CHAPTER - IV

PROFILE OF SALEM AND NAMAKKAL DISTRICTS AND GENERAL PROBLEMS OF SAGO INDUSTRY
- AN OVERVIEW

4.1 INTRODUCTION

The present chapter discusses the profile of Salem and Namakkal districts with area, population strength, history, economy, export commodities, import commodities, people and their culture, education, industrialization, banking network, environmental issues and role of Sagoserve and its growth, and general problems of Sago industry.

4.1.1 Salem District Profile

The objective of thread is to promote Salem and to create awareness about life, Business, Education, Politics, Transportation, Investments, Real estate, Infrastructure, and projects in and around salem region. It covers Salem, Mettur, Attur, Sankari, Namakkal, Tiruchengodu, Rasipuram, Hosur, Dharmapuri, Erode, Krishnagiri and Hosur.

4.1.2 Population Figures

Salem stands in the fifth place in the state of Tamil Nadu in terms of the population. In reality, the net population of the city is more than that of Tiruchchirappalli, which is said to be the fourth largest city. The population figures shown in the census for Salem are given excluding many important suburbs like Kondalampatti, Kannankurichi, and Mallamoopampatti which
have been included into Salem City Municipal Corporation limits many years ago. The total urban population of Salem district is about 13,90,000 whereas that of Trichy is only 11,39,000. And also, the total area covered by Salem city Municipal Corporation is 94 square km, and many important suburbs like Ayodhyapattinam, Dasanaickenpatti, Mohan Nagar, Uthamacholapuram, ChinnaKollapatti are not included into city limits. Wherein, Trichy Corporation limits are extended very much outside the urban limits. Originally, Salem is considered to be the second largest city of Tamil Nadu in terms of population density. The population of the city and suburbs alone is over 1,00,000.

4.1.3 History

The name 'Salem' appears to have been derived from *Sela* or *Shalya* by which the term refers to the country around the hills, as in the inscriptions. Local tradition claims Salem as the birth place of Tamil poetess *Avvaiyar*. Salem was taken from Hyder by Colonel Wood in the beginning of 1768. But it was recaptured by Hyder towards the end of the year 1772. Under Lord Clive in 1799, it was again occupied by a detachment of the residents stationed at Sankari Durg and remained a military station till 1861 when the troops were altogether withdrawn.

4.1.4 Economy

Salem is known as the ‘Mango city’ in Tamilnadu, India. It’s mangoes are sent to various parts of the state and even outside the state. It
also has a Steel plant run by the SAIL and the brand Salem Stainless Steel is very widely known. Salem is also occasionally known as Steel City. It's also famous for Sago, Bauxite, Lorry Body building, Hand Loom Weaving. Salem is one of the largest producers of traditional silver anklets, which is popular among women of India.

It has magnesite deposits, second largest in India. The companies like Dalmia and TANMAG have mines in and around the suburbs. Salem also boasts of a large sago industry. The Leigh Bazaar market is one of the largest regional markets for agro products.

Salem had a very active film production (not so active now according to Anna K), with former Modern Theatres Studios being the hub of Tamil film production. Now defunct Modern Theatres had produced some of the most successful Tamil films, in which many veteran actors have acted, including former Chief Minister M G Ramachandran (known as MGR). Shevapet is the prime commercial market place of the city, with densely built buildings.

Besides, Salem Steel Plant, SAGOSERVE, Dalmia Magnesite Corporation, Burn Standard, PowerGrid, TANMAG which are located in the city and suburbs, Mettur (50 km away from Salem city) has SISCOL, MALCO, Chemplast, Thermal power plant, Hydel power plant and huge number of chemical industries. Salem Steel Plant, SAGOSERVE, TANMAG, Burn Standards, Dalmia Magnesites, Tata Refractories are some
of the notable industrial units of the city. POWERGRID has a station on the Steel Plant Road.

There is an exclusive Electrical and Electronics Industrial Estate in the Suramangalam area of Salem city. Also, Coimbatore-Salem Industrial Corridor is considered to be one of the highest investment attraction center in the next 5year plan.

4.1.5 Export Commodities

Textiles, Yarn, Granites, Readymade Garments, Mangoes, Coir products and Salem Stainless Steel

4.1.6 Import Commodities

Pulses, Grams, Edible Oil

4.1.7 People and Culture

Most people of Salem are of Kongu Race. A lot of Kannadigas, Malayalis and Gujaratis also live in Salem. Tamil is the widely spoken language in Salem. Apart from Tamil, people with Telegu, Kannada and Sourashtra languages as their mother tongue are also in large numbers especially within the town limits of Salem. People here are of workaholic nature, we can see busy roads right from early morning to late night. Food here is one of the tasteful aspects of this city. Lot of hotels are famous for their own special items. Especially, the night time fast foods of Salem are quite famous. Cinema theatres are the main source of recreation in Salem. Salem is used to have the most theatres in Tamil Nadu. Even now lot of
theatres functioning in and around the city. The newly built multiplex (five theatres equipped with latest technology) is the latest addition to cinema lovers of the city. Salem also has a golf course on the way to Salem steel plant. Anna park, and two amusement parks in Salem suburbs attract the kids. Yercaud is the recreation place for most of the people in Salem, especially youngsters. Yercaud is just a one hour drive away from Salem city center. Lot of working people in Salem come here during weekends to enjoy the cooler climate of Yercaud.

4.1.8 Education

Once Salem region is considered as a backward region for education, now has two universities, 5 medical colleges, over 75 Engineering colleges, hundreds of Arts and Science Colleges and thousands of Schools.

4.1.9 Industrialisation

Handloom weaving is the main industry and the weaver engaged under handloom sector are concentrated mainly in Salem ,Sankari, Idapadi and Omalur Taluks. The other thriving industries are Sago manufacturing and Power loom cloth production. Mettur has become a powerful industrial center due to the availability of power and water. In Salem Taluk there are four major mining firms engaged in the mining of Magnesite. Sago manufacturing, ancillary units to support or supply materials to the medium and large scale industries offer scope for setting, up units in the small scale sector which could contribute to increased employment opportunities to the
people of the District. The Salem district has 120 medium and large scale industries 8250 registered small scale industries. Among the industries over 500 are classified under red category and 2000 are put under orange category. Red category industries are mostly chemical, sago processing, mineral pulverizing and drying units. Orange category industries are mostly wastage of tapioca processing units. In Attur, an another important taluk in Salem district. It is the capital of Attur taluk, which is principally, an agricultural area. There are consequently, several tapioca based industries which manufacture product likes tapioca, starch and sago. Most of the sago industries are found in Attur taluk of Salem district

4.1.10 Banking Network

The banking structure in the district consists of 40 Commercial Banks with 176 branches. Besides, 1 branch of Pallavan Grama Bank, 35 branches of Salem DCCB with its 217 affiliated PACSs and 6 PCARDBs provide the support for meeting the credit needs of the people.

4.1.11 Environmental Issues

The chemicals and dyes used in the textile units as also the wastes from the sago industries are let out into the open fields at various places in the district. The environmental disturbances due to these are enormously affecting the surface water and also groundwater. The resultant health hazards with implications therefore are also being taken up by the authorities seriously. The Pollution Control Board is advocating installation of effluent
treatment plants either individually or common for units located nearby, Greater understanding by the industries on the need to contribute to good health environs is the need of the hour. While stricter measures by the district administration may be considered, the banks also may extend the necessary credit support to the units wherever required.

4.2 Profile of Namakkal District

Namakkal District is a newly formed district from Salem District. It is functioning from 01-01-1997. It consists of 4 Taluks namely Namakkal, Rasipuram, Tiruchengode and Paramathivelur. The district is bounded by Salem on the north, Karur on the south, Trichy on the east and Erode on the West. The Geographical area of the district is 3363, 35 K.m. Which lies between 11.00 and 11.360 North Latitudes and 77.280 and 78.300 East Longitude.

4.2.1 Population

According 2011 Census Namakkal district population is 1,721,179 with male population of 866,740 and female population is 854,439. Population Growth for Namakkal District recorded in 2011 for the decade has remained 15.25 per cent. Same figure for 1991-2001 decade was 12.91 per cent. Total Area of Namakkal District is 3,404 with average density of 506 per sq. km. Namakkal Population constituted 2.39 per cent of total Tamil Nadu Population. Sex Ratio of Namakkal District is now 986, while child sex ratio (0-6) is 913 per 1000 boys. Children below 0-6 age are
140,314 which form 8.15 of total Namakkal District population. Average Literacy rate for Namakkal District is 74.92 per cent, a change of from past figure of 67.41 per cent. In India, literacy rate is counted only for those above 7 years of age. Child between 0-6 ages are exempted from this. Total literates in the Namakkal District now increased to 1,184,344. All the data regarding Namakkal District Population were released by Directorate of Census Operations in Tamil Nadu.

For Administrative purposes, the district has been divided into 2 Revenue Divisions, 4 Taluks, 30 Revenue Firkas and 454 Revenue Villages (Including group Villages). For local arrangements, the district has been divided into 5 Municipalities, 15 Panchayat Unions, 19 Town Panchayats and 331 Village Panchayats. ‘Thiruvaraikkal’ as it is mentioned in the inscription found on the North-West and south walls of the deserted temple on the Hill. Since it produces major part of Eggs sent to all over other parts of our country, and is also called “Poultry Town” as it contains quite a number of poultry farms and also now called as “Egg City”.

‘The Rock Fort’ in Namakkal is a Special feature of the town. The Fort covers an area of one and half acres of flat surface and is accessible from south-west by a flight of narrow steps. Namakkal was in the hands of Atikula King called ‘Gunasila’ who had married with Pallava Dynasty. Later the Taluk was ruled by the Cholas in the Kongu Mandalam which has over run by the Cholas in the 9”th Century and passed on the Vijayanagar
under the Virooyaltry of Madura. Namakkal was held by KILLEDHAR (Captain) on Hyder Ali Unit was Captured by the British in 1768.

The Northern portion of Namakkal is mountainous and the southern areas are plains. The Chief rivers run through the district are Cauvery, Aiyaru, KaripottanAaru and Thirumanimuthar. The Cauvery flows south and south-west hugging the border.

The Garden of Namakkal District is Kollihills which is governed by Panchayat union, comprising 16 Village Panchayats are called ‘Nadu’ with an area of 371.03 Sq.Kms and 1300 Mtrs above the Sea level. In Kollihills, Sq.kms the Malaiyalis are the prehistoric tribals. ‘ValvilOri’ the king of ‘Kadai Yelu Vallal’ ruled this hilly area. The famous Siva temple ‘Arappalleeswarar’ was originally a retreat of the ‘Jain Monks’ prior to its Hindusation. The another famous Water Falls namely, ‘Agash Ganga’ situated near the Temple.

Namakkal finds a place of importance in the map of India because of its Lorry body building industry, a unique feature of the town. More than 150 Lorry body building workshops and with a number of subsidiary industries of Auto body works are operating since 1960’s. There are a fleet of Lorries, Trailors and L.P.G. Tanker Lorries in Namakkal district. Therefore it is called as ‘Transport City’. Namakkal is the major producer of Egg in Southern Region.
The formation of Railway route Salem to Karur is soon to be completed by the end of this year 2011 which will held this district in economically. The famous Tamil Poet “Namakkal Kavingnar Ramalingam Pillai” was born in this district. In the memories of the poet the State Government has established an Arts and Science College for Women. One of the most famous is Government Veterinary College also situated near by Namakkal Town. More and more private educational/technical institutions are coming up in recent years which are blossoming for the district. The famous “Anjaneyaswami Statue” which has its height of 6.7 Mts. to its grandeur built in 996 AD. The “Narasimha Swamy Temple” along with Amman Temple is situated behind the west of the Rock Fort in the Heart of the town.

Rasipuram is another important taluk in Namakkal District. The Chief industry of the town is weaving. “Pattanoolkarar” who belong in Sourastra Community lives in large numbers in this town together with “Kaikolar”. They are weaving Cotton Cloth and Silk Sarees. Another important aspect of the taluk is the Sago production. Nearly 176 Sago factories are located in and around the Rasipuram Taluk. Sago and Starch production in this area are exported to other countries. Ghee production is also famous in Rasipuram Taluk.

Tiruchengode is a town of cultural and historical importance. In the 19th Century, it was the home of the Tamil Academy called
‘PulavarSangam’. Nearly 37 Spinning Mills and more than 10,000 Powerlooms are functioning in this area. One Sugar mill and one Paper mill are functioning under Private Sector. Tiruchengode is famous for Rig Vehicles. More than 2,000 Vehicles are engaged in digging of borewells across the country, India. The Large number of powerloom and handloom industries are functioning in this Taluk, ‘Arthanareeswarar Temple’ in Tiruchengode is one of the famous Lord Shiva Pilgrimage centers.

The famous Cauvery River flows in Paramathi Taluk. It helps more Irrigation of lands in Paramathi and Mohanur Blocks. The Mohanur Co-operative Sugar Mills is also situated in Paramathi Taluk in Mohanur Block.

The services and other activities functioning in Namakkal district are considered as banking and insurance. When the banking sector is concerned, there are 75 Nationalised banks, 31 are other Commercial banks, 32 are Co-operative banks, 164 are Primary Agricultural Co-operative banks, and 151 are Other Co-operative Societies. In the insurance sector, there are 5 branches for Life insurance corporation of India, 3 branches for United India insurance which serve more for motor insurance activities and 8 other insurance companies are serving to the public.

4.3 Role of 'Sagoserve'

To build new strength with the services of Sagoserve, one of the largest industrial Co-operatives in the country. To overcome the problems,
the Sago and Starch manufacturers in 1981 formed the Salem Starch and Sago Manufacturers Service Industrial Co-operative Society Ltd., popularly known as the SAGOSERVE under the Tamil Nadu Co-operative Societies Act 1961. It was registered in 1981 and commenced its business early in 1982, functioning under the administrative control of the Director of Industries and Commerce, Government of Tamil Nadu. It serves as the marketing agency that act as a catalyst agent for the sago factory owners and merchants.

After the emergence of SAGOSERVE, the bargaining power of manufacturers has substantially increased and the menace of middlemen in this trade has been completely eliminated. Owing to the sustained efforts of the society, Sago or Starch industry has now become the backbone of Salem district’s rural economy, providing employment to more than 5 lac people both in agriculture as well as factories.

Abundance of raw material, favourable climatic conditions, a group of entrepreneurs traditionally trained in the tapioca industry, and availability of skilled labourers are the main factors behind the growth of tapioca processing industry in Salem. Majority of the entrepreneurs presently engaged in tapioca processing are the tapioca growers who have turned to manufacturing of tapioca finished products in due course of time. Today tapioca cultivation and processing has emerged as the main source of livelihood for a large number of rural populace in Salem district.
4.3.1 The Main Objectives of the Sagoserve are:

1. To remove the middlemen from the scene of trade and to ensure better prices for the tapioca finished products.
2. To provide warehouse and credit facilities to members.
3. To improve tapioca cultivation and Sago and Starch industry and thereby the economic condition of tapioca cultivators and Sago and Starch Manufacturers.
4. To improve productivity in the tapioca based industry and disseminate market intelligence to its’ members.
5. To generate employment in rural areas for skilled and unskilled labourers.
6. To strengthen the Co-operative movement in the Sago sector.

4.3.2. The Government of Tamil Nadu has Offered Several Incentives to Sagoserve in order to Encourage Tapioca Industry Such as:

1. Single point tax system.
2. State participation in the share capital structure of the society.

These incentives have played a vital role in strengthening Sagoserve and helped the Sago and Starch industry to thrive.

Sagoserve has the unique system of daily secret-tender system which has been very useful to both the manufacturing members send their finished goods for sale to the society. On receipt of goods, the member is paid 50 per cent of the value of the goods as advance and consignment is assigned a ‘Lot
Number’. Samples drawn from this consignment are put to ‘Tender Sale’ conducted daily except on Sundays and the days of ‘State and National Holidays’. After paying a tender deposit of Rs.1, 00,000/- the buyers are registered with the society and only then they can participate in the tenders. At present both industrial concerns as well as private traders have registered themselves as buyers at the Sagoserve.

After verification of starch and sago in the sample hall, traders quote their rates in secret and the results are announced after tabulation around 2.30 pm. The member-producer has the option of confirming the highest rate against members’ goods. Once a member confirms the sale, he is paid another additional advance calculated with reference to the sales rate after keeping Rs. 30/- per bag for recoverable expenses. The goods of the members, till they take confirmation of the sale and those of the buyers, till they take delivery, are stored in the Sagoserve godowns at a nominal godown rent. Besides this tender system, Sagoserve is executing the orders directly received from the consumers and end users against 100 per cent payment from private merchants and Co-operative societies respectively on behalf of the members. With a humble beginning of marketing around 19000 bags belonging to its 168 members with a turnover of Rs.42 lakhs in 1981-82 Sagoserve has steadily grown in size as well as strength. Today it has 364 members and has achieved an all time record turnover of Rs. 190 Crores. Today, Sagoserve is well equipped to handle any problem pertaining to the
tapioca industry. It has 10 godowns of its own with a capacity of about 2.75 lakh bags, space has been made to park 90-100 lorries at any point of time within the Sagoserve complex itself and a beautiful administrative block has been provided for the officials and staff of Sagoserve. No doubt the formation of Sagoserve has been immensely beneficial to the tapioca industry and its has helped the industry to emerge as the backbone of rural economy in Salem and its adjoining districts. However this does not mean that there are no constraints faced by the industry.

4.3.3 Following are the Main Constraints

1. Non-availability of short duration variety of Cassava with high starch content.

2. Frequent attacks of disease.


4. Scarcity of water required in the processing industry.

5. Lack of product diversification (All these years only Starch and Sago have been manufactured).


7. Prevalence of very primitive technology in the tapioca processing industry.

8. Non-tapioca of export market.
Sagoserve is aware of all these problems faced by the industry and has been taking sincere steps to tackle all these constraints and ensure an all-round development of the industry.³

4.3.4 Areas of Assistance to Members

1. Provides readymade marketing floor for Starch and Sago

2. Advance credit and payment for sold goods within 24 hours

3. Provides warehousing facilities

4. Promotes business and trade within and outside the State.

5. Remits Additional Sales Tax (AST) to the State Exchequer

6. Arrange tie-up with bankers for working capital, loan.

4.3.5 Services to the Merchants

Facilitates easy purchase of desired quality products at affordable rates at one place. Provides grace time of 5 days to lift the confirmed products without any extra charges. Offers maximum time limit up to 45 days for removal of sold goods on payment of nominal interest and warehouse rent

1. Remittance of sales value in prescribed instalments is admitted as per the terms and conditions

2. Concessional TNGST rate of 2 per cent for sale of sago and starch through the society (4% ST payable for purchase outside the society)
The merchants who buy the Sago or Starch from Sagoserve are exempted from CST of 4 per cent for inter-state sales. This is an incentive offered by the State Government to promote Co-operative movement.

4.3.6 National Cooperative Excellence Award for Sagoserve

The National Co-operative Development Corporation (NCDC) felicitates best performing Co-operatives from all parts of the country for excellence in their working and confers NCDC Co-operative Excellence Awards on them. It is an initiative by NCDC to encourage and give due recognition to those Co-operatives who despite odds, are able to sustain and work for development and prosperity of the agrarian society. The awards are bestowed on one primary level Co-operative from each state biennially.

Co-operative Excellence Awards 2010 were given away by the Honourable Union Minister of State for Agriculture Shri Arun Subashchandra Yadav on February 4, 2011 in New Delhi. SAGOSERVE was bestowed this rare honour and the award was received by the Managing Director and Special Officer K.K. Kaushal, I.F.S., It comprises a shield, cash prize of Rs.50000/- and a citation. The award has boosted the spirits of the members and staff have resolved to redouble their efforts to take SAGOSERVE to further heights.  

4.3.7 Sago Cluster

The Sagoserve and its members have faced many problems in testing the samples of their products in time in view of insufficient testing facilities.
available at Salem. In order to mitigate this problem, it was decided to set up a Testing Laboratory under Common Facility Centre by availing financial assistance from Government of India under MSE-CDP. Accordingly, the Government of India approved the Sago Cluster for setting up of Common Facility Centre at Sagoserve with the total project cost of Rs.498.00 lakhs. Under first Phase, Government of India have sanctioned Rs.120.00 lakhs for the setting up of a Testing Laboratory as a Common Facility Centre and Rs.10.00 lakhs for soft interventions. Out of this, an amount of Rs.4.00 lakhs has been sanctioned by Government of India towards soft interventions. For setting up of an analytical laboratory under Common Facility Centre, the required equipments and machineries have been purchased and installed in Sagoserve for which the Government of India have released the total amount of Rs.73.31 lakh as grant under phase I. The laboratory was commenced on 1.2.2010.

4.3.8 Export Status of Sagoserve

Trade of Cassava in the international market is either in its raw form or in its processed form. India has been exporting Cassava products since 1950’s in different forms such as: raw tubers, frozen tapioca, tapioca chips, manioc starch, tapioca and substitutes, tapioca flour, sago pith and sago flour. The Indian Cassava exports declined after 1960’s due to domestic food situation especially in Kerala. However in late eighties exports picked up momentum.
The bulky and perishable nature of Cassava offers little scope in the export trade of raw tubers. However, there is an active international trading in chips and pellets and to some extent starch and sago. Between 1956 and 1964, India was exporting Cassava products (70000 tons of dried chips) mainly to European countries. But it went out of export trade gradually after-82 due to quota restriction imposed by European countries and in view of the emerging export giant of Cassava, Thailand, whose 90 per cent of the total cassava production is exported to European countries. In spite of the fact that the cost of the production of raw tubers in Thailand did not have much advantage over India, the former could forge ahead in export due to low processing costs, good export handling facilities and free trade environment. Presently, India is exporting very small quantities of cassava raw tubers to the Middle-East countries. It is exported in two forms, frozen tapioca and Cassava raw tubers. These exports are routed through the Cochin sea port and from Kozhikode and Trivandrum airports. As per the published data, raw tubers exports started only recently. Dried Cassava chips were exported mainly to European countries like Netherlands, Belgium, Italy and USSR. Even though the published data shows that Cassava chips were exported between 1972–73 and 1985–86, trade enquiries in Andhra Pradesh revealed that even in 1987– 88, 92–94 and 95-96, dried chips were being exported to European countries from Kakinada port. An annual export growth rate of 1.45 per cent was observed for dried Cassava chips between 1972-73 and 1985-86. Trade enquiries indicated that a high per centage of
sand and silica in the chips is the general problem in the quality of chips exported from India.

Cassava chips offer a great scope for export provided more efforts are made to improve the product quality. Tapioca flour, which is mainly exported to the European countries, has been increasing at the rate of 1.17 per cent per annum during 1970-97. Manioc starch exports started recently from India from 1992-93 onwards. It is exported to European and South-East Asian countries. The major problem in starch exports is inconsistency in the product quality. It is exported from Chennai, Mumbai and Calcutta ports. During 1997-98, India exported 3385.47 tons of starch valuing Rs2.89 crores. Under the group tapioca substitute, various value added products prepared from tapioca starch in the form of flakes, grains, pearls, siftings in smaller forms are exported. This group has a major share among the Cassava exports from India. During the last two decades quantity exported ranged between 2.4 tons to 35232.55 tons. These products are routed through Chennai, Mumbai and Calcutta ports. Although there are no reports of Sago and Starch production derived from Sago palm in India but the published data shows that products under Sago pith and Sago flour are being exported from here. Sago pith exports have shown significant growth of 2.02 per cent per annum during 1980-97. It is exported mainly to Bangladesh, Middle-East countries from Mumbai and Calcutta ports. These exports have shown an average growth of 1.75 per cent per annum since 1970.
4.3.9 SWOT Analysis of Sagoserve

Strengths

a) It is a naturally evolved cluster.

b) Presence of SAGOSERVE at Salem for marketing the cluster's products.

c) Availability of a large number of traders especially those originating from the northern states.

d) Availability of qualified innovative and skilled machinery manufacturers.

e) Existence of excellent logistic facility.

f) Availability of excellent communication facility.

g) Easy to adopt technology to manufacture starch and sago.

h) Local availability of local mechanics, engineering workshops and lathes.

i) Availability of well-equipped machinery manufacturing units at Salem and Erode.

j) Easy availability of skilled labourers.

k) Well-established brokerage system to get uninterrupted supply of raw material.

l) Easy availability of raw material at proximity of the sago factories and nearby areas.

m) Easy availability of spare parts and machinery at Salem.

n) Excellent network of commercial and Co-operative banks in the cluster.
o) High level adaptability of the entrepreneurs to new technology.

p) Introduction of innovative machinery by the dynamic machinery manufacturers.

q) Availability of reputed institutions like C.T.C.R.I. and T.N.A.U.

r) Young educated entrepreneurs taking up the manufacture of Sago and Starch.

s) Strong and proactive central association for the Sago and starch manufacturers.

t) Functioning of Project Uptech by S.B.I. at Salem.

4.3.10 Weaknesses

a) Dependence on a few northern states for markets.

b) Long distance between the production center and consuming center.

c) Lack of product diversification.

d) Diminishing quality standards of the sago products due to improper use of chemicals.

e) Unhealthy practices adopted by some traders affecting genuine trade activities.

f) Usage of primitive technology in many factories.

g) Unscientific layout of factories.

4.3.11 Salem Sago and Starch Cluster

a) Under capacity utilisation.

b) Unhygienic processing practices.

c) Non-availability of mechanics at the time of need

d) Problem posed by pollution and high cost of effluent treatment plants.
e) Non-availability of quality raw material.

f) Availability of raw material only for a short period.

g) Non-availability of quality water supply.

h) High cost of electricity.

i) Non-availability of adequate and timely credit.

j) Lack of innovative capability of the entrepreneurs.

k) Lack of healthy linkages among the cluster actors.

l) Non-availability of cost effective modern processing methods from the institutions concerned.

m) Lack of knowledge of markets and consumption pattern.

n) Very slow penetration of lab to land practices.

o) Lack of managerial skills.

p) Lack of proper accounting systems.

4.3.12 Opportunities

a) Consumption of sago can be increased many fold within Tamil Nadu and nearby states by appropriate marketing efforts.

b) Diversified products of sago like Wafers, Pappads, Vermicelli, Salty-snacks can be effectively marketed.

c) Making value added products of starch like Modified Starches, Oxidised starches, Glucose, Fructose, Gums etc can fetch better prices.

d) Brand building exercise undertaken jointly will fetch good price for the products of the cluster.
f) Usage of methane gas to produce electricity can minimize electricity charges.

g) Usage of tikki profitably for the manufacture of cattle feed and for the production of methane.

h) Usage of labour savings cost-effective modern machinery to reduce cost.

i) Standardisation of raw material purchasing to minimise brokerage.

j) Purchase of inputs through consortium of manufacturers will reduce the cost.

k) A common facility center e.g. common starch processing center to purify and dry the starch will make the product more competitive cost wise and quality wise.

4.3.13 Threats

a) New products at cheaper prices may enter the existing market to replace Sago and Starch products.

b) Cheap imports may invade India in the near future.

c) High expectation of customers in the matter of quality and price.

d) Lack of trust among the cluster actors.
Table - 4.1
The Growth Performance of Sago and Starch Products Estimated Exports Through SAGOSERVE Salem from 1981-82 to 2008-09
(All Figures in Lakhs)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Bags produced</th>
<th>No of bags and Exports of 40% average of total production</th>
<th>Sale Value Rs.</th>
<th>Revenue State Govt. Rs.</th>
<th>Net Profit (Rs.)</th>
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The above table 4.1 executes the growth of export of sago and starch products, that is in 2001-2002 they made 9.764 bags. From the inception of the Sagoserve it was a milestone in its production and the sales. The reason is sago products are used in many food items, garment and adhesive products. Tamilnadu has to improve the export towards the international level beyond the Thailand sago production and export to international market.


4.4 Products and their Markets

The main products of industry are ‘Sabut-dana’ and starch. The different types of Sago are given below:

1. Grades of Sago
2. Super Fine
3. Milk white
4. Special
5. Best

6. The other types of Sago produced by some of the units in the cluster are ‘Nylon Sago’ and ‘Sago Broken’.

7. Grades of Starch

8. Textile Grade

9. Edible Grade

10. Glucose and Laundry Grade

10 per cent of the sago produced is being marketed directly to the producers and the wholesale dealers in other states. This procedure is undertaken by obtaining E and F form and is somewhat complicated. Another 10 to 20 per cent of the sago is being marketed through local traders in Salem. This procedure is followed by obtaining the form ‘C’. A major portion of the sago production i.e. 70 to 80 per cent is being marketed through SAGOSERVE. Marketing through this society does not require filling of form ‘C’ and is much more advantageous than direct selling, which is why most of the sago producers prefer to go by this channel. The main markets for sago are Northern States, like Maharashtra, Gujarat, Madhya Pradesh, Orissa, Andhra Pradesh and West Bengal. Starch also is marketed through SAGOSERVE as well as through Salem traders directly.

4.4.1 Marketing Problems

Most of the traders are dealing in low end products like special and best and only a few of them deal in super fine and milk while sago grades.
These traders concentrate on quality and usually test every sample of the produce. They sell the produce to other states under their brand name and try to build a brand loyalty among the customers. Because of their focus on consistent quality, the wholesale dealers are ready to pay a better price for their products and try to settle the payment dues as fast as possible. One such trader even maintains a computerised record of the quality of all the consignments and is confident that he can deal with any dispute regarding the quality of any consignment supplied to any wholesale dealer. This also enables him to trace the producers who supply inferior quality of sago. Another wholesale dealer makes a lot of efforts to market his brand through advertisement and by conducting Sago food festivals at important market centres. Through his initiatives, he has made a good reputation in the northern states.

As the competition for the low end products is high, the traders are not able to concentrate on quality and also the payment for their products often gets defaulted or is either not received in full or in time. Most of the time, disputes between the trader and the wholesale dealer is settled at the cost of the trader. The reason for the fluctuating cost is often attributed to the supply and demand position of the Sago. However this aspect requires close scrutiny and detailed market surveys.

Some owners of Sago units feel that as the traders have to analyse large number of samples within short time at SAGOSERVE and as a result a
proper classification on the grade of Sago or Starch is not being done. This, according to them gets them a lesser price for their product than they deserve. The traders also have association of their own but the association is not very active and rarely organises a meeting of the members.

4.5 Raw Material Supply

Among the different tropical roots and tuber crops grown in India tapioca is one of the most significant ones, as it can produce more calories per unit. Its importance in tropical agriculture is due to its drought tolerance and wide flexibility to adverse soil, nutrients, and management conditions including the time of harvest. Tapioca can be profitably cultivated throughout the year with irrigation. Tapioca is grown in almost all the districts of Tamil Nadu, the major ones being Salem, Namakkal, Dharmapuri, Vilupuram, and Kannyakumari Districts. Tapioca grown in Kannyakumari district is mostly used for culinary purposes. The area under tapioca is said to be expanding to Erode, Karur and Dindigul districts as well. The tapioca tuber is available in the industry from July to April but the maximum amount of raw material is available only during the November to February period during which the starch content of the tubers is at its peak. Winter appears to be helpful for the consolidation of starch in the tubers. Maximum crushing activity is being undertaken during this period only. Availability of raw material starts from June end onwards as mentioned below.
Tubers Available from Kolli Hills, Patchamalai during June, July, August. Karumandurai Hills during August, September, from Panruti Area during September, October, November, December, from Salem, Namakkal during Nov., Dec., January, February, March from Harur, Dharmapuri in Dec. Jan. February from Erode during July to February Brokers play a major role in supplying the raw materials for the Sago and Starch units. They have a wide network of sub-brokers who help in fetching the tubers even from the far-off places and ensure a continuous supply of tubers to the Sago and Starch units. Almost 90 per cent of the raw materials sold from the farmers are being routed through the brokers only. Mostly the main brokers are situated at Attur, Salem, Namagiripet, Chellappampatti and a few other areas.

The main brokers get their produce through sub-brokers. In hilly areas the sub-brokers operate through village brokers. The main brokers usually get a commission of Rs.2.50 per bag. The sub-brokers earn their living by negotiating both ways. While the transactions between the main broker and the farmers are made in cash, those between the broker and Sago units are made in credit basis. The Sago factory owners believe that the brokers exploit both the farmers and the Sago factory owners cleverly by manipulating the needs of the both. However the brokers claim that their income is dwindling because of intense competition. Some farmers directly deal with main brokers also.
Attur is a major market for tapioca tuber, which has the maximum number of main brokers. Around 23 main brokers, most of whom have offices of their own and another 15 who operate without offices. Kattukottai, a place near Attur has 26 offices and Salem has two offices while Chellapampatti and Namagiripettai have two and one respectively. The brokers also operate in other areas like Thammampatti, Senthamangalam. The biggest broker in Attur deals on an average 500 lorry loads of tubers a year. Other brokers deal on an average of 1000 to 1500 lorry load tubers per year. The farmers resort to sell their tubers through the brokers for the following reasons.

1. They get advance money from the sub-brokers or local brokers.

2. They believe in better bargaining power of the brokers to fetch a good price for their produce, as the brokers are capable of knowing the current prices of the Sago or Starch in the market and negotiate with sago factory owners accordingly and get maximum price for the tubers.

Some factory owners also get tubers directly from the farmers by giving advance money to the farmers before the start of a season. Such type of transactions which were largely prevalent earlier have diminished considerably now, as they find it increasingly difficult to get the tubers from the farmers with whom they have made an advance deal. The farmers are supposed to bear the cost of transport from their fields to the factories. Most
of the farmers prefer that the arrangement of transfer the produce is left to
the broker itself as they believe that the labourers and transport owners can
be handled by the brokers more efficiently than them. The major problems
faced by the owners of the Sago units with regard to the procurement of raw
material are as below:

1. Non-availability of quality raw material of adequate quantity.

2. High fluctuation in prices of the raw material.

3. Availability of raw material only for a short period.

The availability of quality raw material that is tubers with rich starch
content is restricted to the winter period of November to February. The
Sago factory owners try to purchase maximum amount of raw material
during this period and process it into starch. However only a part of the
starch thus produced is converted into Sago, while the rest of it is stored in
tanks under water. After the crushing period is over, the stored starch is
taken out from the storage periodically and then washed and used for Sago
making. During the last season as the prices of Sago had fallen below the
prices of stored raw material, and as a result many Sago factory owners
incurred huge losses. In case during a season the prices of tuber are very
low, the Sago factory owners tend to purchase maximum tubers and store it
in the tanks underwater. But due to wide fluctuation in prices now-a-days
the Sago factory owners have started adopting a cautious approach in storing
the starch.
Another problem between the farmers and the Sago factory owners is the determination of scale for measuring the starch content in the tubers and fixing the price according to the starch content. The scale is introduced by the Sago factory owners to Tamil Nadu on the model of scale used in Thailand, where the specific gravity of the tuber is correlated to the content of starch. The same quantity of tuber is first weighed in air and then immersed in the water and then the difference is shown as per centage of starch calibrated in the scale itself. The Sago factory owners are of a unanimous view that the usage of scale is the best method for buying the raw material. However, many farmers are sceptic about it and feel that as it is not approved by the concerned Government authorities so its usage may give way to manipulation by the owners of the Sago units. Once the problem of applying a scale for the purchase of raw material is settled to mutual satisfaction of both the farmers and Sago factory owners, it will be a major breakthrough for the industry.

Even while applying the scale there is a variation between the starch content shown as per the scale and the recovery of actual starch in certain varieties of tubers. For example, ‘Mulluvadi variety’ of Tapioca though shows a higher starch content as per the scale but the per centage of starch derived is more than the scaled measure. These variations are to be taken into account while applying scale for the purchase of raw material.
4.5.1 Raw Material Problems

One of the problems in ensuring better capacity utilization is limited availability of tapioca during the crushing season. Normally marketing of tapioca starts from August and goes up to December –January. Tapioca production in Tamilnadu is grossly insufficient to meet even half the requirements of the industry and hence large scale purchase from Kerala is resorted to. For producing about 1.85 lakh tonnes of starch and sago the industry require about 8 lakh tonnes of roots to maintain the current production level.

4.6 Financial Problems

Though most of the Sago factory owners who have availed credit facilities from the banks expressed satisfaction with their services yet some are disillusioned with the behaviour of the bankers they feel the credit limits offered by the banks are not adequate, are unrealistic and not sanctioned in time. They generally feel their cash credit facilities should be enhanced when the raw material prices are low so as to enable them to purchase enough material for the entire season.

The following problems are expressed in financing the Sago industry by the bankers. The bankers feel that the Sago factory owners do not route their transactions through their bank accounts.

1. Multiple finance.

2. It is a seasonal business and therefore fixing credit limit is difficult.
3. Non-maintenance of proper accounts.

4. Difficulty in measuring the starch stored in the tanks.

5. Highly fluctuating price of Sago and Starch.

6. Though most of the sago factory owners who have availed credit facilities from the banks expressed satisfaction with their services yet some are disillusioned with the behaviour of the bankers. They feel the credit limits offered by the banks are not adequate, are unrealistic and not sanctioned in time.

4.6.1 Infrastructure, Policies and Regulations

The Government is providing with all the necessary infrastructure for the growth of the industry. The electricity board is providing the necessary power supply and is also giving advice on economising electricity charges. The Government through the pollution board controls and monitors the pollution control efforts taken by the Sago factory owners. However the units feel difficulty in getting clearances from the board. Through SAGOSERVE and District Industries Center, the Government disseminates the details about the policies and incentives offered to the industry. Overall the cluster enjoys excellent logistic and communication facilities.

4.7 Problems faced by the Labourers

Labour welfare is a very broad terms covering social security and such other activities as medical aid, creches, canteens, recreation, housing, adult education, and arrangements for the transport of labourers from the
work place. Excessive chemicals are used in the Sago process, this will surely deteriorate the health conditions of the poor labourers, the workers spend much time in the factories and so they cannot spend time with their family members so that their families left unmaintained. The Sago factory should introduce the new varieties of sago production to increase the labour working days. Pollution-control is becoming a major problem for the Sago industry, there is no standardised cost-effective design developed for the Sago and starch manufacturers. Easy non-availability of skilled labourers, the work in the field of labourers in factories, high noise level are the major problems.5

4.8 Power Production

Every factory producing Sago and starch in a mini power station which will meet its need for running the generators and/or it could be used for Sago roasting purposes. Having got convinced that the effluent is a source of energy a private factory sought my assistance to put the effluent gas into use. However the owners while appreciating the state-of-art technology of NJIT pleaded that they would like to have a simple system due to pecuniary circumstances.

4.8.1 Electricity

The electricity need comes from public electricity grid. The need of electricity is mostly used just only for lighting. But only minor electricity
need for pumping the water for the elevation cause and gravitational water flowing.

4.8.2 Engine Driver

The factory utilizes truck engines for driving all of the moving parts. By utilizing axes, bearings, pulleys, and belts, the washing drum, bucket elevator, grinder, vibrating screen and all of the moving parts can be driven. This is an intelligent way of thinking to run such kind of business.

4.9 Waste Treatment Facilities

No waste treatment facilities are available in there factories. All facilities built are mainly for the efficiency of process production. Wastewater generated simply is directly discharged to the rivers nearby. Local Government seems to be ‘reluctant’ to avoid or to ban such activities. Even though wastewater generated from this factory can reach approximately 200 m$^3$ per day. For one ton Cassava roots need about 7 m$^3$ of water for its processing. For the owner point of view, building of waste water treatment facilities seem to be suffering a financial loss. Just only through the law enforcement, discharging of such wastewater could be taken into account.

4.10 Bio-Gas Production Measurement

Biogas production is measured by the gas flow meter. It reads directly the number in litter of sum gas produced every day. It should be noted that the read of the numbers is performed daily at the same time in order to know
the exact daily gas production. The gas production is recorded as the numbers showed without any correction factors, for example correction factor for temperature and pressure. The gas flow meter utilized is of wet type.\textsuperscript{6}

4.11 Quality Control of Tapioca Products

Since the marketability of starch produced by the industry depends very much on the quality, measured mainly in terms of viscosity, it is imperative that minimum facilities are created by each of the processor in the factory to estimate viscosity, of the product using red wood viscometer. Knowledge of viscosity of the product will give him the bargaining strength while fixing the sale price. The Sago Research Laboratory of the Department of Industries and Commerce, Government of Tamil Nadu also helps in analyzing the samples. In India, the Bureau of Indian Standards (BIS) has worked out the specification and laid down the requirements for many tapioca products. Following these standards will surely help in boosting the sale of tapioca products in the country and abroad. In order to prepare the quality products, the factory premises should be clean and free from insects and pests. Periodic fumigation of equipments, factory sheds and stores is advisable in this regard.

4.12 Modernization

It is necessary to encourage more investment in Research and Development to update existing technologies and bring in to India new
technologies. Presently starch and Sago manufactured in the age-old factories from out of tapioca leading to a low level of production and of inferior quality of material due to lack of quality consciousness among the mill-owners and its direct impact on the price structure. As the material produced out of tapioca is used by many industries for various end uses and also used for human consumption there is a need to follow requisite guidelines for systematic manufacturing of quality products. If the modernization is taken up within this industry then the farmers and processors would definitely increase their bargaining power to dictate prices and also to meet the export specifications to earn foreign exchange besides creating a favourable public opinion towards the use Sago and starch for human consumption.

Processing of tapioca in starch and palletisations are being undertaken on larger scale in modernized machineries in Thailand, Indonesia, and Columbia. The Central Food Technology Research Institute (CFTRI), Mysore has also brought out a project profile to modernize Indian Sago and starch industry in and around Salem but there are no takers among the mill owners, may be due to heavy investment. Therefore, hard decisions will have to be taken by the manufacturers and the authorities concerned to accord fillip to Research and Development activities in tapioca industry.
4.13 Water Consumption and Treatment of Effluent

All Sago and starch units require voluminous water for their operations. The processing of tapioca in a tonne of Sago and starch requires water amounting 30,000 litres. As this industry consumes more water, a huge quantity of effluent is bound to release. In absence of systematic disposal of Sago waste water, it is being released on open lands and in water bodies affecting village life and ecology. Undiluted Sago waste water released in water bodies is a major source of contamination of environment.

The quality of tapioca finished products starch and Sago mostly depend upon the quality of fresh water used in factories. But nowadays the availability of fresh water is becoming a problem for many units retarding the production at so many factories. Therefore, it is the dire need of the day that research should also be directed towards reducing the volume of water required in processing. On this background consumption of minimum volume of water for all operations and treatment of effluents are the new thrust areas to be addressed by the scientists and the authorities with the cooperation of the polluters. However, model effluent treatment plants are being set up in Salem District. The majority of the Sago manufacturing units discharge their trade effluent into nearby low lying areas adjacent to plant. Units which are near the river side discharge their effluents into the river. It may be mentioned that no pre-treatment facilities generally exits at any of the small scale Sago units before final disposal on to land or river.
4.14 Waste Disposal of Sago Industry

Two types of wastes which contribute to some degree of pollution in tapioca starch unit are,

i. Thippi

The fibrous residue left after starch is removed. Often thippi is allowed to stay in wet condition near the rasping section and in due course they start developing foul odour due to microbial action. This can be prevented easily by prompt removal of the wet thippi and drying it separately with least delay which can be subsequently ground and used as cattle feed. Component, CFTRI, Mysore has reported the value added products from thippi. These products could be manufactured in large scale by collecting thippi from various small units at one place.

ii. Effluent

The effluent water coming out of the settling tanks effluents from the settling tanks contain small amounts of starch and very little amount of sugar. But they have some pollution potentials and hence will have to be carefully handled before disposal. Pollution Board of each State is very much concerned about this effluent which is let into the river or lake.7

4.15 Important Problems of Tapioca Industry

a) Non-availability of short duration variety of tapioca with high starch content. Presently, all cultivators are due to harvest after 9 to 10 months.

b) Lack of sufficient planting material of newly introduced cultivators.
c) Lack of awareness among producers regarding quality of products and its’ impact on the price-structure.

d) Limited diversification of uses—presently tapioca is used mostly as a secondary staple food and as a raw material in starch-based industries. With the adoption of high yielding varieties the production is bound to go up and in the absence of diversified utilization of tapioca and its finished products, situation would lead to poor market demand and prices.

e) Modernisation of processing is the most sought area in this fold and merits priority. Processing of starch with minimum water has also to be addressed urgently.⁸
END NOTES

1. www.tn.gov.in

2. www.sagoserve.com


4. www.sabuindia.com


