NEERA: A LIFELINE OF COCONUT GROWERS -AN ANALYSIS

Mr.Tinto Anil
(Assistant Professor,Holy Cross Collge, Kerala)

Dr.Vineeth Mathew
(Assistant Professor, Holy Cross Collge, Kerala)

ABSTRACT

Tender coconut water, known as Neera, has emerged as an important source of living bread for coconut growers and about ten million families are cultivating coconut in India. Almost 1800 lakh coconut palm population exist in Kerala and if a minimum of 1% of this coconut trees are used for Neera tapping there will be 18 lakhs trees for tapping. A Neera tapper can ideally tap around 15-20 palms each day and the employment potential is expected for this purpose is one lakh. This may increase to 10 lakhs if the Neera tapping is increased to 10%. If farmers are allowed to tap Neera and to produce the value added products, it will help the farmers to generate a high daily return to the Neera tapper as well as to the coconut growers. The study includes a detailed analysis about the Neera and its effect on the coconut farmers and a brief discussion about the Neera and its value added products and its effect on the coconut farmers.

KEYWORDS: Coconut growers, Neera, tender coconut water, sustainable livelihoods, rural development, and value-added products.

INTRODUCTION

The coconut tree is popularly known as the tree of life. This is because of its characteristics as a food supplier from its nuts, inflorescence and other edible products. India stands first in the world in coconut production of 15840 million nuts from 194 million hectors. In Kerala about 5968.01 million nuts are produced every year. Continuous fluctuation and decrease in price of coconut severity of many pest and diseases, increase in the input cost, split of holdings etc. Are few causes. Coconut planters are subjected to utter negligence and it lead the sector to an unprofitable enterprise. Thus the need for restoring the life of the coconut sector has become important. At first the coconut sector was only dealing with copra and coconut oil for the earning. Now the coconut development board are in a research to create new value added products from coconut. It has brought out many viable strategy for regaining the lost power of the coconut. Neera is the latest creation in the value added products which have the potential to restore the prospectus of coconut farmers in India.

Neera is a non-alcoholic and nutritious drink from the coconut palm. It was introduced in Kerala in April 2014.it is promoted for its capacity for value addition, generation of employment and also to increase the returns to the coconut growers. The sap collected from the immature unopened coconut inflorescence is called as Neera. It is popular for its healthy components and it is good for digestion helps to resist the jaundice and also prevents the urinal problems. A coconut tree yields on an average of 2 liters of coconut sap per day, which may even go up to 4.5 to 5 liters based on the health and management of the coconut tree. Neera on fermentation become toddy. Thus Neera production needs to follow the strict procedures and follow cautious handling. Neera is also a product for many value added products like palm jiggery palm syrup and palm sugar which are having high domestic and international demand because of its high nutritional value.

If 10% of the palm is taken for tapping it have the capacity to generate the returns of 54000 crores towards the Gross State Domestic Production. Around 10 lakh rural employments can be generated by this. The total income of Neera appears can be estimated to around Rs 13500 crores and the income of the farmers is around 27000 crores and around Rs 4050 crores is generated as tax. The estimated increase towards the GSDP is around 17%.The major players in the field of Neera are Thailand, Malaysia, Srilanka and Vietnam, the major export places are USA, Canada, France, Middle East, South Korea, Japan,, Australia and New Zealand. Coconut development board has taken the responsibility of development of the set of skilled labours known as the Neera Technicians for tapping Neera. Thus a new green collar jobs are created recent estimates by agricultural experts say that the each coconut tree could yield Neera that will fetch Rs.3,000 a month. After paying the tapper's wages, the income earned monthly from each coconut could be Rs.1,500.

OBJECTIVES

1. To analyse the benefits of Neera for coconut growers, including increased income andprofitability.
2. To examine the impact of Neera on rural livelihoods, employment, and povertyreduction.

METHODOLOGY

The proposed study is exploratory and descriptive research in nature and follows a mixed- methods approach combining quantitative and qualitative methods. For the collection of primary data, filed surveys are conducted among 500 coconut growers across the Kerala state. Secondary data are collected from various journals, publications, existing research, reports, and articles and from Government databases such as Coconut Development Board, Ministry of Agriculture, and State Agriculture Departments etc. A Stratified random sampling technique is used for the selection of respondents from major coconut producing areas of the state. Descriptive statistics and various data visualization methods are used for the analysis and presentation of the data.

PROFILE OF NEERA PRODUCT

Coconut tree is grown in almost all farmlands in the state. Predominantly it is grown in small holdings and Kerala has the greatest area under the crop with the 41.6% of national acreage. During the years 1950-51 to 2010-11 the area under coconut improved from 409400 hector to 788000 hector and coconut production from 2026 million nuts to 6239 million nuts.Coconut are accounted for 40.2% of the net cropped area cultivated in Kerala .Coconut provides employment to about 16 percentage of the workforce in Kerala It is estimated that at least 5 million people depend on this crop for their employment and livelihood. Coconut also accounts for a third of agricultural production in Kerala. It provides raw material support for the traditional industries of the coir and the oil milling and it is the main source for about 17.29%of the agricultural income of the state.

The production of coconut has fell by 17.98 percentage during the corresponding period. According to the survey report released by the Coconut Development Board (CDB), coconut production in Kerala which was 5,921 million nuts in 2013-2014 fell to 4886 million nuts in 2014-2015. Lack of systematic approach in crop management technical adoption, uneconomic holding size poor quality of the planting materials, used debilitating root will disease in the southern districts, climate change and the dry spell in northern districts, high input cost and non-availability of labourers for agricultural works, less price of the coconut etc. are factors of the low yield and production of coconut in the state.

Coconut Sap (NEERA): Neera is a white sap taken from the inflorescence of coconut palm and this are used to quench the thirst. Neera is a non-alcoholic drink which contains vitamins

minerals and sugar. Neera when fermented becomes toddy. Neera is widely consumed in India, Sri Lanka, Africa, Malaysia, Indonesia, Thailand and Myanmar.

Coconut sap or Neera is one of the important products from the coconut palm. It is being traditionally tapped from coconut in an unorganized manner and consumed widely by rural population. It is said to be a good digestive, facilitating clear urination and prevent jaundice. The sap or sugary solution is collected from the inflorescence of the coconut. An adult coconut tree produces 12 to 14 inflorescence per year, one inflorescence every month. The inflorescence of coconut is composed of spadix where the main axis of peduncle are pipe like structure through which the sap drains out from the cut end. In an unopened inflorescence, the peduncles are closely arranged without much space for inter peducle. The peducles are surrounded by boat shaped woody type bracts called as spathe. The coconut spadix is quite large and reaches to a length of 1 meter.

Coconut sap is rich in sugar mineral and proteins and source of ascorbic acid and carbohydrate with sucrose as the major sugar. The coconut sap contains high amounts of essential elements such as sodium, potassium, manganese, copper, zinc. Iron and micro nutrients.

Biochemical, Mineral and Vitamin composition of Neera

Total solids (g/100 ml)	15.2 to 19.7	Thiamine	77.00
Ph.	6 to 6.5	Riboflavin	12.20
Specific gravity	1.058 to 1.077	Pyridoxal	38.40
Total sugars (g/100 ml)	14.40	Pantothenic Acid	5.20
Original reducing sugars (g/100 ml)	5.58	Nicotinic acid	40.60
Total reducing sugars (g/100 ml)	9.85	Biotin	0.17
Total ash (g/100 ml)	0.11 to 0.41	Folic acid	0.24
Citric acid (g/100 ml)	0.50	Inositol	127.70
Alcohol (in %)	Nil	Choline	9.00
Iron (g/100 ml)	0.15	Vitamin B12	Trace

Neera production, processing and packaging can be undertaken under the control of Federations of CPS registered with CDB. Healthy palms are selected by Federations from among the palms of the members of CPS. Neera is collected at CPF level and assembled at a primary processing centre under the auspices of Federation. Primary processing of Neera and transportation to processing centre can be done here under the guidance of the research agency with strict monitoring of Federation. Producer Companies can start processing and value addition of Neera and create value added products like syrup, honey and palm sugar. The palms to be tapped needs to be selected in advance by CPF.

RESULT & DISCUSSION

Neera's economic significance radiates far beyond the farmers, profoundly impacting local communities and regional economies. Its versatility enables diverse uses, including fresh consumption and processing into value-added products such as sugar, jaggery, and condiments, thereby unlocking additional income streams from coconut palms. Neera's impressive nutritional profile, rich in essential vitamins and minerals, resonates with the growing demographic of health-conscious consumers. This surging demand expands Neera's market potential, fostering a lucrative industry that benefits stakeholders across the entire value chain.

1. The analysis shows that the earning from the Neera is 82% (200000) more than the revenue earned from the coconut (36000).This analysis clearly shows that the Neera tapping have a great impact on the coconut farmers.
2. From the survey it was found that, majority coconut production increases with the increase in the fertilizer and a majority of respondents (77%) spend around between 75-100 rupees for fertilizers per day.
3. Most of the farmers (65%) had an opinion that the Neera tapping are profitable forthem.
4. Neera producing plant should be increased so that more farmers can be benefittedfrom Neera.
5. More awareness should be given about Neera through advertisements in themagazines and television.

CONCLUSION

Neera do make changes in the socio economic and cultural life of farmers in Kerala.Neera provides sufficient revenue to the farmers as well as to the Neera technicians and this also helps in contributing to the Gross State Domestic Product. The Neera tapping provides almost 81% more profit than the mere coconut production. It is said that Neera production gives 10 fold profits than the coconut production. The profit earned from Neera will lead to the development of coconut farmers and this also gives confidence among the farmers to continue the coconut farming.

REFERANCES

1. Kumar et al. (2020). Economic Analysis of Coconut Cultivation in India. Journal of Agricultural Economics, 51(2), 239-248.
2. Singh et al. (2019). Coconut Water: A Review on Its Nutritional and Medicinal Properties. Journal of Food Science and Technology, 56(4), 2123-2132.
3. Rao et al. (2018). Value Chain Analysis of Coconut in India. Journal of Agricultural Marketing, 31(1), 53-64.
4. Coconut Development Board. (2022). Annual Report 2021-2022.
5. Ministry of Agriculture and Farmers Welfare. (2022). Agricultural Statistics at aGlance 2022.
6. National Horticulture Board. (2022). Horticulture Statistics at a Glance 2022.
7. 1. Kerala State Coconut Development Board. (2022). Annual Report 2021-2022.
8. 2. Department of Agriculture, Government of Kerala. (2022). Agricultural Statistics2022.
9. 3. Kerala State Planning Board. (2022). Economic Review 2022.
10. Kerala Agricultural University. (2020). Economic Analysis of Coconut Cultivation inKerala.