nearest country, such as Bhutan, Bangladesh, etc. The survey also revealed that in the Satyapur area of Gossaigaon, farmers sell betel nuts to outside vendors in lump sum amounts in the measure of Land amount (Per Bigha 70,000). In this area, people also cultivate betel nuts in an area with an average size of more than ten bighas.

Table 1: Level of Problems during Field Survey in Betel Nut Production

| | Loss Due to Animal Attack (in %) | Possibility of Affected by Disease (in %) | Lack of Market (in %) | Help from Govt. (in %) | Awareness (in %) | Is it a profitable Business (in %) | High human involvement (in %) |
|--|----------------------------------|---|-----------------------|------------------------|------------------|------------------------------------|-------------------------------|
|--|----------------------------------|---|-----------------------|------------------------|------------------|------------------------------------|-------------------------------|

| | | | | | | | |
|-----------------------------------|----|----|----|----|----|----|----|
| Strongly Agree | 70 | 3 | 30 | 2 | 2 | 50 | 3 |
| Agree | 12 | 30 | 20 | 3 | 3 | 40 | 1 |
| Neither Agree nor disagree | 10 | 50 | 10 | 5 | 5 | 5 | 11 |
| Disagree | 5 | 10 | 20 | 10 | 10 | 2 | 30 |
| Strongly Disagree | 3 | 7 | 20 | 80 | 80 | 3 | 35 |

Table 2: Analysis of market places

| Different Market Places | Analysis in % |
|-------------------------|---------------|
| Indian | 84% |
| Bhutan | 16% |

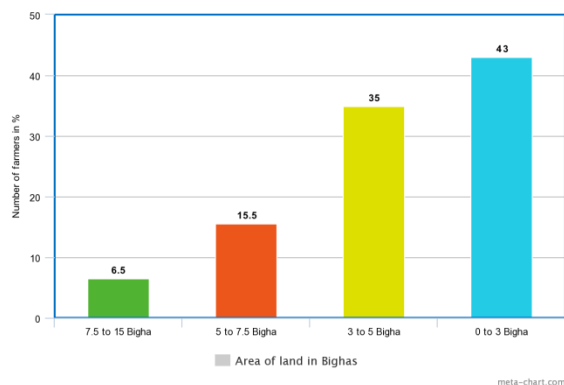


Fig 1: Analysis of area (Bigha) of betel nut cultivation

c). Analysis of Income from betel nut farming:

Based on the result shown in Figure 2, marginal and tiny betel nut garden growers in the research area made an average of 21411.11 rupees per bigha in revenue. In the study area, it was shown that larger garden growers made more money than marginal garden growers. This is due to the fact that a larger garden will contain more betel nut plants, increasing production and revenue.

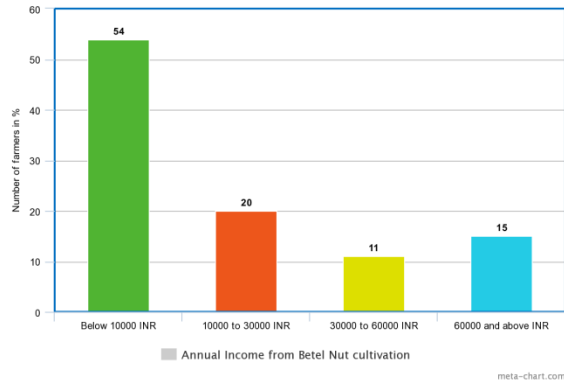


Fig2: Analysis of income from betel nut farming

d). Mixed Cropping:

In the research area, betel nut farmers have practiced mixed cropping to lessen the risk involved with betel nut farming because these crops might generate additional income for the farmers. They cultivate a variety of crops alongside betel nuts in this situation, including vegetables, black pepper, and betel leaf. Farmers are now also selling the leaves of the betel nut plant to various start-ups, such as "TANJIT" who create various home items like rice plates and tea plates. During the survey, it is found that around 22% of farmers sell raw plant leaves and earn a handsome income. However, a majority of the farmers (around 35%) cultivate betel leaves with betel plants and sell them in the local markets. A detailed analysis of different mix cropping and its contributions is shown in Table

3. A few farmers also plant different crops, such as black pepper and different vegetables, to earn some extra income. This indicates that mixed cropping, along with the betel nut, is a good concept for earning extra income.

Table3 : Distribution of farmers based on extra income with betel nut farming

| Extra Income with Betel Nut | Percentage of Farmers |
|-----------------------------|-----------------------|
| Betel Nut Tree Leafs | 22% |
| Betel Leaf | 35% |
| Black Pepper | 16% |
| Vegetables | 9% |
| Nothing | 22% |

V. Conclusion:

From this survey, it is noticed that Barpeta and its neighboring districts have tremendous potential in the production of betel nuts. People from the above-mentioned area strongly agree that betel nut cultivation is a very profitable business with negligible investment. But, because of the government's negligence and lack of awareness, there is no proper marketplace to sell the products. Farmers from this area also supply a part of the total production to the other parts of India. Betel Nut growers face several problems, such as animal attack, and different types of diseases. These problems can be

resolved through proper awareness camps and training by different NGOs. From this survey, it is also clear that the maximum number of farmers are small growers where the cultivated area is below 7 Bigha. But it is exceptional in the case of the Satyapur area of Gossaigaon, where the majority of the farmers cultivated in large quantities. The majority of the farmers in the study area don't have the proper knowledge of marketing, and on average, they earn only 21000. But, nowadays, they earn some extra income by cultivating some mix cropping and selling betel nut plant leaves.

8. <https://barpeta.assam.gov.in/about-us/district-profile>

VI. References:

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