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Cashew Cultivation: An Essential Prerequisite for Growth of the Cashew Industry in Kerala

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Abstract:

Cashew, the tree bearing the wonder nut came to India from Brazil via the Portugese in the 16th century. The crop established well in the coastal regions of Peninsular India. India pioneered processing of the raw cashew nuts into value added products which soon captured a niche place in the world market for nuts. Kerala stood first in the processing industry till the recent past, however, shortage of raw nuts is presently posing threat to the survival of the industry which employs nearly 3 lakh workers of which 95 per cent are women. Several socio economic reasons have caused a drastic decline in the area under cashew cultivation in the State, which are analyzed in the paper. Measures to bring more area under cultivation as well as to enhance the productivity and production of the crop are also discussed.

Keywords: Cashewnuts, Uneconomic, Senile, Rejuvenation, Organic cashews, Net returns

1. Introduction

Cashew, (*Anacardium occidentale*), a native of Brazil was brought to India by the Portugese in the 16th century. The crop took to the soils of Peninsular India in a big way and flourished. In the 19th century India pioneered cashew processing as an industry and introduced cashew kernels, the wonder nut, in the world market. Kerala was top in area and production of the nut and cashew industry flourished in Kollam district. There are around 800 registered Cashew nut processing units in Kerala employing around 3 lakh workers of which 95 per cent are women. However, at present, the cashew industry is facing problems and a large number of factories are on the verge of shut down. Unlike the other cottage and village industries like handicrafts, coir or textiles there is no threat of a fall in demand or a fall in price of the finished product from cashew industry due to competition from cheap substitutes. However, the main threat is related to availability of good quality raw nuts for processing. The situation has arisen due to the fall in the domestic production of raw nuts as well as due to increase in competition for raw nuts consequent to other nations entering into processing and value addition.

India stands first in area and production of cashewnut contributing 37 and 42 per cent of the total world area and production respectively. It is cultivated in some 8 states in India on an area of 7.8 lakh hectares with a total annual production of 5.50 lakh tonnes. Cashew industry is today facing a shortage of raw material for their production. Out of an installed capacity of 22 lakhs metric tonnes current production is only around 17 lakh m tonnes comprising of 7 lakh produced locally and 10 lakhs imported⁽¹⁾. India is fast losing its monopoly in the export of cashew kernels and countries like Vietnam which were not in the scene 5 years ago is vastly expanding their market. Since production in Vietnam and other new entrants in the processing sector is also insufficient to meet their domestic demand the competition in the international market for import of raw materials increase, putting additional stress on the industry. In this context, expansion of area under cultivation of cashew and an increase in production is highly warranted. A study on the trends in area, production and productivity of the crop with prospects of future expansion is made here.

2. Methodology

The paper relies on secondary data published by Government agencies to analyze trends in area, production and productivity of cashew in the State. Focus group discussion of farmers, workers and industry people was conducted to analyze the reasons for the decline in area, production and productivity as well as to elicit strategies for area expansion.

3. Results and Discussion

3.1. Cashew Cultivation in Kerala

In India cashew is cultivated mainly in the coastal regions, in the States of Kerala, Karnataka, Maharashtra, Tamil Nadu, Andhra Pradesh, Orissa and West Bengal. Kerala stood first in the extent of area under cashew. However, the area under cashew has declined over the years and at present Kerala Stands 5th in area under cashew. Area and production are increasing steadily in other producing

states in the country. Even though the major share of area under cashew comes from Andhra Pradesh (18.3 per cent), Maharashtra whose share was only 10 per cent in 1990-91 is the leading producer now with 32.9 percent share in production during 2013-14. Area, production and productivity figures for the crop in Kerala are given in Table 1.

Period	Area (lakh ha)	Production ('000 MT)	Productivity (kg/ha)
1990-91	1.156	102.77	813
2000-01	0.921	66.18	718
2010-11	0.680	34.75	510
2012-13	0.521	37.91	728
2013-14	0.491	33.37	680
2014-15	0.454	29.72	655

Table 1: Trends in area, production and productivity of cashew in Kerala
Source: Farm Guide, Government of Kerala and www.ecostat.kerala.gov.in

Data indicates that there has been a continuous and considerable decline in both areas under cultivation as well as production of cashew. It is alarming to note that the production which stood at 66 thousand MT in 2000-01 declined to 37.9 thousand MT in 2012-13 and to 33.3 thousand MT in 2013-14^(2,3). Area dwindled from 68 thousand hectares to 52 thousand hectares and to 49 thousand hectares during the same period. Productivity of the crop which was around 900 kg per hectare during the early nineties also fell to 680 kg per hectare in 2013-14. An examination of the trends in area and production of major crops of the State also reveal a similar pattern in all crops except rubber, coconut and banana. Cashew which was already a neglected crop is no exception. Kannur and Kasargod districts account for nearly 70 per cent of the total area under cashew cultivation. The two districts contributed about 40,000 tonnes with a productivity of 926 kg /ha and 836 kg /ha respectively. About 28 per cent of the total production came from homestead gardens of less than 2 ha, mostly marginal land belonging to the rural poor. The decline in acreage and production can be attributed to several reasons, which were analyzed in a focus group discussion comprising of farmers, most important of which are listed below.

1. Nature of the crop. The crop yields only once in a year and the farm gate price was Rs 70 to 80 per kg of raw nuts. With a local variety yielding only less than 10 kg per year this accounts for only Rs 700 to 800 per tree per annum. No scope for income generation through intercropping exists since the plant has an allelopathic effect.
2. Harvesting and collection of nuts is labour intensive. Fully ripe nuts have to be collected when they fall, the nut has to be separated from the juicy apple, dried and stored. The exudates from the apple as well as nut shell can spoil dresses as well as cause burns on the skin.
3. Occupies large area. Due to the spreading nature of the crop, large patch of land is occupied by the crop and no crop grows beneath it. Hence income per unit area also becomes low.
4. Old and senile plantations. Most of the existing plants are of poor genetic make-up, old and senile and hence poor yielders.
5. No scientific care and management to the crop. Cashew is generally a neglected crop planted in wasteland unsuitable for any other crop and received little care and management. Pest and disease incidences when left unattended damages the trees.
6. Area expansion in rubber. Cashew plants were cut and removed even from homesteads for planting natural rubber (*Hevea brasiliensis*).
7. Dwindling size of operational holdings and other uses for land. The size of individual operational holdings is coming down day by day with increasing rate of subdivision of family property among children and also use for other purposes.
8. No or minimum domestic use for the raw nuts and cashew apple, which are by nature cumbersome to handle.

4. Measures for Area Expansion

For the expansion of cashew cultivation in Kerala an agency named “Kerala State Agency for the Expansion of Cashew Cultivation” (KSACC) was formed with Headquarters at Kollam in the year 2007. KSACC was able to bring 3108 ha of land under new plantation of cashew and rejuvenate 760 ha of old and senile plantations⁽⁴⁾. These efforts have to be further strengthened. Some of the possible strategies for area expansion as suggested by the farmers in the Focus Group discussion and discussion with experts are given below.

4.1. Fallow and Waste Land Utilization

Cashew can be planted in the fallow and waste lands as well as in the lands of the public sector undertakings, University campuses, cashew factories etc.

4.2. Replanting and Rejuvenation

Old and senile plantations are to be replanted with high yielding varieties suited to Kerala released from the Kerala Agriculture University. From Anakkayam 1 and Madakkathara 1 released in 1987 to the latest Raghav, Damodar, Poornima and Sree⁽⁵⁾, more than 15 high yielding varieties have been released from the KAU so far and grafts of the same are available from the different research stations and farms of KAU as well as farms of the Department of Agriculture.

4.3. Awareness on Scientific Crop Management Techniques

Techniques for crop management as well as pest and disease management have been developed by the KAU. Scientific pruning of the trees can help accommodate more number of plants per unit area, thereby increasing productivity as well as net returns. These techniques have to be imparted to the farmers so that new plantations will be managed scientifically to ensure maximum productivity.

4.4. Organic Cashews Can Fetch a Premium Price

Adopting strict organic farming methods can be a reliable way out from the crisis that the cashew farmers are facing now in the wake of the falling prices and the extreme competitive atmosphere created by the WTO regime.

4.5. By Product Utilization

Cashew apple, which is highly nutritious, and presently wasted can be processed into valuable products. Kerala Agricultural University and CIFTRI, Mysore, have done pioneering work in the utilization of cashew apple. Industries for by product utilization have to be set up in the public sector so as to enhance the net returns from cashew. It can also create considerable employment, particularly for women.

Cashew shell liquid is another valuable by product which offers vast scope and opportunities for the production of speciality chemicals, high value products and polymers. It is also an organic pesticide of high potential. Research in these lines has to be further promoted so that more returns can be realized from the crop.

5. Conclusion

Cashew though suited to Kerala's agro-climatic conditions, is considered an uneconomic crop by the farmers of Kerala. The area under cultivation of the crop as well as total production is showing a continuously declining trend. Cashew industry which is a major employment provider to women of the State is facing severe challenges due to this declining domestic production. Area expansion with high yielding varieties, replanting and rejuvenation of old plants, value addition of by products and scientific care and management of the crop can go a long way in enhancing productivity and production of the crop and make it popular among the farmers.

6. References

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