Chapter I
CHAPTER 1

INTRODUCTION AND DESIGN OF THE STUDY

1.1 INTRODUCTION

The Public Distribution System (PDS) in India facilitates the supply of food grains to the poor at subsidized price. The Public Distribution System is an important mechanism to protect the consumers, especially the vulnerable sections of the population, from the impact of rising prices of essential commodities. The supply of essential commodities through the PDS has a stabilizing effect on market prices. By ensuring supplies at controlled prices on a regular basis, the PDS acts as an anti-inflationary measure. Over the years it has become a basic feature of the Government’s food policy.

Sixty years after independence, and nearly four decades after the launch of the so called “Green Revolution”, India was home to one-third of the world’s nearly 860 million hungry.¹ (Under the PDS the basic articles of daily use are made available at reasonable prices to the public, particularly the vulnerable sections in both urban and rural areas). In the developing countries the concern with ensuring food security to the teeming millions has been at the top of the agenda as these countries are invariably plagued by

a high degree of inequality in income distribution, widespread poverty and the concomitant problem of malnutrition or under-nutrition.²

One-third of India's population lives in object poverty, which implies that it has no access to a consumption basket that allows enough expenditure on food to meet the minimum calorific norm. Additionally the National Sample Survey also says that 60 per cent of the population actually consumes less than the norm.³ Hence, there is an over-riding need to provide the vulnerable sections with the basic necessities of food articles at regulated prices. The PDS has been one of the most important elements in India's safety net system for almost fifty years.⁴

In India, the implementation of the public distribution system has been the joint responsibility of the Central and State Governments and the Union Territory administration. The Central Government procures food grains, stores and transports the essential commodities to the central godowns. The responsibility for the actual distribution of the material to consumers is that of the state government and Union Territories. The annual requirement of rice under the public distribution system is met from the allotment made by the Government of India and from the paddy procurement within the states concerned.

In Tamil Nadu, the distribution of essential commodities under the public distribution system is provided through family cards. The system in Tamil Nadu caters to 1,89,02,330 cardholders through a vast network of fair price shops numbering 26300 as on 31st March 2005, run by both the co-operatives and the Tamil Nadu Civil Supplies Corporation. The governments all over the world have understood the fact that it is not the optimum levels of production alone, but the level of equitable distribution, that can ensure the maximum welfare of the largest population. Even in the year 2004, the public distribution system had a dominant role to play to correct the mismatch between production and distribution of essential commodities to the weaker sections of the community. Despite the achievement of self-sufficiency in foodgrains and the prevalence of a subsidized distribution of grains since the Second World War, the per capita consumption of the poorest sections of the population continues to be lower than the recommended nutritional levels and a large percentage of children remain under-weight.

The Government of Tamil Nadu has revamped the entire public distribution system to maximize the benefits for the really poor and the needy. The targeted public distribution system was introduced by the Government of India on 1st June 1997 throughout the country. It envisaged

the classification of families as those Below Poverty Line (BPL) and Above Poverty Line (APL). The Government of Tamil Nadu introduced differential pricing for the distribution of rice to people below poverty line. During 2003-04 the twenty kilograms of rice distributed to the BPL families are distributed at two different prices, namely 10 kilograms of rice at the rate of Rs.3.50 per kilogram and the remaining 10 kilograms distributed at the rate of Rs.6 per kilogram. At present (from 2009) 1 Re per kg of rice is issued by the Government of Tamil Nadu to the family card holders. This is a bold attempt on the part of the Government at heavy public expenditure. Apart from rice, other household commodities are issued at fair price. Hence the PDS assumes greater significance among the public in Tamil Nadu after the interdiction of 1 Re rice. Under this context it is really needed to study the functioning of PDS. Hence the present study is attempted.

The task of public distribution involves making goods available at the right time and at the right place for meeting the needs of the consumers at a price that is acceptable to both the consumers and the suppliers. But it requires a dependable, effective and efficient distribution system to reach the really poor sections of the society.

The Public Distribution System has come to occupy a significant part in Indian life, especially with the weaker and vulnerable sections of the

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Indian rural society. The major outlets for the distribution of controlled commodities are the fair price shops of the PDS.

Recently the PDS has been reformed on the basis of “The Target Public Distribution System”. Its special importance consists of not only in replenishing the existing network but also making it economically viable. The main thrust of the new system is to ensure the food supply for 43 crores of people living below the poverty line, at 50 per cent subsidy of the original price of rice. The expansion of the system pays special attention to the remote rural and inaccessible areas, thus providing a life-line to the poverty eradication programmes.

The list of the commodities declared as essential under the Essential Commodities Act, 1955, by the Government of India originally consisted 65 items. But many items were deleted by the Government of India in the past and now the number stands at 18, most of which are non-food items. Rice, wheat, sugar, edible oil, dhals and kerosene are the essential commodities supplied now through the public distribution system in the State of Tamil Nadu. Gone are the days of control over the movement of food grains and monopoly procurement by the Government. The farmers are now free to sell their produce to anybody at a price advantageous to them. Unfortunately, not much was available for procurement in the year gone by, 'which witnessed
drought and water scarcity conditions resulting in less production of food grains.⁸

All the families residing in the State of Tamil Nadu are eligible to get family cards as per the Tamil Nadu Scheduled Commodities (Regulation of Distribution by Card System) Order, 1982. The issue of family card is a continuous process. There are complaints that bogus cards are issued to obtain essential commodities at subsidized prices. Bogus cards deprive the genuine cardholders of their entitlement to commodities in full. For the public distribution system, the Government has prescribed cards in two colours such as green and white. The green cardholders are entitled to rice and other essential commodities. The white cardholders can get commodities other than rice. Those who do not opt for rice can draw an additional quantity of sugar or kerosene in lieu of rice.

Now the family cards are classified into two categories on the basis of family income up to Rs.5000 and above Rs.5000 per month. Family cards to these with monthly income of above Rs.5000/- are marked as “H” cards. The “H” family card holders were denied the privilege of availing themselves of purchasing essential commodities from fair price shops even though they may be badly in need of them. But this discrimination was abolished in June 2004.

Under the monopoly procurement system, the farmers have no option but to sell their paddy to the Government agency namely the Tamil Nadu Civil Supplies Corporation. This system is in force only in the Cauvery delta areas of Tamil Nadu. When the market price of paddy is higher than the price fixed by the Government, adequate quantities of paddy may not be forthcoming to the buffer stock procurement. Unlimited procurement dilutes the quality norms prescribed by the Government of India, affecting the quality of foodgrains supplied to the cardholders.9

The economic cost of rice obtained by paddy procurement by the Tamil Nadu Civil Supply Corporation is about Rs. 12 per kg. The State Government has been distributing rice to all the needy families at a uniform rate of Rs.3.50 per kg from 1st January 2000 without discriminating as BPL and APL families10.

Even though the Government of Tamil Nadu has retained the issue price at Rs.3.50 per kg for the first 10 kgs, it is a drain on the financial resources of the Government of Tamil Nadu. But in the case of wheat, there is no subsidy element involved. The Government of India supplies APL

wheat at Rs.6.10 per kg. The issue price in the public distribution system has been fixed at Rs.7.50 per kg. from July 2002.\textsuperscript{11}

For the distribution of sugar to cardholders, the Government of Tamil Nadu has adopted the price fixed by the Government of India from 09.03.2002. Hence, the issue price of sugar is Rs. 13.50 per kg.\textsuperscript{12} Whenever the non-levy sugar is procured at a higher price and distributed to cardholders, the differential cost is borne by the Government of Tamil Nadu.

From March 2002, the Government of India is supplying kerosene to the State Governments at Rs. 9.00 per litre. But the Government of Tamil Nadu is distributing it at Rs. 8.40 per litre resulting in a loss to the State Government at Rs.0.60 per litre.

The state’s food subsidy which was only Rs.1.81 crore in 1980-81 has grown to an unmanageable level of Rs. 1240 crore in 2002-2003.\textsuperscript{13}

The concept of a public distribution system in India has some specific connotations. It is not a system of distribution under public ownership as in the case of socialist countries.

The public distribution system was instituted as an integral part of the Indian National Food Policy, for consumer protection. After the new

\textsuperscript{11} www.tn.gov.in, Government of Tamil Nadu Co-operation, Food and Consumer Protection Department, Policy Note, 2003-2004
\textsuperscript{12} Ibid
\textsuperscript{13} Ibid
agricultural strategy of 1967, it was linked with the policy of the incentive price policy, antipoverty programmes, to deal with the problems of plenty.14

The performance of the target public distribution system was poor in States with larger below poverty line population.15

According to the ORG-MARG survey, 18 per cent of the below poverty line households did not have ration cards at the national level. In identifying households below the poverty line, the chances of mis-identification and of excluding the vulnerable population from the targeted public distribution system appear to be high.16

The introduction of the targeted public distribution system in 1997 has resulted in several prices within the same distribution network and for the same commodities. The virtual exclusion of the above poverty line population due to the new price regime has led to a big decline in the off take.

The targeted public distribution system, although introduced with a clear logic, has not succeeded due to the numerous problems associated with it. It has failed to reach the poor and it has weakened the overall system. With a smaller number of ration cards to serve, and the upper bounds on margins that can be charged to below poverty line consumers, the net profits

16 Ibid10.
of fair price shops are lower under the targeted public distribution system than before.\textsuperscript{17}

The infrequent functioning of the fair price shops such as on one or two days a month, frequent stockout situations, lack of stock and malpractices like under weighing of commodities are the problems faced by the cardholders. In addition the card holder in some places have to go to 2 to 3 kilometer distance to avail the ration products. So the ration shops in some places are not geographically distributed. The monitoring and vigilance system proposed in the targeted public distribution system guidelines, which was to involve the local Panchayat Raj Institution, has clearly not become operational.\textsuperscript{18}

Frequent changes in the system such as below poverty line, above poverty line, Antyodaya Anna Yojana, Anna Poorna and the like have created confusion among consumers. The effective functioning of the fair price shops would help the deprived classes in availing themselves of the essential commodities. It is therefore intended to study the working of PDS in Tirunelveli District of Tamil Nadu from the stand point of employees of fair price shops and the family card holders.

\textsuperscript{17} Ibid
1.2 STATEMENT OF THE PROBLEM

PDS in India is really a life line for the vulnerable sections of society. The government is really facing problem in providing essential commodities at subsidized price at the times of poor domestic production. The employees in fair price shops of both consumer co-operatives and civil supplies corporation face numerous problems. They are subjected to criticism at the times when they are not in a position to meet the demand due to shortage of supply from the source. Besides they face problem in distribution at the times of over crowding by the card holders during certain occasion. From the card holder point of view there are several constraints such as irregular supply, supply of only few items, supply of commodities with under weight and the like. Hence these problems prompted the researcher to study the perception of employees as well as card holders. Certainly this study would throw light on the varied plights of stakeholders of PDS. The findings of the study would help the government to realize and to initiate actions of improvement.

1.3 REVIEW OF LITERATURE

“For any worthwhile study, in any field of knowledge, the researcher needs adequate familiarity with literature related to the area selected for study. According to Best. familiarity with the literature in any problem area, helps the researcher to discover what is already known, what others have
attempted to find out, what methods of attack have been promising or disappointing, and what problem remains to be solved. The researcher should review as much related studies, as is practical under the circumstances of the investigation, before the formulation of hypothesis into a testable form.  

The present study is an attempt to analyze the PDS in Tirunelveli district. There are two areas on which review is made; one is about procurement and the other is distribution to consumer. However the study is mainly concerned with distribution and hence such studies have been mostly reviewed.

In a leading and highly critical study, Raj Krishna (1997) analysed the effectiveness of government operations in foodgrains for the period, 1951 to 1966. This pioneering and evaluative study was based on the secondary data from a variety of sources and covered the entire country. In all the analysis of the relevant variables, the consumption stability for the EVS (Economically Vulnerable Sections) was kept as the central issue of examination. Analyzing the synthetic list of objectives of the public distribution system, Raj Krishna argued that they by-passed a number of conflicting and controversial issues of operational significance. Through trend analysis of the time series, and by using important ratios of the inner-

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related variables, the study derived a number of quantitative indicators of the failure of government operations in foodgrains. The analysis of the time series 1951 to 1996 for the five variables such as production, government purchases, availability, imports and stocks, showed wide fluctuations year to year. The fluctuations in the availability of food grains, per capita ranged from 6 to 13 per cent below the daily mean of 15.4 ounces or 437 grams of food grains. Fluctuations during some years ranged from 5 to 7 per cent above the daily mean of 437 grams. Similarly, the supply of foodgrains increased as much as 11 to 14 per cent, or fell as much as 7 to 8 per cent in a single year. Raj Krishna constructed three feasible alternative models called “Stability models” on the assumption that the primary objective of Government operations was to provide a given level of per capita consumption. Magnitudes of Government purchases, imports, government sales and stocks were the four variables considered in the model constructions. Three policy options were developed and super-imposed on the models and the models themselves were designed to stabilise consumption with the minimum necessary imports.

Policy 1: The desired per capita availability may be determined and kept constant over time. (This implies that the rate of growth of supply just equals the rate of growth of the population)
Policy 2: The total supply may provide for the effect of the population growth as well as the growth of per capita income on the demand for foodgrains.

Policy 3: The total supply may provide for the full effect of the population growth and only a part of the effect of the growth in the per capita income.

The study recognized the utmost significance of the examination whether the EVS or the target group got the intended average per capita distribution of foodgrains. The immediate need to establish “the two-market two-price system” and the importance of laying down the criteria for determining the target groups in the population were underlined. Thus, the major conclusion of Raj Krishna was: “the Government operations failed to achieve any of the stated objectives, even to a minimum reasonable extent”.

A.C. Jena in his article “Public Distribution System and Involvement of Panchyati Raj Institutions made an in-depth analysis of the public distribution system in West Bengal. He suggested that the transfer of the public distribution system to the Panchayat Raj Institutions at the district and lower levels would ensure effective delivery of goods at the local level.

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stated that the delivery system should be made efficient by involving the local Panchayat Raj Institutions.\textsuperscript{21}

M. Karunanidhi, in his press conference on “Issue of three types of Ration Cards on Income Basis” stated that all the existing family cardholders would be given new cards in three colours depending upon the family’s economic status. According to him consumers who were affluent would be given green cards and they would be allowed to draw essential.\textsuperscript{22}

The study by Arvind Gupta is one among the few studies which brought to the limelight the variations observed between the expected roles of the Public Distribution System at the operational level. An analysis of the operational aspects showed that the relative advantage under the present Public Distribution System would be more to the consumers of the fine cereals than to the consumers of coarse grains. In order to clearly delineate the role of the Public Distribution System, the study emphasized a proper definition of the relative status and requirements of foodgrains of the PDS policy and those of the buffer stock policy separately. In the Indian context, the lack of a clear definition and understanding of the relative status and requirements of the two policies has severely handicapped the proper allocation of roles to the two policies. The study observed that during the


periods of easy availability (through imports between 1956 and 1964) the public distribution system performed the role of the “mother policy” that is, containing the price rise in food grains. Even the emergency imports of food grains, especially wheat, from the USA under the poverty line provisions, particularly during 1956-1964, generated a number of serious controversies regarding their effect on the internal production and prices of foodgrains as evidenced from the analyses of Schultz (1960), Sundaram H (1970), Shenoy (1957, 1974) and several others. Even the role assigned to the public distribution system could not be performed properly due to the stoppage of imports from abroad and/or due to the fluctuations and disturbances in supplies of foodgrains from the internal production and procurement.

Since the existing public distribution system and/or the operational set up failed to protect the EVS, the study by Arvind Gupta developed two broad alternative approaches and tested analytically their technical feasibility and their operational effectiveness. The first alternative was “the indirect approach”, under which the Government would attempt to control the prices of foodgrains and the second was the broad public distribution system alternative, namely “the direct approach” for protecting the EVS.
Under this, the Government takes it upon to supply the needed foodgrains at affordable prices to the EVS.\textsuperscript{23}

Gupta, basing his finding on certain assumptions, projected foodgrains requirements for the public distribution system up to 1980, for the whole of India. Such projections are assumed to help policy makers in their procurement efforts.\textsuperscript{24}

The criteria of identifying the target groups differed across studies. For Raj Purohit the Urban dwellers and the Rural Poor were to be included under the target groups. The Sixth Five Year Plan identified 50.8 per cent of the rural population and 38 per cent of the Urban population as comprising of the target groups. However, in practice each state followed its own criteria. For instance, Gujarat excluded households whose annual income exceeded Rs.8,000, dealers registered under the Sales Tax Act, and agriculture households which had more than 1/9 of ceiling of land. The remaining population was considered the target group.\textsuperscript{25}

In their edited volume, Dholakia, et al. (1979) covered different aspects and issues relating to the evolution, evaluation and prospects of the public distribution system at the national-level. (There were also a few case

\textsuperscript{23} Gupta, Arvind, Public Distribution of Food grains in India. Monograph No. 69, (Originally a Ph.D. Thesis), Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad.

\textsuperscript{24} Ibid

\textsuperscript{25} A.R. Raj Purohit, Economic Analysis of Procurement and Public Distribution of Food grains in Karnataka, Institute of Social and Economic Change (ISEC), Bangalore, 1978.
studies of state-level analysis). While some papers were based on secondary data only, others used both published and primary data. But in all the studies, the public distribution system issues were discussed mainly from the point of view of the management and administrative efficiency. The contributions (national seminar papers) were made by economist, marketing and management experts and senior officials of the Central Government and the State Governments, belonging to the departments of Civil Supplies and the Food Corporation of India [FCI].

The paper on “PDS- Evolution, Education and Prospects,” elaborately discussed the positive and significant role played by them in the efficient functioning of the public distribution system. The weaknesses and failures of the co-operatives and the necessary organizational and operational measures for overcoming those drawbacks were also indicated. Despite their widespread coverage, the co-operatives were doing a total retail business of just 4 per cent, leaving 96 per cent to private retail traders. As a matter of policy, both the Central and State Governments were encouraging the co-operatives to provide leadership to the consumer movement in the country and assisting them in a number of ways in order to develop a dependable public distribution agency. The paper on kerosene

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distribution in the country examined the existing consumption patterns, consumer behaviour, ground-level distribution problems, the roles of the central and State Governments, the issues of distribution margins, consumer prices and the methods of increasing the per-household consumption of kerosene over the years.

George attempted to analyse the public distribution of foodgrains and their income distribution effects in Kerala. He has tried to estimate the possible impact of rationing on the income of the consumers using the formula: $R = PQ$, where $R$ is Income, $P$ is the Gap between the open market price and the ration price, and $Q$ is the off-take quantity of rice from the ration shops. Further, he has also estimated the total cost involved in the distribution which is given as $C = L + S + SW$, where $L$ is Loss to producers on account of levy, $S$ is Government Subsidy on rice, and $SW$ is Government Subsidy on Wheat. In this study the economic viability of rationing is determined by comparing the cost with the benefits. When the estimated value of benefits ($R$) exceeds the estimated value of costs ($C$), it implies that the gains to the consumers exceed the cost incurred by the Government in maintaining the public distribution system. Hence rationing is an economically viable proposition. The results for Kerala suggest that the system is economically viable. Further, ration rice, according to P.S. George, is economically viable. Further, ration rice, according to P.S. George, Public Distribution of Food Grains in Kerala - income distribution implications and effectiveness, research report No: 7, International Food Policy Research Institute, Washington 1979.
implications and effectiveness, research report No: 7, International Food Policy Research Institute, Washington 1979. to this study, accounted for a major share of the rice consumption of consumers belonging to the low income groups.

Lal Sahab Singh in his article entitled “Public Distribution System in India with Special Reference to Food Grains” analysed various problems of the Public Distribution System in India for giving a new direction to the public distributing machinery and maintaining a price line of essential commodities consistent with growth and stability.29

An empirical assessment of the public distribution system by Shankaraiah and Sudarshan of the Kakatiya University showed that the Public Distribution System was used as a device for making profit by unfair means and consumers were helpless even in availing to draw their monthly rations from fair price shops. This study too lacked rural coverage.30

K.R. Madi in his article “Public Distribution System in India” analysed the existing distribution in India and its broad objectives and also discussed the various constraints on operation and measures for the smooth running of the system.31

Madhura Swaminathan in a special article titled "Structural Adjustment, Food Security and System of Public Distribution of Food" analysed the reduction in food subsidies despite little change in the budgetary allocation to 'food subsidy'. This resulted in sharp price increases for commodities sold in fair price shops, a fall in the quantities supplied to the system of public distribution, and a reduction in entitlements in certain cases. In a period of low growth and high inflation, the public distribution system failed to ensure that the prices of major food staples were low and stable. This study concluded that the public distribution in India needed to be genuinely reformed if it was to provide basic food security to the vast majority of the Indian population.32

Mahendra Dev in his article entitled "Food Security: Public Distribution System" addressed the poverty and food security problems in two relatively large states of India, namely Maharashtra and West Bengal, mainly using the National Sample Survey (NSS) 43rd round (1986-88) data on employment and unemployment and the 42nd round (1986-87) household-level data on the public distribution system.33

P.S. George attempted to review some aspects of the operation of the public distribution system and raised some policy issues with regard to the scope and coverage of the Public Distribution System, the production

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incentives to farmers, and the amount of food subsidy required. The brief review of the public distribution system indicated a number of policy issues for further consideration. In the absence of careful studies on some of these aspects, it is proposed only to raise some of these aspects for further discussion, rather than specifying a preferred policy alternative. For convenience, the various policy issues are grouped under three broad categories Public Distribution System coverage, production incentives and food subsidy.\textsuperscript{34}

Mahendra Dev in his article “Public Distribution System: Impact on Poor and Options for Reform” states that considerable literature on the working of the public distribution system in India was available. However, a few studies have estimated the welfare gains in terms of income as well as nutritional impact. No study has estimated the cost per unit of income or nutritional gains.\textsuperscript{35}

“Supply of Essential Commodities to Card Holders without short supply” V. Thangapandian stated that the essential commodities would be supplied on all the days of a month at the convenience of the public instead of supplying them on certain specific days. The Minister advised the employees of the fair price shops to attend to their work in time and


distribute the commodities with correct weighment to the public without making them stand in long queues.\textsuperscript{36}

The Government of Tamil Nadu passed an order in June 12, 1997, to set up advisory committees for the better functioning of the public distribution system. Accordingly, the Government formed district level and divisional level PDS Advisory Committees headed by the District Collector and the Revenue Divisional Officer respectively for the effective functioning of the Public Distribution System.\textsuperscript{37}

K.N. Nehru, in a meeting on streamlining the Public Distribution System held on February 14\textsuperscript{th} 1997, stated that effective steps should be taken to make the services of fair price shops proper.\textsuperscript{38}

M. Karunanidhi, in his press meet on February 13\textsuperscript{th} 1997 stated that the State Government had taken steps to provide essential commodities to the people by subsidizing them. He advised that the staff working in the fair price shops should extend their whole-hearted co-operation to serve the people. He further stated that even if one employee commits a mistake, it could hit the poor hard.\textsuperscript{39}


M. Karunanidhi, in his address to the Tamil Nadu State Legislature on November 22nd 1999, explained the functioning of the public distribution system in other states such as West Bengal, Karnataka, Kerala and Andhra. He also pointed out that in Karnataka and Kerala only 10 kgs of rice and in West Bengal 2 kgs per person are supplied under the PDS. In Tamil Nadu alone a maximum of 20 kgs of rice was being supplied to all the family cardholders irrespective of their income.40

At present, Government of Tamil Nadu is selling rice at the rate of 1 Re per kilogram to the family cardholder.

“Errors of Targeting: Public Distribution of Food in a Maharashtra Village, 1995-2000”, an article written by Madhura Swaminathan and Neeta Misra analysed the costs arising out of the two types of targeting errors namely, errors of exclusion and errors of inclusion in the public distribution system in India. According to them errors of wrong inclusion decreased while errors of wrong exclusion increased the supply of food grains with a shift from universal to targeted coverage. According to them the procedures for excluding households from the BPL category of the targeted PDS in Mohakal was faulty and arbitrary and undertaken by persons without appropriate training. According to the Government of India guidelines, the three characteristics used for classifying households as BPL are: operational holdings of land, structure of dwelling and ownership of assets. According

40 M. Karunanidhi, Chief Minister Government of Tamil Nadu, “PDS. Rice at Reduced Rates from January 1”, The Tamil Nadu Journal of Co-operation, January 2000, 1; P.5.
to the authors, "when these criteria are applied, large sections of the population that need food security are excluded from access to subsidized food". 41

"Taking the Public Distribution System to the poor: Directions for Further Reforms" an article written by Shikha Jha and P.V. Srinivasan, examined the cost and benefits associated with the operation of the public distribution system of foodgrains in India. They also analysed the inefficiencies in the system, by comparing the costs of public storage and distribution with those of private agents. They suggested how the rising Government costs could be curtailed by making the administration more efficient and relying on market forces for the distribution of grain. So long as the income of the poor failed to grow adequately, the need for food subsidy would remain. The only way to reduce the food subsidy bill is to improve the efficiency of the system by reducing corruption. According to them there was large scope for reducing the inefficiencies and preventing leakages by improving the reach of the poor. They concluded that inspite of incurring enormous tangible and intangible costs, the effectiveness of the PDS in providing food security to the poor had been low. 42

Thomas Paul Katookaran and K.P. Mani in their article, "Revamping Public Distribution System through people's participation: A Study on

42 Shikha Jha and P.V. Srinivasan, "Taking the PDS to the Poor: Directions for Further Reform", Economic and Political Weekly, September 29th 2001, p.3779.
Kerala" pointed out the need for the PDS to the economically weaker sections of society. They traced the historical development of the public distribution system in Kerala since its introduction on October 24\textsuperscript{th}, 1965 to August 31\textsuperscript{st}, 1995. The analysis covered items such as the number of ration cards, the number of ration cards permitted to each of the institutions, the number of whole-sale shops, the number of retail ration shops and the like. They stressed the significance of consumer co-operatives and the public distribution system at the national and regional levels in the context of the liberalization of the economic scenario at the international and national levels.\textsuperscript{43}

C. Kusumakara Hebbar, in his book "Constraints of Consumer Co-operatives in Public Distribution System", analysed the role of consumers' co-operatives in the Dakshina Kannada District of Karnataka State. He highlighted the problems of the consumer co-operatives in the public distribution system such as competition among co-operative societies, Government interference in their affairs, and the poor quality of foodgrains supplied. The crux of the problem was the entry of the fourth generation of politicians in the garb of co-operators who, unlike their predecessors, were less dedicated, more self-seeking and well conversant with the art of manipulation. For the improvement of the public distribution system by consumers' operatives, he suggested measures such as the supply of rations in standard bags, appointment of Government officials experienced in

consumerism and marketing, and arrangement for the collections of taxes at a single point.\textsuperscript{44}

N. Markkendayan and M. Ponniah in their article "Economic Reforms in Public Distribution System in India" pointed out that India has lived with food shortages for a very long period. Famines, wars and droughts cause actual scarcity forced the Government to undertake fire-fighting measures from time to time like suspending the normal activities of markets and trade through the nationalization of wholesale trade, and the organization of food zones.\textsuperscript{45}

U.K. Singh in his book "Public Distribution System" covered all the aspects of the public distribution system in Bihar. He gave a detailed account of the public distribution system at all India level and Bihar. He concluded that the public distribution system should focus specially on the poverty groups in India.

R.S. Gadage in the article "Performance of Public Distribution System in India" says that the Public Distribution System has achieved progress in the distribution of food grains.\textsuperscript{46}


\textsuperscript{45} Markkendayan and M.Ponniah, "Economic Reforms in Public Distribution System in India", \textit{Third Concept}, April 2005, pp.43-44.

\textsuperscript{46} R.S. Gadage in their article, "Performance of Public Distribution System in India" \textit{Southern Economist}, February 1, 2006.
U.K-Singh, *Public Distribution System*, Mittal Publications, New Delhi, 1991 achieved progress in PDS. For the effective operation of the Public Distribution System it is necessary to link with public work programmes. Hence it is necessary to streamline the PDS as a state responsibility on the ground of social justice.47

1.4 SCOPE OF THE STUDY

The study covers the Public Distribution System Tirunelveli District only. The study of the essential commodities supplied covers only rice, wheat, sugar and kerosene.

1.5 OBJECTIVES OF THE STUDY

1. To present the public distribution system in India and Tamil Nadu.

2. To study the allotment and off-take of the essential commodities in Tirunelveli District.

3. To examine the attitude of consumers towards the public distribution system in Tirunelveli District.

4. To analyze the perception of the employees of the fair price shops.

5. To offer suggestions for improving the public distribution system.

1.6 HYPOTHESES OF THE STUDY

The following null hypotheses were framed to analyse the opinion of the cardholders on the services rendered by the fair price shops:

1. There is no significant difference between the age of the respondents and their level of opinion on the services provided by the fair price shops.

2. There is no significant difference between the sex of the respondents and their level of opinion on the services provided by the fair price shops.

3. There is no significant difference between the caste of the respondents and their level of opinion on the services provided by the fair price shops.

4. There is no significant difference between the literacy level of the respondents and their opinion on the services provided by the fair price shops.

5. There is no significant difference between the income of the respondents and their level of opinion on the services provided by the fair price shops.

6. There is no significant difference between the size of family of the respondents and their level of opinion on the services provided by the fair price shops.
7. There is no significant difference between the marital status of the respondents and their level of opinion on the services provided by the fair price shops.

8. There is no significant difference between the periodicity of income and the level of opinion on the services provided by the fair price shops.

9. There is no significant relationship between the designation of the employees and their perceptions on the distribution of essential commodities.

10. There is no significant relationship between the age of the employees and their perceptions on their workload.

11. There is no significant relationship between the sex of the employees and their perceptions on handling the customers.

12. There is no significant relationship between the period of service of the employees and their perception of the behavior of the customers.

1.7 PERIOD OF THE STUDY

Secondary data for the ten year period from 1999 – 2000 to 2008 – 09 were collected for the present study. The primary data were collected from the selected consumers and employees during the period between March and December 2006.
1.8. METHODOLOGY

1.8.1 Primary Data

i) Collection of Data

The data for this study have been collected from both primary and secondary sources. The primary data have been collected from the sample respondents. The primary data have been collected through sample survey of the consumers and the employees of the fair price shops.

ii) Construction of Interview Schedule

For the purpose of the survey of the cardholders and the employees of the fair price shops, two separate interview schedules were prepared. Pre-tests were conducted by taking 20 sample consumers and five sample employees of fair price shops to analyse the effectiveness of the interview schedules. In the light of the respondents' responses, the interview schedules were modified and given in Appendix – I.

iii) Sampling Method

To study the attitude of consumers of the essential commodities supplied, by the Public Distribution System, a survey was conducted among the 300 sample respondents by using a structured interview schedule.

There are 19 Blocks in Tirunelveli District. Among them 6 Blocks are selected on the basis of number of families (Block wise details are given in III chapter). These six blocks are selected purposely which account for large
number of families. Six blocks so selected are considered as study area and all the 15 civil supply corporation ration shops functioning in these 6 blocks are covered for the study. TNCSC has 198 fair price shops are functioning in the six blocks selected for the study. All the 15 shops run by TNCSC are selected. Hence census method is followed with regard to selection of TNCSC fair price shops. There are 952 ration shops owned by consumer co-operative stores in these six blocks. Out of which 135 are selected at random. The relevant data are furnished in Table 1.1

TABLE 1.1

SAMPLE RESPONDENTS IN TIRUNELVELI DISTRICT

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Particulars</th>
<th>Total Number of Shops</th>
<th>Employees</th>
<th>Cardholders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>Sample</td>
</tr>
<tr>
<td>1.</td>
<td>TNCSC</td>
<td>15</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>2.</td>
<td>Consumer Co-Operatives</td>
<td>952</td>
<td>2291</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>967</td>
<td>2326</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: Records of Deputy Registrar of Co-operatives, Tirunelveli

In the second stage, 300 sample respondents were selected from 150 sample shops by choosing two persons from each shop, by adopting convenience sampling technique.
All the 15 fair price shops of TNCSC were surveyed by adopting census method. From the table it could be seen that the total number of employees of consumer co-operatives in the selected blocks of Tirunelveli District is 2291 out of them 5% of employees are selected at random. Hence total number of employees selected from consumer co-operatives is 115. Thus the total number of employees surveyed is 150 comprising of both the employees from TNCSC and consumer co-operatives.

iv) Data Processing

The filled in interview schedules were edited properly to make them ready for coding. The respondents’ responses to each of the question in the schedule were first tabulated in the master table. The qualitative data were quantified and tabulated to draw meaningful conclusions. Thereafter, appropriate tables were prepared keeping in view the specific objectives of the study for analyzing the data with the application of appropriate statistical tools.

1.8.2 Secondary Data

The secondary data have been collected from books, journals, newspapers, periodicals, reports and website.

The major source of the secondary data are from the records of office of the Registrar of co-operatives, Tirunelveli, Food corporation of India, Chennai, office of the Tamil Nadu Civil supply corporation, Chennai and Tirunelveli.
1.8.3 Framework of analysis

The collected primary data and secondary data were processed with the help of appropriate statistical tools, in order to fulfill the objectives of the study. Perception of card holders and services rendered by the employees and their perception are the major areas of analysis. Percentage analysis, arithmetic mean, Standard deviation, Chi-square test, Factor analysis, Garrett ranking technique and Kruskal Wallis Test are the tools employed in the study.

1.8.3.1 Working of Garrett's Ranking

\[
\text{Garret's Ranking} = \frac{100(R_{ij} - 0.5)}{N_j}
\]

\[
R_{ij} = \text{Rank given for } i^{th} \text{ factor by } j^{th} \text{ individual and }
\]

\[
N_j = \text{Number of factors ranked by } j^{th} \text{ individual.}
\]

1.8.3.2 Factor Analysis

To analyse the consumers' attitude towards services rendered by the fair price shops in the public distribution system, factor analysis has been used.

There are several methods available in factor analysis. But the principal factor method with the Orthogonal Varimax Rotation is mostly used and widely available in Factor Analytic Computer Programmes. One of the final outcomes of a Factor Analysis is called the Rotated Factor Matrix, a table of co-efficient that expresses the ratios between the variables and the
factors prepared. The sum of the squares of the factor loading of a variable are called communalities (h2).

1.8.3.3 Chi-Square Test

The test has been used to measure the opinion levels of the respondents towards the services rendered by the fair price shops. The following formula has been used in the opinion score in the study.

$$\text{Chi-Square Test} = \frac{(O-E)^2}{E}$$

Where O == Observed Frequency

E = Expected Frequency

$$E = \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}}$$

R = number of rows

C = number of columns

With (R- 1) (C - 1) Degree of freedom.

Null-Hypothesis were formed to analyze the opinion of the cardholders towards the services rendered by the fair price shops.

1.8.3.4 Kruskal Wallis Test

The perception of the employees were tested by using the Kruskal Wallis Test with the following formula
36

\[ H = \frac{12}{N(n+1)} \quad K \sum_{i=1}^{R_i^2} \frac{n_i}{n} \]

Where \( n = n_1 + n_2 + n_3 \ldots + n_k \) and \( R_i \) being the sums of the ranks assigned to number of observation in the sample.

1.9 LIMITATIONS OF THE STUDY

1. Since the part of the study is based on the opinion of employees and card holders consistency in views cannot be ensured.

2. The study confines only to the essential commodities such as rice, wheat, sugar and kerosine.

1.10 SCHEME OF THE STUDY

There are six chapters presented in the study.

Statement of the problem, review of literature, scope of the study, objectives of the study, period of the study, methodology, framework of analysis, limitations of the study and the chapter scheme are covered in the Introduction chapter.

An overview of public distribution system is attempted in the second chapter. Organizational structure of Tamil Nadu Civil Supply Corporation and Consumer Co-operative Societies are also explained in this chapter.
The Third Chapter "The Public Distribution System in Tirunelveli District" examines the allotment, liftment and off-take of the essential commodities.

The Fourth Chapter, "The Attitude of Consumers towards the Public distribution System in Tirunelveli District, attempts to examine the level of satisfaction and factors influencing the level of satisfaction of the consumers.

The Fifth Chapter analyses the "The Perception of the Employees” on the Services Provided by the Fair Price Shops in Tirunelveli District.

The Sixth Chapter presents a Summary of the Findings and Suggestions for improving the system effectively.