

A Study on Cassava Production Technologies in Tamil Nadu

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P. Chennakrishnan

Assistant Professor, Department of Economics, Thiruvalluvar University, Vellore, India

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D. Thenmozhi

Ph.D Research Scholar, Department of Economics, Thiruvalluvar University, Vellore, India

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Abstract

Cassava is a significant nourishment source in the tropics and gives the third-most noteworthy sugar yield among the harvest plants. Since the plant develops well in poor soils and low precipitation territories, it is a famous harvest in the nations of sub-Saharan Africa. Cassava endures a wide assortment of development conditions incorporating soils with pH going from acidic to antacid, yearly rainfalls from 50 mm to 5 m, rise between ocean level and 6,600 feet, and even central temperatures. In the current year, India exported 81 million worth of tapioca and its value-added products in 2014-15 (April-December). Tamil Nadu is the top producer of tapioca and processing of tapioca as starch & sago (64%). Currently, the price of tapioca is ruled at 700 to 800 per quintal, which was sold at 1350 per quintal in March-April 2014. Farmers who got good prices last year could only get half the price this year. This was mainly due to higher production and lower demand due to the fall in sago and starch prices.

Keywords: Income and savings, Casava Production, economic condition

Introduction

Cassava endures a wide assortment of development conditions incorporating soils with pH going from acidic to antacid, yearly rainfalls from 50 mm to 5 m, rise between ocean level and 6,600 feet, and even central temperatures. Cassava (*Manihot esculenta* Crantz), additionally referred to regularly as Tapioca, keeps on being a yield of nourishment security for a large number of individuals, particularly in the creating nations of the globe. It is a significant exchange wellspring of vitality to fulfill the needs of expanding the populace. In 1943, Mr.Manickam Chettiyar of Salem, Tamil Nadu, discovered cassava flour as a decent substitute for American corn flour and advertised at Chennai. Sago generation initiated in Tamil Nadu with the specialized ability from Malaysia. By 1945, the generation of sago and starch expanded apparently. Variables like reasonable atmosphere for drying of starch, low work costs in Tamil Nadu incited the improvement of cassava-based businesses, and making it as a business crop today.

Comprehensively cassava is developed in a territory of 18.51 million ha delivering 202.65 million tons with an efficiency of 10.95 t/ha. (FAO, 2005). It is developed in 102 nations on the planet. African landmass possesses first position covering 66.21 percent of cassava territory, delivering 53.37 percent of the world cassava as it is a staple in huge numbers of the African nations. Even though the territory is more in Africa, its generation is low because of low efficiency (8.82 t/ha), which is lower than the normal world profitability. In spite of the fact that rice and wheat structure a significant piece of the staple for Asians, it is to be noticed that Asian mainland is the second biggest as far as zone (19%) and creation (29%) of cassava with the profitability of 16.76 t/ha.

South America has 13.44 percent of the region, creating 16.79 percent (third position) of the world generation. World production of cassava in 2013-14 is estimated at over 277 million tonnes from an area of about 20 million hectares. Nigeria (20%), Thailand (11%), Indonesia (9%), and Brazil (8%) are the world's largest producers concerning the area under tapioca.

In tapioca cultivation, India ranks 25th in area, 11th in production, and 1st in productivity (34.95 tonnes/ha). Tapioca is cultivated in an area of 0.21 million ha in India, with a total production of 7.74 million tonnes. This tuber crop is largely cultivated in Tamil Nadu (64%), Kerala (32%) parts of Andhra Pradesh (1.5%), Nagaland (1.2%) and Assam (0.5%). India exports several forms of tapioca products like raw tapioca tuber, starch, sago, and other modified starches like Dextrins. India ranks 8th place in tapioca export value led by Thailand, China, and Vietnam during 2013-14. Indian tapioca and its value-added products export value have increased from ₹77.37 million (2012-13) to ₹189.46 million (2013-14).

Tapioca is being cultivated in major 14 districts: Namakkal (21%), Dharmapuri (19%), Salem (15%), Villupuram (14%), Trichy (9%), Erode (5%) and Thiruvannamalai (5%) in an area of 1.21 lakh hectare. Sago which was sold at 6700 per 90 kgs bag had come down, and the ruling rate of Sago per bag is ₹3582 and the price of Tapioca Starch, which was sold at ₹4000 per 90 kgs bag, had come down and the ruling rate of Starch is ₹2260 only.

The Economic Importance of Cassava

Cassava is a significant nourishment source in the tropics and gives the third-most noteworthy sugar yield among the harvest plants. Since the plant develops well in poor soils and low precipitation territories, it is a famous harvest in the nations of sub-Saharan Africa. The way that it is a perpetual plant makes it simple to collect the harvest when required and treat it as food save during dry seasons and starvations. Cassava subsequently fills in as both money and a subsistence crop.

Statement of the Problem

Fast industrialization in the of Tamil Nadu has eventual outcome as an expressive degeneration in

water quality. The serious issue with the groundwater is that once defiled; it is hard to reestablish its quality.

Albeit modern effluents, poor foundation, foul smell, release of sago wastewater blended into agrarian ranches are through different sources kick into expanded water contamination and disturbing to condition. For the most part, the outstretch defenselessness of water contamination has prompted water quality, soil, and agribusiness creation. The same, issues have effectively forced the monetary cost to happen from dispensing gained in recreation and loss of output. There is a need and alarm for the protection to the board of ground water quality.

Objective

Research Methodology

The examination was led in Dharmapuri locale of Tamilnadu, which is one of the 37 regions of Tamil Nadu squares were chosen for this investigation. From those two squares, 5% towns viz., Morappur and Harur be chosen. A rundown of all custard ranchers/respondents is set up with the assistance of leader of the town pradhan, or leader of each chose towns in both square, there after ranchers/respondents are arranged in 3 size gatherings based on their property holding and afterward from every town 10% ranchers were chosen haphazardly from all the distinctive size of homestead gatherings. Information for the investigation was gathered from 110 ranchers arbitrarily (i.e.) 45 little ranchers, 37 medium ranchers, and 28 enormous ranchers. Organization technique is utilized for the investigation of information alongside the required factual device for the revelation of the result.

Table 1: Resource Use and Cost of Cultivation of Tapioca Crop Per Hectare in Different Size of Farm Groups

Amount	Income		Expenditure	
	Respondent	%	Respondent	%
5000 and below	26	37.2	28	40.0
5000-7500	18	25.7	20	28.5
7500-10,000	12	17.1	14	20
10,000 and above	14	20	8	11.5
Total	70	100	70	100

Source: Primary

In the above table 1, it clarifies that the little size respondent is utilizing 5000 rupees salary on contracted consumption and it comprises of 37.2 level of the complete expense of development and 5000 rupees 40 levels of the above table referenced no distinction to pay use.

Table 2: Saving Pattern of the Sample Respondents

S. No	Saving Pattern	No. of Respondents	Percentage
1	Below 300	22	31.4
2	301-600	12	17.1
3	601-900	25	35.7
4	Above 900	11	15.7
	Total	70	100

Source: Primary

Table 2 clarified that cautious example of cassava cultivators. In the investigation of the 70 casava cultivators, 35.7 level of them sparing Rs.601-900. 31.4 level of the respondent's reserve funds in beneath Rs.300, 17 levels of the savings,12 respondents the scope of 301-600 and staying 15.7 rates, 11 respondents, over 900. In this investigation, all the cassava cultivators set aside their cash.

Table 3: Cost of Cultivation in Cassava Crop per Hectare in Different Size of Farm Groups

Indebtedness	No. of Jasmine cultivators	Percentage
Indebted	47	67.1
Non-Indebted	23	32.8
Total	70	100

Source: Primary

Table 3 explained that 47 (67.1 percent) of them are indebted. On the other hand. The remaining 23(32.8 percent) of them never borrow money.

Table 4: Sources of Irrigation of the Sample Respondents

Sources of Irrigation	No. of the Respondents	Percentage
Well	14	20
Bore Well	20	28.5
Rainwater	26	37.1
Cannel	10	14.2
Total	70	100

Source: Primary

Table 4 explained that 37.1 percent of respondents of cassava cultivators use in as rainwater their sources of irrigation. On the other hand, 28.5 percentage use bore well. While 20 percentages were well, 14.2 percentages was cannel. From the table, the majority of sources of irrigation were using rainwater.

Table 5: Problem faced by Cassava Production of the Sample Respondents

A Problem faced by Cassava Production	No. of Respondents	Percentage
Failure of rainfall	22	31.4
Price Fluctuation	25	35.7
Destroyed by the insects	12	17.1
Inadequate finance	15	21.4
Lack of preservation facilities	5	7.1
Total	70	100

Source: Primary

The table revealed that of the 70 cassava cultivators. 35.7 percentage of cultivators faced the problem of failure of price fluctuation and 31.4 percentage of the failure of rainfall. 21. 4 percentage of the respondents' inadequate finance 17.1 of the respondents destroyed by the insects, remaining 7.1 percentage of respondent's lack of preservation facilities. From the table, the majority of the respondents facing the problem of price fluctuation.

Conclusion

In India, cassava is the staple food in the Kerala and Andhra Pradesh conditions of the nation. It is likewise devoured as a significant starch source in Assam. The cassava created in Thailand and Vietnam locates the biggest fare advertise in China. In China, the Guangxi area is answerable for about 60% of the nation's cassava generation. A few sorts of mixed refreshments are likewise produced using cassava. The nation is contributed in terms of a professional career in cassava. About each cultivating family in the nation develops cassava, and it represents the everyday caloric admission of, in any event, 30% of the inhabitants of the nation.

Cassava is likewise a significant piece of numerous cooking styles around the world. Cassava additionally has certain poisonous properties that must be treated before utilization.

Critical research is being done to assess the utilization of cassava as a wellspring of biofuel. Cassava tubers are additionally utilized as a significant creature feed. Various clothing items use cassava subordinates as clothing starch.

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Author Details

P. Chennakrishnan, Assistant Professor, Department of Economics, Thiruvalluvar University, Vellore, Tamil Nadu, India, **Email ID:** drchenna79@gmail.com, ecopcktvu@gmail.com.

D. Thenmozhi, Ph.D. Research Scholar, Department of Economics, Thiruvalluvar University, Vellore, Tamil Nadu, India