



A CENTURY OF AGRARIAN CHANGE IN LOWER CAUVERY DELTA: A STUDY OF PALAKURICHI VILLAGE 1918- 2018

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EXECUTIVE SUMMARY

In India, agricultural sector provides livelihoods to nearly 60 per cent of the rural population. Hence, any strategy to bring rural transformation has to focus on interventions in agricultural sector. Agriculture, in addition to providing food, is also a source of livelihood for a significant share of the rural population through crop production and the provision of employment opportunities. Hence, agrarian relations in any region play a crucial role in defining the nature and characteristics of development trajectory, and is very critical for any inclusive and sustainable rural transformation. There were long-term village studies carried out by scholars as well as institutions, trying to understand the dynamics of rural transformation through an analysis of agrarian relations and the nature of agricultural development in rural areas. Among the various studies, the study of the village of Palakurichi in the Thanjavur region (present Nagapattinam district) of Tamil Nadu stands unique with the fact that it was one of the 'Slater villages' studied since 1918, and the agrarian relations in the villages have been studied continuously for nearly a century since 1918. There has been a study of Palakurichi village every two decades from 1918 till 2008. So far, there are five studies of the village, done by eminent scholars sketching out the socio-economic changes in the village, agrarian relations and livelihoods of households. The period has also covered major phases of agricultural and rural development programmes in India, focusing on bringing rural transformation.

The importance of Thanjavur region in terms of its contribution to rice production in the country has been widely noted in the literature. The region falls within the Cauvery delta and has assured irrigation from the Cauvery River. The irrigation system in the Cauvery delta is one of the oldest water control facilities in India and dates back to the Chola period during the second century A.D. In order to understand the long-term changes in the lower Cauvery delta region, a detailed village study of the Palakurichi village was undertaken with the resurvey of the village during 2019. This is the sixth study of the Palakurichi village since the first study in 1918, followed by studies spanning over a period from 1918 – 2018. The specific objectives of the study were:

1. To characterise the agrarian structure and agrarian relations and its changes over a century (1918 – 2018) in Palakurichi village of the lower Cauvery delta region.
2. To analyse the socio-economic conditions of households in the village, and how it has changed over a century.
3. To understand how Dalit households are positioned in relation to other households in terms of socio-economic changes during this period.
4. To assess the role of the important public-supported agriculture and rural development programmes in transforming the lives and livelihoods of households in Palakurichi village.

This detailed village study adopted the household survey methodology based on a pretested structured questionnaire for primary data collection. Along with primary data, secondary sources of data on the village and the region from Census of India and various other official sources were also collected and analysed. A detailed census survey of all the households in the village was carried out based on a structured questionnaire.

The most important conclusion that emerges from the long-term analysis of agrarian relations and social change weaved from all the six studies of Palakurichi village, including the recent study of 2019, are as follows:

The village has remained primarily an agrarian for a century, depending entirely on agriculture for livelihood of majority of the households. The most striking feature is the long-term dominance of a single crop of rice cultivation in the village for nearly a century, with the exception of two crops of rice being cultivated for a brief period of two decades during the 1970s and 1980s. However, later with the decline of irrigation water availability from the Cauvery irrigation system and deterioration of production conditions due to natural calamities, including floods and droughts, villagers could afford to grow only once a crop of long-duration rice. The agro-ecological characteristics of the region could only support the production of a single crop of long-duration rice, and the livelihoods of majority of households depended on this.

Palakurichi village historically had a significantly higher share of Dalit households, constituting 60 per cent of the total households in the village. Though Dalits constituted the majority of households in the village, historically, they were subjected to extreme forms of oppression and discrimination based on caste. They were largely agricultural labourers and were bonded to landlord households through the pannaiyal system, which prevailed during the pre-colonial period in the region and continued in various forms and ways even after the colonial rule and the country became independent. The studies on Palakurichi at different points of time sketch the highly oppressive and discriminatory treatment extended to Dalits in the village, and the deplorable and vulnerable living conditions they faced for an extended period before they could mobilise and fight against such oppressions and demand for basic necessities of life. These efforts were later complemented by various public-supported programmes like PDS, IAY and PMAY and MGNREGA, which were aimed at improving the lives and livelihoods of vulnerable households.

A distinct feature of the agrarian structure of Palakurichi village was the historical inequalities in ownership of means of production, particularly the extremely unequal distribution of land ownership. This remained the defining characteristic of agrarian relations even during the beginning of the 21st century. Historically, the dominance in landownership helped the land-owning Naidu community to exercise control over the social and economic activities of the village and keep the landless Dalits bonded

to them through economic and extra-economic coercions. For nearly nine decades till around the mid-2000s, Dalits could never imagine owning a small piece of land in the village. However, due to declining fortunes from rice cultivation, a generational shift in focus from agriculture to non-agricultural sources of livelihoods and migration to nearby cities and abroad, Naidu households could not continue agricultural production in the manner and scale which they used to carry out in earlier days. A significant change in landownership was facilitated to an extent through the Land for Tillers' Freedom (LAFTI) programme in Palakurichi. This gave Dalit households access to land ownership and a major upliftment in terms of improved social relations and economic opportunities. However, the fact that more than half of Dalits are landless is a major constraint towards achieving equity in social and economic development.

The occupational diversity of Palakurichi village has been stagnant, with a large share of the workforce engaged in the agricultural sector for a long period. From the first study in 1918 till the study in 2003, agriculture remained the primary source of employment. However, by the study of 2019, the occupational workforce underwent a slow transformation from dependence on agricultural sector to non-agricultural sector. This transformation was supported to an extent by employment generation through the implementation of MGNREGA programme also.

POLICY RECOMMENDATIONS

The analysis of changes in the agricultural production conditions and agrarian relations in Palakurichi village brings to the forefront the absence of any specific policy or programme that could address the stagnation and decline in the agricultural sector, particularly during the post-green revolution period. The absence of any policy or programme for making agricultural sector viable through cropping pattern changes to perennials and less water-absorbing crops suitable for the agro-climatic characteristics of the region, diversification to allied sectors, including livestock, particularly focusing on small ruminants is very evident. This has resulted in a slow transition of livelihood dependency of households in Palakurichi on agriculture to non-agricultural sector opportunities in nearby towns and cities, which is growing only at a slower pace. Attention must be given to introducing policies and programmes to promote diversification to allied sectors (livestock and fisheries), address the stagnation in agriculture and improve returns from the sector.

The intervention of various public supported social security programmes, particularly PDS and MGNREGA, to support vulnerable households in the village during periods of distress and despair is noteworthy. These programmes should be continued to support vulnerable households under various conditions, including natural calamities.

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1. INTRODUCTION

In India, agricultural sector provides livelihoods to nearly 60 per cent of the rural population. Though the contribution of agriculture to GDP has declined, it still supports the livelihoods of a significant share of the rural population. Hence, any strategy to bring rural transformation has to focus on interventions in agricultural sector. Since independence, the country has focused on addressing the constraints and challenges faced by agricultural sector through various programmes and policies. The development strategy in India has evolved over the last eight decades and has been focusing on bringing rural transformation through agriculture development. The biggest challenge which agricultural sector faced soon after independence was the herculean task of feeding its population. The policies and programmes during the initial period were to improve food production by expanding the area under cultivation and improvements in productivity of food crops.

There have been several programmes like the Grow More Food Campaign (GMFC) during the 1940s, followed by Intensive Agricultural Area Programme (IAAP) and Intensive Agricultural District Programme (IADP). During the 1960s, Green Revolution technologies were introduced to improve food production through high-yielding varieties, and intensive use of modern inputs supported by improved irrigation facilities. All these interventions have helped us achieve self-sufficiency in food production and ensure food security for India's population. Agriculture, in addition to providing food, is a source of livelihood for a significant share of the rural population through crop production and provision of employment opportunities. Hence, agrarian relations in any region play a crucial role in defining the nature and characteristics of development trajectory, and is very critical for any inclusive and sustainable rural transformation.

There are several studies which analysed various aspects of agricultural production and distribution of benefits at different points of time, and there is a large body of research carried out about the benefits and impact of various policies and programmes, particularly Green Revolution technologies, among various categories of cultivators in different regions of the country. These studies on various aspects of agriculture development largely fall into three categories. The first category of studies is carried out by individual scholars or institutions using primary and or secondary data from select geographies (taluks/blocks/districts/States) and periods.

The second category of studies is by State or official agencies using primary and or secondary data primarily as part of monitoring and evaluation and impact assessment studies. The third category of studies - and the most valuable among the three - is the long-term village studies carried out by scholars as well as institutions, trying to understand the dynamics of rural transformation through an analysis of agrarian relations and nature of agricultural development in rural areas. Several studies analyse the changes in agricultural production conditions over a period across regions and understand the changes in

the sector. The Farm Management Studies initiated during the 1950s, ICRISAT Village studies in the semi-arid region and the study of Palanpur village are prominent among them.

Historically, the intricacies of the agrarian foundations of rural development have been brought out by intensive village studies across diverse geographies of the country (Slater, 1918; Gough, 1989; Ramachandran, 1990; Lanjouw and Stern, 1998). Among them, village studies initiated by Gilbert Slater during 1916 in selected villages in Madras Presidency stand unique with the distinction of being studied repeatedly during the 20th Century. Some of these villages fall in the Thanjavur region of the Cauvery delta. The Thanjavur region has assured irrigation from the Cauvery River and has historically been known as the rice bowl of "south India" for its prosperous rice production system. Agrarian relations in the region brought out by scholarly studies are characterised by a) historical inequalities in land ownership, b) existence of onerous forms of tenancy, characterised by economic and extra economic forms of coercions, and c) worst forms of caste and class oppressions, which often resulted in agrarian unrest leading to agitations and violence (Thomas and Ramakrishnan, 1940; Swenson, 1973; Gough, 1981, 1989; Menon, 1983; Bouton, 1985; Beteille, 1974; Guhan, 1983; Shivaraman, 1973; Desai, 1979). Among the various studies in the region, studies in the Slater village of Palakurichi stand unique because the agrarian relations in the village have been studied continuously for nearly a century since 1918. There has been a study of Palakurichi village every two decades from 1918 till 2008. So far, there are five studies of the village, done by eminent scholars sketching out the socio-economic changes in the village, agrarian relations and livelihoods of households in the village. The period has also covered major phases of agricultural and rural development programmes in India, focusing on bringing rural transformation. The village located in the Cauvery delta witnessed a transformation from a single crop of paddy growing village in 1916 to intensive two crops of rice with the introduction of Green Revolution technologies during the 1970s. This was supported by the irrigation infrastructure developed in the Cauvery delta. Thereafter, with the deterioration of irrigation facilities and incidences of natural calamities characteristic of a tail-end delta village in the form of drought and floods, the cropping pattern was reversed to a single crop of paddy. This had serious implications for the households in the village in terms of income and employment, affecting their welfare. The last survey of the village carried out in 2004¹ has brought out the existing inequalities, nature of agrarian relations and how such distortions affect agricultural production, and are biased against households belonging to the weaker sections of society. In the region, where agriculture and rural development programmes could not bring in an impressive and equitable rural transformation, positive changes in the village, though at a slower pace, have been largely through progressive social and political movements, which are the characteristics of the area.

¹The study carried out in 2004 was published in 2008.

The 2004 study of Palakurichi village was carried out just before the introduction of large-scale employment guarantee programmes aimed at providing minimum guaranteed employment through self-targeting, particularly among vulnerable sections of the population and in areas of distress. Hence, against the background of the centenary year of the first study of Palakurichi village during 1918, a detailed study that can put in analytical perspective the developments in agrarian relations and socio-economic conditions of the households in the village over a century, is undertaken. The study and analysis attempt to provide insights into the long-term changes in agriculture and rural development programmes and policies for rural transformation, and how the nature and characteristics of agrarian relations can influence the outcomes of such interventions. This will serve as valuable inputs to designing and developing policies and programmes for transforming rural India.

2. REVIEW OF LITERATURE

During the first decade of the 20th century, several scholars, as part of their efforts to understand the diverse socio-economic characteristics of the countryside, started conducting village studies in different parts of the country. This method of conducting village studies continued, and some of the villages studied were resurveyed at later points of time to understand the changes and dynamics of rural transformation. Most notable among them were Slater village studies initiated in Madras Presidency during 1916 and resurveyed several times later; studies by Harold Mann during 1918 in Deccan Plateau, study of Faridpur by Jack in 1927, studies by Gokhale Institute of Politics and Economics in Satara district during 1936, studies on Palanpur village by Nicholas and Stern that analysed the socio-economic changes in the village since the 1950s, studies on a Gujarati village by Jan Breman, ICRISAT Village Studies initiated during the 1970s, and the recent and ongoing series of village studies carried out by Foundation for Agrarian Studies under the Project on Agrarian Relations in India. Some of these villages have been resurveyed at different points of time, and hence provide a detailed understanding of the socio-economic changes and agrarian relations of the region they belong to. The most notable among the resurveys was Slater villages in Tamil Nadu. The 'Slater Village' of Palakurichi village belongs to Thanjavur region of Tamil Nadu. The Thanjavur region refers to the undivided Thanjavur district, which includes the present districts of Thanjavur, Tiruvarur and Nagapattinam.

The importance of Thanjavur region in terms of its contribution to rice production in the country has been widely noted in the literature (Gough, 1981; Schendel, 1991; Swenson, 1973; Menon, 1983). According to Ramiah (1937), during the early decades of the 20th century, the proportion of net sown area under rice cultivation (70 to 80 per cent) was highest in Thanjavur among all districts of the Madras Presidency. The region falls within the Cauvery delta and has assured irrigation from the Cauvery River. The irrigation system in the Cauvery delta is one of the oldest water control facilities in India and dates

back to the Chola period during the second century A.D. (Bouton, 1985). Alluvial soils of the delta are very good for wet rice cultivation. Since the 1940s, Thanjavur has benefited from many government programmes aimed at augmenting rice production. These include the Grow More Food Campaign (1942), the Intensive Agricultural Area Programme (IAAP) (1960-61), and the High Yielding Variety Programme (HYVP) (1966-67) (Rukmani, 1993).

An understanding of the evolution of agrarian relations is necessary to understand the nature of agrarian structure in contemporary Thanjavur. The history of agrarian relations in Thanjavur has been the subject of several scholarly studies (Gough, 1981; 1989; Menon, 1979a; 1979b; 1979c; 1983; Sivertsen, 1963; Schendel, 1991; Beteille, 1974; Bouton, 1985). These studies bring out the changes in the nature and characteristics of agrarian relations in Thanjavur region during the pre and post-colonial periods and post-independent era. The agrarian relations in the region have been characterised by a) extremely unequal distribution of land with a large incidence of landlessness, b) a highly polarised agrarian community with a small share of landlords controlling the agricultural production process through economic and extra-economic measures resulting in low levels of standard of living and extreme forms of deprivation among the vulnerable population and c) emergence of intense and strong peasant movement under the leadership of progressive political forces which organised tenants, small cultivators and agricultural labourers in the region for a better share of crop produce and fair wages (Thomas and Ramakrishnan, 1940; Swenson, 1973; Gough, 1981, 1989; Menon, 1983; Bouton, 1985; Beteille, 1974; Guhan, 1983). These developments over the last century in the agrarian structure of the region have influenced the villages and have been brought out by repeated studies on Palakurichi village.

Several scholars have studied Palakurichi village since 1918. Gilbert Slater and his students studied Palakurichi in 1916.² In 1936, P. J. Thomas and K. C. Ramakrishnan surveyed Palakurichi. M. R. Haswell studied the same village in 1961³, S. Guhan, I.A.S, resurveyed the village in 1983, which was again studied during 2004 by V. Surjit (Rajalu, 1918; Tirumalai, 1940; Haswell, 1967; Guhan, 1983; Surjit, 2008). Palakurichi is located at the tail-end of the Cauvery irrigation system and receives water from two canals of the system. The major event of the last hundred years in respect of irrigation in the village was the construction of the Mettur dam in 1934. On the other hand, problems of flooding, salinity, and water shortages were controlled after the completion of the Mettur Project. Over the last two to three decades, water flow in the Cauvery irrigation system has declined steeply and has become irregular.

²The survey was carried out Soundara Rajalu. K, who was Gilbert Slater's student at Madras University, and was a native of the village. The study was published in 1918.

³Haswell's study was published in 1967.

During the 2004 study, Palakurichi received only 23 TMC feet of water, the lowest level in five decades. Palakurichi has remained a rice-growing village over these nine decades. From 1918 till the early 1960s, only one crop of rice was sown (although there were three rice crop seasons). From 1963–64, with the introduction of short-duration, high-yielding variety seeds, the opportunity to raise a second rice crop emerged. However, on account of the deterioration in the irrigation system, by the end of the century, cultivators had returned to a single crop of paddy.

The village remained largely agrarian, with 78 per cent of households having agriculture as their primary occupation during 2004. Among them, 64 per cent were agricultural labourers, and 14 per cent were cultivators (Surjit, 2008). The distribution of landholdings in the village is highly unequal, with 80 per cent of landless households and 3.2 per cent of land-owning households owning 67 per cent of the total land in the village. The extent of landlessness among various social groups in the village is even worse, with 93 per cent of the Dalit households not owning any land in Palakurichi (ibid, 2008; Surjit, 2014). There were no other major sources of employment other than agriculture. A few households were employed in the government sector, and a limited number of households have their members employed in the private sector. Also, no major rural development programmes in the village have significantly impacted the rural infrastructure and lives and livelihoods of people in Palakurichi, except for a few of the Dalit households getting houses under the Indira Awaas Yojana (IAY). There could have been some changes in the occupational pattern and livelihoods of households in Palakurichi after the introduction of the major rural development programmes, particularly the MGNREGA in 2006. There has been some progress in the literacy levels in the village during the last few decades. However, the literacy level of Palakurichi village (56 per cent as per Census 2001) is still much lower than that of rural areas of Kilvelur taluk and Nagapattinam district (74 per cent).

A highly unequal agrarian structure with a high incidence of landlessness has defined the nature of agrarian relations and social relations in the village with the Dalits at the receiving end (Rajalu, 1918; Thomas and Ramakrishnan, 1940; Haswell, 1963; Guhan, 1983; Surjit, 2008). The large landowners used to control agricultural production through economic and extra-economic coercion to suppress Dalits. Dalit households were merely agricultural labourers who depended on these landlords for livelihoods and survival. Earlier studies of the village have given detailed accounts of the worst forms of oppression faced by Dalits in the village. A significant social change occurred when Dalits organised themselves under progressive political forces that challenged and fought against such oppression (Guhan, 1983). The most significant social change in the village over the last nine decades is the empowerment of Dalit communities through the freedom gained from the elimination of the worst forms of caste oppression perpetuated by historical inequalities in means of production and the consequent dominance over agrarian structure in the village, which is reflective of the agrarian relations in Thanjavur region.

Combining information available in these studies with data collected as part of the fieldwork for the study in 2004 and 2005, and 2019 will help analyse socio-economic changes that took place in the village over the last century (from 1918 – 2018). The analysis will largely focus on the changes in the nature and characteristics of agrarian relations, the forces and movements that catalysed these changes, and the social change in terms of putting an end to extreme forms of oppression of Dalits over a century. The study will also reflect on the changes in the lives and livelihoods of households after the introduction of several flagship rural development programmes like the MGNREGA and PMAY, and their role in shaping the course of economic development that has received scholarly attention at the village level from 1918.

3. OBJECTIVES OF THE STUDY

In this context, the specific objectives of the study are:

1. To characterise the agrarian structure and agrarian relations and its changes over a century (1918 – 2018) in Palakurichi village of the lower Cauvery delta region.
2. To analyse the socio-economic conditions of households in the village, and how it has changed over a century.
3. To understand how Dalit households are positioned in relation to other households regarding socio-economic changes during this period.
4. To assess the role of the important public-supported agriculture and rural development programmes in transforming the lives and livelihoods of households in Palakurichi village.

4. DESCRIPTION OF STUDY AREA

The study village Palakurichi at present belongs to Kivelur taluk of Nagapattinam district (Figure 4.1). This was part of the old undivided Thanjavur district, which forms the Thanjavur region of the Cauvery delta. Thanjavur region here refers to the old undivided Thanjavur district, which comprised the present districts of Thanjavur, Thiruvarur and Nagapattinam. The Thanjavur region has historically been known for its prosperous rice production system. During the early decades of the 20th century, the proportion of net sown area under rice cultivation (70 to 80 per cent) was highest in Thanjavur among all districts of the Madras Presidency. The region fell within the Cauvery delta and had a prosperous agricultural production system supported by irrigation from the Cauvery river. The irrigation system in the Cauvery delta is one of the oldest water control facilities in India and dates back to the Chola period during the second century A.D. The predominance of alluvial soils in the delta is suitable for rice cultivation.

during normal years and protecting the delta from floods. In 1886, regulators were constructed at the Cauvery and Vennar branches of the main river at the Grand Anicut. This helped to improve the distribution of irrigation water between the two rivers, which irrigated the delta and protected the area from floods (Frankel, 1971). The most important development in the Cauvery irrigation system is the construction of Mettur Dam by the British during 1934. This helped overcome the uncertainties and irregularities in the supply of irrigation water to the delta and supported promising rice cultivation in Thanjavur region. This improvement in the control of irrigation water due to the construction of regulatory structures played a major role later in bringing a substantial area under double cropping, with the introduction of short-duration and high-yielding varieties during the late 1960s. The study village of Palakurichi also shifted to a double crop of rice during this period because of the improvements in regulating water flow through Cauvery river.

4.2 Agro-ecological Zones in Thanjavur

There is diversity in various characteristics of agricultural production systems in Thanjavur region in the lower Cauvery delta. Hence, it is important to understand the various agro-ecological zones in the region. Apart from the agro-ecological zone classifications by NBSSLUP and Planning Commission, there are two major attempts to classify Thanjavur into different agro-ecological zones. Kathleen Gough (1981, 1989) used taluk-level data to identify three different regions in Thanjavur. Marshall Bouton (1985) used Panchayat-level data and identified five different zones based on socio-economic and agronomic parameters. Bouton's classification was based on two major criteria: the nature of irrigation facilities and the nature and composition of the agricultural workforce.

Based on the above criteria, he has identified five agro-ecological zones. They are: a) the **Old Delta Cauvery Zone** comprising areas in the head region of Cauvery irrigation system and the most fertile region with dependable sources of irrigation, including groundwater irrigation. The cropping pattern here is also in line with this, which includes one or two crops of rice and water-intensive crops like sugar cane, banana and other vegetable crops. b) **Old Delta Central Zone** is mainly irrigated by the canal irrigation system, and hence less dependable than the Old Delta Cauvery Zone because of the unreliability of groundwater irrigation supply. c) **Old Delta Coastal Zone**, which has agro-economic features similar to the central zone, but the soil type is sandy and suffers from salinity. The region also is subjected to frequent floods, has poor drainage facilities and faces uncertainty in the availability of irrigation water. The study village Palakurichi belongs to Old Delta Coastal Zone, and the agriculture production system in the village has all the characteristics of the zone. There is a strong division between the agrarian workforce, who are largely landless, and the land-owning cultivators, who are non-Brahmin upper-caste Hindus. d) **The New Delta CMP** is part of the Cauvery delta that was brought under canal

irrigation with the construction of Mettur Dam and Grand Anicut canal. The soil is predominantly red laterite, which is less fertile than the Old Delta Zone. Irrigation is largely by a network of canals and tanks. There is uncertainty in the availability of irrigation water in the zone, which affects crop production. The region also has a high incidence of tenancy. e) **Dry Area Upland Zone** has a larger share of area under rainfed tanks and less canal irrigation. The dependability on irrigation is very low compared to other zones, and the population is more homogeneous, with a low share of agricultural labourers and tenants.

Kathleen Gough (1989) has classified various taluks in Thanjavur district into three zones; a) Eastern Old Delta, b) Western Old Delta and c) South west region, based on the nature and levels of canal irrigation and concentration of agricultural labourers that indicate the agrarian polarisation between the landless and landowners of different caste groups. The Eastern Old Delta is the region with the largest area under canal irrigation, followed by Western Old Delta and South West region.

4.3 Natural Calamities in the Region

At present, the study village of Palakurichi belongs to Kilveur taluk of Nagapattinam district at the tail end of the Cauvery delta. Although a network of canals irrigates the region from the Cauvery irrigation system, the changes and decline in the availability of water in the Cauvery river, issues on sharing Cauvery river water with the riparian States, and the frequent occurrence of natural calamities that affected the region has impacted the agricultural production and livelihoods of the population who are dependent on cultivation. In the last two decades, flood or drought or cyclone has affected the region (Table 4.1). The latest one is Cyclone Gaja which resulted in the loss of lives and damage to standing crops in the region during 2018, which is the period of this village study. This has affected rice cultivation in Palakurichi village, and many farmers suffered losses.

Table 4.1: Natural calamities that affected agricultural production in Palakurichi village during 2000 – 2018

Year	Type of natural calamity
2000, 2001, 2002	Drought years
2004	Tsunami
2005	Floods in Cauvery delta
2008	Drought Year
2012	Drought Year
2016	Drought Year
2018	Gaja Cyclone, breach in Kollidam at Upper Anicut

5. METHODOLOGY

This is a detailed village study, adopting the household survey methodology based on a pretested structured questionnaire for primary data collection. Along with primary data, secondary sources of data on the village and the region from Census of India and various other official sources were also collected and analysed. A detailed census survey of households was carried out based on a structured questionnaire. In the survey, data was collected on household composition, demographic details, occupational structure, land use pattern, tenurial arrangements, details of agricultural production, input and output use patterns in agricultural production, patterns of agricultural and non-agricultural labouring out, credit utilisation, access to public programmes for rural development and asset position of the households in the village.

This will give detailed data and information on various aspects mentioned above and help characterise the household's agrarian relations and socio-economic changes. The analytical framework of the study will be that of a detailed village study, analysing the socio-economic composition of the village and the changes over a century, nature and characteristics of the agrarian structure and agrarian relations and its evolution during the study period. Along with this, the changes in the village with the introduction of public supported rural development programmes will be analysed in detail.

6. SOCIO-ECONOMIC CONDITIONS IN PALAKURICHI VILLAGE

This section discusses, in general, the socio-economic characteristics of households in Palakurichi village and the changes that have happened during the study period. It discusses the changes in demographic profile, caste composition, educational levels and occupational structure of the households in the village.

6.1 Demographic Profile of Palakurichi Village

6.1.1 Population Growth in Palakurichi

During the study of 2019, there were 390 households in Palakurichi, with a population of 1448 persons. Among them, 728 were male and 720 were female, with a sex ratio of 989. The data about population in the village is available from earlier censuses and studies carried out in the village for the last century (Table 6.1). It is interesting to note that the population in the village increased in the first two decades from 1901 to 1917 and showed a decline till 1931. Thereafter, conditions improved, and there was an increase in population along with improved agricultural production in the village till 1961. This was

facilitated by the improvement in irrigation facilities due to the construction of Mettur dam in 1934 and the prosperity in agricultural production that resulted from this. However, there was a decline in population from 1961 to 1971 (indicated by a negative growth rate of -17.8 per cent). After that, there has been a consistent population growth (around 8 per cent per annum) in the following decades from 1971 to 2001. This period is largely marked by a reasonable performance of agriculture in the village, which has supported the population growth. After 2001, the population started declining, indicated by negative growth rates (-1.39 per cent per annum) during the period from 2001 to 2011. The recent study of the Palakurichi village in 2019 also indicates a decline in the population. This is largely attributed to the outmigration of a few households from the villages due to various social and economic reasons. An analysis of the trends in population growth in Palakurichi village over the last century reveals that it is largely influenced by the changes in agricultural production conditions in the village, and also the long-term dependency of households on agriculture for livelihood.

Table 6.1: Population Structure by Gender, Palakurichi Village during 1901-2019, in number

Year	Male	Female	Total
1901	349	420	769
1911	406	463	869
1917	Na	na	851
1921	366	383	749
1931	364	406	770
1937	426	443	869
1951	693	732	1425
1961	781	801	1582
1971	668	631	1299
1981	722	689	1411
1983	710	713	1423
1991	762	754	1516
2001	846	803	1649
2004	846	801	1647
2011	837	787	1624
2019	728	720	1448

Source: District Census Hand book various years, Guhan (1983), Survey data, 2004, 2019

6.1.2 Caste Composition in Palakurichi Village

The major caste groups in Palakurichi are Pallar, Parayar, Padayatchis, Pillai, Naidu, Chettiar, and a few other caste Hindus (Table 6.2). In the region, Pallar and Parayar castes are categorised as Dalit households. The most important characteristic of Palakurichi village is the large presence of Dalit households constituting 60 per cent of the total households in the village. This is similar to the caste composition at the block and taluk to which Palakurichi belongs. They are followed by the Padayatchi caste (20 per cent), which has emerged as the second-largest caste group in the last few decades. Historically, Naidus are the large landowning caste group in Palakurichi. Because of their dominance in ownership of the land, they exercised control over all spheres of village life. However, this has changed

since the 1970s, largely due to progressive political movements in the village and the region.⁴

Although the village has a substantial share of the Dalit population, they faced all forms of oppression from the caste Hindus. The nature and severity of oppression has been noted since the first study by Tirumalai during 1918. Dalit settlements were located far away from the main settlements of the village, and they were prevented from walking through caste Hindu streets, and the worst forms of untouchability were practised. However, later during the post-1970s, encouraged by progressive political forces and the following socio-economic developments in the region, Dalits fought against these oppressions and could gradually put an end to extreme forms of oppression. Although the overt social oppression of Dalits has come to an end, their economic backwardness continued. They were largely landless agricultural labourers dependent on agricultural employment opportunities provided by rice cultivation carried out by large landowning Naidu households. The issue of Dalit oppression and the changes are discussed in detail in later sections.

An analysis of the caste composition of the population in Palakurichi over the last century reveals three important trends. The first one is the increase in the population of Dalits (constituted by Pallars and Parayars) in the village which increased from 50 per cent in 1917 to 60 per cent in 2018. The second one is the decline in the Naidu population in the village, which declined from 17 per cent in 1918 to 2 per cent in 2018. This is largely because of the socio-economic developments in the village and the region, which has implications for the power structure of the villages. The third feature is the increase in share of Padayatchis in the total population during this period. Their share increased from 10 per cent in 1917 to 20 per cent in 2018. All these changes in the population composition of the village are largely aligned with changes in the agrarian structure and agricultural production conditions.

Caste	1917	1937	1983	2004	2019
Naidus	147	128	91	59	40
Brahmins	17	13	26	8	3
Chettiars	12	6	18	20	19
Pillais	9	2	108	74	88
Padayatchis	83	181	252	273	279
Asaris	44	41	56	16	0
Konar	29	31	87	63	0
Thevar	0	6	46	51	4
Other Caste Hindus	64	25	40	133	138
Dalits	430	432	692	946	877
Christians	4	0	0	4	0
Muslims	12	4	7	0	0
All	851	869	1423	1647	1448

Source: Survey data 2019.

⁴ A detailed discussion on the political movements that has shaped the socio-economic transformation in the village is given in Section 8.2.2.

6.2 Occupational Structure and Changes in Palakurichi Village

Palakurichi is an agrarian village, and most households depend on rice cultivation for their livelihood. Since the first study by Tirumalai in 1918, the village cultivated a single crop of rice till the 1970s. With the introduction of high-yielding short-duration varieties and better control of irrigation water after the construction of Mettur dam and Grand Anicut canal, the village could grow two crops of rice for nearly two decades from the 1970s to the late 1980s. However, with the declining availability of irrigation water in the Cauvery irrigation system and the occurrence of floods and problems of saline water intrusion, the villagers reverted to a single crop of rice by the 1990s. Apart from cultivation, there was no other source of non-agricultural employment that the villagers could depend on for their livelihoods till the early 2000s. Hence, the occupational structure of the village was largely dominated by agriculture, followed by a few households who had found employment in the private sector and government service (Table 6.3).

Table 6.3: Occupational structure, by gender, Palakurichi village, 2004 and 2019, in number and per cent

Category	2004		2019	
	Total	Share (in per cent)	Total	Share (in per cent)
Cultivators	107	14	194	22
Agricultural labourers	476	64	196	22
Fisherman	4	1		0
Non-agricultural labourers	5	1	296	33
Artisans	12	2	1	0
Other manual work	60	8	54	6
Government servants	20	3	22	2
Business	9	1	37	4
Professionals	44	6	61	7
Others	5	1	39	4
Total	742	100	900	100

Source: Survey data, 2004 and 2019.

Note: This classification is based on primary occupations self-identified by respondents above fourteen. Domestic house work is excluded.

One-and-a-half decades later, by 2019, there has been a significant change in the occupational structure of the working population in the village. The three major changes in the occupational structure of the village during the last one-and-a-half decades, from 2004 to 2019 are:

- There has been a significant decline in the number and share of agricultural labourers in the occupational structure of the village.
- There is a large shift in the workforce from agriculture to non-agricultural sector.
- There is a marginal increase in the number and share of cultivators in the village.

These changes in the occupational structure of the village is driven by the socio-economic changes that have been happening in the region and the changes in the agrarian structure of the village. Over the last one-and-a-half decades, from 2004 to 2019, the major facts that have triggered this transformation are the changes in agricultural production in the village and the region, and the developments in non-agricultural sector that has linkages with the workforce in the village. The major changes in agricultural sector that had implications on the occupational structure of the village are a) continuation of dependency on a single crop of rice for a long time, and uncertainties in rice cultivation due to low productivity and crop losses from frequent natural calamities in the region led to lower returns from agriculture. Also, the educated younger generation of Naidu households migrated to cities and nearby towns for better jobs in non-agricultural sector. As a result, most of the Naidu households slowly moved away from cultivating land and began to lease out land to other peasants. b) mechanisation of harvesting operations through the introduction of combined harvesters led to a decline in the demand for agricultural labour for rice cultivation. Because of this, most Dalit households dependent on agriculture labour for employment had to look for opportunities in the non-agricultural sector. They began to travel to nearby small towns (mostly Nagapattinam, Velankanni and Tiruvarur) for non-agriculture wage labour. The introduction of MGNREGS in the village also supported them in finding employment to support their livelihoods. In addition, a small share of the workforce used to migrate to places like Tirupur, Coimbatore, and even places in Kerala for non-agriculture work. They were attracted by the higher wages and better probability of finding work. Most of those who migrated for work adopted a seasonal migration pattern, particularly during periods when there was no cultivation in the village.

In addition to these factors, it is to be noted that there has been an improvement in the education infrastructure available for the villagers in Palakurichi. Till 2005, there was only a high school in the village, and those who wanted to continue education in public institutions beyond Class 10 had to go to Nagapattinam or Velankanni for higher education or any vocational higher secondary courses. Although there was a private institution near the village, most households couldn't afford the higher fees, and most of them stopped their education before or after completing high school. In 2005, the Government of Tamil Nadu upgraded the high school in the village to a higher secondary school. This helped many poor households in Palakurichi get their children educated up to higher secondary level. Those who had completed a higher secondary education found better employment opportunities in the service sector as well as higher education opportunities in vocational higher secondary courses and skill development programmes. There were employment opportunities coming up in small businesses, hotels, travel, hospitality and service sectors in the nearby towns of Nagapattinam and Velankanni, where they could travel daily for work and return in the evening. This provided employment opportunities to the educated youth in the village and helped compensate for the decline in demand for agricultural work. So, those

who depended on agriculture labour and cultivation as the only source of employment got the opportunity to find employment in the non-agricultural sector in nearby areas. This offered better wages and a regular income source compared to the low wages and uncertainties in agriculture in the village. All these factors resulted in changes in the occupational structure of the village from agriculture to non-agricultural sector in the last one-and-a-half decades.

This shift in the occupational structure of workforce in the village from agriculture to non-agricultural wage work outside the village had implications for socio-economic conditions in the village. Earlier, a villager belonging to a Dalit or poor household in the village looking for agricultural labour (the only source of employment in the village and nearby areas) has to be subservient to the land-owning classes in the village. This gave the land-owning caste Hindus an opportunity to exercise economic and extra-economic control over Dalit and poor households. Hence, the changes in occupational structure also brought changes in social and economic relations between various classes and caste groups of households in the village. This was ably supported by the progressive political movements championing the causes of Dalits and other weaker sections in Palakurichi.⁵

6.3 Literacy Levels in Palakurichi

Historically, the literacy levels in the village have been very low, and it has been lower than the district and taluk level rates. The literacy rates by gender for Palakurichi village are given in Table 6.4. In 1937, the literacy levels measured by resurvey of the village by Thomas and Ramakrishnan (1940) showed that the average overall literacy rate was 13.3 per cent. There is a sharp gender discrimination, with female literacy rates less than half of male literacy levels. The village's socio-economic condition is reflected in its population's literacy levels. As discussed earlier, most households belong to Dalits who are landless and depend on agricultural labour for their livelihoods. They were *pannaiyals* of large land-owning Naidu households in the village, and their life was described as a type of agrestic servitude by scholars (Menon, 1983). They were subjected to extreme economic and extra-economic coercions by land-owning Naidu households who kept the village under their control. Hence, they could not afford to lead a normal life, leave alone the opportunity to access educational facilities. Only a few Naidu households in the village could afford to travel to nearby places to access educational facilities. The literacy levels during the next decades showed a slow progress, but the gender bias against women in literacy levels continued.

⁵ A detailed discussion on the political movements that has shaped the socio-economic transformation in the village is given in Section 8.2.2.

Table 6.4: Literacy Rates in Palakurichi village during 1937- 2019, by gender, in per cent

Year	Male	Female	All
1937	22.3	4.7	13.3
1951	34.9	13.3	23.8
1961	35.2	13.1	24
1971	47	24.9	36.3
1981*	57.3	31.1	44.5
2001	63	48	56
2004	42	29	36
2011	63	48	56
2019	81	65	73

Source: Census of India, various years, Thomas and Ramakrishnan (1940); Surjit (2008); Survey data 2019.

This disparity in literacy levels continued till the early 1970s. Because of the intervention of progressive political forces, Dalits started mobilising and, as a result, could improve their socio-economic status in terms of freedom from extreme forms of caste oppression and bondages. Also, public institutions providing education were absent in the village, and they had to travel far, at least to Nagapattinam, to access educational facilities. It was unimaginable for Dalit households to send their children to schools in the nearby town and educate them. Though there were government educational institutions in nearby areas, the prevailing caste discrimination and oppression kept them away from accessing such facilities. However, it took nearly a century for half of the population in the village to become literate. It was in 2001 that the overall literacy levels in the village reached 56 per cent. But this was much lower than the literacy levels at the block, taluk and district levels. Another noteworthy feature of the trends in literacy levels is that the study of 2004 shows a decline in literacy levels from 2001 to 2004. This could be largely because of the differences in the measurement of literacy levels between the Census and the study of 2004. Although the 2004 study also followed the Census definition of measuring literacy levels, the study could have strictly adhered to the definitions. Hence, it recorded a lower literacy level in the village.

Another interesting fact is that the Census measure of literacy rates in the villages for 2001 and 2011 shows there was hardly any progress in overall literacy rates during the decade. However, the following decade showed a phenomenal improvement in literacy rates, as per the recent study in 2019. The overall literacy rates increased from 56 per cent to 73 per cent. There is also a notable improvement in female literacy levels by 2019. The most important factor that has made these improvements in literacy levels is the progress in educational facilities in and around Palakurichi. There are two major reasons for this. The first and foremost reason was the upgradation of high school in the village to a higher secondary school. Accordingly, many who completed higher secondary education in the village could find employment in the nearby towns of Nagapattinam, Velankanni and Tiruvarur. Some pursued

vocational higher secondary courses, which increased their employment prospects. This encouraged many households to send their children regularly to school in anticipation of better employment prospects, thus securing their livelihoods. The second reason was the public support schemes implemented by the Government of Tamil Nadu for disadvantaged sections to improve their access to education. This included a well-functioning Mid Day meal scheme, support for school uniforms, textbooks and affordable or free education. As a result, the enrolment rates improved and gradually resulted in better literacy rates. Thirdly, as the incidents of various forms of discrimination against Dalits came down, they started enrolling their children in educational institutions in Palakurichi and nearby places. All these factors contributed to improvement in the literacy levels in Palakurichi.

7. AGRICULTURE DEVELOPMENT AND AGRARIAN CHANGE IN PALAKURICHI VILLAGE

This section discusses in detail the nature and characteristics of agriculture production systems in the village, and the changes in agriculture over the last century. After that, the nature of agrarian relations in the village is discussed against the background of the agricultural production system and its changes. The changes in agrarian relations over these years are also analysed.

7.1 Agriculture in Palakurichi

Palakurichi lies in the coastal zone of the lower Cauvery delta at the tail end of the Cauvery delta, where the river empties into Bay of Bengal. Since this is the tail end of the delta near the sea, the soil type is largely sandy and often faces problems with salinity. Nearness to sea also prevents cultivators from accessing groundwater because of the low water table and problems due to salinity. So, the only water source for cultivation and domestic use is from the Cauvery irrigation system, which reaches the village through a network of canals that originates from the Grand Anicut near Thanjavur. Being a tail-end delta village, Palakurichi often faces problems of saline water intrusion, which damages crops and soil where cultivation is being carried out. In addition, the village is often affected by floods and drought that affect cultivation and returns from crop production.

Historically, Thanjavur is known as the rice bowl of south India for its prosperous rice production systems for ages. The agro-ecological conditions of Palakurichi are suitable for rice cultivation, but due to constraints with the availability of irrigation water and its geographic location, they could grow only one crop of rice during the samba season (from September –October to February – March). Although a few villagers used to grow a short-duration kuruvai crop, this was limited to very few households who could afford to irrigate their crops using water from small ponds or tanks. In general, there was only once

a crop of rice for the entire agriculture year (July- June), and villagers' livelihoods were completely dependent on them as cultivators and agricultural labourers. The cropping pattern of Palakurichi village for the last century, from 1918 to 2019, is given in Table 7. 1.

Crop	1922-23	1935-37 ¹	1974-78 ²	2003-04	2004-05	2005-06	2018-19
Rice	879	942	995	957	968	948	964
Pulses	2	4	11	0	244	244	150
Oil seeds	2	0.1	0	0	0	0	50
Other crops and trees	7	13	0	4	4	4	2
Total ²	890	959	1006	961	1215	1195	1115

Source: Tirumalai (1940); Guhan (1983); Palakurichi Village records (2003-04; 2004-05; 2005-06; 2018-19)
Notes: 1. Average value for the period 1935-37.
2. Average value for the period 1974-78.

An analysis of the cropping pattern of Palakurichi village for the last century reveals the following three important facts about agricultural production:

- Rice has been the dominant crop that accounts for more than 95 per cent of the gross cropped area in the village for a century, and this continues in the recent study of the village in 2019.
- The area under rice cultivation had slowly increased during the period from 1922 to 1974-78 and slowly declined after that. The developments in irrigation infrastructure after the construction of Mettur dam in 1934 largely accounted for the increase in area. This was followed by the introduction of high-yielding, short-duration varieties as part of Green Revolution technologies during the mid-1960s and early 1970s. As a result of the introduction of short-duration rice varieties, improved irrigation facilities and availability of irrigation water during that period, villagers could afford to grow a short-duration second rice crop. These factors largely accounted for the increase in area. However, it is to be mentioned that the cultivation of two crops of rice in Palakurichi village was for a very short period in the entire period of rice cultivation. The study by Guhan in 1983 also talks about growing of two crops of rice by some cultivators. Discussions with villagers during household surveys revealed that by the late 1980s, most cultivators grew a crop of rice only once; so, double cropping must have continued for two decades during the 1970s and 1980s. Thereafter, with the deterioration of water availability in Cauvery irrigation system and problems due to floods and droughts, most of the cultivators shifted back to single crop of long-duration samba rice. So, except for a short period during the 1970s and 1980s, the cropping pattern of the village was dominated by a single crop of rice for almost a century. This had an implication on the socio-economic conditions of households in the village.
- The third important feature is the marginal increase in the area under millets and pulses during the study of a village in 2004-05. This is largely because of the practice of growing a crop of black gram

(pulse crop) after the rice is harvested. Black gram requires only residual moisture, and the consequent droughts in the region during the early 2000s prompted the villagers to grow short-duration crops with less water requirements. Subsequently, black gram was introduced as a crop after the rice was harvested. This gave the farmers an additional income without incurring high levels of expenditure. This is the reason for a marginal increase in the area under pulses after 2004.

7.1.1 Rice Cultivation in Palakurichi

The cultivation in Palakurichi during the last century was a single crop of rice, except for double cropping for a short period during the 1970s and 1980s. Rice cultivation in the village is mainly carried out during the samba season, which starts in September-October and ends in February-March. Cultivation starts with the preparation of fields for cultivation immediately after the first showers of the northeast monsoon. Once the field is wet, one or two rounds of ploughing are done with the help of bullocks. After the first round of ploughing, cultivators apply farm yard manure. Traditionally, there was a practice of making herds of sheep rest over the field for two or three nights. The droppings of the sheep herd served as manure for the crop. This practice is known as kedai, and land owners used to pay the shepherd and facilitate their stay in the village. This practice has slowly diminished but is adopted by a few cultivators in the village.

After the first round of ploughing, depending on the arrival of irrigation water through the canal network in the Cauvery irrigation system, cultivators used to broadcast rice seeds which they had prepared after soaking. Majority of the cultivators followed the direct sowing of rice. But nowadays, many cultivators are raising nurseries for transplanting rice seedlings to the main field on the arrival of water through canals. Nearly one or two months after sowing, the first round of weeding is done manually. Weeding is carried out by female agricultural labourers and it is a labour-absorbing operation in rice cultivation. This practice of manual weeding has been prevalent since the mid-2000s and is now slowly substituted by the adoption of weedicides for weed control. In normal cases, two rounds of weeding will be carried out in an interval of two to three months during the entire duration of the crop. Nowadays, many cultivators are adopting weedicides because of the higher wage rates and non-availability of agricultural labourers on time. Weeding will be followed by the application of chemical fertilisers in the field. In Palakurichi, the cooperative society played an important role in providing credit for cultivation. The other major source of credit was from informal sources, largely provided by the moneylenders who are large land-owning Naidu households in the village. These credit supply was often tied up with labour services. Many villagers availed credit from the society, which was disbursed partly in cash and partly in kind. The fertiliser was largely given as a kind part. As a result, they could ensure that the credit given is effectively used for cultivation and not for non-agricultural activities.

After applying fertiliser, irrigation was carried out using water available through canal networks

which are part of the Cauvery irrigation system. As the village is located in the coastal zone near the sea, there is no scope for extracting groundwater due to salinity. They had to depend on public water supply for drinking water purposes. Hence, the only source of irrigation was the canal water made available periodically through a network of canal systems originating from the Grand Anicut. In normal circumstances, water will be released from Mettur dam during the June-July period depending on the inflow. This will flow down to Grand Anicut, where it is released through Vennar, Vettar and Cauvery rivers to irrigate the delta region. By August, the water will reach Palakurichi through a network of canals that branches out from Grand Anicut. This is when they start the land preparation and sometimes the sowing of crops. During the entire cropping season, water will be released two or three times from Grand Anicut to the entire delta. At times of drought or low water availability, the frequency of release as well as the quantity released, will vary accordingly. Over the years, issues with respect to sharing of water from Cauvery river between riparian States, uncertainties in rainfall patterns and increased demand for water due to urbanisation in the upper part of the river severely affected the availability of water from the river, particularly at the tail end of the delta. These changes in irrigation water availability had a negative impact on the rice cultivation in the village, which affected incomes from cultivation. Frequent natural calamities in the form of floods and droughts also contributed to the crisis.

Once the irrigation water reaches the village through the canal system, the water flows from canals and its branches into the fields, and the system followed is field-to-field irrigation. In this, water floods one field and flows to the adjacent field. Hence, the fields nearer to the canal branches will have the advantage of getting assured irrigation, whereas distant fields have to wait till all its adjacent fields get irrigated. This is a major problem as most of the large land owners and landlords in the village have their fields located near the irrigation channels, while most of the fields of tenants and a few Dalit households who own or operate land were located far away from the irrigation channels. In certain cases of low water availability or drought situations, they have to use diesel pumps to bring water from the main channel into their field. Most small and marginal farmers who are asset poor do not own diesel pumpsets and have to hire from other sources. Over the years, as the problem of availability of irrigation water intensified, this has become a major item in the cost of cultivation, which often affected the profitability of rice cultivation. So, in years of water crisis, these cultivators suffered losses due to low yield levels or crop damages, thus affecting household incomes. In normal years of water availability, cultivators could irrigate the crop four to five times during the entire crop season. This was supplemented by northeast monsoon rainfall, which supported the cultivation of samba crop of rice in Palakurichi.

The rice crop sown during August-September reaches maturity by February – March and is ready to harvest. Traditionally, harvesting is done by men and women working in pairs, and the wages for harvesting are paid to pair in kind as per the existing norms. However, payment in kind has slowly

disappeared, and labourers are paid in cash, equivalent to their kind payments. The study in 2004 also found that harvesting was carried out by human labour. But after that, Government of India introduced the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2005. This was a large-scale rural employment guarantee programme to address the issue of providing employment to rural households in distress. MGNREGA guarantees at least 100 days of employment for at least one member of a household who is looking for work in rural areas. The programme aims at addressing the issue of assuring a minimum level of wages to rural households who were in distress by lack of regular employment opportunities and low wage rates. Implementation of this programme in the village attracted rural agricultural labour households.

As a result, a slow shift from dependence of the labour force on rice cultivation to MGNREGA programme happened. This sometimes created a labour shortage during peak harvesting periods in the village. Harvesting in other parts of the delta by human labour was slowly replaced by machine labour using combined harvesters. Being at the tail end of the delta, the soil characteristics of the area was not supporting the use of combined harvesters in Palakurichi and nearby villages. But the situation of depending on human labour for harvesting was slowly becoming unfavourable, and a few cultivators experimented with combined harvesters for a season. Another advantage of using combined harvester was that it helped combine the processes of cutting the plants, removing the grains from panicles and winnowing to remove foreign materials from grains. The part of the harvested plant which falls on the field was collected and kept in one place. This was later converted into bales using a bailer machine. The live stock population in the village was very meagre, and there was not much demand for hay from harvested rice crop in the village. Recently, many cultivators started using combined harvesters for harvesting their crops. By 2018, most of the harvesting was being carried out by combined harvesters which came to the village during the harvesting period. Since the traditional agricultural labourers were absorbed in the employment opportunities offered by MGNREGA, there was not much opposition to the engagement of combined harvesters in the village. This is also one reason for the decline in the number of agricultural labourers and the shift in the occupational structure in the village.

The harvested grains are then filled in sacks, transported in tractors, and stored in the cultivator's house. In many cases, they are carried directly to the Direct Procurement Centre operated by the State Government and sold to DPC at rates announced by the government for prescribed qualities of grain. The DPC is a mechanism by the State Government to ensure fair prices to producers and it acts as an instrument to regulate price fluctuations during harvesting season. This, to an extent, ensured that cultivators received fair prices for their produce and were not exploited by middlemen and traders.

7.1.2 Yield Levels from Rice Cultivation

It is interesting to look at the yield levels from rice cultivation in Palakurichi village during the last

century, from 1918 to 2018. So far, six studies have been conducted in the village, and each study is spaced over nearly two decades. We have yield levels from rice cultivation in the village for the periods 1918, 1938, 1967, 1983, 2004 and 2019 (Tirumalai, 1918; Thomas and Ramakrishnan, 1940; Haswell, 1967; Guhan, 1983; Surjit, 2008 and Survey, 2019) Table 7.2. The yield levels of rice cultivation in Palakurichi during different periods are compared with the yields of Thanjavur district and the State-level yields for Tamil Nadu. Since the yield reported is from different studies at different points over a century, there are differences in the methodology of estimating the yield levels and comparability issues. However, the yield levels indicate the nature and characteristics of agricultural production conditions of the period studied.

Table 7.2: Yields of rice in Tamil Nadu, Thanjavur district, Palakurichi from 1918 to 2018-19 in tonnes of rough rice per hectare			
Year	Palakurichi	Thanjavur	Tamil Nadu
1918	1.13	1.6	2.2
1938	2.32	1.8	2.6
1961-62	Na	2.4	2.2
1967-68	2.72*	2.1	2.3
1983-84	3.16	2.7	2.9
2003-04	1.24	1.91**	3.5
2018-19	3.3	NA	NA

Source: Rajalu (1918), Tirumalai (1938), Haswell (1967), Guhan (1983), Surjit, 2008, Survey data 2019; Season and Crop Report for Tamil Nadu, various years.

The earliest recorded yield of rice cultivation in Palakurichi was in 1918, during the first study of the village by Soundararajalu. He reports a yield of 1.13 tonnes per hectare. It was during a period when traditional cultivation methods were practised with long-duration local varieties using farm yard manure and green leaf manures. Being at the tail end of the delta with relatively lesser irrigation facilities and low fertility levels, the yield level was lower than that at the district and State levels. In 1938, the yield from rice cultivation in Palakurichi increased to 2.32 tonnes per hectare. This increase in yield levels during 1938 is largely because of the improvement in irrigation facilities in the region due to the construction of Mettur dam in 1934. After the construction of Mettur dam, there was better control of the irrigation water in terms of better storage and regulated release during the cropping season. This resulted in better distribution of irrigation water to all parts of the delta as well as effective utilisation with periodic release of water during the growing period and contributed to better yield levels. By the mid-1960s, the yield level increased to 2.72 tonnes per hectare, and the village had higher levels of yield than the district and State level yields. It is to be noted that the villagers were still growing traditional varieties of rice. Haswell, who studied the village during 1967-68 and recorded the yield levels, noted that few cultivators followed the Japanese cultivation method and realised higher yield levels. It was also the time when Green Revolution technologies were being introduced and adopted, though at a slower pace, by farmers in the delta. The Japanese methods of adopting recommended spacing, weeding and regulated

irrigation at important growth periods were practised by a few cultivators, who reported higher yield levels.

In the next two decades, by the study of Guhan in 1983, the yield levels increased to 3.16 tonnes per hectare. This was also a period after the spread of Green Revolution technologies in terms of high-yielding varieties, use of chemical fertilisers, and the practice of raising nurseries and transplanting all contributed to the increase in yield levels of rice cultivation in the village. This was also a period where the introduction and adoption of short-duration varieties and better irrigation facilities made possible cultivation of two crops of rice in the village. So by the 1960s, the yield levels improved significantly, and the introduction of Green Revolution technologies resulted in a quantum jump in rice yields in the village. This has also increased returns from rice cultivation, particularly to large land owners and improved the employment opportunities for agricultural labour households as well. The prosperity from rice cultivation continued in the 1980s, supplemented by the introduction of double cropping and high yield levels from modern short-duration varieties.

A long-term analysis of yield levels from rice cultivation in Palakurichi shows that there has been a slow but steady progress in yield levels over nearly eight decades from 1918 to the 1980s. The yield increased from 1.13 tonnes per hectare to 3.16 tonnes per hectare. However, during the 1990s, there has been deterioration in water available through Cauvery irrigation system in the lower delta region. The increase in demand for water for non-agriculture use, including human consumption in the upper regions of the Cauvery river due to increased urbanisation, and decline in availability of water in the river due to irregularities in rainfall patterns in the catchment areas and disputes between riparian States regarding sharing of Cauvery river water has resulted in uncertainties in availability of irrigation water in the lower delta region. This has adversely affected the agricultural production systems in different parts of delta, the worst affected being the lower parts of the delta. They could neither depend on groundwater sources for irrigation nor get sufficient and regular water supply for irrigating their crops. In addition, the region started experiencing frequent floods and droughts that affected crop production in most parts of the region. All these factors made rice cultivation in the region vulnerable and uncertain, affecting the livelihoods of farmers dependent on them. This is evident from the low level of rice yields in Palakurichi village in 2004 (Surjit, 2008). In 2003, there was a severe drought in the region, and this affected irrigation water availability from Cauvery irrigation system. This was also the year when the flow of irrigation water from the Grand Anicut was the lowest in the last five decades from the 1950s. This has severely affected rice cultivation in the region and Palakurichi village, and villagers realised the lowest yield levels of 1.24 tonnes per hectare, which is low even compared to the yield levels of traditional varieties during the early part of the 20th century. The low yield levels affected incomes from rice cultivation, and farmers could not even meet the cost they incurred from growing the crop. This affected

household incomes, and they had to depend on other sources of employment to support their livelihoods.

7.2 Natural Calamities and Farm Incomes

Palakurichi village belongs to the tail-end region of the lower Cauvery delta. Because of its geographic location, the region is highly prone to floods; also, the chances of saline water intrusion is high due to its nearness to the sea coast. Historically, the region was known for frequent floods due to the absence of flood control and regulatory mechanisms to control water flow in the Cauvery river. The construction of Grand Anicut in the 2nd Century AD, Upper and Lower Anicuts and regulators across Cauvery, Vennar and Vettar rivers at Grand Anicut during the mid-1880s, and Mettur dam in 1934 have contributed significantly to gaining control over the regulation of water flow in the region and protecting the cultivation in delta from unprecedented floods and severe droughts. These constructions also helped in storage and regulating the release of irrigation water, depending on the requirements of the growth stages of crops grown in the delta region.

Despite all these, there have been incidences of natural calamities in the form of floods and droughts that have affected agriculture in the region and Palakurichi village in particular. Such incidences result in crop damage and, in turn, affect returns from cultivation and farm incomes. Since most households in Palakurichi village depend on this single crop of rice, returns from this are crucial for their livelihoods, and anything that affects rice cultivation impacts their livelihoods and standard of living. It should be noted that in the last two decades since 2000, the region and the village have been affected by natural calamities of some form every two-three year period. A list of major natural calamities that have affected agricultural production in the region, including Palakurichi village, is given in Table 7.3 . This has severely affected their household incomes and made them highly vulnerable. As the farmers were trying to recover from one catastrophe, they were affected by another similar or higher-intensity incident, affecting their resilience.

Table 7.3: Natural Calamities and or disasters in Thanjavur region 2000 – 2018

Year	Nature of calamity/disaster
2000	Drought year, low yield from rice cultivation
2001	Drought year, low yield from rice cultivation
2002	Drought year, low yield from rice cultivation
2005	Floods and crop damage
2008	Drought year, low yield from rice cultivation
2012	Drought year, low yield from rice cultivation
2016	Drought year, low yield from rice cultivation
2018	Breach in Upper Anicut in August; Gaja cyclone in November
Source: Village Records, various years	

7.3 Landownership in Palakurichi

This section largely discusses the features of land ownership and land distribution among households in Palakurichi village. Though the village has a significant share of *Dalit* population, majority of *Dalit* households are landless. Historically, as revealed by earlier studies at different points during the last century, the distribution of land in Palakurichi is extremely unequal, with a few Naidu households owning and operating most of the land in the village. Rajalu (1918) observes that almost all the land in the village has been under the control of large landlords for generations. Guhan's study in 1983 shows that 72.5 per cent of the households in the village are landless. He also observes that inequality in land ownership measured by the Gini coefficient has increased from 0.69 in 1896 to 0.71 in 1980. The survey of Palakurichi by Surjit (2008) shows that in 2003-04, 80 per cent of households were landless, and the Gini co-efficient for distribution of land ownership excluding landless households is 0.61. The recent survey of the village in 2019 shows that the share of landless households has declined to 45 per cent (from 80 per cent in 2004), and the Gini coefficient of land ownership distribution, excluding landless households, has become 0.56, indicating a slight improvement in the land distribution pattern. There have been efforts to distribute land to Dalit households in the village after that. The study of 2019 finds that the share of landless households has declined as many landless households gained ownership of a small extent of land. But even then, the distribution of the extent of land ownership shows that nearly 10 per cent of the households in Palakurichi owns 62 per cent of the land in the village.

Table 7.4: Share of landless households, by caste, Palakurichi village, 2004 and 2019, in per cent

Village	Percentage of households with no ownership holdings			Percentage of households with no operational holdings		
	Dalits	Non-Dalits	All	Dalits	Non-Dalits	All
2004	93	62	80	83	49	69
2019	36	59	45	46	63	53

Source: Surjit (2008); Survey data 2019.

The extent of landlessness and inequality in the distribution of land ownership has a strong dimension of caste in the village. Historically, Dalits were the largest landless caste group in the village, and Naidus were the largest landowning caste. This continued with all its intensity till the study of the village in 2004 by Surjit (2008). In 2004, Surjit noted that 93 per cent of Dalit households and 62 per cent of non-Dalit households did not own any land in the village. The extent of landlessness among Dalit households has declined to 36 per cent, according to the study in 2018. There is a marginal decline in landlessness among non-Dalit households as well, which declined from 62 per cent in 2004 to 59 per cent in 2019. It is interesting to note that in 1983, 86 per cent of the land in the village was owned by Naidu households, which declined to 29 per cent in 2019. In the case of Dalits, they owned only 0.4 per cent of land in the village in 1983. The most striking feature is that by the study in 2019, they possessed 34 per

cent of the land owned by all households in the village. Another caste group that has gained land ownership in Palakurichi during the last few decades is Padayatchi households. Their share in the land owned increased from 4 per cent in 1983 to 27 per cent in 2019.

The major reason behind Dalit households gaining access to ownership of land in Palakurichi was largely due to the effort by an organisation named Land for Tiller's Freedom (LAFTI) under the leadership of Krishnammal Jagannathan and Shankaralingam Jagannathan to facilitate the distribution of land purchased from landlords in the village to Dalit households. In 2014, nearly 104 Dalit households in Palakurichi village got one acre of land under this programme through various arrangements and became landowners. The share of all landless households declined from 80 per cent in 2004 to 45.6 per cent in 2019, and the share of Dalit landless households declined from 93 per cent to 36.2 per cent. This has significantly contributed to improving access to land among Dalit households.

7.3.1 Tenancy in Palakurichi

Studies carried out at different periods have shown huge inequality in land ownership in Palakurichi. Analysis of various aspects of land ownership in the village during 1983 by Guhan and 2004 by Surjit shows that there is huge inequality in land ownership in Palakurichi, and the extent of landlessness is very high. In 1983, 72.5 per cent of the total households in Palakurichi were landless. This figure increased to 80 per cent in 2004 (Surjit, 2008). As discussed in the previous section, Naidus are the village's largest landowners; in 1983, they owned nearly 87 per cent of the land, followed by Padayatchis, who owned 4 per cent of the land owned by all households in the village. Dalits were largely landless, and all the Dalit households together owned merely 0.4 per cent of the land. This situation continued during the 2004 study of the village also. During 2004, 93 per cent of Dalit households did not own any land, and 83 per cent did not have any operational holding during the study period. This shows the extreme land ownership inequalities among households and various caste groups in the village. This situation has slightly improved over the last two decades. During the study of 2019, the share of landless households among Dalits has declined to 36 per cent. This is largely because of the gain in ownership of land (a minimum of one acre of land for each Dalit household) through the LAFTI programme implemented in the village.

Although a large share of households was landless, they cultivated land by leasing in land from those who owned the land in the village. Historically, there has been an incidence of tenancy in the village, and over decades, the incidence of tenancy in Palakurichi has been increasing. Studies during 1918 by Rajalu indicate that nearly 10 per cent of the land operated is under tenancy. The scenario remains almost the same in Tirumalai's study during 1940. However, Guhan's study in 1983 indicates a decline in tenancy where he indicates that nearly five per cent of the land is under the tenancy. In other words, the returns from rice cultivation were at its peak during the 1980s with the introduction of Green

Revolution technologies. Because of good returns from cultivation, landowners cultivated their land on their own and did not lease it out for others. But the study by Surjit in 2004 reports a high incidence of tenancy, with 43 per cent of the operational holdings leased in by households. In 2019, the analysis of the extent of operational and ownership holdings by households in the village showed that 20 per cent of the operational holdings had been leased in by households (Table 7.5). This indicates a decline in the incidence of tenancy influenced by the dynamics of returns from rice cultivation and implementation of programmes like LAFTI.

In addition to the land owned by households being leased out to tenants, temples in Thanjavur own land in the village and is normally leased out for cultivation to villagers. However, the temple land was usually leased out to Naidu and non-Dalit households. The Dalit households could never get access to this land. During the study of 2004, there were few instances where the Naidu households, who had leased in temple land, subleased it to other households, including Dalit households. But these subleases were informal and never recorded in the temple records. In such cases, if there was crop damage and the government was giving some compensation to cultivators, including tenants, the relief amount went to the temple and the non-Dalit cultivator, who is recorded as the lessee in official records.

Table 7.5: Details of tenancy and changes by caste, Palakurichi village, 2004 and 2019, in per cent

Village	Degree of tenancy*			Ratio of total operational holding to total ownership holding in per cent
	Dalits	non-Dalits	All categories	All categories
2004	68.4	39.5	42.8	176.7
2019	10.1	32.6	26.38	135.83

Source: Surjit (2008); Survey data 2019

*Degree of tenancy is defined as the ratio of total land leased in for cultivation to the total extent of operational holdings.

8. SOCIO-ECONOMIC STATUS OF DALITS IN THE VILLAGE

8.1 Dalits in Thanjavur Region

The Thanjavur region to which the study village belongs to is historically known for its prosperous rice production systems, and the region has a significant share of the rice cultivation of the State. This was supported by an ancient irrigation system, fertile soil, and an industrious population actively participating in rice cultivation. A notable share of the population in the region were agricultural labourers.

Although the rice production systems were prosperous and thriving, the agrarian structure was highly polarised between a small share of land-owning non-Dalit cultivators who controlled land and a large share of landless agricultural labourers who were largely Dalits. All the prosperity and returns from

rice cultivation were accumulated by this landowning class of cultivators who exercised control over land and the large share of agricultural labourers who were Dalits. Historically, cultivation was carried out through the *pannaiyal* system in which Dalits agricultural labourers bonded to a particular cultivator, who owned a large extent of land and had control over the *pannaiyal*. The *pannaiyals* were transferred along with the changes in land ownership and were treated as slaves. This exploitative nature of agrarian relations existed in the region and continued till the early part of the 20th century. Several scholarly studies have analysed the characteristics of agrarian relations that existed, and brought out the exploitative nature and inhuman treatments extended to *pannaiyals* who were largely Dalits (Gough 1981, 1989; Menon, 1979a, 1979b, 1979b, 1983; Bouton, 1985; Schendel, 1991; Swenson, 1973; Rajalu 1918, Tirumalai, 1940; Haswell, 1967; Guhan, 1983).

The oppressive and exploitative nature of agrarian relations in the region, with a small share of large land-owning non-Dalit cultivators exercising control over a large share of Dalit agricultural labourers, was characteristic of the agricultural production system in Thanjavur. This has resulted in a highly polarised agrarian structure between landlords who tried to exercise control over land and agricultural production through economic and extra-economic methods on the one side, and agricultural labourers who were largely landless and dependent on rice cultivation for employment and livelihoods on the other side. There were efforts from political parties to organise the vulnerable section of agricultural labourers against the exploitation of landlords in the forms of lower wage rates, inhuman working conditions, economic and extra-economic coercions and caste discrimination. Such efforts to raise voice against various oppression have resulted in violent struggles and clashes between landlords and agricultural labourers. The worst of such incidents happened in 1968, in the village of Venmani, Kivelur taluk of Nagapattinam district, known as the Kilvenmani massacre. In the incident, 42 Dalit agricultural labourers were burnt to death inside a hut by a landlord (Sivaraman, 1973). The Venmani village is at a distance of eight kilometres from the study village Palakurichi, and the incident reflected the nature of agrarian relations in the village. This incident has played a major role in mobilising the vulnerable sections of the working class population in the region and defining the nature of struggles against caste oppression and worker's rights.

8.2 Status of Dalits in Palakurichi Village

Dalits constitute a significant share of the households in Palakurichi village. The first study of the village in 1917 reports that Dalits constitute 51 per cent of the total population. This marginally declined to 50 per cent in 1938 and 49 per cent in 1983. Thereafter, the share increased to 57 per cent in 2004 and 61 per cent in 2019 (Table 8.1). Although Dalits constituted the largest social group in the village, their socio-economic conditions were the worst among all the households. Historically, they faced all forms of

discrimination (social and economic) from the non-Dalit population in the village; the forefront among the oppressors were Naidu households, who were the landlords.

Table 8.1: Share of Dalit households in Palakurichi village during different periods 1918- 2019, in per cent

Year	Share (in per cent)
1918	51
1938	50
1983	49
2004	57
2019	61

Source: Survey data 2019; Surjit 2008; Guhan, 1983; Tirumalai, 1940; Rajalu, 1918

8.2.1 Social Discrimination against Dalits

Several scholarly studies on agrarian relations in Thanjavur region have described the existence of *pannaiyal* system of cultivation that dominated rice cultivation in the region in different intensities during the pre-colonial, colonial and post-colonial period. During the post-independent period, several legislations were introduced aimed at putting an end to this oppressive system. Dalits in Palakurichi village have also suffered from these oppressive regional regimes during different periods. The first study by Rajalu (1918) points out that Dalits were landless and were subjected to all forms of oppression. They had inhabitations outside the main village and were subjected to practices of untouchability. Being *pannaiyals*, they were treated similarly to slaves, and Menon (1983) equates the *pannaiyal* system that existed during the colonial period to agrestic servitude. Most Dalit families did not have a proper dwelling; they stayed in thatched huts, outside the main village and near the paddy fields, which were partially or fully damaged. They did not have proper drinking water facilities or access to water sources for domestic purposes and were subjected to the oppressive practice of untouchability. During the first study of the village in 1918, they were not allowed to walk through the main streets in the village, which were occupied by Naidu households.

Most Dalit households worked as agricultural labourers in the paddy fields owned by Naidu households. The Dalit households were largely landless and had no access to land, even through tenancy. The only source of employment for Dalit households was participation as agricultural labourers in the village. The *pannaiyal* system of bondage of agricultural labourers to landlords was in practice, and the terms and conditions of employment were exploitative and oppressive. During the earlier periods, they were tied to the land and transferred along with transactions in land ownership. There were some improvements in this during the post-independent period, but still unfavourable to the Dalit agricultural labourers in terms of conditions of employment and wages received. The situation remained almost the same during the study of Tirumalai in 1938. He notes that the wages were largely paid in kind, and “a

pannayaal, when he binds himself to a landowner, gets Rs. 75 for his marriage. The landlord also builds a hut for him. This is the nucleus of the perpetual debt of the pannayaal, who becomes a territorial serf. He can be transferred with the land, and the landlord can get him back even if he runs away" (Tirumalai, 1940, p.141). Guhan (1983) notes that during his study of Palakurichi, old *pannaiyals* recalled that "it was normal for landlords to flog their *pannaiyals*, physically tie them to ploughs, and make them drink cow dung soaked in water as a punishment." This was the oppressive nature of discrimination Dalits faced from landlords during that period. So historically, Dalits in the village faced worst forms of discrimination than any other social group in the village. They faced social discrimination in the form of servitude to landlords, provision of labour for agricultural production and economic discrimination in terms of dependency on agricultural labour as the only source of employment, that too at onerous terms and conditions. Caste-based oppressions like untouchability and related social discriminations reinforced these discriminations.

8.2.2 Mobilisation of Dalits against Oppression

The studies by various scholars for nearly five decades, from 1918 to 1968, clearly describe the oppression against Dalit population in the village and their poor living conditions. They were met with social and economic discrimination and had very low living standards. During the 1960s, there were changes in the agricultural production systems of the region. As a result of the agricultural development programmes and improvements in irrigation infrastructure, cultivators started growing improved short-duration varieties, and many parts of the delta were brought under a double cropping system (Surjit, 2008). This has increased the labour required for cultivation and improved the employment opportunities in rice cultivation, which in turn, opened new opportunities for agricultural labourers. Along with these developments, there were some conscious efforts to mobilise the agricultural workers, including the Dalit population in the region under the leadership of Communist Party. They were mobilised against the low level of wages and inhuman treatment extended based on their social group and other forms of discrimination, and also demanding improvements in living standards (Shivaraman, 1973).

The Kilvenmani massacre of 1968, where 44 Dalits, including men and women agricultural labourers and their children, were burnt to death inside a hut in Kilvenmani village of Nagapattinam district, was an important turning point in deciding the course of agrarian movements in the region and State (Sivaraman,1973; Gough,1989; Menon,1983). This brought to the forefront the oppressive nature of agrarian relations, which defied all forms of human freedom and entitlements. This also prompted the administration to give serious attention to the discrimination against agricultural labourers, particularly Dalits in the delta region. The Ganapatia Pillai Commission appointed to enquire about the issues related to agrarian unrest in the region that has led to the Kilvenmeni incident has clearly brought out the social

and economic discrimination faced by Dalit agricultural labourers in Thanjavur region (Ganapatia Pillai, 1969). These incidents and the mobilisation of agricultural labourers in the region had its reflections in Palakurichi village as well. Dalits in the village organised themselves under the leadership of the Communist Party and took active participation in protests against all forms of oppression extended to them. Their organisation and participation in building up a resistance against discrimination resulted in the election of a Dalit representative to the local body, who became the vice president of Palakurichi Gram Panchayat in 1972. This gave them the confidence and opportunity to voice their concerns and improved their access to public programmes aimed at improving the welfare of vulnerable sections of society. Naidus in the village slowly realised the deterioration of their power in controlling the day-to-day affairs of the village, that too to their advantage and convenience. The participation of Dalits in the local body elections and administration of the local bodies gave prominence for the first time to adopt measures aimed at their welfare and access to public programmes. This was a slow process but marked a turning point in the history of the village in terms of freedom from an oppressive and discriminatory social and economic order for Dalit households in Palakurichi.

A representation in local body administration and higher levels of district administration and legislature improved the access of Dalits to programmes like Indira Awaas Yojana, Public Distribution System, credit support from cooperative banks and other benefits extended to them. This significantly contributed to changing the discrimination faced by Dalits in the region and Palakurichi. Another major change is the slow disappearance of the practices of severe forms of untouchability extended against Dalits. These changes were brought in as a result of the progressive political movements in the region and Palakurichi, as noted by Guhan's study in 1983. He notes that, "We have no fear as long as the red flag flies" was a statement that was frequently repeated (Guhan, 1983, p.103).⁶

Subsequent studies in the village during the 1980s, 2008 and 2019 also note the slow but gradual improvement in the social and economic conditions of Dalits in the village. The beginning point of transformation is their mobilisation under the leadership of the Communist Party in the region and the village. The social and economic changes among other households in the village also facilitated these changes. By the late 1980s, the second generation of Naidu households who gained better education from cities like Chennai and Coimbatore moved out of the village as part of their jobs in other cities. They gained employment in non-agricultural sectors and settled with their families in cities.

Meanwhile, the returns from rice cultivation were slowly declining due to a) low levels of

⁶Guhan (1983) observes that "In the perception of Harijans[dalits], a very significant contribution of the party has been to free them from traditional repression by landlords. Older pannayals recalled how 20-25 years ago, it was normal for landlords to flog their pannayals, physically tie them to ploughs, and make them drink cowdung soaked in water as a punishment"(p.103).

productivity contributed by problems in irrigation water availability, b) increase in the intensity of Cauvery river water crisis and subsequent decline in irrigation water, c) incidence of natural calamities like floods and droughts causing crop damages and losses, and d) labour problems arising out of increased demand for fair wages and regulation of work hours. These factors affected returns from cultivation, and the land-owning Naidu households slowly moved away from agriculture. The younger generation of Naidu households, who were well-educated, took up jobs in cities like Chennai, Coimbatore and nearby towns and settled there. The older generation could not engage in cultivation with the same intensity as in previous times and started withdrawing from cultivating the land directly. As a result, landed households started leasing out land to other households in the village. In this process, Dalit households gained moderate access to the operational holdings through tenurial arrangements.

8.2.3 Living Conditions of Dalits in Palakurichi

Analysing the studies of the village in different periods since 1918 shows that the standard of living of Dalits in the village was very deplorable. They were socially and economically backward and suffered from all forms of deprivation. Scholars have described their situation as similar to the agrestic servitude system (Menon, 1983). The intensity of deprivation and status of Dalits were very pathetic even during the early part of the 20th century. They did not own any land of their own in the village, lived in huts put up with the mercy of landlords, and did not have proper access to basic necessities of life, including proper and balanced food, safe and clean drinking water and water for other domestic use, social status and sufficient incomes to give their children decent education, and above all faced social discrimination in the form of untouchability and pollution.

Historically, the only source of livelihood for Dalit households in the village was their earnings from selling their labour power. Although there have been some changes in the occupational pattern among Dalits in the village, this remains the major livelihood source. The decline in employment opportunities in the agricultural sector has been compensated to an extent by the availability of publicly supported employment guarantee programmes like MGNREGA after 2005. Some of the Dalit households could gain employment in non-agricultural sector because of their focus on improving educational status by making use of opportunities provided through public-supported programmes for weaker sections.

In Guhan's study of the village in 1983, only two out of 186 Dalit households had a proper house (terraced or tiled house) to live in. The remaining 184 households were living in thatched houses. Also, none of the Dalit households in the village had a private toilet, which indicates their vulnerable living condition. However, by 2019, there has been an improvement in the housing conditions of Dalits in the village. Of the 249 Dalit households, 105 were terraced or tiled, and the remaining houses were thatched or made of mixed material. In addition, nearly 50 per cent of Dalit households had private toilets. This

was largely because of the public-supported housing programmes of Indira Awaas Yojana (IAY) started in 1985, and the Pradhan Mantri Gramin Awas Yojana (PMGAY) launched in 2015. These were schemes to construct houses for Below Poverty Line (BPL) households in rural areas. Hence, as per the study of 2019, there was a marginal improvement in their living conditions in terms of dwellings.

As we track the status and living conditions of Dalits in Palakurichi village from the studies across different periods, we can see that there has been slow progress in their standards of living during the last century. Through their organised efforts against historical oppression and discrimination, they have come out of the oppressive social and economic barriers imposed by the caste system in the countryside. The slow transformation in their lives, which began during the early 1970s, continued in the subsequent period and was supported by public programmes aimed at improving rural lives. The IAY and PMAY-G programmes, public educational support programmes, distribution of food through public distribution system, and employment generation programmes like the MGNREGA contributed significantly to the upliftment of weaker sections in the village and complemented the organised struggles against oppression and discrimination.

8.2.4 Access to Land for Dalits: The LAFTI Programme

Historically, Dalits in the region and Palakurichi were denied land access, and the incidence of landlessness among them was as high as 93 per cent in 2004. For nearly a century, Dalits were kept away from accessing the most important means of production for livelihood in any form. The land reforms and other legislations towards land redistribution had little impact on the unequal distribution of land ownership. It is in this context that the intervention of Land for Tillers' Freedom (LAFTI) programme becomes significant in bringing a change to this situation. This was a non-governmental organisation found by Krishnammal Jagannathan and Sankaralingam Jagannathan in 1981. They were inspired by the Kilvenmani incident of 1968 and realised that the way to end such atrocities is to empower Dalits with ownership of the most important productive asset, i.e. land. They were also influenced by Gandhian ideas and Vinoba Bhave's Bhoodan movement. This resulted in the formation of LAFTI in 1981. Their intervention was to provide ownership of the land they had gathered through donations from various individuals and organisations, and purchased from landlords through negotiations with Dalit families in the region. The Dalit households were also given support to avail formal credit from cooperatives to partially support land purchases from various sources. The families repaid these credits in instalments. All these processes of negotiations with land owners for either donation or sale of land, access to formal credit sources, legal processes for transfer of ownership and managing voluntary contributions to support this process and implementation of the programme were carried out by LAFTI. This is still an ongoing programme at various stages of implementation in different villages in Thanjavur region and other parts of Tamil Nadu.

In Palakurichi, Dalits started getting land ownership under LAFTI after 2005. As per the study of the village in 2019, nearly 104 Dalit households have gained access to land through this programme and started cultivating their land. As a result, landlessness among Dalits declined from 93 per cent in 2004 to 46 per cent in 2019. This is a significant change that had a profound impact on the socio-economic conditions of Dalits. Access to land provided them with support for getting into formal sources of credit for agricultural production, schemes for agricultural development and, most importantly, a source of livelihood. This played a major role in bringing transformation to the socio-economic conditions of Dalit households in Palakurichi.

9. RURAL TRANSFORMATION AND PUBLIC PROGRAMMES IN PALAKURICHI VILLAGE

9.1 Long-term Dominance of Agricultural Sector and Transformation

The most striking feature of the socio-economic characteristic of the village evident from the six major studies at different points of time during the last century is the long-term dependency of households on agricultural sector for livelihood. Except for a brief period of around two decades during the 1970s and 1980s, the village depended on a single crop of rice for their livelihood. In the absence of a potential and vibrant non-agricultural sector in the village and places nearby the village, this single crop of rice cultivation served as the largest source of employment provider for households in the village. With the historically high level of landlessness, inequality in land distribution and access to cultivable land, transformations in agricultural sector and the gains from technological interventions in rice cultivation were confined to very few landed households in the village. This, along with the agro-ecological constraints that emerged due to the issues with respect to fluctuations in the availability of Cauvery river water and increased vulnerabilities to natural calamities, adversely affected returns from rice cultivation and, in turn, affected the welfare and standards of living of households in Palakurichi village.

9.1.1 Distress in Agriculture

The studies on Palakurichi village spanning over a century give a clear picture of the transformation in the agriculture production conditions of the village during this period. During the initial period in the early decades of 20th century, from 1918 to the 1960s, a single crop of traditional variety of rice was grown in the village. Later, during the 1960s, with the improvements in irrigation control in the region after the construction of Mettur dam, and introduction of short-duration varieties of rice, villagers started growing a second crop of rice. This continued till the late 1980s; with the

introduction of HYVs, and an increase in cropping intensity and yield levels from rice cultivation, the returns from cultivation also improved, thereby contributing to an increase in household incomes. However, the historical inequalities in agrarian relations often resulted in the inequitable distribution of these benefits, with the landed households disproportionately accumulating the surplus generated. By the early 1990s, the agricultural production conditions deteriorated with the uncertainties in the availability of irrigation water in the lower Cauvery delta from the Cauvery irrigation system and incidences of natural calamities that often resulted in lower yield levels due to crop damages. This adversely affected the employment prospects in agriculture and impacted the earnings and livelihoods of agricultural labourer households.

9.1.2 Mechanisation and Decline in Employment Opportunities

For a long period, from the first study of the village in 1918 to the study by Surjit (2008) in 2004, majority of the cultivation was carried out using human labour, with men and women performing all the tasks from sowing to harvesting. The only crop operations that used machine labour were ploughing the land using tractors or tillers, and pumping irrigation water from the main channel to the field. However, during the post-2005 period, two major changes occurred, which changed the mode of rice cultivation in the village. By the early 2000s, agriculture was becoming unremunerative, with many of the second-generation members of Naidu households settling in non-agriculture jobs in cities and towns. The older generation of Naidus, who had the tradition of rice cultivation, were unable to perform cultivation as they used to do in earlier times. They were also deterred by the fact that they didn't enjoy the control over agricultural labourers which they used to wield during earlier times of the *pannaiyal* system of cultivation. This gradually resulted in the Naidus withdrawing from cultivating the land directly. It was during this period that the State initiated the MGNREGA programme to support the rural poor by the provision of 100 days of employment, which ensured them some source of employment and fair wages. Most agricultural labourers were more attracted to this public supported programme and slowly moved away from agriculture as the source of employment. As a result of all these factors, cultivators who were doing rice cultivation, began to make use of combined harvesters for harvesting and winnowing operations.

Combined harvesters were convenient as they could finish harvesting within a short time and did not have the trouble of organising men and women and supervising them for harvesting, threshing, winnowing and transporting the matured crop. Slowly, human labour use in rice cultivation declined, bringing down the employment opportunities for the large share of Dalit households who were historically agricultural labourers. Hence, they had to look for employment in the non-agricultural sector, mostly in nearby towns or migrate to places within and outside the State.

9.2 Improvement in Educational Facilities

All the studies on Palakurichi village since 1918 point to the educational backwardness of the village, which is lower than the district and taluk level averages on literacy rates. The educational status of the population, in general, is very low and is even worse among the Dalit population. The enrolment rates among vulnerable sections of the population were always low in Palakurichi. The village has been historically deprived of good educational institutions in terms of educational facilities. The nearby institutions for higher education were located in Nagapattinam district, and the village suffered from poor connectivity to the district headquarters. The well-to-do Naidu families used to send their children to nearby towns for education, and cities like Coimbatore and Chennai for higher education. It was the Dalit households which suffered from lack of educational facilities in nearby villages or places.

Until 2008, only a government high school catered to the households' educational needs. Many of the children, particularly of Dalit households, either dropped out of school or did not continue their education beyond high school. This affected their employment potential, and they had to resort to agriculture for livelihoods. In earlier days when agriculture was prosperous and there were enough employment opportunities in cultivation, households of weaker sections did not feel the pressure to continue education beyond a certain level. But the situation started changing once agriculture failed to support the households as it used to do earlier. Thereafter, they realised the importance of achieving educational qualifications to improve their employability in the non-agricultural sector in nearby areas and towns. Hence, with the upgradation of the high school in Palakurichi to a higher secondary school in 2008, there was an improvement in enrolment rates, and many of them completed higher secondary education within the village.

9.3 Employment Opportunities in Small Town Growth Centres

After higher secondary education, with improved awareness levels, they started joining vocational higher secondary courses in Nagapattinam and the nearby towns of Tiruvarur and Thiruturaipoondi. Improvements in public transport in terms of connectivity also supported this process. This was reinforced by the growth in non-agricultural sector, particularly related to tourism and hospitality services in Nagapattinam and Velankanni. Many youths in Palakurichi village could find employment in the growing non-agricultural sector in nearby towns. This was the beginning of a slow transition in terms of reduction in dependency on agricultural employment, which was seasonal, uncertain and laborious to new employment opportunities in the non-agricultural sector. A sense of less dependency on the landlords in the village and nearby areas, and relatively lower levels of discrimination (particularly caste-based discrimination) made the employment opportunities in the non-agricultural

sector in nearby areas attractive for youth in the village, and they strived for such prospects. This has contributed to a slow improvement in living conditions of households relative to what they had experienced in their life as agricultural labourers marked with uncertainties, various forms of oppression, discrimination, exploitation and drudgery.

9.4 Public Programmes in Palakurichi Village

An analysis of the long-term changes in Palakurichi village based on the studies carried out over one century since 1918 reveals the following aspects of the long-term dynamics of rural transformation.

- a) Long-term dependence on a single crop of rice for the livelihoods of households of a tail-end delta village for nearly a century, known once for its prosperous rice production systems. Though improvements in irrigation infrastructure and technological interventions in agricultural production brought changes, these were short-lived and couldn't bring an equitable and sustainable transformation in the livelihoods of villagers. The major reason for the failure of these interventions to bring equitable and sustainable transformation is because of the historical inequalities in ownership of means of production and the social and economic oppression and discrimination towards the weaker sections of the village.
- b) Social and economic oppression and discrimination of Dalit households, who were the majority inhabitants of the village by a small share of land-owning households, through economic and extra-economic coercive measures to control resources for production. These historically long periods of oppression began to change with the organisation of Dalits under progressive political forces which fought against these oppressions and discriminations.⁷ The provision of landownership to Dalit households through LAFTI improved their access to land and to a range of public programmes for agriculture and rural development. This was facilitated to an extent by improvement in access to public-supported programmes aimed at improving their living standards.
- c) Changes in the occupational structure of the workforce in the village from a long time (nearly nine decades) dominance of agricultural sector to non-agricultural sector facilitated by improvements in educational facilities in the village, fights against oppression of Dalits by progressive political forces, public programmes for social and economic support, growth in the non-agricultural sector around small town centres and migration.

These changes were facilitated to a greater extent by the public programmes for rural

⁷A detailed discussion on the political movements that has shaped the socio-economic transformation in the village is given in Section 8.2.2.

development implemented in the village since the 1960s. The most important public programmes that have supported this transformation are a) the provision of credit support through priority sector lending by the cooperative movement, b) provision of housing facilities by the Indira Awaas Yojana continued as PMAY – G, c) the Public Distribution System which improved food security, d) Mahatma Gandhi National Rural Employment Guarantee Act, 2005, and e) improved public-supported educational infrastructure in the village. In addition, a major initiative that transformed the lives of Dalit households in the village was the provision of land ownership through the LAFTI programme implemented during the late 2000s.

9.4.1 Provision of Housing for Dalits

As discussed in previous sections, Dalits in the region and Palakurichi village have historically been subjected to all forms of social, economic and physical discrimination and oppression. The Dalit resurgence against such forms of oppression began with their mobilisation under progressive political forces that emerged in the region through their fights against such oppression. These efforts were complemented later by some of the public programmes initiated to address these issues. All the studies of Palakurichi village for nearly seven decades, from 1918 to 1983, have pointed out the poor living conditions of Dalit households in the village. They were bonded to dominant land-owning households in the village through *pannaiyal* system, lived in huts built away from the main village in deplorable conditions. Although there has been a slow progress in liberating the Dalit households from bondage, extremely treacherous working conditions, low level of wages and extreme forms of caste discrimination and physical torture, their living conditions were very pathetic. Slowly by the late 1980s, with the participation of Dalits in village administration through Panchayat elections, they gained some access to various government schemes for improving their lives and living standards. The most important among them was the Indira Awaas Yojana during the 1980s. But the implementation of this was done at a slow pace, and even during the study of 2008, majority of Dalit houses were in dilapidated condition and were not suitable to live in during difficult weather conditions. However, there has been a significant difference in the housing situation of Dalits in the study of the village in 2019. A detailed account of the types of housing owned by various caste groups in the village during the study of 1983 and the survey of 2019 is given in Tables 9.1 and 9.2.

Table 9.1: Type of housing, status of electrification and private toilets in Palakurichi village, by caste in numbers during 1983

Caste group	Terraced or Tiled	Thatched	Electrified	Private Toilets	Total
Naidu	23	3	21	17	26
Brahmins	5	-	1	-	5
Chettiars	4	-	3	1	4
Other Caste Hindus & Muslims	23	105	58	3	128
Dalits	2	184	55	-	186

Source: Guhan (1983)

In 1983, only two Dalit households in the village had a terraced or tiled house, categorised as a pucca household. At the same time, almost all the Naidu households in the village owned a proper well-built terraced or tiled house. The picture is the same with respect to the status of electrification and presence of toilet facilities in their houses for the use of family members. None of the Dalit households in the village had a private toilet at that time. This shows the vulnerable condition of Dalits in the village, which is reflective of their historically discriminative and low levels of socio-economic conditions. There has been a slow progress in improving the housing facilities for Dalits because of the introduction of Indira Awaas Yojana (IAY) during the late 1980s. However, during the study of 2008 also, many Dalit households in the village did not have a decent house to live in. A significant change in housing conditions came after 2008, with the introduction of the PMAY-G, which is a revamped form of the IAY with components in convergence with MGNREGA. During the study of 2019, it was found that the number of Dalit families owning terraced/tiled houses has increased from 2 to 105. Currently, out of 249 Dalit households in the village, 105 households constituting 43 per cent of Dalit households, have a pucca house to live in (Table 9.2). This is one of the major transformative changes in the lives of Dalits who have been at the receiving end of an oppressive and discriminatory socio-economic regime that prevailed in the village for decades. Three major factors facilitated this transformation in terms of access to decent housing. The first and most important factor was the political mobilisation of Dalits against discrimination and demands for better living conditions. The second important factor was their participation in institutions of local self-governance at various levels since the 1970s, which increased during the later periods and improved their access to public programmes. The third factor was the support in the form of convergence with various public programmes like MGNREGA, which facilitated the implementation of programme for providing housing to the vulnerable sections of society.

Table 9.2: Type of housing, status of electrification and private toilets in Palakurichi village, by caste in number during 2019

Caste group	Terraced or Tiled	Thatched	Other or Unspecified	Electrified	Private Toilets	Total
Naidu	26	0	0	25	12	26
Brahmins	0	1	0	1	0	1
Chettiars	1	1	0	1	1	2
Other Caste Hindus & Muslims	53	55	4	109	68	112
Dalits	105	127	17	244	140	249

Source: Survey data (2019).

But it is to be noted that still more than half of the Dalit households (144 out of 249 households) are living in thatched houses, which are semi-permanent structures. This indicates the historical bias against Dalits in sharing the fruits of development in the village, which is still continuing despite efforts from the State through various programmes to address this issue.

9.4.2 Support from Public Distribution System

The entire Palakurichi village has depended on returns from a single crop of rice for several decades since 1918. The livelihoods of all the households revolved around the activities related to this single-season rice cultivation, except for a brief period of double cropping during the 1970s and 1980s. There was no other source of non-agriculture employment that the households in the village can depend on for their livelihoods. For most Dalit households, employment as *pannaiyals* during the early 1900s till about the 1950s and as agricultural labourers in the rice fields of land-owning Naidu households were the only source of livelihood. Their survival depended entirely on the wages they received, mostly in kind, for participation in rice cultivation. This also was limited to a single season; for the remaining period, they either depended on any work available with the Naidu households or in and around the village. This was the practice for the entire region, and hence migration for work was not reported in nearby villages, at least during the earlier studies of the village. So, Dalit households depended entirely on the rice they got as wages in kind for their livelihoods. As discussed in the previous studies of the village, the land-owning Naidu households, using their control over the village through economic and extra-economic coercions, kept the wages at very low levels. The working conditions were also very oppressive. It was during the early 1950s and 1960s when the Dalits mobilised against such oppressive practices that there was some relief to the onerous work conditions. But still, they faced the issues of low wages and poor working conditions, against which they have been agitating.

It is in the context of the vulnerable nature of livelihoods of majority of households – except a few well-off landed households – that the distribution of food materials through Public Distribution System (PDS) by the State played a major role in contributing towards ensuring household food security. The distribution of food materials, especially rice and other essential items like sugar and dal, have protected poor households from hunger. There have been improvements in entitlements and items of food and essential commodities supplied through PDS at different periods, and these have been effectively used by the State to ensure food and nutritional security of its vulnerable population. It also has effectively supported vulnerable households in the event of crop failures and natural calamities.

9.4.3 The Role of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

The MGNREGS implemented in the village since 2005 has played an important role in sustaining the livelihoods of vulnerable households in Palakurichi village. During the early 2000s, the region and the village, in particular, were undergoing a crisis related to employment generation and livelihoods. The dependence on a single crop of rice for nearly nine decades and the deterioration of returns from that in terms of profitability and employment generation has affected the livelihoods of households in Palakaurichi. The absence of opportunities in the non-agricultural sector in and around the village intensified the crisis. Adding to these problems, there were frequent incidences of natural calamities in

the form of floods and droughts, the characteristic of a tail-end delta village. This adversely affected household incomes and most households did not have the means for subsistence living. It was in this context that MGNREGS was implemented, and it has played a critical role in creating employment opportunities for poor households, particularly Dalit households, who had lesser opportunities due to the crisis in agriculture and the absence of alternative sources of livelihood. This became more relevant and critical once the harvesting operations in rice cultivation in Palakurichi were mechanised and combined harvesters robbed away the only major source of employment for agricultural labourers, majority of whom were Dalits. During the study in 2019, the implementation of MGNREGS created an average of 70.9 person days of employment for the households. The details of person days of employment received by households in Palakurichi village and the wages received are given in Tables 9.3, 9.4 and 9.5.

Table 9.3: Share of households who received employment under MGNREGA by social group, in per cent during 2018-19, in per cent

Village	Dalit	Non-Dalit	Total
Palakurichi	94.9	71.0	85.4

Source: Survey data 2019.

Table 9.4: Average days of employment received by household under MGNREGA, by social group, in number of days per household

Village	Dalit	Non-Dalit	Total
Palakurichi	74.1	64.3	70.9

Source: Survey data 2019.

Table 9.5: Average wage received by per worker under MGNREGA in Palakurichi village, by social group, in Rs per person per day

Village	Male	Female
Palakurichi	176	174

Source: Survey data 2019.

The three major public programmes - PMAY, MGNREGA and PDS - have played a significant role in supporting the livelihoods of poor and vulnerable households in Palakurichi. The support from these programmes has complemented the historical struggles of Dalit households to gain access to sources of livelihood and freedom from social and economic discrimination. Over the years, the PDS provided them with food for subsistence and protected vulnerable households from hunger and famine, that too during periods of natural calamities and agrarian distress. It was the IAY and the subsequent PMAY that gave them shelter to live in and freedom from historical discrimination in accessing basic necessities of life enforced through oppressive social and economic relations and institutions.

10. SUMMARY AND CONCLUSIONS

This is a study of a century of agrarian changes in Palakurichi village in Thanjavur region of Tamil Nadu from 1918 to 2018. Thanjavur region is historically known for its prosperous rice production systems and is known as the "Rice Bowl" of South India. The region belongs to the delta of one of the oldest irrigation systems in India, dating back to the second century AD, built during the Chola period. Though it belongs to the delta of Cauvery Irrigation system, there is diversity in agro-ecological characteristics and agrarian relations in different parts of the region. These diversities and inequalities in ownership of means of production and control over resources have resulted in several historical agrarian struggles in the region. Several reputed scholars have studied these heterogeneities and the nature of agrarian relations at different periods. The region also has the distinction of focusing on major agriculture development programmes in the country. It has been the focus of GMFC, IAAP, IADP and the Green Revolution, which makes it more important and relevant to understand the nature and characteristics of the changes in agrarian relations over a long period.

Palakurichi village belongs to the undivided Thanjavur district, which is now constituted by the districts of Thanjavur, Tiruvarur and Nagapattinam. It is one of the 'Slater Villages' in which the socio-economic conditions of selected villages in different parts of the erstwhile Madras Presidency were studied under the guidance of Prof. Gilbert Slater of Madras University in 1916. These Slater villages were resurveyed during different points of time by various scholars, and Palakurichi has the distinction of a village which is studied at an interval of every two decades since 1916. The first study was done by Soundara Rajalu in 1916 and published in 1918, followed by a study by Thomas and Ramakrishnan in 1938 and published in 1940. Margaret Haswell studied the village as part of her study of Slater villages in Tamil Nadu in 1968. A resurvey of the village was carried out in 1983 by S.Guhan IAS. The first study of the 21st century was by Surjit in 2003, followed by the recent resurvey, which is the most comprehensive study of the village so far during 2019. The study of 2019 was a detailed census survey of all the households that were part of the village. The survey was based on a detailed household questionnaire that collected data on demographic profile, occupational status, literacy and educational levels, details of ownership, operational holdings and tenorial arrangements of land, various aspects of agricultural production, including detailed input and output utilisation patterns, agricultural and non-agricultural employments, participation and access to public programmes and various types of asset ownership and other socio-economic characteristics of the households. The results and analysis of the six studies spread over the span of a century from 1918 to 2018, at an interval of every two decades, give an idea about the key socio-economic changes and the ups and downs in nature and characteristics of agrarian relations in the village which is reflective of the transformations in the region as well.

The most important conclusion that emerges from the long-term analysis of agrarian relations

and social changes weaved from all the six studies of Palakurichi village, including the recent study of 2019, are as follows:

The village has remained primarily agrarian for a century, dependent entirely on agriculture for livelihood of majority of the households. The most striking feature is the long-term dominance of a single crop of rice cultivation in the village for nearly a century, with the exception of two crops of rice being cultivated for a brief period of two decades during the 1970s and 1980s. The agricultural production in the village during 1918 was based on a single crop of traditional rice with yield levels of about 1.18 tonnes per hectare. Later with the improvement in irrigation control mechanisms in the delta with the construction of Mettur dam in 1934, and the introduction of short-duration high-yielding varieties during the 1960s, villagers could afford to grow two crops of rice with the available irrigation facilities. However, later with the decline of irrigation water availability from the Cauvery irrigation system and deterioration of production conditions due to natural calamities, including floods and droughts, villagers could afford to grow only once a crop of long-duration rice. The agro-ecological characteristics of the region could only support the production of a single crop of long-duration rice, and the livelihoods of majority of households depended on this.

Palakurichi village historically had a significantly higher share of Dalit households which constituted 60 per cent of the total households. Though Dalits constituted majority of households in the village, historically, they were subjected to extreme forms of oppression and discrimination based on caste. They were largely agricultural labourers and were bonded to landlord households through the *pannaiyal* system, which prevailed during the pre-colonial period in the region and continued in various forms and ways even after the colonial rule and the country became independent. The *pannaiyal* system was a form of slavery that existed in the region. Many scholars who studied this during pre-colonial, colonial and post-colonial periods note its continuity in the form of agrestic servitude during the colonial period, and remnants of it continuing through various ways and forms even after independence and adoption of legislations for doing away with this system. The studies on Palakurichi at different points of time sketch the extremely oppressive and discriminatory treatment extended to Dalits, and the deplorable and vulnerable living conditions faced by them for a long period before they could mobilise and fight against such oppressions and demand for basic necessities of life. It was under the leadership of progressive political forces that they could organise to fight against various oppressive and discriminatory practices, and demand fair and equitable living conditions and economic opportunities. These efforts were later complemented by various public-supported programmes like PDS, IAY and PMAY and MGNREGA aimed at improving the lives and livelihoods of vulnerable households.

A distinct feature of the agrarian structure of Palakurichi village was the historical inequalities in ownership of means of production, particularly the extremely unequal distribution of land ownership.

This remained the defining characteristic of agrarian relations even during the beginning of the twenty-first century. During 2003, a mere 2 per cent of households owned 90 per cent of the land in the village. Historically, the dominance in landownership helped the land-owning Naidu community to exercise control over the social and economic activities of the village and keep the landless Dalits bonded to them through economic and extra-economic coercions. For nearly nine decades till around the mid-2000s, Dalits could never imagine owning a small piece of land in the village. However, due to declining fortunes from rice cultivation, a generational shift in focus from agriculture to non-agricultural sources of livelihoods and migration to nearby cities and abroad, Naidu households could not continue agricultural production in the manner and scale which they used to carry out in earlier days. So, in order to maintain the land in operating condition, they were leasing out land to even Dalit households. The Dalit mobilisations and agitations supported this to gain access to temple lands in the village on tenurial arrangements. A significant change in landownership was achieved through the implementation of the LAFTI programme in Palakurichi. As a result, the incidence of landlessness declined from 92 per cent in 2003 to 46 per cent in 2019. This remarkable transformation in the lives of Dalit households in Palakurichi gave them access to land ownership and a major upliftment in terms of improved social relations and economic opportunities. However, the fact that more than half of Dalits are landless is a major constraint towards achieving equity in social and economic development.

The occupational diversity of Palakurichi village has been stagnant, with a large share of the workforce engaged in agricultural sector for a long period. From the first study in 1918 till the study in 2003, agriculture remained the major source of employment. This also shows the dependence on a single crop of rice cultivation for the livelihoods of households in the absence of any significant employment opportunities in the non-agricultural sector in and around the village or nearby areas. Also, since the early 1990s, there has been a stagnation in the agricultural sector in terms of declining returns from rice cultivation, deteriorating irrigation water availability due to the Cauvery river water sharing crisis between riparian States, and frequent occurrence of natural calamities in the form of floods and droughts in the region. In addition, the mechanisation of harvesting operations of rice cultivation reduced the employment opportunities for harvesting labour. As a result of distress in agriculture, many households started moving to nearby towns of Nagapattinam, Thiruvarur and Velankanni for non-agricultural works. There were cases of seasonal migration to Coimbatore, Tirupur and Kerala. Also, the improvement in public education facilities for higher secondary level and vocational training helped youth in the village to get non-agriculture jobs in Nagapattinam and Velankanni, which were growing slowly due to improved opportunities in tourism and service sector activities. So, by the study of 2019, the occupational workforce underwent a transformation from dependence on agricultural sector to non-agricultural sector. This transformation was also supported to an extent by employment generation through the implementation of MGNREGS.

The analysis of changes in the agricultural production conditions and agrarian relations in Palakurichi village brings to the forefront the absence of any policy or programme that could address the stagnation and decline in the agricultural sector, particularly during the post-Green Revolution period. The absence of any policy or programme for making agricultural sector viable through cropping pattern changes to perennials and less water-absorbing crops suitable for the agro-climatic characteristics of the region, diversification to allied sectors, including livestock, particularly focusing on small ruminants, is very evident. This has resulted in a slow transition of livelihood dependency of households on agricultural sector in Palakurichi to non-agricultural sector opportunities in nearby towns and cities, which is growing only at a slower pace. The intervention of various public supported social security programmes, particularly PDS and MGNREGA, in supporting vulnerable households in the village during the periods of distress and despair is noteworthy.

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