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A GOSSIPMONGER'S REVISIT TO CHETTIPALAYAM

by

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A GOSSIPMONGER'S REVISIT TO CHETTIPALAYAM

[WATER CONFLICT AND SOCIAL CHANGE IN AMARAVATHI BASIN]

S. NEELAKANTAN*

Abstract

Chettipalayam is a little hamlet located on the banks of Amaravathi river. The paper traces its history and describes its characteristics on the eve of independence. Agriculture was the basis of its economic, social and cultural life then. The river was its life stream. It was a wet village with a large amount of dry lands. A local variety of jajmani system prevailed. Attached labourers performed the tasks set by supervisory landlords. The main source of irrigation was Thirumanilayoor channel. Lower ayacutdars extended a watchful eye on the extent of irrigation in the hamlet through the office of Vaikal Maniagar. In 1950 PWD took over the control of the channel, and brought to an end some of the traditional functions of 'kudimaramath'.

The old Amaravathi basin irrigation system before the construction of a reservoir had twenty five channels branching off the river and irrigated about 32000 acres.

The history of the reservoir is briefly traced. The Karur and Kulithalai taluk farmers (lower riparians) were afraid that they would lose their accustomed riparian rights if a reservoir was constructed at Udumalpet. Their opposition to the construction and consequent actions are sketched. The solemn assurance by the government in 1952 and 1953 that their rights would be protected is highlighted. The fact that a conflict began in the very first year after the construction of the reservoir is outlined.

The combination of pump set and pipeline broke the barrier imposed by gravity on extension of irrigation to lands located at higher elevations. From the 1960 onwards river water was abstracted for extension of irrigation along the entire length of the river. Upper riparians commanded more political influence. They have extended the area irrigated both in the Amaravathi Main Canal area and along the course of the river. Downstream, irrigation was extended along the banks of the river. Revenue, PWD and Electricity Board authorities were endowed with discretion to regulate the drawing of water from the river. This has led to the proliferation of rent seeking activities.

Five major changes took place in the Chettipalayam region between 1960s and now.

- There was a change in the cropping pattern and agrarian relations. Sugarcane and HYV crops replaced the traditional Punjai (dry) crops. Cash wages and contract labour became common. Supervisory landlords lost their lands to owner-cultivators.
- Karur, the neighbouring town, became an exporter of textiles. This urban change had a major impact on the village. Labour migrated to the towns. Agriculture faces scarcity of labour.
- Sand mining in the river expanded rapidly. The hamlet unsuccessfully attempted to protect its sand cover. Sand cover enabled recharge and regeneration of water in the river. Loss of sand has reduced the water availability for summer irrigation. The ground water table has gone down. But more and more tube wells are coming into existence. The river sand has almost disappeared.
- The dyeing factories in Karur, which were first started in the 1960s and multiplied later, began to consume large amounts of water and started polluting the channels and also the river adjacent to the villages where they were located. In times of scarcity, they began to purchase water. Farmers have found that it was more profitable to sell water than to use it for irrigation. Water sales have given a fillip to tube well construction. Ground water table is sinking further.
- The struggle for water for drinking, irrigation and industry has been compounded by the struggle to protect the water sources from pollution from effluents discharged into the channels.

The State has failed to keep up its promise to the lower riparians that their ancient rights would be protected.

The hamlet suffered the most serious drought in the period 2001-03. It successfully traded off its water for protection from pollution in 2002.

Agriculture is still the only major occupation of the hamlet. However, agriculture has ceased to be the basis of its life. The river has become anaemic. The young men and women of the hamlet are on the lookout for escape routes from agriculture. Its future remains uncertain.

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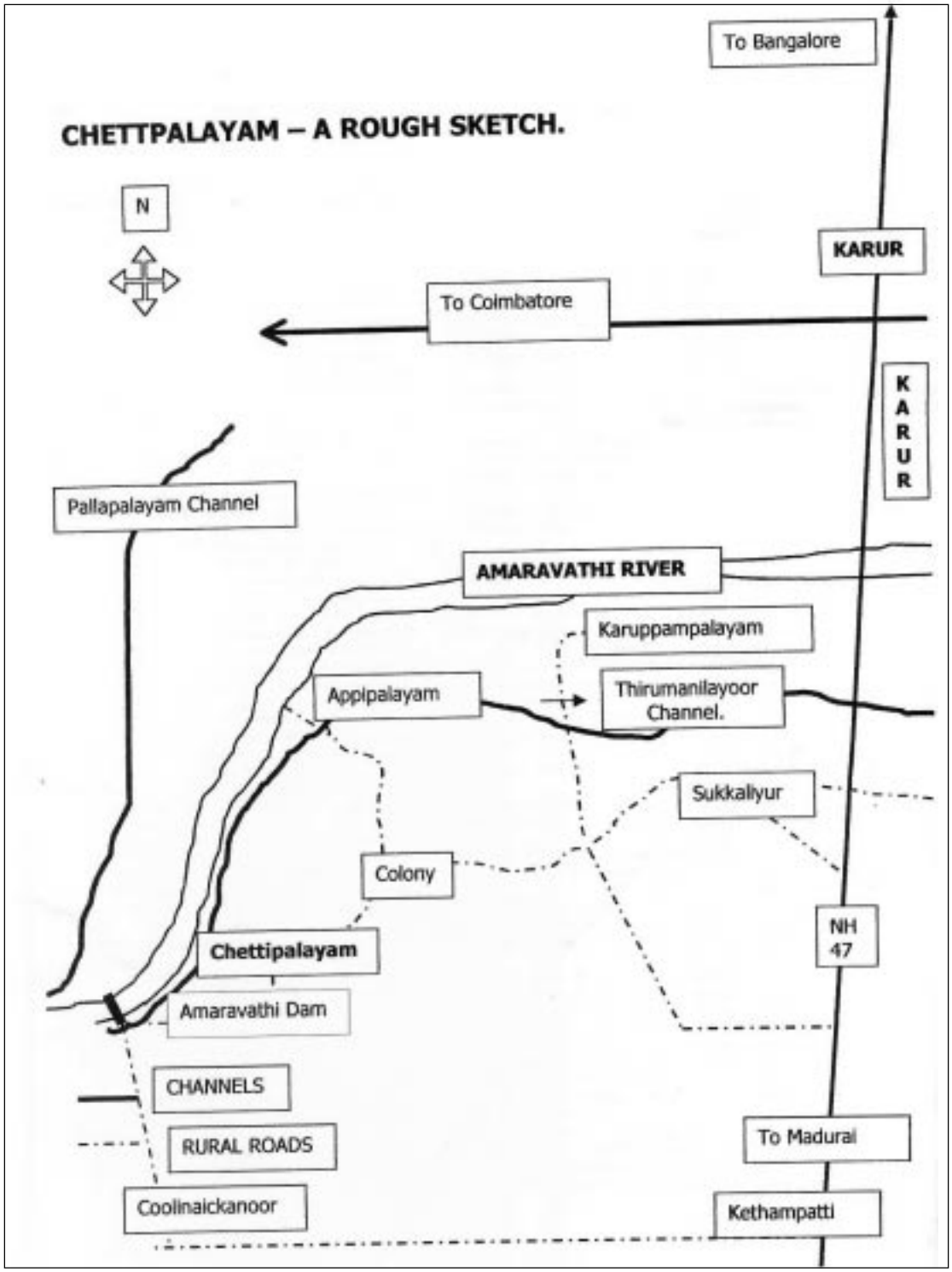
CHETTPALAYAM – A ROUGH SKETCH.
N
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KARUR
To Coimbatore
KARUR
Pallapalayam Channel
AMARAVATHI RIVER
Karuppampalayam
Appipalayam
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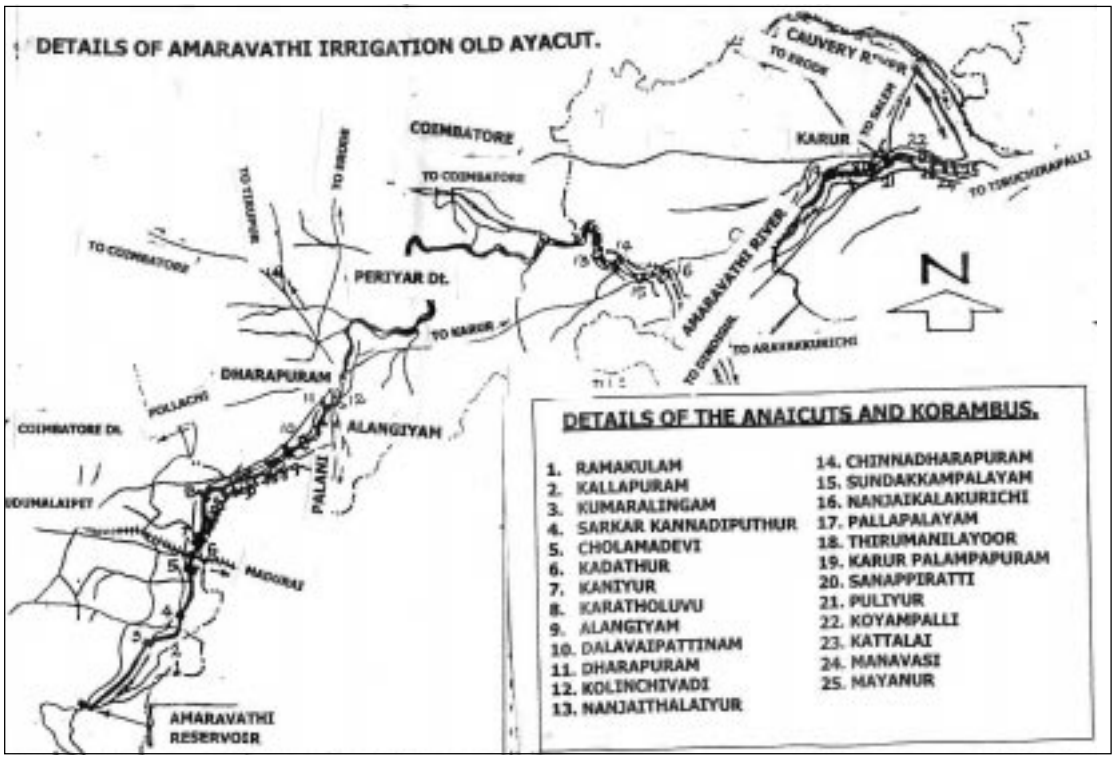
Sukkaliyur
Colony
NH 47
Chettipalayam
Amaravathi Dam
CHANNELS
RURAL ROADS
To Madurai
Coolinaickanoor
Kethampatti


DETAILS OF AMARAVATHI IRRIGATION OLD AYACUT.
CAUVERY RIVER
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DHARAPURAM
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9. ALANGIYAM
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11. DHARAPURAM
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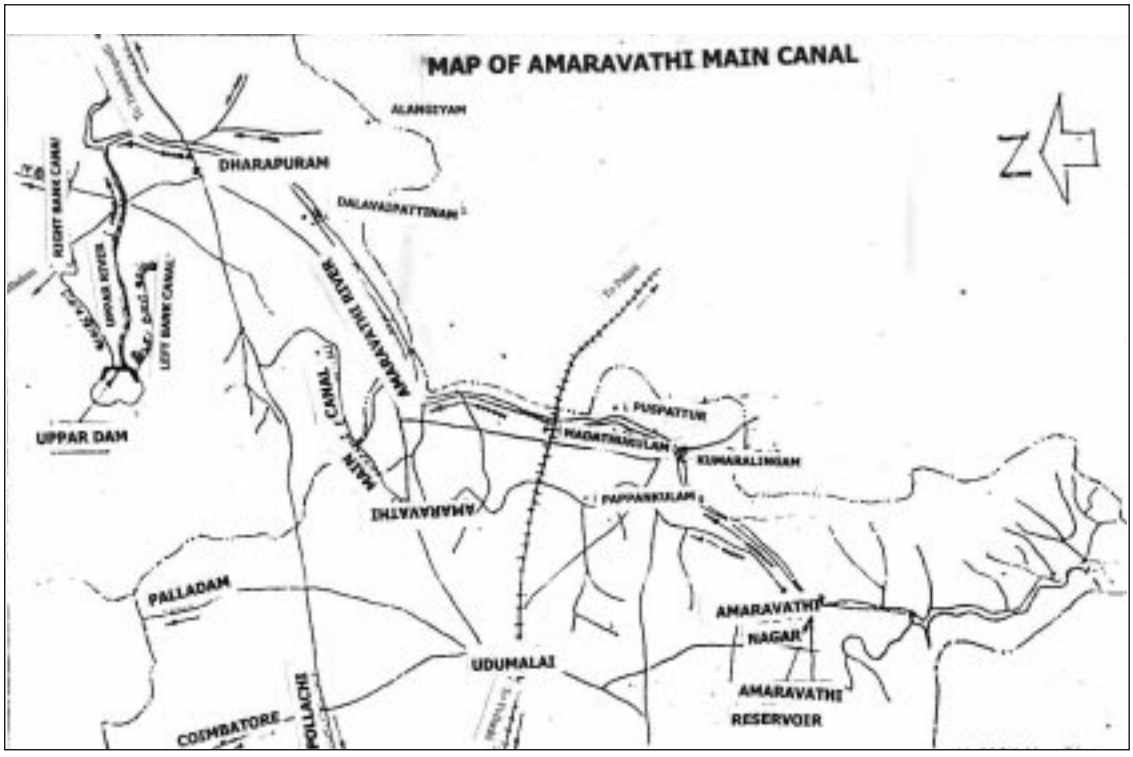
20. SANAPPIRATTI
21. PULIYUR
22. KOYAMPALLI
23. KATTALAI
24. MANAVASI
25. MAYANUR


MAP OF AMARAVATHI MAIN CANAL
ALANGIYAM
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RIGHT BANK CANAL
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MAIN CANAL
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PALLADAM
AMARAVATHI NAGAR
UDUMALAI
AMARAVATHI RESERVOIR
COIMBATORE
POLLACHI
N

A GOSSIPMONGER'S REVISIT TO CHETTIPALAYAM*

[WATER CONFLICT AND SOCIAL CHANGE IN AMARAVATHI BASIN]

SECTION I

INTRODUCTION

In pre-independence days Chettipalayam was a well-to-do hamlet. Water flowed in the Amaravathi river almost all through the year; and in the Thirumanilayoor channel in the hamlet at least for six to seven months in a year. The local farmers raised two crops every year with channel water. The sand cover in the village was a delight to watch and regenerated water copiously and the hamlet residents never faced any water scarcity for drinking and household requirements. They had never even heard about water pollution and its impact on people, cattle and crops.

All these have changed dramatically in recent years. Between 1 Apr. 2002 and 31 Mar. 2003, water flowed in Amaravathi at Chettipalayam only for twenty-five days; and in the local channel only for fifteen days! Currently, and in the summer of 2002, the hamlet and its neighbouring hamlets suffered severe drought conditions. Water came in the panchayat taps only once in five days! Much worse, the hamlet residents had to fight a bitter battle to safeguard the sources of drinking water – wells in the river and in their private lands – from pollution by the effluents let out from the dyeing factories.

The following narrative is an attempt to explain how such a dramatic change has come about in the water availability for the hamlet.

Location and History

Chettipalayam hamlet is situated ten kilometres southeast of Karur, the nearest town. Karur is the district headquarters of Karur district, and lies midway between Tiruchirapalli and Erode towns in Tamilnadu State. Chettipalayam and Karur are on the banks of Amaravathi river, which originates in the Anamalai hills in western ghats, flows through Udumalpet and Dharapuram towns and finally empties itself in Cauvery river about fifteen kilometres northwest of Karur town. Karur is in National Highway 7 linking Bangalore with Kanyakumari; and Chettipalayam hamlet is linked to the highway by a 5km tar road.

Chettipalayam hamlet is part of the Appipalayam revenue village in the Thanthoni panchayat union in Karur district. Appipalayam lays downstream about one and a

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* This is a sequel to my earlier paper "Change and Continuity – A Contrasting Account of Urban and Rural Transformation." [MIDS Working Paper No. 139.] I gratefully acknowledge my debt to Prof. A. Vaidyanathan, whose constant encouragement and intermittent prodding motivated me to complete this work. I alone am responsible for all its faults.

half kms north of Chettipalayam. Five centuries back, the original Chettipalayam hamlet was situated about a km. south of its present location. The famous folklore heroes, "Annanmar" – Ponnar and Sankar – were born in the original Chettipalayam hamlet. A temple dedicated to their father is in a dilapidated condition, and yet attracts a large number of visitors. Soundra Kailasam, Tamil writer and poet, hails from the present Chettipalayam hamlet. She is named after Soundaranayaki, consort of Lord Pasupatheeswara, the presiding deity of Karur temple. According to the `Sthalapurana', she was the daughter of Kalianna Gounder, a Vettuva Chieftain of Appipalayam village, who steadfastly prayed that Lord Pasupatheeswara should marry her and achieved the goal by her penance. Appipalayam and Chettipalayam are tiny, but not obscure, hamlets.

In the middle of nineteenth century, c.1849, Thiru. Karuppanna Gounder, a resident of Kadambankurichi on the banks of Cauvery, about 15 kms. north of Chettipalayam, came to the hamlet and purchased lands from the Brahmin and Vettuva owners, to start his farm here. The Brahmin landowners lived in Aandankoil, across the river, about 2 kms. north. The Vettuvar landowners lived in Kodayur, 3 Kms. south. Neither had developed the available land potential here. Thiru. Karuppanna Gounder foresaw the possibilities of using the Thirumanilayoor channel waters, flowing along the side of the river through the hamlet, for irrigation in future. He founded the present Chettipalayam hamlet. He built the first house of the hamlet in its present location, constructed the first open well and developed the first 'Thottam – that is, 'garden land' of this hamlet. Till then, almost all the lands in this hamlet were uncultivated and were used mainly as pasture. Two other cousins from Kadambankurichi followed Thiru. Karuppanna Gounder and came to Chettipalayam to settle. By hard work, they and their descendents, brought more lands under the plough, got permits to irrigate some areas with channel water, dug open wells and extended their 'thottam' lands. With their accumulations, they also began to acquire wetlands in the opposite bank, located in the Pallapalayam village. By 1920, they owned almost all the lands in the hamlet and also about one square km of wetlands in the Pallapalayam village. Then they cleared a major portion of the small timber forest between the Thirumanilayoor channel and the river Amaravathi (known as 'Kuttukkadu'), obtained titles for it, and permit to irrigate with channel water. However, a narrow strip of Kuttukkadu was allowed to remain on the banks of the river as a protection against erosion by floodwaters. In the early decades of 20th century, they sent their sons for education in Karur Municipal High School, which was not the usual practice among non-brahmins at that time. They also gave private education up to the primary level for their girls, which again was unusual.

The great depression in 1930s had enormous impact on the hamlet. Falling agricultural prices increased the burden of debt, and many families became insolvent. The land got redistributed among the many descendents and a portion was lost to

outsiders. Portions of their wetlands in the opposite bank of the river also were lost to outsiders.

The Second World War brought with it scarcity, inflation and opportunities. Agricultural prices increased. This was on the whole beneficial to the villagers. Enterprising families, which had suffered during the great depression, were able to recover major portions of what they had lost.

Compared to the rain fed 'Pattikkadus' (literally cattle grazing forest lands – but commonly understood to mean rain fed dry hamlets) which surrounded it, Chettipalayam was a 'Karaivali' (literally bordering a river – but commonly understood to mean a river fed wet) hamlet. Its water security gave it prestige and reputation in this region.

SECTION II

PRE-INDEPENDENCE SITUATION

Chettipalayam was typical of similar villages situated along the Amaravathi, though in respect of education, it was ahead of many others. Amaravathi river is a seasonal river. It received rainfall both during the south-west and north-east monsoons. Floods were common in June-July, and also in Sep.-Nov. The width of the river was about 200 metres near the hamlet. During the floods, people used 'Parisal' – a leather covered wooden boat - to cross the river. The river had enormous sand cover. This enabled it to regenerate water even during the severest of summers. So a trickle of water would always be flowing in the river.

As a riverside hamlet, Chettipalayam was better situated than other interior hamlets with reference to water availability. Because it was a 'wet' hamlet receiving water from the river, the intensity of cultivation was more in this hamlet than the many 'dry' hamlets surrounding it, which depended entirely on rainfall for their cultivation. So the surplus labour of those hamlets moved towards the river in search of employment. Chettipalayam was a relatively prosperous village.

The elite, mainly the descendents of the three pioneers, lived in the main Chettipalayam hamlet. The marginal farmers and workers lived in the east, in 'Kilakkalur'- about hundred metres away. The cobblers, the only scheduled caste group that lived in this village, lived separately in between the elites and the workers. In pre-independence period, agriculture was the most prestigious and the most important occupation of the hamlet. An evidence of this was that even persons owning half an acre would proudly proclaim themselves as "Mirasdar" or "Nilakkizhar" in their marriage invitations.

A ‘jajmani’ type of organisation prevailed in the village. The hamlet attempted to be nearly self-sufficient in its necessities. Land ownership was respected and honoured. Agricultural work was the primary function of the villagers. All other work served a customary and complementary role. The blacksmith fixing wheels of carts, sharpening the ploughshare; the carpenter making the wooden plough or fixing the wheels of the cart; and the cobbler making and mending the water bucket (‘Pari’) were all rewarded not by a wage, but by a customary payment in kind. The other service castes served essential functions such as the washing by dhobis, supplying mud pots by the potter, beating of drums by thottis, carrying messages on life cycle ceremonies by maaviliyars, performance of regular poojas by pandaram and the brahmin – and were rewarded with customary payments mostly in kind. A hierarchy of occupations were interconnected to continue to preserve and maintain an accustomed way of life. Those who performed their functions which were apportioned and pre-ordained on them by the caste hierarchy received a customary moiety which enabled them to survive, but did not give them much opportunity to escape or improve. Upward mobility was possible mainly through cultivation or trade; and trade then was on an insignificant scale in this hamlet.

The total area of Appipalayam village was 944.82 hectares [2333.70 acres]. Cultivable lands were around 782 ha [1931.54 acres]. Chettipalayam hamlet residents owned nearly half of it in 1947. Nanjai lands, i.e., wetlands that received irrigation from government authorised sources were only about 42 ha. [103.75 acres] for the entire village. Tirumanilayoor channel was the only source from which water could legally be tapped, as tapping water directly from the river was assumed to be not permitted and no one even attempted to do it except during emergencies to save mature crops from withering. Water generally flowed in the channel for six to eight months in a year depending on monsoon conditions. The Nanjai - wet lands - between the river and the channel received water by direct flow through sluices in the channel, whereas the lands east of the channel were ‘Kavalai Theervai’ lands, i.e., lands which were irrigated by lifting water using leather buckets – ‘pari’. In the entire village, there were less than 15 places where Kavalais were permitted along the channel; and only five of them had more than one Kavalai. A Kavalai could irrigate about an acre or acre and a half. ‘Kavalai theervai’ lands were less than 20 ha. [49.4 acres] for the entire village. Open wells also served to stabilise irrigation, and there were about 20 of them in the village on the eve of independence. Water from them had to be lifted by using animal power, and so only a limited area was served by each of the wells. Further, the subsoil was rocky and did not allow much percolation in open wells. However, they were useful to supplement water when channel ran dry. So, most of the open well owners were also owners of the lands with ‘Kavalais’.

For the villagers at that time, possession of wetland was at once a matter of prestige and also a chief source of security. Agriculture then was totally attuned to the monsoon cycle. In the wetlands, cultivation of rice followed by groundnut or

varagu was the general rule. But those who had open wells to supplement water raised cash crops such as banana and turmeric. Some of them raised tobacco as it thrived in the slightly brackish water. The sugar mill started at Pugalur in the 1930s about 20 kms. away, persuaded a few farmers to raise sugarcane. But transporting the cane by bullock carts was difficult then.

Most of the cultivable land in the village was rain fed. By long practice, the farmers had evolved crop cycles which could take advantage of the monsoon periods and, at the same time, provide sustenance for the soil, men and animals. Cumbu, Cholam, horse gram - Narippayir - and other pulses were raised in the rain fed lands. Generally, Cumbu or Cholam would be sown along with pulses. Cumbu and Cholam would be harvested first, and only after that the pulses would mature. Raising fodder for the animals was as important as raising food for the people. The cropping pattern took care of the needs of men and animals. Every big farmer had separate pasturelands where cattle and sheep were allowed to graze. Most pasturelands were sown with seeds of Kozhakkatttai grass brought from Kangeyam area, which had a luxuriant growth in this village.

Except in the few fields where annual crops were raised, in most of the lands there would be no crop between March and May. Occasional rains in this period – Kar Mazhai – were used for ploughing the soil well. All lands, including pasturelands, were ploughed with animal power, which gave a major avenue for work in summer months.

Dependence on rains naturally was a risky business. In the years when rains failed, there was a great deal of distress. But the customary payments in kind for the service classes did mitigate the distress to a certain extent. Stocking of fodder and grains was the general practice, and this gave them some insurance. The interlinking of occupational structure by the ‘jajmani’ system also allowed the sharing of distress to a certain extent.

Possession of wetland irrigated by channel water supplemented by open well water was the best insurance against the vagaries of the monsoon. So landowners along the channel desired to obtain permission to install additional ‘Kavalais’. The other alternative, namely, extending land with surface irrigation facilities through sluices, was closed even by early 1920s, when all the lands in the narrow strip between the river and the channel had been assigned ‘patta’ and had been occupied.

Lower ayacutdars in the channel area exercised a watchful eye on the extent of irrigation in the upper ayacut. The ‘Vaikal Maniagar’ from Thirumanilayoor– an honorary post – carried with it both power and prestige. He organised the ‘Kudimaramath’ activities in the channel and was assisted by ‘Laskars’ or ‘Neerkandis’. When the first floods were expected in the river, he organised the

construction of ‘Korambu’ – a sand barrier – at Kodaiyur, to divert river water into the channel. All beneficiary landowners would contribute voluntary labour for this as well as for the annual maintenance and cleaning up of the channel. Thiru D. Subramanya Aiyar, was the last ‘Vaikal Maniagar’ and his midnight inspections on horseback were a real terror for the errant landlords, who attempted illegally to tap water from the channel either by installing additional ‘Kavalais’ or by breaking sluice mud seals impressed by him to ensure rotation of water supply among ayacutdars. At that time it was nearly impossible for local landowners to extend the area irrigated in Chettipalayam with water from government authorised sources.

So, as a viable alternative, most of the Chettipalayam landlords had purchased about a square kilometre of wet lands across the river from the original brahmin owners in Pallapalayam and Andankoil villages. The Pallapalayam Raja Channel originated from ‘Anaikut’ – which, as the name implied, commenced from a stone culvert across the Amaravathi about 15 kms. upstream, and had a much bigger ayacut area than the Thirumanilayoor Raja channel. Water used to flow for eight months in a year, and double cropping was the norm. As the channel originated many kms. away, the distance between the channel and the river had widened considerably at this point, and all the wetlands purchased by Chettipalayam residents were surface flow irrigated. Unlike the wetlands in their hamlet which was irrigated by the owner or his servants, the irrigation in Pallapalayam wet lands were done mainly by Pallars who were paid a traditional customary payment, about two bags of paddy per ‘kani’ per harvest, for undertaking watering of crops.

These wetlands were generally cultivated with two crops of paddy or one crop of paddy and one of groundnut or one crop of turmeric. ‘Thalaimadai’ lands, situated near the sluice gate could raise one more crop – usually cholam or cumbu. In the low-lying lands, korai, a reed, was cultivated, which provided the raw material for weaving mats. It was an annual crop requiring a lot of water and was very profitable.

Living conditions in the Hamlet around 1947

The hamlet had no electricity, no radio and no post office in 1947. Most poor walked to work. Single and double bullock carts were the chief means of transport. The rich possessed horse drawn carts, and there were five of them in the hamlet in 1947. Possession of a cycle was a luxury, and there was a shop where cycles could be hired. Drinking water was collected in the river in pots and was carried home. In summer, only a miniscule stream would be flowing in the river. So it was common for all people to dig the sand for water. Removing a few shovels of sand was enough to get clean water for drinking.

Agricultural labourers came to work at 8 AM and the workday ended only by 6 PM. They had two breaks of about 45 minutes. There was a clear demarcation about the types of work which men and women labourers could do. Most of the

wages were paid in kind. Most landlords had Pannaiyals – attached labourers – who were of two types. One type resided in the house of the landowner, eating in the household, and was identified as meal labourers. Most shepherds were of this type only. Another type was paid an annual wage of eight to nine bags of cereals and a cash payment of about Rs.100/-. Generally, this type supervised all the agricultural operations of big farms, and also performed all the essential tasks for the master. Most supervisory landlord class had domestic servants in the household to assist the housewives.

Only the rich men used to wear shirts in those days. The poor sported shirts on special occasions only, such as marriages and festivals. The scheduled caste men were prohibited from wearing upper garments. They were not permitted to wear chappals while crossing the streets of the hamlet!

Most landowners raised cattle and sheep. Animals were required for milk, drought power and for manure. Raising cattle and sheep was a profitable occupation also.

The hamlet was nearly self sufficient in its essential requirements. For other purchases, the hamlet residents depended more on the Thursday shandy at Manalmedu than the shops at Karur. All residents, including the landlords, were accustomed to eating coarse cereals. But the main meal of the landlords was generally of rice, whereas rice meal was a luxury to be availed only on special occasions for most of the poor, including the 'meal' servants.

Untouchability was practiced by the 'higher' castes and was accepted as a matter of course by the perpetrators and the victims. Even the few students who had entered colleges did not oppose it. One old patriarch of the hamlet went to the extent of banning a village drama -'Therukkoothu' – simply because he considered it beneath his dignity to sit on the floor to watch the drama, while the hero, a scheduled caste person, sat in the throne and reigned over his imaginary empire! He 'ordered' the hero to sit on the floor and rule his country; as this was unacceptable to the drama troupe, the village drama itself had to be abandoned altogether!!

Stated differently, Chettipalayam was similar to many of the riverside villages of the region in the pre-independence period.

Amaravathi Irrigation System before 1947 – A Digression

Amaravathi irrigation system is an ancient one in Tamilnadu. Amaravathi rises in the Western Ghats. The main catchments area of the river lies in Moonar area in Kerala State and Anamalai hills in Coimbatore Dt. in Tamilnadu. The river is a tributary of Cauvery. The river flows at first through the dense forests in the Anamalai hills, and then later through the reserve forests in Coimbatore district. It enters the

plains near Kallapuram village in Udumalpet town. From its origin, the river flows along a length of 192 kms before it merges with Cauvery in Thirumukkoodalur in the border of Karur and Kulithalai taluks. Kudiraiyaru, Shanmuga Nadhi, Nankanchiyaru and Kodaganaru are the principle tributaries of Amaravathi. Nallathangal, Vadamalaikarai, Adangarai, Chittar and Uppar are the other important streams which flow into the river.

The old irrigation system of Amaravathi consisted of 15 masonry structures across the river, one temporary dam ('Kattidak korambu') and six temporary sand dams ('Korambu') constructed annually across the river. From these points, 25 channels branched off from the river. Starting with Kumaralingam channel and ending with Pallapalayam channel, all the channels branch off from masonry structures across the river. Ramakulam and Kallapuram channels started before or at the point where the present Amaravathi dam has been constructed. Kumaralingam, Sarkar Kannadiputhur, Cholamadevi, Kadattur, Kaniyur, Karatholuvu, Alangiyam, Dalavaipattinam, Dharapuram, Kolinchivadi, Nanjaithalaiyur, Chinnadharapuram, Chundaikampalayam, Nanjaikalakurichi and Pallapalayam channels branched off at successively lower points from those masonry structures. Thirumanilayoor channel branched off from Kodaiyur where there was a masonry structure which was supplemented by sand blocks to divert water. Karur-Palampalpuram, Sanappiratti, Puliyur, Koyampalli, Kattalai, Manavasi and Mayanur channels branched off the river from points where annually sand dams (korambus) were constructed. The river water would carry off these sand dams whenever there were heavy floods, which was a very common feature in the pre-independence days.

In his inaugural address on the occasion of the construction of the Amaravathi dam on 10th Dec. 1953, the Special Chief Engineer – Thiru A.R. Venkatachari – stated: "There are 17 anicuts and 8 sand korambus in the river. Twenty-five irrigation channels take off above these works and irrigate about 28,000 acres of double crop wet lands, about 3,600 acres of mamool wet and 1,200 acres of registered Theervaijasthi lands." Though the figures about the extent of irrigation by these channels as given in a pamphlet (see Table 1) and as reported by the S.C.E. do not agree, the figures about the number of anicuts, Korambus and channels are in agreement.

Under the old irrigation arrangement, all the 29,364 acres were 'Iru boga Nanjai' (two paddy crop wet) lands. The irrigated lands were lying on a narrow strip along both banks of the river. On the left side of the river there were eleven channels irrigating about 14800 acres and on the right side there were fourteen channels irrigating about 14500 acres. All these channels were unlined.

Most of these channels above the Thirumanilayoor channel have got masonry anicuts of the usual skew type with cyclopean masonry. They had a main body wall and masonry apron on the downstream side. The channels take off at the flanks

Table 1: Amaravathi Old Ayacut in 1960

S. No	Name of Channel	Dam length in feet	Cusecs	Length in miles	Irrigation in acres
1	Ramakulam	Within dam	30	6.1.440	1384
2	Kallapuram	At the dam	30	7.0.230	1450
3	Kumaralingam	672.00	40.00	9.6.000	1259
4	Sarkar Kannadiputhur	300.00	20.00	7.1.000	661
5	Cholamadevi	720.00	27.00	4.2.000	580
6	Kadathur	748.00	55,00	7.2.000	1171
7	Kaniyoor	580.00	17.32	5.0.000	390
8	Karatholuvu	Natural rock	37.00	7.6.000	625
9	Alangiyam	750.00	50.75	7.0.000	1054
10	Dalavaipattinam	440.00	50.00	7.0.220	932
11	Dharapuram	650.00	105.00	15.0.000	2417
12	Kolinjivadi	1283.00	130.00	10.5.000 4.5.000	3227
13	Nanjai Thalayur	779.00	18.50	6.1.330	494
14	Chinnadharapuram	1468.00	70.00	13.1.000	1878
15	Sundakkapalayam	743.00	10.80	4.5.640	292
16	Nanjaikalakurichi	910.00	20.00	6.2.390	396
17	Pallapalayam	1830.00	110.00	16.6.330	3623
18	Thirumanilayoor	Korambu	30.00	10.4.000	911
19	Karurpalambapuram	Korambu	35.00	9.7.000	1093
20	Sanappiratti	Korambu	20.00	5.0.210	464
21	Puliyur	Korambu	45.00	7.5.380	1370
22	Koyampalli	Korambu	30.00	5.1.530	946
23	Kattalai	Korambu	60.00	6.7.165	1755
24	Manavasi	Korambu	20.00	6.0.000	577
25	Mayanur	Korambu	15.00	4.5.330	415
	Total		**1076.37**	**201.1.235**	**29364**

Source : A Tamil pamphlet giving details of Amaravathi basin development, published probably in 1997-98. I added the totals. Author and publication details are not available in the pamphlet.

above the anicuts through open head channels. Drainage water from these channels and the old ayacut again enter the main river. The old irrigation system was an anicut system, i.e., there were only diversion works which enabled diversion of available flows in the Amaravathi river into the channels for irrigation to the command under the channels. There was no possibility of storing any excess water in the anicut for future use.

The river receives water both from north-east and south-west monsoons. Both monsoons supply about equal quantity of water to the river. However the north-east monsoon gives relatively more benefit to the farmers in the Amaravathi basin. The catchments area of the main river, Amaravathi, lies in the eastern side of western ghats in Anamalai-Valparai-Munnar area. Its tributaries such as Kodaganar and Nalkanchi originate in the Kodaikanal and Palani ranges, which also lie in the eastern side of western ghats.

The cropping pattern followed along the Amaravathi river basin was traditional. In the narrow strip where channel water was used for irrigation, two crops of paddy were raised. In the lower reaches, in the 'thalaimadais' – that is, head reaches of channels – a few farmers would raise annual crops such as banana or 9-10 months crops such as turmeric.

In a few patches another annual crop - Korai - was cultivated. These long-duration crops depended on regenerated water from the river in summer seasons. In the non-irrigated, rain fed areas, long duration spread variety groundnut was the preferred crop in the upper reaches, usually sown in the month of 'Adi' – (July-Aug). In the lower reaches it was the preferred garden land crop. In the Nanjai-wet lands, it was sown as a second crop instead of paddy. In the lower reaches, it was an irrigated crop. In most dry lands in lower reaches, Varagu, Cholam, Cumbu, Narippayir, Kollu, and pulses were raised. Sowing multiple crops such as cholam, castor and pulses on the onset of northeast monsoon was common. These crops would mature in different periods, and harvesting of one crop would follow the other in succession.

Amaravathi is a relatively narrow river. Its width was less than 50 metres near Udumalpet, less than 100 metres near Dharapuram and about 200 metres near Karur. However, a flood following the bursting of Kodaganar dam in 1977 has widened the river by more than 50 metres below Chinnadharapuram till it merges with Cauveri. Before independence, till about 1970, floods were a common feature in the river. The water flow was heavy. Even though the river was narrow, use of 'Parisal' (leather boat) was necessary to cross the river, especially between Sep. and Dec.

The most important festival celebrated along its course is the Mari Amman festival in May at Karur, an important textile town situated at the tail end of the river, about 10 kms upstream from Thirumukkoodalur. On the last day of the festival, the wooden plank representing the presiding deity would ceremoniously be submerged in the river water. Old timers still recall that there never was a time when there was not enough flow in the river for the submergence to take place in pomp and glory. [But in the past few years, it is pumped water that is used for this purpose. The river was dry below Chinnadharapuram for eleven months in2002. Purchased water brought in tankers was used for immersing the Kambum in the summer of 2002.]

SECTION III

DEVELOPMENTS DURING 1947-1960

The proposal to construct a dam across Amaravathi was mooted in the first decade of 20th Century. A brief narrative about the history of the reservoir is given in the following section. The famine in Udumalpet, Palladam and Dharapuram taluks in 1938-39 caused renewed interest in building a dam across Amaravathi near Udumalpet. In Aug.1946, the then PWD minister and the Chief Engineer, Irrigation of Madras State visited the affected areas and ordered a fresh investigation for the construction of a reservoir. The investigation took place during May, 1947 to Dec. 1948. A proposal was made to construct a reservoir half a mile below the Kombu forest bungalow. A 34miles, 7 furlongs and 200 feet long main canal was also proposed, which was to newly irrigate 15000 acres, 10710 acres in Udumalpet taluk and 4290 acres in Dharapuram taluk. The Main Canal bound the area proposed to be irrigated on the one side and the Amaravathi river on the other side.

However the ryots of Dharapuram taluk objected to this proposal. On their representation, Government ordered that the new ayacut of 15000 acres should be equally distributed between the two taluks of Udumalpet and Dharapuram. The scheme was accordingly modified. As a consequence the length of the canal was extended by more than five miles to nearly forty miles. According to the proposal, 7500 acres of wet crops and 7500 of irrigated dry crops were to be irrigated by the new canal. The reservoir construction began in 1953.

Two major changes took place immediately after independence in Chettipalayam, both of which had major impacts on the irrigation pattern of the Amaravathi basin.

The first was the decision by the then Madras government to construct the above-mentioned dam across Amaravathi river near Udumalpet. The elite among the lower riparians, including the Chettipalayam landlords, were very concerned about this. They were afraid that their riparian rights would be lost and adequate water would not flow in the river after the construction of the dam. Their contention was that the Amaravathi channels in Karur taluk were receiving insufficient water even then, that they had made several attempts to augment the supply by linking with Cauvery and Bhavani rivers but in vain, and that the construction of a dam and digging of a new channel at the upper reaches would definitely reduce the water flow to the tail end channels. Thiru. M.R. Rajagopala Iyengar, then Member of the Irrigation Board, who hailed from Melappalayam near the tail end of Amaravathi, Thiru P.A.Rangachari, an Andankoil landlord with lands in Pallapalayam, Thiru D. Subramanya Aiyar of Thirumanilayoor, Thiru Kolandaivelu Pillai of Koyampalli, Thiru P.Subbaraya Gounder and Thiru C.S. Sundara gounder of Chettipalayam and a few others went around the tail end villages to meet the leading landlords and to form the ‘Karur

Division Amaravathi Ayacut Agriculturists Association' to safeguard their traditional rights.

The second was the replacement of Kavalais in the Thirumanilayoor channel by diesel engines by two Chettipalayam landlords in 1948-49. They managed to get permits to do so from the District Collector, Tiruchirapalli. This caused a scare among the lower ayacutdars in the channel that others would also do so, which would reduce the amount of water flowing downstream in the channels.

Both these changes had profound impact on the Amaravathi irrigation system itself.

The Construction of Amaravathi Reservoir: History

On the day of the commencement of the construction of Amaravathi dam on 10 Dec. 1953, the Special Chief Engineer for Irrigation, Thiru. A.R.Venkatachari, in his inaugural address, has given a brief history of the Amaravathi dam. I am reproducing it below:

"4. 1) The idea of building a reservoir on Amaravathi is an old one. The earliest preliminary investigation of a reservoir project on Amaravathi at the foot of the hills near Kallapuram was done about the year 1901. A more detailed investigation was ordered in 1902. This investigation was discontinued shortly after it was started as it was considered that sufficient data was not available. In 1905, however Colonel Ellis, R.E., who prepared the estimates for Mettur Reservoir Project prepared a scheme for the Amaravathi Reservoir Project. This Project was considered by Government but it was abandoned in 1913 as it was thought that a reservoir on the Amaravathi would be expensive both due to heavy compensation and the necessity for providing for large surplus discharges."

"4. 2) Again, on the representation of the Secretary, Amaravathi Agriculturists' Association, Kolinjivadi, another investigation was ordered in 1918. This scheme also was abandoned in 1921 in view of the low return. In 1940, after the famine in Palladam and Dharapuram taluks, the necessity of conserving supplies in the river by a reservoir project and utilising the same for stabilising the existing supplies in river channels as well as for new areas was more than ever keenly felt. The then Hon'ble Minister for Public Works and the present Chief Engineer visited the affected areas in August 1946 as a result of which a fresh investigation was sanctioned. This investigation was started in May 1947 and completed in December 1948. The scheme was later ordered to be revised by Government. This revision which involved another investigation was also done. The estimate as modified was sent up to Government in February 1951. "

"5. The Amaravathi Reservoir Project as now approved consists of a storage reservoir across the river near the foot of the Western ghats were the Project is now

being inaugurated. … The river drains an area of 324 sq. miles at this site. … The dam will be about 3,715 feet long, 2,475 feet being in the shape of an earth dam, the balance of 1,240 feet being in masonry. In the masonry portion there will be an overflow section over the river bed 370 feet long and a non-overflow section 870 feet at both ends of the overflow section. The storage capacity of the reservoir now proposed is about 3,000 m.c.ft. and there will be sluices in the dam both for old and new irrigation."

Agitation against the Construction of Amaravathi Reservoir

While the investigations for the construction of the dam was going on in 1948-51, the lower riparians were organising protests against the construction of the dam. As already mentioned, an association was formed for this purpose which vigorously pursued a campaign among the elite of the region to rise up and protect their riparian rights, which they were afraid would be lost once the dam is constructed. On 17th Dec. 1950, a delegation of the lower ayacutdars of Amaravathi river met the then Minister for Public Works, Thiru. M. Bhakthavatsalam and presented a 'Memorial'. Among other things, the memorial stated that the lower ayacutdars suffered scarcity even then, and had taken steps or requested for steps to get Cauvery or Bhavani waters to flow into the tail-end region of Amaravathi to supplement its flow. To quote,

"(a) For this, a leading Mirasdar, some seventy years back, started excavation of a channel to carry Cauvery water to be drained into Amaravathi to subsidise the lower Ayakut. This, the Hon'ble Minister has personally seen as "The popular Mudaliar Channel".

"(b) To carry out a canal under Lower Bhavani Project to discharge its surplus into Amaravathi".

"(c) To have a reservoir at Kodaganaar, a main tributary of Amaravathi."

"(d) To raise the Anaipalayam regulator to conserve more water to be utilized at the drought season".

"Without considering any of these schemes for the lower Ayakut, a scheme is now suggested to construct a Reservoir at the head and to give more facilities to Coimbatore District at the head itself."

The memorial also stated that: "cultivation in the Amaravathi tract commences by 15th May and closes by 15th February. The river has its flow only by the North-East monsoon and hence, we customarily raise food-crops as ragi or groundnut in the first portion of the year when we get poor supply by the South-West monsoon. During the North-East monsoon, when we used to have good flow in the river, we raise

paddy crop only once, between August 15th and October 15th, and this crop is to be watered till February 15th".

The 'memorial' concluded by requesting the Minister to issue and notify that their riparian rights would not be disturbed on any account and that their right to have top priority to Amaravathi waters to their Ayakut at the tail-end was established. They should be entitled to have first preference during the time of drought to that of the proposed additional ayakut.

Charles S. John, Collector of Tiruchirapalli, responded on behalf of Government by his R.C.A5/24640/50 dated 30-3-52 which stated: "The representationists are informed that the proposed Amaravathi reservoir project will not affect the supplies to existing irrigation under the river lower down in Karur and Kulithalai taluks".

The lower riparians continued to insist on protecting their rights, in spite of the assurance to them by the District Collector. According to unverified information, a civil suit was filed by Melapalayam Rajagopla Aiyangar on behalf of the Amaravathi Ayakut Agriculturists Association to get an injunction against the construction of the dam because of the possibility of lower riparians losing their traditional rights. The then Chief Minister, Rajaji, is reported to have given an assurance in the legislature that their rights would fully be protected. On that assurance, the civil suit is said to have been withdrawn. [This is subject to verification from Legislative Assembly records.]

While the protest against the construction of dam was going on, the second major change I had mentioned earlier, took place in Chettipalayam. The river had large and deep sand cover below Chinnadharapuram. The sand cover was 10 to 40 feet deep. This sand absorbed part of the river flow. This portion was regenerated gradually through the year as surface flow downstream. All along the riverbed, depending on the depth of the sand cover, substantial amounts of water were available in subsurface aquifers. Even in the dry season water always flowed in the river, though in a trickle. There were deep pools along the river especially where small streams and velladharais - watercourses carrying rainwater – merged with the river. In critical years, the meagre supply in the river together with the regenerated water was diverted to channels and was used for irrigating the crops, especially when the crops had matured and needed only one or two irrigations. The Vaikal Maniagar would ration the water among the ayakutdars on those special occasions.

For a very long time Chettipalayam had been using river water for its irrigation mainly through its Thirumanilayur channel flow. As explained earlier, the land between the channel and the river received direct flow; and the land that was on a higher elevation of the channel received lift irrigation. Because the available power in those days was limited to animals or human muscle power, the area irrigated by the

channel water was also very limited. Assuming that a pair of bullocks developed 3/ 4 to 1 HP and human beings generated 1/4 to1/3 horsepower, the lift irrigation potential was very low. Defying gravity was very difficult using animal power alone. Further the British Government was very careful not to allow more than two Kavalais for a Pattaholder. Any illegal irrigation was carefully monitored and severely punished. The Vaikal Maniyagar and Neerkandi were respected persons. They wielded their power fairly and without fear. The net result was that a width barely 100 meters from the higher elevation side of the channel could be irrigated with channel water using lift irrigation In other words one could mentally draw up a boundary of the irrigated area of the hamlet as lands about 100 meters east of the channel plus all the lands west of the channel receiving surface flow of channel water through sluices. The length of Thirumanilayoor channel is only 10.5 miles or 17.4 kms. The strip of land between the river and the channel is narrow for the first four kms. Then it widens and when it reaches the 10th km. the channel divides itself into two – one going to Thirumanilayoor and the other to Rayanoor. In both these branches there were no kavalais. Only up to the 5th km, there were Kavalais. After that the channel water was used for irrigation only through surface flow. Thus the Kavalai irrigation area in the entire Thirumanilayoor channel was limited to 5kmsx100ms=500000 sq.metres or 0.5 sq.km.

Though electric and diesel pump sets were introduced in Tamilnadu before Independence, especially in Coimbatore district after the Pykhara power generation, they were not very popular. Only after Independence their usage became widespread. In the early days it was stated that there were fears that the water passing through the pump sets would become hot and reduce the yields of the crops. This prejudice due to ignorance might have been a dampener for the introduction of mechanical power into agriculture in those days.

Nevertheless, after Independence this prejudice was slowly overcome. In Chettipalayam in 1948-49 Thiru. C.R.N. Brothers and Thiru C.S. S.'managed' to get permits to use 7.5 HP diesel engines in replacement of the two Kavalais permits they each had in the Thirumanilaiyur channel to irrigate their lands. The then Dt. Collector of Tiruchirapalli, an ICS officer, was a family friend of them and had excellent relations with them. He is supposed to have received moral and material support from one of them during his student days. When he was approached informally for a 'permit' to use diesel engines in place of the traditional kavalais, he is reported to have told them that he would gladly do anything for them which is not illegal. He checked with the revenue department rules and found out that it was exclusively within the discretion of the Dt. Collector to issue the permit and that the rules were silent on the whole issue. So he asked the two landlords to give petitions requesting permits to use diesel engines in place of kavalais directly to him. He issued orders granting their request.

The then Vaikal Maniagar, Thiru. Subramanya Ayyar of Thirumanilaiyur, was totally taken by surprise when this information reached him. The permits were issued without any notice to the Vaikal Maniagar. He wrote his protests to the revenue department but in vain. The leading ryots in the other channels downstream were also concerned about this development. They also voiced their protests, but that did not have any effect.

Electricity came to the village only in 1958. In that year the two diesel engines of those two landlords were replaced by electrical pump sets. Till 1958 no other permits for using mechanical pump sets in the Thirumanilaiyur channel were issued. Those two landlords did not use any pipelines for irrigating their lands, through water was lifted by mechanical means from the channel.

Meanwhile, another development took place which ended the Kudimaramath system of channel maintenance in Thirumanilayoor channel. Following GO Ms. No. 2272(P.W.D.) dated 18th June 1949, the Chief Engineer for Irrigation, Madras, took over the responsibility for repairs to irrigation works to be undertaken by kudimaramath by ryots under Madras Compulsory Labour Act, 1858 in respect of channels supplying more than one village and having an ayakut of more than 1000 acres. By RC.No. 15971/48 dt. 15-11-1949, the then Dt. Collector, Tiruchirapalli gave full concurrence to the taking over by the E.E. – PWD of Chinnadharapuram, Thirumanilayoor, Puliyur and Koyampalli channels in the Amaravathi river basin. This, I believe, spelt the doom of the dominance of the Vaikal Maniagar in the channel maintenance and control.[1]

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1 A little digression : Thiru D. Subramaniya Iyer – Vaikal Maniagar died in 1951 or 1952. He commanded a moral authority which made him a respected and feared figure. I do not know whether his was an honorary or paid post. During his regime, when water flowed in the river, he decided how the canal water would be used. When the canal flow began to fall, he announced and enforced a tight rationing system of water distribution. The sluices and the Kavalai mouths were sealed with mud seals after the prescribed hours of use. A special seal was impressed on mud which was used to plug the sluices of Kavalai months. Periodic unannounced inspection on horseback to oversee whether any seals were broken or any unpermitted lands had been irrigated were undertaken by him. After him the moral authority simply disappeared. The Brahmin landlords, who were dominant till then both in Thirumanilayoor and Andankoil across the river, lost influence and power. Most of them sold their lands between 1950 and 1980 and went to urban places. After 1960, both on the Thirumanilaiyur, and also in Pallapalayam channel flowing on the other side of the river, violations of canal rules with impunity became common. But I understand that even now in Parambikulam - Aliyar project and lower Bhavani project canals the laskars still perform their functions efficiently. Even there, ingenious methods are used to draw more than the prescribed quantum of water from the canals. One such method was to use a submersible motor inside a well situated adjacent to the canal, and to let in the delivery hose inside the flowing water in the canal. Then the motor would be started and run for a few minutes. Water would flow out of the well into the canal. After that the motor would be stopped. Now the entire delivery and suction system would get reversed and the system would, in effect, turn into a siphon system. The water in the canal which flows in a higher elevation would be drawn into the well which would be in a lower elevation. The system would work and canal water flow into the well, till the levels became equal.

Even though there were differences among them about the installation of diesel pump sets in channels, the ryots of the Karur Division Amaravathi Ayakut Agriculturists Association were united enough to continue their protests against the construction of the Amaravathi dam. On 10th Dec. 1953, the Amaravathi dam construction began in Kallapuram, Udumalpet.

In his inaugural note, the Special Chief Engineer for Irrigation stated:

"7.2. Fears had been expressed by some ayacutdars at the tail end of the Amaravathi in the Tiruchirapalli district that the scheme might affect normal supplies to them. I would like to take the opportunity to assure them that their interest will not be affected, as part of the storage in the reservoir is intended to stabilise the present supplies to the existing ayacut. This will be done through the river sluices of the dam."

Even this assurance did not satisfy the Karur Division Amaravathi Ayacut Agriculturists Association. The next day, they gave a memorandum to the Special Chief Engineer at the dam site itself in which they had stated:

"6. It may be well defined in the scheme report, well planned for the construction, deeply thought over before designing, but what we now want is only a Government guarantee protecting our riparian right and let us know the design and plan under which the present scheme has been chalked out and how and on what basis the water is going to be let out from the reservoir to our Ayacut." They further added: "UNAUTHORISED OIL ENGINES AND BAILING STANDS"

"7. In addition to the above proposed new Ayacut, number of new persons are taking water from Amaravathi by means of Oil Engines and bailing stands to irrigate Punja lands. Most of the persons have not obtained any permit to take the Amaravathi Water. On account of this innumerable engines and bailing stands, we the registered Ayacutdars are not having sufficient water for our compound wet lands. In spite of our repeated representations to the higher authorities we find every day new bailing stands and engines cropping up in Amaravathi River and its channels."

The lurking fear and suspicion of the lower riparians that their original right to get irrigation for two crops from Amaravathi river annually would be lost after the construction of the reservoir continued through out the period of construction of the reservoir.

The reservoir was completed in 1958. The storage capacity was about 4,000 m.c.ft. The Amaravathi Main Canal was to irrigate 15000 acres. Due to the agitation of lower ayacut holders, cropping restrictions were placed on the AMC ayacut. Only 20% was to be wet, and the other 80% could be cultivated with irrigated dry crops, that too for one season only. There were sluices in the dam for both old and new irrigation. The expectation then was that the reservoir would get filled up three

times a year with normal rains. After the construction of the reservoir, the irrigation system under the old ayacut was converted from an anicut system to a reservoir system. The excess natural flows in the river over and above the requirements of the old ayacut were to be impounded in the reservoir. Whenever the natural flows in the river were inadequate to meet the irrigation requirements of the old system, supplemental irrigation supply was to be given to the old ayacut from out of the impounded water.

In the very first year in which supplies were released from the reservoir, the fears of the lower ayacutdars that there might not be enough water in the reservoir for both new and old ayacutdars to share proved to be correct. The north-east monsoon failed that year, and the reservoir did not get filled up to the full. Crops in Karur area began to wilt. On the representation by the lower ayacutdars, a telegram was sent by the Dt.Collector, Tiruchirapalli to the Exe.Engineer, Amaravathi division of PWD on 30-9-1958 requesting further release of water. The Exe. Engineer responded by his No.165 Rev. dt. 3-10-1958 increasing release from 400 cusecs to 500 cusecs a day.

The letter of Thiru T.N. Lakshminarayanan, IAS, Dt. Collector, Coimbatore to Thiru. Ghulam Mahmood Badsha IAS, Dt. Collector, Tiruchirapalli in Dec. 1958 (date is not clear; Rc.C. 58959/58-A.2) stated that the position in Amaravathi reservoir was very precarious due to the failure of north-east monsoon and that it would be better to think of “Murai” (turn) system. Meanwhile he was arranging for the closure of all the channels in Udumalpet and Dharapuram taluks and the release of 500 cusecs of water from the Reservoir for the use in Karur taluk for two days. This is the first suggestion for a turn system of irrigation in this basin.

Further complaints culminated in sending of a report from Thiru K.R.Srinivasan, Tahsildar, Karur dated 8-1-59 (RC. A1. 30766/58) to the Dt. Collector, Tiruchirapalli mentioned the total extent of standing crops in Karur and Kulitalai taluks (Table 2).

Table 2: Standing Crops in 1958-59

S. No	Name of crop	Total Extent Karur Taluk	Total Extent Kulitalai Taluk
1.	Paddy	6915.20	1975.58
2.	Sugarcane	985.74	475.77
3.	Turmeric	535.08	5.67
4.	Plantain (Banana)	417.52	0.53
5.	Cotton	82.24	4.41
	Total	**8935.78**	**2461.96**

It mentioned that there was dearth of supply in the river, and "(A)t least two or three more wettings are absolutely essential for the crops to mature. Further supply like this may kindly be arranged." The report appended a statement showing the extent of standing crops as on 1-1-1959 in the ayacut lands of Amaravathi channels in Karur and Kulitalai taluks.

In the very first year of the opening of the reservoir, the problem of sharing the waters between upper and lower riparians had started.

The Chief Engineer (Irrigation) in his Memorandum to the Board of Revenue No.580 J2/59-60, dated the 7th April 1960 proposed the tentative rules of regulation of the releases of Amaravathi reservoir waters, in which he had specified the releases to be made in the Ramakulam and Kallapuram channels also. It is not known whether these tentative regulations were ever accepted or implemented.

Tenancy and the Duty of Watering Crops

Chettipalayam landlords had surface irrigated wetlands in the Pallapalayam village lying in the opposite bank of the river. There the common practice then was to pay a customary payment in kind – usually two bags of paddy per 'Kani' – [about one and one third acre] to the 'watering man', whose specialised job was to let out channel water from the sluices to the farmer's fields. These 'watering men' were mainly from Pallar community – a SC group – from the Pallapalayam village, though a few higher caste men also were performing this task. In the 1950s when tenancy protection legislation was enacted, the 'watering men' claimed that they were tenants and should not be evicted. The Brahmin landlords of Andankoil were the most affected in the beginning. Being a minority, they were unable to organise any resistance to the claims of the 'watering men' which became more and more exorbitant with the passage of years. But the gounder community, the dominant community of this region, began to resist their claims. Using the community network, they managed to get the 'watering men' of other communities to their side. What was originally a class conflict became, in effect, a caste conflict. This conflict was gathering momentum in the late fifties.

SECTION IV

DEVELOPMENTS DURING 1960-1980

Caste Conflict over 'Watering Men' Issue

The caste conflict over the issue of the rights of 'watering men' intensified and reached a climax in 1962. The upper caste men were organised under a retired Deputy Superintendent of Police. A violent struggle took place in Pallapalayam village. Men were injured in both sides, but the SCs suffered more. The upper castes had better leadership, more influence and more resources. Court battles followed, which ended mainly in favour of the upper castes.

One of the immediate results was that the Brahmin landlords began to sell their lands. They were afraid that they could not continue as absentee landlords or even as supervisory landlords. Many of them had their families in urban centres. Many marginal and small landholders from the gounder community purchased their lands. A large amount of land transfer from Brahmins to others took place in the 60s and 70s.

Extension of Irrigation in Amaravathi Basin

In 1960, the irrigation in Amaravathi basin consisted of:

- lands in the direct command of the dam – 15,000/- acres, of which 3,000 acres were wet lands and 12,000 were irrigated dry;
- lands in the direct command of old ayacut channels – 32,000 acres of double crop wet lands;
- lands in the old ayacut channels which were located at a higher elevation and for which water had to be lifted up; and
- dry lands for which water was newly pumped directly from river.

In 1960, the lands in the fourth category were negligible.

After 1960, in the AMC area there was wilful disobedience of the order that only 'irrigated dry crops' should be raised in 80 per cent of lands. Simultaneously in all the areas below the reservoir water began to be pumped directly from river and the area irrigated by that source has increased considerably. The AMC runs parallel to the river for more than 50 kms. In that region, most farmers found it expedient to employ the pump set-pipeline technology (described in the following section) to draw water from the river directly rather than to employ it in the canal where the resistance from lower ayacutdars would be much stiffer. The area under direct command of old ayacut channels with surface flow has remained stagnant. The area for which water was lifted or pumped from the old ayacut channels declined. The reason was simple. In the channels, water flowed only for a few months. But in those days when sand cover was abundant water could be tapped from the river throughout the year. So, even those who originally installed electric or diesel pump sets in the channels shifted them to the river in the subsequent period. In the immediately following section, I will take up the issue of direct pumping of water from the river for more elaboration.

Pumping of River Water Directly to Fields Lying in Higher Elevation

Sometime between 1958 and 1961, C.S.N. in Chettipalayam, inspired by what was happening in the Cauvery belt in Thanjavur area, sank a filter point well in his wetland lying between Thirumanilaiyur channel and Amaravathi river, installed a diesel pump set in it and connected the same to a siphon system to irrigate 7 acres of dry land located at a higher elevation across the channel. The filter point located in patta

lands was used till he got an electricity connection. Since the supply of water from the filter point was insufficient, the river water was brought into the patta land by a narrow ditch and was directly pumped into the siphon system. This was the first time river water was directly used to irrigate lands located in higher elevation in the Chettipalayam hamlet. This was not legal. There was no Vaikal Maniagar to monitor such activities. The PWD officials were either unaware or did not care to stop it.

The siphon system was an inefficient and costly mechanism to pipe water over long distances. A better mechanism was experimented with and was used in the Cauvery belt in the 1950s.[1]

In 1962-63 Thiru C.S.Si, son of Thiru C.S. S. installed a 15 hp. electric pump set in the well, directly linked it to a pipeline nearly 1½ Kilometres long to irrigate 47 acres of what was previously dry lands. Then he linked the river water to his well by a pipeline which traversed under the Thirumanilaiyur channel. He was not abstracting channel water, and so villagers in the lower sections of the channel did not immediately complain. Thiru Mani was employed as the maistry, and he manufactured the pipes locally. Laying the pipeline from the river to the well under the channel was not legal. However no official took note of it. In the irrigation scenario of Tamil Nadu, the combination of diesel / electrical power and laying of cement pipelines had brought about a remarkable transformation.

His was a remarkable act in the history of this hamlet. In place of the traditional kavalai, mechanical irrigation was used. Diesel pumps and electrical pumps were relatively more powerful. More water could be pumped through mechanical means. So the limitation of roughly about 100 meters in the higher elevation side of the canal which alone could be irrigated through ‘kavalais’ was broken. Kavalai can lift water form the canal to an elevation of roughly 10 to 20 feet. But diesel and electrical pumps could lift water up an elevation of even 70 or 80 feet and push it further. So

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1 In the early 1950s, Thiru. K. S. Periasamy Gounder of Kuttapalayam in the Cauvery belt employed direct pumping from the river through a cement pipeline to irrigate his fields. Kuttapalayam is located between Kodumudi and Erode along the Cauvery River. He trained a maistry, Thiru. Mani, in making and laying pipelines. The delivery of the pump set was directly linked to a pipeline, which had air vents at regular intervals. This method enabled water to be carried over long distances, to higher elevation also. In other words this system broke the barrier of defying gravity which limited the extension of irrigation to higher elevations.

During Kamaraj rule, Thiru.O. K. Ramasamy Gounder of Thirukattuthurai, near Thavuttupalayam, (lying the opposite bank of Cauvery to Velur, Salem) started the first cooperative direct pumping scheme to draw water from Cauvery river. The shareholders were given water according to a regulated system of hours of pumping. The cooperative society determined who among the shareholders got what amount of water and at what cost. The then Tamilnadu Governor inaugurated the scheme. This cooperative scheme carried water along a 2 Km stretch of pipeline and brought nearly 1½ square miles of dry land located at a higher elevation to the river to wet cultivation. This, probably, was the first major attempt at bringing a large amount of land lying along the river a few kilometres away from the river bed on a higher elevation to get irrigation.

this enabled more lands lying above the level of the channels to be irrigated by mechanical means.

This was greatly assisted by the use of cement pipes. By 1960s, farmers had learnt that direct pumping through a pipeline could carry water for long distances even if they were on a higher elevation.

In the early days, bringing new fields for cultivation was tough job. Water had to be let into a particular land. Then it was puddled, ploughed and levelled using animal power. It took a long time and demanded more resources. But after 1970 tractors and earthmovers were used for levelling of fields. This reduced the time needed to prepare the field for wet cultivation. Another fact which helped was the changes in the system of organization. In the 1950s tractors and earthmovers had to be hired for a full day, if they had to the brought to the village. But by 1970s they were available for hire on per acre or per hour basis. In other words, what was an indivisible input became a divisible input by 1970s. This enabled even small farmers to hire tractors and earthmovers for levelling their fields. The combined effect of these developments was that the lands which were located on a higher elevation from the river or channel could receive water provided resources could be spent for that purpose.

Soon others in this region began to imitate the method of C.S.Si. This type of extension of irrigation happened both in the Cauvery and Amaravathi rivers throughout the 1960's. Very soon this method began to be adopted in all the major rivers of Tamilnadu. The most important feature was that water was abstracted directly from the river, and not from the channel. This water was pumped by mechanical means (diesel engines or electric motors) into a pipeline which carried the water to higher elevations and longer distances.[2]

However, after a few years, the lower ayacutdars in the Thirumanilayoor channel from Thirumanilayoor and Rayanoor started objecting to the extension of irrigation by pump set – pipelines by Chettipalayam landlords. A clash ensued between the upper and lower riparians in 1967, in which many upper riparians were arrested. However, the lower riparians could not succeed in their efforts because (a) there was no direct loss – tapping did not reduce the channel water to them from the channel;

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2 Before 1960 there were very few manufacturers of cement pipes. Hume pipes, manufactured by Hume and Company in the 50s, were concrete pipes celebrated for their quality. They had many branches in Tamilnadu. They were manufactured with reinforced concrete and were costly. In big towns there were a few manufacturers of cement pipes and the quality was poor. But after 1960's the demand for cement pipes increased enormously. Manufacturing of cement pipes became a cottage industry. Today there is hardly any place in Tamilnadu where cement pipe manufacturing is not undertaken. This enormous demand for cement pipes was mainly due to the demand from agriculture. Places like Chinnadharapuram along the Amaravathi river have become localized centres with more than 50 companies specializing in the manufacture of cement pipes.

and (b) there was no unanimity among them – some of the Thrumanilayoor and Rayanoor landlords themselves were planning pump set-pipeline irrigation for their lands. It was also affected by the caste colour given to the conflict. Most Thirumanilayoor brahmin landlords were not willing to support the SC men who were leading the agitation. As a matter of fact, most of them were selling the lands to the gounders, who were mainly supporters of the pump set-pipeline extensions.

Direct tapping of river water for irrigation to lands which were not on the river banks was probably made possible because of the disappearance of the local monitoring by Kudimaramath led by Vaikal Maniagars. The PWD authorities did not have any personal interest in preserving the original riparian rights. This direct tapping increased the discretionary powers of revenue and PWD authorities, giving them enormous opportunities to engage in rent seeking activities. This probably induced them to turn a blind eye on this non-legal tapping of river water.

In the Tiruchirapalli Dt. Gazette dated 18-4-1968, the Board of Revenue notified that the old ayacut areas would be subjected to betterment levy because of the construction of Amaravathi reservoir. Accordingly orders the Authorised Officer (S.Ramakrishnan IAS) issued orders by his Rc-A. 10. 14495/7 dated 3-8-1972 imposing the levy.

In the past it was not uncommon for farmers in lands adjacent to the river to draw water from the river as a supplemental source of irrigation in critical times to save a crop which had almost matured. They were penalised for unauthorised use of the water by 'water rate', which was usually multiples of 'kist' or land tax. The village munsiff collected this water rate along with kist. Since they could use only muscle or animal power to lift water in those days, the land thus irrigated was a small piece and the 'water rate' generally was twice or thrice the kist rate.

Pumping water from government authorised sources of water by mechanical means created a totally new situation. The village munsiffs and revenue authorities used their discretion to determine the quantum of penal rates. The maximum penal rate was said to be twenty times the kist rate. As mechanical means to pump water was too openly used, the village munsiffs imposed the 'twenty rate'; but they could show favour to the particular farmer by including in the village accounts only a portion of the area of land actually irrigated. That is, if the farmer irrigated twenty acres of land with motorised pump set, the village accounts showed it as ten acres. In the village records, the area thus irrigated through government sources of irrigation are entered in No.6 Account. More often than not, the actual area irrigated with river water would be greater than what was shown in No.6 Account.

Another discretionary method used was to substitute in the accounts a dry short term crop instead of the actual long term crop irrigated by motorised pump sets.

That is, instead of turmeric or banana which was actually cultivated, the accounts would show that as cholam or cumbu. If the actual crop cultivated was shown, it would be considered equivalent to raising two crops and water rate would accordingly be levied twice. If a short term irrigated dry crop was shown instead, it would be equivalent to raising only one crop.

The penal levies on unpermitted irrigation were a real burden. However, it was also providing a record about those who extended their cultivation without permits. After a few years of paying the penalty, they would approach the revenue authorities for issue of permit to regularise their illegal extraction of water. Influential farmers got their extensions regularized after a few years.

The others who extended the irrigation organized themselves and appealed to their M.L.A.s for support. Political influence was used to canvass support for legitimizing such extension of irrigation. In the Amaravathi belt, it is reported that all those who had extended their irrigation up to 1971, were regularised by a Government order.[3]

In the 1980s the farmers along the Amaravathi river desired that their unauthorized irrigation up to 1980s should be taken note of and should be regularized. [4] The then Aravakurichi M.L.A. was in the forefront of that movement. The other MLAs from Dharapuram and Udumalpet also gave him support. Unfortunately they could not succeed in getting a fresh G.O. So the Aravakurichi MLA and his organization were reported to have gone to the court to stay the revenue department from levying penal rates. The courts were reported to have given a 'stay' order and that the State should levy only a maximum of `five rates' till the case gets decided. In 2003, the stay has been vacated. However, the agricultural association has gone on appeal to the High Court. There the matter seems to stand till now.

The extension of irrigation by using mechanical pump sets and cement pipe lines brought a large amount of dry lands situated near the river, but on a higher elevation, into cultivation. Lands adjacent to the river or channel now got additional demand. Those who wanted to irrigate their dry lands needed a plot adjacent to the river to locate their pumping stations there. A shallow well would be dug there and a pipeline would be laid from the well to their dry lands. A diesel engine would be installed to

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3 In the Noyyal belt, I am informed, that the fresh cultivation up to 1980 was regularised. This had happened in the Cauvery belt where also those who had paid penal rate for a few years got their irrigation rights regularised by a Government order.

4 The grapevine informed me that a few influential landlords formed an organisation to get the unauthorised irrigation regularised up to Mar. 1980. They collected on a pro rata basis per acre of unauthorised irrigation from the farmers, paid it to the then PWD minister who promised to sign the file next day. Unfortunately for the farmers, the minister was dropped from the ministry by the Chief Minister that night itself. The landlords could not get back the money also!

pump water. Then river water would be let into the well by a little ditch or by a pipeline. The additional area brought under irrigation with river water would be entered into the No.6 Account. An electrical connection would then be applied for, and, after many formalities were completed, would be received, to pump well water. So lands adjacent to river began to be coveted more and got a premium.

In the British days, the lands on both banks of the river were maintained as Purambokku lands. They were known as 'Kuttutkadu' where small timber naturally grew. The Kuttukadu strengthened the banks and prevented their erosion during the floods. From the beginning this century and especially in the 50s and 60s the Kuttukadu lends were encroached upon by landowners who owned adjacent lands or in rare cases, by service castes. When prohibition policy was introduced, Kuttukadus happened to be places with enough vegetation cover to carry on illicit brewing of liquor. So, local villagers did not protest too much against the encroachment of Kuttukadus by adjacent landowners. Political influence and corruption played a major role. Both along the Amaravathi and Cauvery belts, the Kuttukadus simply disappeared.

In the 1970s, the extension of irrigation with river water by pump-set pipeline combination got intensified. Many private parties started laying pipelines to their lands from the riverbed. They would purchase a small plot of patta land – about 20 cents - on the river bank, dig a well, install a diesel pump, link it to a pipeline traversing under the channel, align it along the hamlet's roads, 'velladharais ' and other poramboke lands to take it to their fields. These pipelines could be several kms. long, though in Chettipalayam, the longest would be around 3 kms.

The phenomenal increase in the number of such schemes could be gauzed from an event in the unprecedented floods in 1977. A dam was built across Kodaganar, a tributary of Amaravathi, in the early 70s. Nearly 30 cms. of rain fell in the catchments in one night. Due to negligence, the sluice gates of the dam were not opened. The dam got filled up in one evening, and the earthen flanks of the dam burst in the night. The resulting flood caused havoc all the way up to Tiruchirapalli. Amaravathi river itself was widened by nearly 50 metres below the point where the Kodaganar joins Amaravathi. In Chettipalayam most of the thatched houses were washed away. Seventeen diesel engines were washed away in the two miles stretch of the river in Chettipalayam itself. The sand cover at that time was so deep that twelve of them could not be traced even after the floods abated.

Farmers joined together to form co-operative pumping schemes, for which institutional credit was made available. In Chettipalayam hamlet, the first co-operative pumping scheme with seventeen shares was started in 1979 with the then Thanthoni Panchayat Chairman as its president. It brought river water for irrigation for nearly twenty seven acres. This was the beginning of a process in which many small and

marginal farmers could join together to take Amaravathi water to their lands. In Appipalayam village, two other co-operative schemes came into existence.

Laying the pipeline under the PWD controlled Thirumanilayoor channel or laying the pipeline on the sides along Panchayat roads or even in poramboke lands, should be done only after getting permission from the concerned authorities. But in reality no one did so. No one also really objected. The authorities were silenced by proper inducements.

Getting electrical connections to the pump sets was even more a trickier preposition. For the wells situated within 50 metres from the river, a 'No Objection Certificate' (N.O.C) had to the given both by the revenue and PWD officials. Theoretically the 'No Objection Certificate' is meant only for pumping the well water percolating into the well or deep bore well in the patta lands, but in practice, once the N.O.C. was issued and the electric connection was established, the farmer would dig a little ditch or lay a pipeline directly from the river to the well and draw river water freely. All the concerned officials knew that the intention was to pump river water. However they pretended as if this was not known. This gave enormous discretionary power to the Village Munsiff, Revenue Officials, PWD Officials and the Electricity Department Officials in permitting irrigation rights to fresh lands. Any farmer having the right political connections and willing to spend the right amount of cash could get the NOCs and the electricity connection for drawing river water to his lands. The amount of corruption involved was quite mind-boggling.

Whenever there was no flow in the river, new pump set – pipeline holders began to dig small ditches in the sand cover of the river opposite to their patta lands on the riverbank where their pump sets were located. Water would spring from the sand, flow along the ditches to the pump sets. So any visitor passing along the river in the summer of 1980s would have counted literally hundreds of small ditches of water crisscrossing the river all along its course below Chinnadarapuram up to its merger with river Cauvery.

Throughout the Amaravathi basin, within a period of twenty years, the pump set -pipeline systems added a large amount of land for irrigation. In Udumalpet – Dharapuram belt also, parallel to the Amaravathi Main Canal, new lands were brought under the plough using pump set – pipeline technology. Rights over use of river water was not completely of perfectly specified. It was considered as common property. Landowners having land adjacent to the river spent resources to divert the river water to their fields, unmindful of the consequences on others. There were very little regulation or control. Revenue, PWD and electricity authorities had discretionary powers to regulate that use, but chose to exercise their discretion according to the wishes of their political masters or were willing to 'sell' it for a monetary reward. The net result of over exploitation of its flow was that the river

began to run dry during summer months except during flash floods. River water running in trickle even in the dry seasons became a distant dream. The first time the river dried up completely in Chettipalayam was around 1965, when there was no running water in the river to immerse the `Kambam' from the Appipalayam Mari Amman temple in April. Subsequently, it became a normal feature.

Five Changes

Five major changes took place in the Chettipalayam region between 1960s and 1980s.

- There was a change in the cropping pattern and agrarian relations.
- Karur area became an exporter of textiles and manufacturer of bus bodies. This urban change had a major impact on the village.
- Sand mining in the river, which was going on for long time to meet local construction demand, began to expand rapidly. The river became a major supplier of sand to urban areas as for away as Coimbatore. So the river sand began to disappear.
- The dyeing factories in Karur, which were first started in the 1960s and multiplied later, began to consume large amounts of water and started polluting the channels and also the river adjacent to the villages where they were located.
- The struggle for water both for drinking and irrigation began and gained momentum.

Changes in Cropping Pattern and Agrarian Relations

Old Ayacut Areas

Up to 1965, the traditional cropping pattern continued in the old ayacut areas, including the newly irrigated lands also, with one major exception. Sugarcane became a preferred crop. The sugar mill at Pugalur supplied crossbred cane seedlings. Co-operative societies and banks provided credit for raising sugarcane. This annual commercial crop was the most profitable crop for the average farmer in those days. Of course, it needed regular watering throughout the year. So, only those who had lands in the head reaches of channels, or wells as a supplementary source, raised them. Thiru. C.S.Si planted nearly 20 out of the newly irrigated 47 acres with this crop because he considered that he could recover the huge cost of pipeline construction and levelling of fields by sale of sugarcane. Those who could not send their crop to mills could still sell their cane to 'vellam' or gur manufacturers; or manufacture 'vellam' in the farm itself. The area under sugarcane was increasing steadily throughout the 50s and 60s.

The cropping pattern of the landholders along the river changed drastically after the pump set-pipeline transformation. Unfortunately, there was not enough available flow of water in the river to meet the requirement of new crops. So, more and more,

the farmers depended on the percolation water from sand, which also began to diminish over time.

The changes in cropping pattern came along with the pump set – pipeline combination. Before 1960s, except the direct flow nanjai (wet) lands and a very small area irrigated by the canal through Kavalai lift irrigation, all other lands in our area raised rain fed crops such as Cumbu, Cholam, Varagu, Tobacco, Horse gram and Naripayir. Across the river, in the direct flow nanjai lands, korai was raised in the low-lying lands. It was an annual crop requiring water throughout the year. A few of the Korai lands received water through Yetram in the dry months. It was a profitable cash crop of the region.

After 1960 'korai' disappeared because in the summer months the surface flow from the river disappeared with the pump set-pipeline combination. The rain fed crops were supplanted by jasmine, paddy, sugarcane, banana and turmeric in all the newly irrigated areas. All of them demanded more water. That is, the rain fed crops were replaced by water intensive cash crops. This water had to be mechanically pumped. Unlike the earlier crop, Korai, which received sustenance through direct flow of the trickle of regenerated river water, these crops had to be supplied with water from pump sets.

- Hybrid crops were introduced in the hamlet during the 'green revolution'. As there were more educated peasants in the hamlet, introducing IR8 paddy and short duration groundnut was easy for the agricultural department here. Hybrid cholam, cumbu and cotton were also introduced in the late 60s. All of them had certain common features.
- The durations of the crops were shorter. Conventional paddy such as 'kichidisamba' matured in 160 days, whereas the hybrid varieties matured in 130 days. Spread variety of groundnut was a 160 days crop, whereas the bunch variety introduced was a 120 days crop.
- The yields were higher.
- The input requirements were higher; i.e. more fertilisers, more water and more pesticides and insecticides were required.
- The labour intensity for these crops was also high. Within a short time, the agricultural operations had to be completed.

The circumstances favoured the introduction of the new crops. In the 50s, water started flowing in the river in June following the onset of south-west monsoon. The north-east monsoon in Oct.-Nov. again brought fresh water. So the traditional crop cycle was two crops in wetlands between June and March. But after the construction of dam, water flow started only in July and stopped in January-February. Farmers in the old ayacut tried to squeeze the two crops between July and February. The hybrids

introduced in 1960s became popular quickly. In addition, in the new areas irrigated by pump set-pipelines, the preferred cultivation was of cash crops, mainly to recover their investment quickly. Sugarcane was the preferred crop. But this annual crop required water throughout the year. Others raised two crops of paddy, which helped in levelling the fields in the initial stages. More water was needed for the combined two crops within a short time than in the past. If the monsoons were normal, and there were flows in the river, there was no problem. In the years when monsoons failed, farmers had to spend a lot of resources for digging trenches in the river to draw percolation water from the sand. Agricultural operations such as preparation of land, sowing and harvesting had to be completed within a very short time and the next crop immediately had to follow. Farm mechanisation became inevitable.

To raise the new crops, more labour than was available within the village was required. Even before 1960s labourers from neighbouring villages came to work in Chettipalayam. But after the pump set –pipeline transformation much more labour was required. They came from the different dry villages surrounding the hamlet. The types of work and skill demanded from the labourers also changed. Old established skills such as Kavalai (Water – bucket) lifting, ploughing with drought animals, 'kavan' throwing to scare birds, making ploughs, pari (Water-bucket) etc. became relatively useless or had less demand. Weeding, preparing the land for wet cultivation, and making "Pars"-that is, rows- for planting sugarcane etc. were the new skills demanded. Because of the scarcity of labour, agricultural wages both in money terms, and after a while, in real terms began to rise slowly.

The growth of textiles, dyeing factories, bus-truck body building factories and mosquito net manufacturing in Karur increased urban demand for labour in this same period. Off and non farm employment also began to increase. Employment opportunities in tea shops, cycle shops, as tractor drivers, cart men to transport sand and sugarcane, and for repairs of tractors, agricultural implements, tyre carts etc. began to increase.

A strange feature was the decline of a class of shepherds, who lived in the families of big farmers living and eating there as members of the family. Herding sheep was a 24 hour occupation. Even when sheep were penned they had to be protected from the pack of fox which hid in the Kuttukadu and roamed the hamlet freely in the 1950s. The big farmers had a number of sheep and each big farmer certainly had a shepherd. They had pastureland and raised Cumbu, Cholam and Ragi stalks as cattle feed. Sheep farming was always profitable. But with the new irrigation pattern, the dry lands which used to produce Cumbu and Cholam were irrigated and converted into turmeric of jasmine fields. The wage level began to increase and keeping a shepherd became costlier. Cooking for the shepherd became a burden for the housewife because domestic help, especially girl children, began to dwindle fast after 1970. The net result was that the shepherd class disappeared altogether from the

hamlet by 1990's. However, necessity drove the housewives of the few surviving supervisory landlord households to employ scheduled caste children as domestic help, clandestinely in the beginning, but more openly nowadays.

Cattle rearing was more or less the exclusive of privilege of the rich farmers in earlier days. Now it has shifted to individual small farmers. The drought animal demand for ploughing fell as also their demand for Kavalai. However animal power to pull carts increased because carts were extensively used to transport sand and sugarcane. Individual farmers raised more milch animals. The crop residue from wet lands, especially paddy straw, sugarcane stalks and groundnut plant after harvest were brought in bundles to the individual households by the small, marginal and other labour households who began to raise cattle. Labourers demanded this as a right, and landowners had to concede because of labour scarcity. After 1970's the IRDP loans also helped to intensify this trend.

Fall in the number of sheep and other cattle reduced the amount of farmyard manure available in the hamlet. At the same time, the increase in area irrigated and the introduction of hybrid crops increased the demand for fertilisers. The farmers began to employ more and more chemical fertilisers from this period onwards.

In the late 70s, a young farmer introduced jasmine and rose cultivation to Chettipalayam. He gave up rose cultivation after a while, and concentrated on jasmine. It was raised in twenty acres, and was probably the largest single jasmine farm in this region. Flower had to be picked before 9 am to get high prices. In the peak season more than 300 women and children were employed to pick flowers. His farm attracted labourers from all the neighbouring villages.

The decline of supervisory class of landowners began in this period. Educated children from this class preferred 'office' work. Children who stayed behind in the hamlet were relatively inefficient. The cost of cultivation began to increase in this period because of the introduction of new crops, new methods of cultivation, and extensive application of chemical fertilisers and pesticides and insecticides. The real wages began to creep up because urban demand induced the labourers to migrate towards Karur. Agency problems in managing agricultural land began to multiply because the traditional pattern of management through Pannayals started disappearing.

In this period, the ceiling and tenancy laws were enacted or modified. No family owned lands in excess of the ceiling laws in Appipalayam village. However, the largest landowner hurriedly made a paper partition of his lands among his male children. This became inequitable at a later stage, and the repartition became a complicated issue demanding a large amount of resources. The tenancy protection acts did not affect any family directly. Nevertheless, even those who rented out

lands became very cautious and took extreme precautions to prevent the tenancies from getting recorded.

The 1970's could be stated to have reached a high water mark in farming in the hamlet.

- The area irrigated increased.
- The intensity of cultivation also increased.
- Off farm and non-farm employment was generated and agricultural employment reached a high level.
- Agricultural machinery in the form of tractors and sprayers entered the hamlet's life.
- More annual crops were raised than before.

This period witnessed the clash in the values between traditional and modern cultures. Payment of wages in kind began to decline, and wages in cash replaced them. Contract labour gangs appeared in the agricultural scene. Old established practices began to give way to new practices. For e.g., the cobbler's traditional right to a share in the produce began to disappear because water was lifted with pump sets and not by 'pari' – the leather bucket. There was demand for new skills, especially repair and maintenance of electric motors and diesel pump sets.

One of the effects of the pump set–pipeline combination in agriculture was that lands in higher elevation to the river bank which were nearly 1 to 2 kms away on either side of the river began to receive irrigation. In course of time the water seeped through the ground and slowly began to return back to the river as recharged or regeneration water. So the higher irrigation intensity also helped to regenerate a portion of the water used. The main irrigation period, July to February - was the period when maximum amount of water was pumped to the higher elevation, was also the period when water generally was flowing in the river. This helped to regenerate water in the river, of course -to a lesser extent, in the period between February and June. This was made possible because of the very large sand deposits in the riverbed which acted as a sort of sponge to absorb and retain the water. In the summer months each pump set holder would dig a small ditch opposite to his plot of land in the riverbed. Water would spring and flow through the ditch to the pump set to be pumped for the irrigating the annual crops.

New Ayacut Area in the Upper Reaches

The construction of the Amaravathi reservoir added 15,000 acres of new ayacut by the Amaravathi Main Canal (AMC hereafter). Even in 1960, the lower riparians had started complaining that the area irrigated by AMC has exceeded 15,000 acres. From the very beginning, the new ayacutdars were raising wet crops or annual crops.

The AMC was designed for 80 per cent dry and 20 per cent wet cultivation. The crop period was August to January (Six months) when only the AMC was to be opened. This did not happen. Farmers switched to coconut gardens and sugarcane cultivation. In Dharapuram taluk, sugarcane or two paddy crops became the norm.

Because Ramakulam, Kallapuram and AMC channels originated from the reservoir, the operation of the sluice gates at the reservoir became a matter of great importance. In these three channels, it is reported that exclusive wet cultivation became the norm throughout the 60s and 70s. So the area actually irrigated in the new ayacut area also increased considerably. Pump set –pipeline technology was employed in the river immediately below the reservoir to bring new areas to cultivation. The grapevine information is that politically powerful people began investing their black money in lands adjacent to the river in this region and used their influence to pump river water to their freshly acquired lands.

In the new ayacut areas also, the hybrid crops of the green revolution found favour. Rice cultivation increased exponentially. The spread variety of groundnut was nearly replaced by the bunch variety. Short duration crops replaced the long duration crops. Coconut groves and sugarcane became the preferred long duration crops. Rain fed crops for which that region was famous before the reservoir was built, almost disappeared. A sugar factory came into existence in Udumalpet.

Expansion of Karur

Karur town was transformed by the expansion of textile industry there. The first exports of textiles began in 1960s and the export business grew fast. Bus bodybuilding and manufacture of nylon nets became additional money-spinners. The employment opportunities began to increase rapidly. Urban wages were higher than rural wages. So labour began to migrate to the town. Soon this had its impact on rural wages. In the beginning, it was only male labour which migrated to the town. Soon, the expansion of dyeing units increased the demand for women labourers also. From 1970s, agriculture started losing labourers to industry in and around Karur town.

The increase in the number of dyeing units created enormous additional demand for water for industrial use. Pure water went into the dyeing units and came out as polluted water. The problem of industrial pollution attracted the attention of the Karur municipality in the late 1970s. The municipality banned the location of dyeing units within its limits, forcing them to move to the suburban areas.

Sandcover in the River

When the flow in the river dried up, the sand cover along the river was used as a potential storage to be tapped during summer. Spring water flow would be relatively high in February-March. But gradually the spring water would start diminishing. So the farmers had to dig deeper and deeper ditches into the sand bed to irrigate their

lands. Only when the sand cover is very deep, there is chance for water to flow to pump sets at the height of summer.

Instead of digging long channels, some enterprising farmers began to dig circular wells in the river itself and use round concrete “Vattai” to protect the well from the surrounding falling sand. From the “Vattai” wells, water would be drawn by the pump set. Normally the “Vattai wells” were good enough to supply water for a 5 H.P Motor. A few big farmers laid a pipeline 10-12 feet deep under the sand bed and linked it to a “Vattai” well from where water was pumped to a 10 HP motor. The pipeline was so designed that water along the joints would flow into the pipeline and from there to the well for the motor to pump it.

All these assumed that there was deep sand cover where water would get stored when the river was in full flow. In the summer months there was also regeneration of water which was used to irrigate the lands along the banks in the higher elevation. Till the 1980s it was possible for all the pump set -pipeline farmers to use these methods to irrigate their lands, raising annual crops such as sugarcane, banana or turmeric.

The deep sand cover also helped to recharge ground water table in the entire region around the river. Because sand retained water for a long time, water permeated to the surrounding soil and sank in slowly, recharging the ground water table effectively. This helped the well owners who could get copious supply of water.

Sandmining Business

Sand was mined from the riverbed routinely for construction purposes for a very long time. It was a small-scale industry. In all the major towns along the rivers of Tamil Nadu there were one or two dealers who specialized in selling sand for construction.

The sand contractors got a permit from the District Collector to mine sand from the river under the TN Mines and Minerals (Growth and Regulation) Act, 1957 and TN Minor Mineral concession Rules 1959. The rules stipulate that the contractor should take away sand only up to 1 metre depth from the riverbed. Sand mining necessarily required an access road connecting the riverbed to the town with bridges to cross the channels. Sand mining was going on near Karur at specified points for a very long time. During the next floods the river replaced sand which was mined. Up to 1970 there was absolutely no visible impact on the sand cover of the Amaravathi river due to sand mining. From mid 1970s, the demand for sand increased fast because of the rapid expansion of the construction industry in the entire Coimbatore region. Amaravathi sand was especially suitable for construction and so, lorry loads of sand began to be mined from the river bed.

The Problem of Pollution

In the 1960s Karur area emerged as an exported of textiles. In the 60s and 70s, most of the dyeing factories were located in and around Karur, within a radius of 3 kms. The municipality became concerned about the flow of effluents and began to demand cleaning up of the pollutants. To avoid the concentration of effluents within the Karur Urban area, the dyeing factories began to spread out. They searched for locations where land was relatively accessible and where water was available. They naturally chose the lands adjacent to the Thirumanilaiyur Raja Vaikkal, starting from Kodaiyur in the east bank of Amaravathi and the Pallpalayam Raja Vaikkal starting from Anaipalayam in the west bank of Amaravathi. More and more dyeing factories came to the established in Chellandipalayam, Sukkaliyur, Karuppampalayam, Appipalayam, Muthucholipalayam and Coolinaikanur. They began to allow the effluents to flow along open drains which ultimately flowed into the Thirumanilaiyur Channel. Up to 1980, pollution was not a major problem, because the volume of flow of channel water was large and the amount of pollutants was relatively meagre.

Initially, for the farmers, the spread of the dyeing industry to their areas seemed to be a boon. It increased the demand for their lands. Land prices shot up. The dyers wished for sources of water. So lands adjacent to riverbanks began to fetch very high prices. The rural people got an additional avenue for employment. Cash flow into the villages began to increase.

The Struggle for Water

Ever since the reservoir was constructed in Amaravathi at Udumalpet, there had been a growing tension between the users in the upper reaches and the lower reaches of the river. As in the period 1960-80, new lands were brought into cultivation both in the upper and lower reaches of Amaravathi throughout the 80s and up to the middle of 90s. The wet area under AMC increased. The farmers under AMC did not follow the crop restrictions imposed when the reservoir was built. Instead of dry crops for one season, they raised wet crops for two seasons or annual crops, especially sugarcane & coconut groves. The new ayacutdars in upper reaches were more organized and managed to get more political clout. When water level was low in the dam, more often than not, the new ayacutdars managed to get water diverted to the cannels in upper reaches by influencing PWD authorities. Ministerial clout was primarily responsible for this state of affairs.

Actually in the early days water was let out by a turn system that seemed to have evolved as a response to the continuous complaints from the lower ayacutdars that they did not receive the amount of water which they were accustomed to. The new and old ayacuts received water in turn. In 1970s, even this principle began to be observed in the breach. Water was let out in small quantities from the dam, that is, in 200 to 400 cusecs. This flowed into the channels in upper reaches. The Channels in lower reaches did not get water. With the passage of years more and more additional

land was brought under irrigation due to the pump set - pipeline combination. Thus in the 1960s, when 500 cusecs was released for a week in the driest period, May – June, water used to reach Karur for the "Kambam" to be immersed in the river water during Mari Amman festival. But in the 1990s only a release of 1500-1750 cusecs for a week would ensure that the water from the dam would reach Karur and beyond. Thus, with the passage of time, the old established ayakatdars in lower reaches were deprived of their customary riparian rights.

SECTION V

DEVELOPMENTS DURING 1980 – 2000

Changes in Cropping Pattern and Agrarian Relations

The changes that began in the 70s got intensified in this period. More land was brought under cultivation through pump set-pipeline technology up to 1990. It was entered in the village records under No.6 account according to the discretion of the Village Administrative Officer.

The traditional cropping pattern of pre-independence days disappeared completely. However, after 1990, there was increasing frustration among the farmers in the lower reaches of Amaravathi, who raised annual crops because Amaravathi flow was insufficient for their requirements. In Aravakkurichi, Karur and Kulithalai taluks, many farmers began abandoning cultivation of sugarcane, which was the preferred crop up to 1990s.

Many of the skills which were once coveted in this area, such as capacity to train bullocks for bailing water or lead a group of ploughmen in the field, had become relatively useless. Demand for new skills, such as electricians, mechanics, tractor drivers etc. increased. Customary practices gave way to market determined transactions. Urban demand for industrial labour in the entire region has increased. This has converted this region from one of agricultural labour surplus to agricultural labour scarcity. Real wages have increased. The cost of cultivation has increased because the input costs of most resources have increased. The returns from agriculture did not increase proportionate to the increases in cost. Land sales have increased. Transfer of land from supervisory landlord class to actual cultivators has increased.

In 1998, drip irrigation was introduced in Chettipalayam hamlet. A farmer planted tree crops such as Sapota, Guava, Mango and Coconuts and laid drip system. He economised the available water and could irrigate about 25 acres of crops. He also dug a deep bore well to supplement the available water in summer. In the 70s, this farm specialised in growing jasmine. Nearly 20 acres of jasmine was grown there. Jasmine was a water intensive annual crop. When the sand cover in the river fell, the farmer could not sustain irrigating such a large acreage under jasmine. So he switched over to sugarcane, which also could not be sustained. He then moved over to drip irrigation and horticulture mainly to save water.

Agriculture began to lose its primacy in the value system of the village. In the marriage invitations, the old practice of the farmers styling themselves as 'Nilakkilars' or 'Mirasdars' disappeared. Parents of brides preferred grooms from non-agricultural occupations over grooms from agricultural occupations.

During this period, the competition for getting labour increased. The labourers bargaining power increased. This got reflected in the form of increased wages and reduced hours of work. Wages in kind had completely disappeared from agricultural scene. Labourers also obtained privileges like getting agriculture residue for feeding their cattle. Contract labour began to replace wage labour for certain types of work.

The increased demand for labour had social consequences also. The higher castes had to compromise with the labour class on many small matters. The rigours of caste discrimination began to get reduced. Education had caused awareness among the marginal farmers and scheduled castes about the social indignities they suffered. The demonstration effect from TV, along with more wages, had introduced more cleanliness among the lower classes. The 'sachet's made soap, tooth paste, powder and shampoo available to the lowest classes because 'sachettes's were affordable. Necessity forced the landlords to accept scheduled caste men as tractor drivers, electricians or mechanics. So caste rigidity of the olden days began to visibly diminish. Men and women employed in the dyeing factories received higher wages. They are smartly dressed. Many have purchased cycles and mopeds. Most of their homes boast of gas connection and TV. They, and their dependents, are no longer willing to perform menial duties which were performed by their forefathers in the not too distant past. Cutting wood for funerals, carrying messages about death to relatives etc., which were once performed by specific castes on a customary basis, are now undertaken only on payment – and, not necessarily by the designated communities. During village festivals, the customary feeding attracts very few poor people as compared with the past. The poor are becoming increasingly conscious of their dignity. The hamlet is slowly adapting itself to the changed situation. The current President of the Appipalayam Panchayat has employed a schedule caste graduate as the local clerk – something unimaginable in the hamlet even in 1960s. Necessity drove the housewives of the few surviving supervisory landlord households to employ scheduled caste children as domestic help, clandestinely in the beginning, but more openly nowadays.

The Panchayat began to supply piped water for household needs from mid 1980s. The panchayat also contracted houses for SCs in the late 1990s. This helped new colonies to rise around Chettipalayam where basic amenities were available to the labouring section. In 2001 another voluntary agency has subsidised cost of construction of flush out latrines for poor individual households. All households are attempting to send their children to 'English Medium' schools. Four school vans touch the hamlet now indicating the willingness of the many families to pay for their

children's education. The living conditions of the poorest households have visibly improved. They have become more conscious about their dignity and self-esteem.

Along with improvement in living conditions, the opportunities for gainful employment also increased. More and more women labourers began to migrate towards dyeing factories and textile industry. For easy access, families began to purchase two wheelers, especially TVS 50s. Their housing also improved, with tiled or concrete roofing and cement flooring replacing thatched roofing and mud flooring. Kizhakkalur and colony were growing while Chettipalayam remained stagnant.

The improvement in the standard of living also exacted a price. Working with chemicals in the dyeing units caused ill health. Unspecified diseases affecting eyes, ears and limbs became common. The medical bills of many families increased. Pollution of drinking water caused diseases not only for humans but also for cattle. Coconut fruits from palms irrigated by contaminated water lose their keeping quality. Yields from agricultural lands also began to diminish.

Urban Growth

The entire region has been affected by the dynamic growth of Karur and neighbouring Tirupur. Karur became the major exporter of bedspreads, hand towels and made-up. It became a major centre for bus body building and for manufacture of nylon nets. The town boasted more than a hundred millionaires who had risen from the ranks. Consumerism triumphed in changing the face of Karur. More than a hundred beauty parlours have been started within a decade! Star hotels have been constructed. The income of the people of the region has gone up because of this urban growth. Employment opportunities have also increased. The negative fallout of this urban growth is the phenomenal increase in the flow of polluted effluents. The dyeing factories which cater to the needs of Karur and Tirupur are the major culprits.

Loss of Sandcover in the River

The sand cover had many beneficial effects on the people living by the side of the river. It was the product of centuries of natural action.

From mid 80s the sand cover began to disappear. This became a major issue because it was known to farmers that the loss of the sand cover in the river would cause irreparable damage to their eco-system.

- Sand acted as a good filter to clean mud and dirt. So the river water became dirtier with the loss of the sand cover.
- In the summer months the farmers in the lower reaches lost a source which could be accessed for water provided they spent enough resources. Now, even if they spent resources they were not sure of getting water.

- It reduced the level of the ground water table. When there was deep sand cover, the ground water level also was high. But with the rapid depletion of the sand cover, the ground water level also began to fall.
- With the fall in the sand cover, water was not available along all points in the river. Farmers had to locate special spring points and from there only they had to tap the water. So it was not uncommon for the farmers to erect diesel engines right in the middle of the river where they had located a spring. The diesel pump set would then pump it into the Vattai located in the fields near the riverbank. From 1995, the sand cover in the river virtually disappeared in most places.
- This forced the formers to search for alternatives. Digging deep bore wells, along both banks of the river in the hope that they would be able to get perennial water supply was the chosen alternative. This caused the ground water level to drop rapidly.

From 1980's the demand for Amaravathi river sand began to increase by leaps and bounds. One truck load of sand of about 12 tonnes was sold for Rs.300 in Karur in 1980. In 2000 it was reported to be sold at Rs.8000 at Coimbatore. This enormous increase in price is a reflection of the vast increase in demand in the interregnum. There were many causes for this: First of course, was the prosperity of the region. Karur, Namakkal, Thiruchengode, Tirupur, Erode, Chennimalai and Coimbatore all had increases in wealth. The impetus for the growth of each of these places came from different sources. Second, there was increasing population. Third, wages of the labouring population increased. So there was greater demand of both low and high cost housing. There was also higher demand for office and factory space. Fourth, there was a higher agricultural demand mainly for the manufacturing of cement pipes. Finally, there was demand for road construction. All these things put together increased the demand for sand to unprecedented levels.

After 1980 many people tried to enter the sand mining business. Sand was an open access public resource. However, it was not that easy to mine it. Getting a place where sand can be mined economically where the depth of sand deposit is very high and where access to transportable road is without any problems is not easy. The early birds already occupied most such accessible places. So the new entrants were searching for other such places. Appipalayam had one such place. So contractors tried to mine sand there. For that, they must have a valid permit. In the early days the revenue department struck to the rules and did not permit deep level sand mining. However, when the price of sand went up, the contractors began to use extra legal methods and political influence to get mining permits.

One such contractor got a permit in 1985 or 1986 and came to Appipalayam to mine sand. The local farmers objected. To placate them, the contractor was reported

to have offered Rs.10/- per cartload of sand mined to be used for the 'kumbabishekam' of the local Mari Amman temple. (This was the method which was adopted by most of the new contractors to get the consent of the local population). Nevertheless the Appipalayam people refused to consent to the sand mining in their area. So the contractor entered into a secret agreement with a local landlord whose land was adjacent to the river and had an accessible road. In the nights sand was mined from that landlord's land and loaded into the trucks to be taken to Karur and beyond. It was stated that the local landlord got Rs.20/- per cartload of sand mined from his place. Unfortunately for the contractor, one such truck carrying sand capsized between the colony and Sukkaliyur. Three of the load men sitting atop the lorry were buried in the sand. The cries of the other load men in the middle of the night wakened the colony people who rushed and rescued those three. This exposed the contractor's strategy. The villagers threatened dire consequences and the contractor left this sand mining site.

Sand mining stopped in Appipalayam and Chettipalayam villages from that time onwards. But this proved to be a pyrrhic victory. Sand continued to be mined downstream with increasing intensity. Sand in Chettipalayam and Appipalayam villages flowed downstream along with the water during next flood. This filled up the sandpits in the established mining areas. So sand was lost to the Chettipalayam area anyway.

The sand cover in Chettipalayam and Appipalayam began to fall rapidly. Within a period of fifteen years from 1985-2000, the sand cover in the Amaravathi along the banks of Chettipalayam and Appipalayam, roughly 2 Kms long stretch, fell by 10 feet. The width of the river in this stretch would be about 600 feet. So it would be easy to estimate the enormous amount of sand which was mined and sold. Sand was mined in the entire stretch of the river right from the source. However, the depth of the sand cover was great only after Chinnadharapuram till the river merges with Cauvery. It was in this belt that the maximum damage was done.

Amaravathi sand had a higher market value than Cauvery sand in places like Tirupur and Coimbatore. Amaravathi sand was coarse compared with the fine-grained Cauvery sand. This coarseness was favoured for construction purposes. So mountains of sand could be seen piled up at the entrance Coimbatore in the Trichy Road. Big boards proclaim that Amaravathi sand was sold there. Sand was publicly sold, and most of it was illegally mined. Everybody knew about it except concerned officials and politicians!

In the late 1990s, it was increasingly becoming difficult to mine sand in Amaravathi because in many places the miners had reached the rocky bottom. The original position was that the cart men would drive their bullocks into the river where load men loaded sand for a contracted wage. But in the 1990's the trucks themselves

were driven into the river and Puglins - that is - earth movers, began to load sand into the trucks. In this way, more sand could be loaded in less time.

The high price of sand in Coimbatore and the neighbourhood encouraged many contractors to mine sand from Amaravathi and Cauvery. The vast quantity of Cauvery sand seemed to be an inexhaustible resource up to 1990. But after the introduction of heavy machinery and big trucks for hauling sand, this proved to be a misconception.

The sand cover of Cauvery itself began to fall. Even a cursory glance at the river every year would show that there was a perceptible fall in the floor level of the river bed. Every one was concerned, but no one would take action. Most people felt that sand mining could not be stopped because of the unholy combination of politicians, bureaucrats and mining contractors was so influential that it would destroy any one who chose to oppose it.

The loss of sand cover began to reduce the supply of water to pump set pipelines, especially in summer. Feeling that they were powerless to stop sand mining, and hoping to make some profit from a bad situation, some farmers in Appipalayam village began clandestinely to permit truck owners to mine sand from the river by letting access through their lands. It was rumoured that they got Rs.50/- per cartload of sand so mined. As a result wells, including panchayat union wells located in the river, began to dry up because the adjacent sand cover had disappeared. Sometime in 1996, the panchayat in Appipalayam village passed a resolution protesting against the illicit mining of sand around panchayat wells.

From 1995 onwards, large number of trucks carrying sand from Amaravathi and Cauvery moving along the highway to Coimbatore, Dindigal and Madurai had become common sight. Many abuses of power came to be noticed for getting mining permits. Using money and influence was just only one among them. The trucks were reported to carry forged permits. It was stated that out of every ten lorries carrying sand, only one had genuine permit. The other nine had only forged permits. The check-posts on the way knew about it; but still permitted them to ply by getting a regular ‘mamool’. Once in a way a lorry would be detained. But that was only eyewash. It was a drama staged by the contractor and the concerned authorities to show that something was being done.

It was public knowledge that heavy machinery were used to dig and transport sand from the rivers. It was shown in the TV Channels. It was published with photographic evidence in newspapers. However the politicians and the concerned authorities studiously ignored them.

Water became scarce not merely for agricultural purposes, but even for domestic needs inclusive of drinking water.

The Problem of Pollution

The main well supplying drinking water to Sukkaliyur was dug in the riverbed of Amaravathi in 1965. Within a few years Karuppampalayam people also dug their well opposite their village in the riverbed. Appipalayam and Chettipalayam hamlets dug their drinking water wells in the riverbed in the 1980s. The Sukkaliyoor well was abandoned in 1997 because the water in that well became totally contaminated. The process of contamination is explained below.

Dyeing factories were established in 1980s in the lands adjacent to the Thirumanilaiyur Raja Vaikkal in the East bank of Amaravathi and the Pallpalayam Raja Vaikkal in the west bank of Amaravathi. They began to allow the effluents to flow along open drains which ultimately flowed into the Thirumanilaiyur Channel and Pallpalayam Raja Vaikkal. In the 90s their numbers increased.

In 1990 the Thirumanilaiyur Raja Vaikkal was widened and was merged with Sanapiratti and Kattalai Vaikkals. A check dam was constructed across Amaravathi near Chettipalayam. The Thirumanilaiyur channel feeder was opened from this dam instead of the original place in Kodaiyur which was 3 kms upstream.

The objective for which this dam, funded by World Bank, was constructed was not achieved. This channel became the major collection spot for the effluents discharged by more than 100 dyeing factories inclusive of two common effluent treatment plants in Karuppampalayam and Sukkaliyoor. Downstream more polluted water from dyeing factories and common effluent treatment plants in Sellandipalayam and Rayanoor joined this collection!

By mid 90s, the effluents began to stagnate in the stretch from Sukkaliyur to Chellandipalayam in the Channel. There one could see various colour liquids stagnating giving an unbearable stench. In that stretch, the lands, which received direct irrigation from this channel, covered a distance of about ½ to ¾ kms from the channel to the banks of the river. Gradually the effluents began to affect the subsoil water along the entire stretch. It is stated that in Sukkaliyur, the colour of the tender coconut water itself became brownish and that the tender coconut water was not potable. All the wells in this area became contaminated. Water from these wells could not be used for drinking by humans and animals.

In course of time the subsoil water contamination began to spread slowly in the downward gradient towards the river itself. By 1995, the Sukkaliyoor drinking water well, located in the Amaravathi river, became contaminated by the effluents from the dyeing units. In 1997, the well was abandoned.

It was in this period that some NGOs began to agitate against the pollution problem caused by the dyeing units. “Amaithi” an NGO from Dindigul, Thiru.“Nuharvor”

Subramaniam (Subramaniam of consumer council) and Thiru. P.R. Kuppusamy, an advocate of Karur, were in the forefront of the agitation. The dyeing factories tried various methods including bribery and physical threats to prevent the protests from succeeding. It is stated that character assassination was attempted against Thiru. "Nuharvor" Subramaniam who for a time was forced to leave this area and to go to Erode.

In 1995 Thiru. (Merkuthottam) Sivasamy who started the first dyeing unit in Sukkaliyur, had the mortification of witnessing the death of his wife aged 34 or 35 due to an unidentified disease. He took her to K.G. Hospital at Coimbatore and then to Bangalore Medical College Hospital. He was informed that the disease was due to suspected food poisoning, probably due to drinking of contaminated water. He realized the damage which the effluents were causing to the people of the village. He thought that the death of his wife should be enough and that all dyeing factories must be prevented from discharging effluents into the channel. He closed his factory. He started an agitation to see that all dyeing factories did not allow their effluents to flow along open drains into the Thirumanilaiyur channel. Many villagers joined with him. The dyeing factory owners pleaded for time to carry out the steps to stop pollutants from being discharged. A peace Committee was formed with the Pollution Control Officer as a member. Three months time was initially given to the dyeing factories to carry out reforms.

The immediate impact of this agitation was to make all the dyeing factories to cover their open drains with pipelines. For a few days the dyeing factories actually remained closed. But after that they began to function as usual. The initial enthusiasm of the agitations began to fade. The effluents were continuing to be discharged into the channel.

In November 1997 all dyeing factories in and around Karur were closed because of a Supreme Court or Madras High Court order prohibiting them from discharging their effluents either in the channels or in the Amaravathi river.

This affected the Karur economy. The dyeing units pleaded for time. After negotiations, the dyeing units were allowed to open on condition that Common Effluent Treatment Plants [CETP hereafter] would be constructed within a period of six months. This period of six months was extended from time to time by further negotiations. The first CETP started functioning around 1996 in this region.

In 1998, another (Rice Mill) Sivasamy of Sukkaliyur found that his coconut and Mango grove was completely affected by polluted water and that his cattle could not drink the water from his own well. So he blocked the water flowing from factories into the channel near his farm. Again this agitation stopped the work of many dyeing units for a few days. But after that a Peace Committee was established, negotiations

were started and the factories began to function as usual. Nevertheless, after this road roko, even the few factories which discharged effluents along open drains began to cover them and send them through pipe lines.

In 1997-98 a total of eight Common Effluent Treatment Plants [CETP] were established around Karur, of which two were located in the Appipalayam, Karuppampalayam, Sukkaliyur belt. More than a hundred dyeing units were members of those two CETPs.

When the riverbed well which was supplying drinking water for Sukkaliyur for more than 20 years was abandoned, It created a wretched situation because there was enough water in the well even in times of scarcity to supply the entire needs of Sukkaliyur. But that water itself had become unfit for consumption.

The dyeing units, realizing that they would become accountable for loss of piped / drinking water decided to supply drinking water to the hamlet by pumping water from their storage tanks/tankers to Sukkaliyur drinking water tank. In other words drinking water for Sukkaliyur originally was supplied from the panchayat well; but after 1997, drinking water was supplied to that hamlet from the wells owned by the dyeing units from various points along the river.

Appipalayam and Chettipalayam are upstream villages compared with Karuppampalayam and Sukkaliyur. Since the drinking water contamination in Karuppampalayam and Sukkaliyur were known, the villagers in Chettipalayam and Appipalayam hamlets were on guard to prevent any effluent from being released in the channel or riverbed in their area. So even the dyeing units located in the Appipalayam area laid pipelines and discharged their effluents only in Thirumanilaiyur channel at Sukkaliyur.

The closing years of the last century were a period of intense soul searching for the people living in the villages located by the side of the dyeing units. The dyeing units and the textile industry had brought prosperity to the entire region. The wage level of both men and women increased. In those units, the workers were working in relative comfort, protected from the elements – that is, sun and rain and were treated much more respectfully compared with the treatment they were receiving in the status oriented agricultural villages.

The industry demonstrated that men with ability could rise from the level of a coolie to the level of a millionaire. This could happen even if those people did not have any political influence or high upbringing. The prosperity had improved the living conditions of all wage earners. They started enjoying comforts which were once available only to the richest sections. They could live a cleaner life and could

have access to education, television, better transport and also more entertainment. They could enjoy richer food.

As against this there was the real danger posed by pollution especially of the drinking water. In all the places where the effluent discharge was heavy, ground water became contaminated. Health of men and animals was affected. Agricultural yields began to diminish.

Right from Karuppampalayam up to Chellandipalayam all the wells had become contaminated. Around the channel where the effluents are discharged, nearly 5 Sq. km of land has been totally contaminated where no well water is fit for human or animal consumption. For their drinking water needs and for the needs of their animals, these villages had to depend on the supply of drinking water supplied by the dyeing units located there. Slowly their panchayats began to pass resolutions demanding water from Cauvery river which was flowing about 10kms away. By the year 2002, most of them, including Chellandipalayam and Thanthoni and also the town Karur, which were once dependent exclusively on Amaravathi, started receiving drinking water from Cauvery.

So there was a real trade-off involved. If the general population wanted more prosperity they would have to accept the danger inherent in allowing their water sources to become totally contaminated. Whenever some persons tried to organise a total protest against the pollution by dyeing units, the dyers paid their labourers and those under their protection to sabotage such protests. However even the dyers privately admitted that the situation could not prolong in this fashion for a long time. They were aware of the dangers posed from the enormous pollution arising out of the discharge of effluent water into the soil. They would like to avoid this, if that could be done without forcing them into a situation where they would have to abandon their occupations. Meanwhile they spent huge sums of money to purchase political influence and also for bribing the officials. They were ready to spend those amounts for pollution control provided they could succeed in controlling it, but did not have the necessary information, organizational support or even, pressure from the government.

The Appipalayam panchayat was the first to protest officially against the discharge of effluents into the Thirumanilaiyur channel and Amaravathi River. By its resolution dated 30th December 1996 it requested the Government to stop the discharge of effluents into the channel because it would affect the drinking water resources of the region. The resolution stated that sixty types of chemical poisons were being let out into the channel water. It described the potential dangers to the people and to agriculture and requested the Collector and the pollution control organization to prohibit such discharges.

For passing this resolution, the Panchayat President, Thirumathi.Eswari Subramanian, was influenced by her husband Thiru. Subramanian and also by the propaganda by "Nuharvor" Subramanian. After this she was making periodic appeals to the Government through her Panchayat resolutions to take necessary action.

The Struggle for River Water

When the storage position in the dam was relatively low, there was a struggle to get water between the upper and lower riparians. In the early 80s, employing political clout the AMC farmers were able to divert more water to their channel than what was envisaged when the reservoir was built. The lower riparians felt aggrieved. The old ayacut farmers began to agitate for fair and equitable distribution of water. A turn system was attempted repeatedly, but was abandoned within short time because of political interference.

The turn system also gave a great amount of discretionary power to the PWD authorities. They decided when the water would be released to AMC, and when for the old ayacut. When water was released for old ayacut, they determined the quantum of water to release. Only when the quantity was sufficiently large would water reach the tail end. Meanwhile, the PWD authorities determined whether to open the channel gates of all the channels which were located in the upper reaches or to keep them closed till water reached the tail end and then open gates of the channels in the upper reaches. Only the later course would ensure equitable distribution, but it was not always observed. Whenever water flowed to the tail end, the channels in the upper reaches also get water. But when water was released in small quantities, only the channels in upper reaches would get the benefit, and the tail end ayacutdars were deprived of the benefit.

As luck would have it, right from 1970s till now the Udumalpet - Pollachi belt had an influential cabinet minister in the ministries D.M.K and A.D.M.K governments. The Aravakurichi, Karur belt was decidedly unlucky because their MLAS were relatively powerless in the party hierarchies. After mid-1980s, the Aravakurichi MLAs were not farmers, which made the situation worse. Using their political influence and organizational strength, the farmers in the upper reaches managed to get more wettings than what they were entitled to. Right from 1980s when Thiru. Kulandaivel was the minister in M.G.R Government, the farmers along the main canal (i.e. upper riparians) had formed an association which collected more financial resources to be used for getting water along the main canal. The farmers in the lower region attempted to form a single association to redress their grievances. Unfortunately there were clashes among different groups who have lands in different channels, and so no single association was formed to represent the grievances of the lower riparians.

In the 1970s a farmer was the MLA of Aravakurichi tried to get a government

order to regulate the opening of the dam in the summer months. He failed. However, due to his influence he was able to get a flow of water to lower riparian whenever the water level in the Amaravathi dam exceeded 30-35 feet. Apart from that it was established by convention that water would be released from Amaravathi dam once in the last week of May to enable the 'Kambam' to the immersed in river water during the Mari Amman festival at Karur. Another release was normally expected close to the '18th day of Adi' month -that is -in the 4th week of July.

But these conventions could be fulfilled only if the storage position in the dam was sufficient enough to release about 1200 mcft. of stored water. The total storage capacity of the dam when full is 4047 mcft. (The Hindu dt. Aug. 20, 2003). The AMC farmers used resources and political influence to get the water released along the main canal as soon as the storage in the dam exceeded 20 feet, i.e., 1000 mcft. of water. Another ruse employed was to demand release of water for the drinking water needs of the towns along the AMC or up to Dharapuram. Thus the water was not allowed to accumulate in the reservoir to become large enough for the lower riparians to demand release. For the downstream users, a flow of water along the course of the river would recharge all the springs along the way, and would give water for pump set-pipelines for fifteen to thirty days.

The upper riparians, using their political clout,

- Extended the permitted irrigation of AMC from 15000 to21500 acres.
- Extended the length of the AMC by another 8 kms.
- Got the entire length of AMC fully lined
- Managed to get the crop restrictions placed on the AMC users (only dry crops in 80% of lands receiving irrigation) removed.

The government permitted all these acts which were clearly against the spirit of the promise made to the lower riparians on the eve of the construction of the reservoir that their interests would fully be protected.

The extension of irrigation was done over a period of years, but was regularised in the 80s. The crop restrictions were also removed in that period. Lining was done in the 80s, and for the extended canal, in the 90s. Between 1960 and 2000, only a few of the 25 Channels in the old ayacut have been lined, and that too, only partially.

Release of water from the reservoir became a major matter of conflict in the mid 1980s under the leadership of the then Chairman of Thanthoni Panchayat, Thiru. C. S. Sivasamy. A forceful campaign was launched in the summer of 1986. I understand that he threatened to go to the court, saying that it would be a bad precedent if this issue was raised when Tamilnadu state was fighting its case for its share in Cauvery water. Whatever be the reason, his appeal led to a meeting of the collectors of

Tiruchirappalli, Periyar and Coimbatore districts in the guest house of "Tamilnadu Papers Ltd" at Pugalur in Sep. 1986, where it was resolved that a strict turn system would be adopted on the scarce months of summer. Thus one wetting in the main canal was followed by one wetting up to Dharapuram and after that one wetting till the final reaches of the river. As the wetting for the lower reaches would automatically provide wetting for all the canals up to Dharapuram also, this turn system itself was more advantageous to the upper riparians than what was promised at the time of the inauguration of the construction of Amaravathi reservoir. This turn system seemed to have worked for about five years. But in the early 1990s this system was allowed to lapse.

However, there were unprecedented rains in the catchments areas in 1992. Amaravathi was in floods. In good monsoon years, everyone forgot about the problem. But again in mid 1990s the monsoons failed. There were appeals and agitations by lower riparians. This seemed to have led to a revival of the turn system. The Executive Engineer of PWD in charge of the Amaravathi reservoir in the late 1990s strictly followed the turn system. The farmers in the AMC area and upper riparians disliked him. Their attempts to get him transferred did not succeed. When he retired, the turn system was again given up from the turn of the new century.

At the time of independence, the irrigated area of old ayacut was about 30000 acres. At the end of the century, I estimate that the total irrigated area under Amaravathi ayacuts, both old and new, had increased to more than 100000 acres. This comprised of 30000 acres under the old ayacut, 21500 acres under the new ayacut, at least 25000 acres under No.6 account in the old ayacut area below Dharapuram, as well as the No.6 account area from Udumalpet to Dharapuram, which may be about 30000 acres. This may be an underestimate because a large amount of land is left out in the No. 6 account. In Appipalayam village the area irrigated had increased from about 95 acres (42 ha.) in 1950 to about 440 acres, of which nearly 340 acres was under No.6 account. The river is unable to sustain such a massive increase. The loss of sand cover in the river exacerbated the situation.

Other Changes

Drinking water supply to Appipalayam Hamlet

In the 1970s when Thiru. CRN was the President of the Appipalayam Panchayat and also the Chairman of the Thanthoni Union, the first attempt was made to bring piped water supply to the village. He dug a well in the Purambokku land adjacent to the river in Chettipalayam. He proposed that water should be drawn from the well and piped to an overhead tank from where it would be distributed to the villagers. He belonged to the older generation and was not willing to pay any commission or corruption to the officers involved. So there was resistance from the officials to his proposals. The rumour was that one of the officials managed to stop certification of the well water about its potability (drinkability). Even though the well water was

good potable water, the official managed to get a certificate issued that it was not fit for human consumption by sending some other water as the sample! Thus the scheme died a natural death.

More than a decade elapsed before Thiru.C.S.Si. from the hamlet to became the Chairman of the Thanthoni Union. During his period, a well was dug in the river in Appipalayam village. The water from the well was piped to overhead tanks both in Appipalayam and Chettipalayam villages. Thus piped water supply came to the village in mid ‘80s.

In subsequent period, one more well was dug to supplement the supply of water, because the supply became inadequate in the first well; and the demand increased due to increasing population. In the ’90s both the wells could not supply the requirements of the villages during summer months. It was because the sand cover around the wells had dwindled and the natural springs became insufficient to meet the demand. This itself was to cause major tension among villagers in the new century. This would be recounted later.

The Coming of the Bus

It was in the early 1980s, a bus route to Karur, the nearest town 10 kms away, connected Chettipalayam. Even though the village boasted of its educated and influential persons for over half a century, they did not exercise their power or influence to get the village connected to the town by bus. It was left to Thiru. Subramanian, a poor dhobi boy, to try hard to get the bus connection to the village. He was the village level AIADMK worker. Using his influence in the party in early 1980s, he managed to get a State Transport bus to make 3 trips a day from Karur to Appipalayam Via Chettipalayam. In 1998 a mini bus route was licensed to ply between Karur and Karuppampalayam. The bus owner, plied the bus up to Chettipalayam even though he did not have the necessary permit. The route was very successful and 7 trips were made daily to Chettipalayam.

Subsequently another bus route was sanctioned from Karur to Appipalayam Via Rayanur and Chettipalayam. This bus also made 7 trips. The new bus owner unsuccessfully tried to stop the first bus owner from making trips to Chettipalayam. Chettipalayam villagers joined together, petitioned the District Collector, and managed to get both buses ply up to Chettipalayam. Thus, in the new century, Chettipalayam is well connected with Karur by the mini buses. School buses are also making regular trips to pick up the children from the hamlets.

Changes in the Land Values

Apart from the small area where the hamlets are located, all lands around Chettipalayam were agricultural lands. In the 1960s the land values were moderate. The ayan nanjai lands (wet lands) across the river from Chettipalayam in Pallapalayam

village and garden lands lying along the Thirumanilaiyur channel were sold at 15 to 25000 rupees per acre in the early 1960s. The dry lands meant for pasture were sold for 5 to 10000 rupees per acre.

A dispute between the Pallars and other communities in Pallapalayam village in the early 1960s reduced the value of the nanjai lands there to Rs.5 to 10000/-. After the resolution of the conflict the land values began to increase. It was from the 1960s that the prosperity of the village began to increase. Many of the labouring households could accumulate some wealth. They began to invest their savings in land. At the same time, many of the big landlords began to sell portions of their holdings to them. Thus between 1965 and 1985 all the land holding of the Chettipalayam landlords across the river in Pallapalayam village were sold to the small and marginal farmers (except a bit of 1½ acres).

The great flood of 1977 due to dam breach in Kudaganar destroyed many houses in Chettipalayam. In 1978 a new colony was constructed along the main road to Karur with assistance from C.A.S.A, a voluntary agency. With increasing prosperity more and more labour households desired to construct pukka houses. So land values along the road began to increase. At the same time, dyeing factories in Karur began to shift out of Karur to locations which had better access to water and also connected by road to Karur. The Chettipalayam road and Thekkur-Coolinaikanur road satisfied their requirements. So dry lands located on either side of these roads began to command higher prices. Speculation fanned the prices upwards.

The dyeing factories, in turn, began to purchase small plots of land in the fields adjacent to the river. They may be 25 cents to 50 cents plots. There they dug a well, established a pumping station and linked it to their dyeing units by a pipeline. After getting electricity connection, claiming that it was for agricultural purposes, they would link the well to the river and start pumping river water to their dyeing units. This again increased the demand for land, especially near the river. The dyeing units also purchased more dry lands to let out their effluents. All these together pushed up the land prices. Hoping that they could make a quick buck, land brokers began to purchase dry lands in the hope of selling them at much higher prices at a later date.

In the early 1980s land prices (of dry land in the interior) which were around Rs.30000/ per acre shot up to Rs.1 Lakhs and more. What was strange was that the dry land prices along the main roads went up to Rs.5 Lakhs per acre or more, whereas the most fertile wet lands were available for Rs.2 Lakhs per acre. In the early 90s, in Chettipalayam, one of two brothers sold his nine acre plot at the rate of Rs.35, 000 per acre. Within three months his younger brother sold his nine acre plot at the rate of Rs. 85,000 per acre. Such was the fever of speculation at that point of time.

The dampener came in the form of a Government order which stated that, in future, all new dyeing factories should be located at least 5 kms away from the river. After that, there were other reasons also, which caused the general land boom at Karur to bust. By mid 1990s land values in Karur urban locality began to decline. This affected the land values in all the neighbouring area. In Chettipalayam, lands which commanded a price of Rs.4 Lakhs per acre in 1992 lost the value so much that in 2002 the same land was sold at Rs.1.25 lakhs per acre. The crash in land values led to many bankruptcies in Karur. Between 2000 and 2002 more than 20 bankruptcies involving Rs.1 crore or more were reported in Karur. Most of these land speculations were financed by the informal finance companies. The strength of the system was such that all these bankruptcies were settled out of court through Kattapanchayat.

The assets were sold and apportioned among the lending finance companies (after a small portion was left to the borrower for his survival) on a pro rata basis.

The same system was followed in the village also in the few 'near bankruptcies' which took place here.

SECTION VI

DEVELOPMENTS DURING 2000-2003

The new century brought with it an unprecedented drought situation to Chettipalayam hamlet. No living person had witnessed a drought of such severity earlier.

Water Releases from the Reservoir - 2000 -2002

The summer of the year 2001 was a period of deficient rainfall of southwest monsoon to this region. The pump set-pipeline owners began to lose income because of their inability to pump sufficient water for their annual crops. The fall in the sand cover in the river was responsible for this, because it had not happened in the 1980s. However there were the customary two releases of water form Amaravathi dam, once for the Mari Amman festival and then for the Adi festival. This recharged the remaining sand in Amaravathi river and also the subsoil water.

The drought forced the farmers in the region to adjust their cropping pattern to match the available water. When the northeast failed in 2001, many farmers who had planted annual crops such as turmeric, banana and sugarcane, could not get the full yields. They suffered losses. However paddy cultivators scraped through by spending resources to abstract water from the dwindling sand cover in the river.

In the summer of 2002, the southwest monsoon also had failed. There was no flow of water from Amaravathi dam from February 2002 to Aug 2002. Water was not released even for the Mari Amman festival and for the Adi festival.

The drought continued in Appipalayam and Chettipalayam area in the summer of 2002. All the drinking water wells in the private houses of Chettipalayam hamlet had completely dried out. This had not happened in the past 65 years. Drinking water was not available for men and cattle in all the villages along the river Amaravathi in this region.

The lower riparians alleged that between April and August 2002, water was released five times to the upper reaches and not even once to the lower ayacut holders. They further alleged that whenever the storage position in the reservoir reached 22 to 30 feet, the PWD authorities were influenced to exercise their discretion in favour of upper riparians. The authorities released water up to Dharapuram, specifying that it was for drinking water purposes. This would reduce the reservoir level to 16 - 20 feet. Only if the reservoir level reached above 35 feet could PWD release sufficient water in the river so that all the channels up to the tail end could get a full flow. If water was not allowed to accumulate to that level, the PWD could use its discretion to release water up to Dharapuram or in the AMC.

The drought continued in 2003 also. Again between April, 2002 and March, 2003, the upper riparians had managed to get release of water to the main canal and up to Dharapuram a few times as soon as the dam level reached 25 feet. The full level is 75 feet. Both the south-west and north-east monsoons had failed. The reservoir did not reach its full level even once during 2002-03.

When the level reached about 40 feet, water was released continuously from 16th to 28th Aug. 2002 and water reached the tail end channels. After that only in November 2002, the reservoir level reached more than 50 feet.

Since all agricultural operations in both upper and lower reaches of the river were dependent on water releases in the river, there was considerable tension in all areas about the quantum they would be able to get in the limited supply. By the G.O No.570 PWD dated 20-11-2002, the Secretary, PWD ordered that for the AMC beneficiaries, water would be released at the rate of 440 cusecs per second for seven days, then stopped for five days – and in this way rotated three times. For the 21 days, a total of 798 m. cusecs would be released. For the old ayacut areas, water would be released at the rate of 1000 cusecs per second for five days, then stopped for five days – and in this way rotated four times. For the 20 days, a total of 1728 m. cusecs would be released. The G.O. itself indicated that the authorities were not taking the ground realities into consideration, because the length of AMC was about 70 km. – and it was fully lined – whereas the length of the river below the reservoir was more than 140 km. – and had many anaicuts, where the channels branched off. Water let out in the AMC would reach the tail end quickly, whereas the water let out in the river would take a longer period to reach the tail end. Water was to be released in AMC for seven days, whereas it was to be released in the river only for five days.

In very dry conditions, it took more than ten days for the reservoir water to reach the tail end, if 1500 cusecs of water was released continuously. If, however, water release was suspended in the middle after seven days, water did not reach the tail end channels at all.

Nevertheless, the Dt. Collector, Karur, on the basis of the G.O., assured the lower riparians by a press release that water would be released in the channels in the district four times. But when water was let out in the river as per the G.O., it was sufficient only for two releases in the channels below Chinnadharapuram. Believing the assurance by the Dt. Collector, the farmers had planted crops which received only two wettings. The Aravakurichi and Karur MLAs made persistent appeals for release of more water, but only in vain. The farmers organised a big rally in Chinnadharapuram in December, and the PWD authorities assured them that there would be further release of water in the river. The Executive Engineer, P.W.D. at Karur wrote to the Chief Engineer, Pollachi Division at Coimbatore, on 25-12-2002, that a law and order problem might arise if one more wetting was not arranged for Karur district channels, and to tide over the crisis suggested that the available water at the dam could be released at the rate of 1500 cusecs per second for six days and 1000 cusecs per second on the last seventh day. At that point there was about 30 feet of water in the reservoir. That suggestion was not implemented, but a lesser quantum of water was released. The released water reached the channels up to Dharapuram only.

A farmers' association in Chinnadharapuram filed a writ petition in Madras High Court. They alleged that the government had failed to keep up their promise to tail end farmers. They sought immediate and permanent relief. The Court ordered the Executive Engineer, Karur to give details of the releases to the tail end channels. In his reply, he had given the details only for the releases to the old ayacut. The first release was between 16-8-2002 and 29-8-2002 of 22500 c.ft or total1944 mc.ft. The second was between 21-11-2002 and 29-11-2002 of 10000 c.ft or total 864 mc.ft. The third was between 7-12-2002 and 14-12-2002 of 10000 c.ft or total 864 mc.ft. He had stated that if a further release was to be made for Chinnadharapuram, another 864 mc. ft was needed, whereas the storage was only 616 mc. ft. What he had failed to mention was that the second and third releases did not reach all the tail end farmers in Karur Dt. Under these circumstances, the High Court expressed its inability to provide immediate relief to the tail enders. However, the main case still remains and is yet to be decided.

Even the available storage was not allowed to accumulate. Periodically, that was released for the AMC and channels up to Dharapuram. The authorities stated that the water was released to satisfy the drinking water requirements of Dharaqpuram. This, again, became one of the instruments in the armour of the authorities to use to justify their exercise of discretion. The net effect was that between Apr. 2002 and

Mar. 2003, there were at least seven releases of water in channels up to Dharapuram, whereas only two releases in the channels in Karur District. This is against the spirit of the assurances given before the construction of the Amaravathi dam. However there is no mechanism to enforce that assurance.

The drought began to affect the area severely. Many farmers allowed their annual crops, especially sugarcane and banana, to wither away losing their entire investment. Hundreds of coconut palms dried up. One farmer alone lost all his one thousand mature coconut palms. Mango trees which normally withstand ordinary drought could not stand the drought in this summer in 2002. Many of them withered away. A few farmers attempted to dig deep bore wells and succeeded in getting water. The farmers who were lucky to have water in their newly dug bore wells found a huge market from the dyeing units. They were willing to purchase water at the rate of Rs.80 to Rs.120 per tanker load of 12000 litres. So sale of water began on a very large scale in the entire region. Most of the sellers were using “free electricity” intended for agriculture to pump water from their tube wells.

In the same period the demand for water form the dyers began to increase because there was a spurt in exports in this year compared with the lull of the previous years. As villagers seriously resisted tapping the river spring water, the dyers began to dig deep bore wells along the riverbank. A few succeeded, but many of the bore wells of the dyers did not yield water. The pump set - pipeline owners also had very little option than to go for deep bore wells. In 2002 the number of bore wells dug was more than 50 in Appipalayam hamlet alone. Originally there was good yield in the region. Many farmers abandoned their current crops and sold the water. Competitive digging of bore wells reduced the ground water level very quickly. Soon the yield began to fall in many of the open wells and bore wells. Within 3 months, 20 out of the 50 new bore wells had become dry. In the remaining 30 also, excepting a few, most had reduced supply. As a bore well with submersible pump set would cost anywhere between Rs.60,000/- to 90,000/-, many farmers became indebted because of their bore well digging.

What happened in Appipalayam belt got repeated in Coolinaikanur-Muthucholipalayam belts where also more than 50 bore wells had been dug. The depletion of ground water level repeated itself there also. In Chettipalayam belt also there were many attempts at digging bore wells. Most of them proved to be dry. Only three were successful enough to the able to sell water for dyeing factories.

The drought has almost completely destroyed the supervisory class of landowners, who were declining for the past three decades. A combination of circumstances hastened their fall.

- They faced the problem of lack of labour for agricultural operations. Gradually casual labour became extremely scarce. Their wage bill began to increase.

Most agricultural operations could be performed only by contract labour. Because the labourers had greater bargaining power, the contract wages were on the higher side and the supervisory landlords had no alternative than to pay it. Their cost of cultivation increased.

- They lost their shepherds. So they could not maintain their traditional cattle & sheep pens. This reduced the availability of farmyard manure to them. Fertility of their land diminished.
- With free electricity came the restrictions on the hours of availability. Electricity for agricultural use was available only for six hours in daytime and throughout night after 10 p.m. There were frequent electricity failures even during those times. So agriculturists were forced to be awake at night to restart their motors after every electricity failure. The supervisory landlords found it costly to obtain labourers to work in the night shift and even more difficult to monitor their performance in the night.
- Water supply to their 'Vattai' wells dwindled with the loss of sand cover in the river. So electric motors would have to be stopped when percolation was insufficient, and restarted after sufficient water accumulated in the well. A careless worker would allow the motors to run even when the well was dry. This would cause damage motor coils. It was very costly to repair motors.
- With availability of electricity in the night, irrigating the crops was an inconvenient operation. The servants of supervisory landlord enlarged the size of the "pathi" to cover whole "Vayals", so that they need not have to use spades frequently to divert water to the fields. This unnecessarily increased the quantum of water required for irrigating the fields. Some portions received more than required water and some portions received less. This reduced yields.
- They had problems in controlling the timing of agricultural operations. At critical times, they were dependent on others, mainly contract labourers. Many of the contract labourers were themselves marginal landholders. So they were willing to come to work only after the operations in their own fields were over.

In almost all these aspects owner-cultivators had decisive advantage over supervisor–cultivators. Certain features actually were working in favour of owner-cultivators. First, the "Moy" labour system [a traditional system in which 'A' would supply free labour for 'B' at a particular time, and 'B', in turn, would return the favour when 'A' required it] has re-emerged in the hamlet. Second, milch cattle and goats were reared by owner cultivators, and even landless labourers after mid 70s because the labourers were give access to crop residues such as sugarcane stalks and weeded grass in all farms.

The net result was that the supervisor-landlords began to sell their lands to small and marginal farmers in the hamlet. Many of them had out migrated from the hamlet.

For the owner-cultivators also, 2002 was a crisis year. Almost all of them lost a substantial portion of their high investment in raising sugarcane, turmeric, banana or jasmine. Many of them had been forced to sell their milch animals and goats also. They were compelled to dip into their savings, which were mainly invested as deposits in the several informal finance companies in Karur. The financial squeeze was causing severe strain on the hamlet's economy.

The drought affected the lone attempt at drip irrigation in the hamlet. Till 2002, the drip system was able to cater to the needs of the tree crops fully. But the prolonged drought reduced water yield from the well and deep bore well. The drip system allowed the farmer to ration the water to keep all the trees alive, but the yields fell drastically. When the drought continued in 2003 also, trees in this farm began to wither. The yield from tree crops became negligible.

Sandmining Business

On 2.1.1998 the Tamilnadu Mining and Minerals – growth and regulation Act of 1957 was amended in a Tamil Nadu government order. It gave the local bodies the right to regulate and lease the sand deposits within their territorial limits. This would have effectively given the local people a very strong voice in the exploitation of one of the most precious resources within their limits. However, the contractors went to court against the implementation of this order. By WMP 7300 to 7309 – writ petition No. 4718 to 4721 of 98 dated 1.4.98, the contractors managed to get a temporary injunction against the implementation of this order from the Madras High Court.

Sand mining continued with unabated force after this injunction. There were strong protests from N.G.Os and the media about this exploitation. On 20th February 2002, the N.G.Os arranged a Public Enquiry at Madras with Justice.V.R. Krishna Iyer, Justice Suresh, Thiru. Markandan, (former V.C. of Gandhigram Rural University), Dr.Vasanthi Devi, (former V.C. Manonmaniam Sundaranar University), Dr. Sivanappan, (retired professor of T.N.A.U) and Dr.Gopalakrishnan as members. In their verdict they suggested total prohibition of sand mining till a new set of regulations are enacted and implemented. But sand mining continued in all parts of Tamilnadu.

Sometime in 1999 or 2000, the Karur District collector Thiru.Cho.Iyyer (S.IYYER) seized many lorries of Senthil Lorry Service, a contractor transporting sand to Coimbatore. For releasing them, he imposed a fine of Rs.1.5 Crores. The size of the fine alone could indicate the huge size of the illegal mining operation. The illegal mining depleted the sand cover in the river, which in turn, reduced the supply of water for agricultural and drinking water purposes in the entire region.

A division bench of the Madras High Court ordered regularization of sand

quarrying in the rivers of Tamil Nadu. In the writ petition No.10632/934 – 837/ 1999 dated 14.7.99. it ordered that the depth of the sand in the quarry must be measured and marked. If the sand level falls below a specific measure, then sand quarrying must be prohibited. It also suggested that the District Collectors should not have the exclusive discretion to lease or permit sand quarrying.

In late July 2002 a single judge of the High Court of Madras issued a total injunction on all quarrying of sand in the rivers of Tamil Nadu for one month. Unfortunately, even this seemed to have had no effect. Hundreds of lorry loads of sand were moving along the highways connecting Karur with Coimbatore, Salem and Madurai.

In Appipalayam village, the sand cover in the southern end near the check dam has totally disappeared. The rocky bottom is clearly visible. Only in the northern end, where the Panchayat and other wells are located, there is some sand cover left. In the last decade, it has fallen at least by 15 feet. Sand mining still continues downstream. Illegal mining sporadically takes place in Appipalayam area. When farmers find that out and organise protests, it stops. But after a few weeks it again restarts. Hefty bribes make some farmers to collude with the sand thieves. As long as sand mining continues downstream, people know that it is futile to attempt to stop sand mining in their area. Because they know that sand would be carried downstream in the next floods. So protests are also becoming half-hearted. People are resigned to their fate.

A Revenue Officer who tried to stop was run over by a speeding truck carrying illicitly mined sand in the Palar basin in 2003. The State has at last decided to take over all sand mining operations from Oct. 2003. Whether this would protect at least the meagre sand cover remaining in Amaravathi would be known only in future.

Drinking Water Scarcity

The drinking water problem along Amaravathi and its tributaries such as Kudaganar and Nalkanji were well anticipated by the local bodies. The sand had been mined in all these to a point where the spring water had become very inadequate. So Karur Municipality, Thanthoni, Aravakurichi and even Pallapatti, which were originally drawing water from either Amaravathi, Kudaganar or Nalkanchi, opted for water supply schemes from Cauvery. Many of the villages north of Karur adjacent to Amaravathi river had also opted for water supply schemes to draw water from Cauvery. So, by the year 2002, Amaravathi was not supplying drinking water to the most populous town along its entire route, namely Karur. This was no accident. There was a hidden fear among the people that the Amaravathi river water was too polluted to drink. The pollution problem is again one which every person knows to be real except the concerned politicians and authorities.

Not all villages had the resources to implement water supply schemes obtaining

water from Cauvery. So they continue to depend on Amaravathi. The drinking water position in those villages adjacent to the river became more and more critical with every passing year. The sand cover around the panchayat wells declined. The capacity of the wells to supply water declined because of this. In the same period the requirement of water for the dyeing purpose form the Karur dyeing factories began to multiply. So they began to dig new wells along the bank of the river. This reduced the available supply of spring water to the panchayat wells as well as the pump set-pipeline owners. A perceptive tension began to prevail along the villages.

In the summer of 2001 a group of dyers began to dig a huge well in the middle of Amaravathi river opposite Appipalayam hamlet. They installed a 50 HP diesel engine in it, pumped water from the well to their existing well on the bank of the river from where electrical motors pumped it to their dyeing factories. The rate of abstraction of water from this well was so great that soon the adjacent Viswanathapuri and Appipalayam panchayat wells became dry. The Viswanathapuri villagers got infuriated and broke the vattai's of the giant well and damaged the diesel engine.

An attempt was made there to give a caste colour to the incident. Most of the Viswanathapuri people were Pallars (a SC group), whereas most of the dyers were from the Gounder (a BC group) community. Nevertheless their attempt to give a caste colour failed. The Appipalayam villagers also protested to the dyers and the dyers temporarily suspended the operation of the diesel pump. When the new floods came by August-September the problem was temporarily solved.

But there was the real problem of lack of drinking water for the general population. In Chettipalayam and Appipalayam, drinking water scarcity became very real. In the summer of 2002, water was supplied once in three days or even once in five days. The panchayat President very successfully resisted the dyers from abstracting water from their wells in the middle of the river. In August 2002, the panchayat had dug a successful deep bore well in Chettipalayam which temporarily solved the drinking water problem in Appipalayam village. Water was rationed among the different hamlets. A single flow of water in the Amaravathi eased the situation till Mar. 3003.

Unfortunately, the northeast monsoon in Sep. – Dec.2002 and the southwest monsoon up to Aug. 2003 has failed. So the region faced drought conditions for three years in succession.

Water rationing was again reintroduced. More bore wells were dug, but the yield was not good. The hand pipe in the bore well near the temple in Chettipalayam was acting as the last resort for hamlet people in urgent need of water. In August 2003, the households that were drawing Panchayat water using electric motors were warned to desist. Some were in fact using the water to irrigate their coconut palms. As the warning was ineffective, a police complaint was lodged which has at least temporarily solved the problem.

Pollution Problem

In January 2002 a significant event took place connected with this issue. "Best Colours", a dyeing unit was located in Kaliappagoundanpudur, half a km south of the Kethampatti – Coolinaikanur road. Kaliappagoundanpudur was a dry village about one and a half kms south of the Amaravathi dam near Chettipalayam. "Best Colours" had its own effluent treatment plant. Like the other dyeing units, it had also abandoned the treatment of effluent water. The people living in the adjacent area protested against the letting out of the effluents in their vicinity.

The owner found an ingenious solution for his problem. He purchased the rights to use an abandoned pipeline which commenced from near the check dam in Amaravathi river and ended up in Kaliappagoundenpudur. What happened was that in 1976 Thiru. N. J. and eight others joined together, laid a pipeline from the riverbed to their lands in Kaliappagoundenpudur, and irrigated their lands. This pipeline was intended to pump water two kms. from the river up an elevation of nearly 50 feet. Their oil engine installed in their 'Vattai' well on the riverbed and the well itself was washed away in the 1977 floods. So the parties abandoned the pipeline altogether. `Best Colours' purchased the rights to this abandoned pipeline in 2001.

Then the owner of "Best Colours" let out his effluents through this pipeline. Because the dyeing unit was in a higher elevation and the mouth of the pipeline was in a lower elevation near the river, the effluents began to flow due to gravity downwards directly to the lands adjacent to the dam, from where the Thirumanilaiyur channel begins. Thiru.S.N., whose agricultural lands are located adjacent to the dam, noticed the flow of effluents but could not locate the origin because the pipeline had been buried into the earth. Only after a few days investigation, he and other farmers in the vicinity could find out from where the effluents were being discharged. Thiru. S.N petitioned to the Panchayat President and sought the Panchayat's help to stop the flow of the effluents. The Panchayat President got a resolution passed to the effect that any unauthorized pipeline carrying effluents would be sealed up. The villagers in Chettipalayam and Appipalayam became agitated because this was the first instance in which effluents were entering the Panchayat area of Appipalayam village. On 22.01.2002 the villagers led by the Panchayat President and the Village Administrative Officer went to Muthucholipalayam where the pipeline was traversing the village purambokku area. They broke the pipeline there and sealed it with cement. This effectually stopped the attempt by a dyeing unit to clandestinely discharge effluents into the Appipalayam panchayat area. Since he was not able to find any other outlet to discharge his effluents, the owner of "Best Colours" closed the unit within three months.

As narrated earlier, between 1998 and 2002 eight CETPs commenced working in and around Karur. Of them two were located in the Karur -Chettipalayam road, one at Sukkaliyur and the other at Karuppamplayam. In addition, private dyeing units,

which were either too large or which were not close enough to the common effluent treatment plants, constructed their own individual effluent treatment plants. The water let out from these plants was certainly better than what it was before treatment. However the treated water itself was not potable and contained dangerous chemicals and was not up to the standard specified by the pollution control boards. In the Appipalayam Panchayat limits, there were seven private dyeing units, which had permits to discharge their effluents in private lands. The water let out in their private lands began to contaminate the water sources all around them. As the points of discharge of these effluents were located in a higher elevation, and the channel and river were in a lower elevation, the contamination was gradually spreading towards the riverbed, where the drinking water well of Appipalayam and Chettipalayam are located.

There was another problem also. The treated water left a big amount of residue in the premises of the treatment plants. This residue was sun dried and became cakes. These cakes were piled up to become mini-mountains. The dyers did not know how to dispose off these unwanted cakes. Some in fact threw it by the roadside. During the next rains these cakes were soaked and polluted the entire area. The net effect was that local pollution did not diminish.

There was a cost advantage for those few dyeing units which were located far away from the town which did not use the facility of a common effluent treatment plant or did not own their own effluent treatment plant. They were able to underbid those who treated their effluent discharge. A free rider problem emerged. Soon all the dyeing units, one after the other, began to abandon treating their effluent water. Ultimately everybody abandoned treating the effluent water. The Common Effluent Treatment Plants would work only on those days when there was an inspection from the pollution control officers. Every body knew that these inspections were eyewash and were undertaken to satisfy some record purposes. The officers would inform well in advance when they would inspect the effluent treatment plants. So once in a month or once in two months, a passer by would be surprised to see that the CETP at Karuppampalayam or Sukkaliyur working.

The Appipalayam panchayat was the first to protest against the discharge of effluent into the Thirumanilaiyur channel and Amaravathi River. Others like Karuppampalayam were more severely affected, but did not officially protest. Main reason was the kinship relations among the dyers and affected people.

However, on 23.09.2000 the people of many of the affected villages from Appipalayam, Thoranakkalpatti, Karuppampalayam and Thirumanilaiyur sent a petition to the Collector to stop the discharge of effluents into the channel and the river.

On 5th April 2002, seven of the affected well owners in Appipalyam whose water had been contaminated by subsoil percolation of effluents, petitioned the Panchayat Union and the Pollution Control Board and requested action against the dyeing units causing this problem. On 17th April 2002, a Peace Committee meeting was convened to discuss this problem. The seven affected well owners and the Panchayat President stated forcefully their case. One of the well owners graphically described how his well was full of water when others were complaining about scarcity; and how he was not able to use the water either for irrigating his crops or for rearing cattle. The pollution control engineer, Karur, asked his officers to take samples from those wells. The analysis established beyond any doubt that the water in those wells were totally polluted. As in the past, the representatives of the dyeing units requested time for action and got three months reprieve.

During the drought they found that their industrial demand for water had become high. So they attempted construction of a giant well in the river. As explained earlier, this was resisted by the Appipalayam and Viswanathpuri Panchayat Presidents, because it affected the water supply of their drinking water wells. On 15.08.2001, the Appipalayam panchayat with Thirumathi. Eswari Subramanian as President passed a resolution protesting the construction of giant wells in the river. The resolution stated that the river water should be used primarily for drinking purposes and for agriculture and should not be allowed to be used for industrial purposes. Nevertheless the dyers were digging a second well in the Appipalyam riverbed. They also began purchasing water from farmers to satisfy their industrial requirements.

For very special reasons, which I had narrated earlier, the dyers themselves were supplying water to Sukkaliur and Karuppampalayam villages. It was becoming more and more costly as they had to purchase the water now. So they decided to use the new well they had dug in the Amaravathi riverbed in the Appipalayam area where there was no pollution problem. They desired to link it by a pipeline to Karuppampalayam and Sukkaliyur. They got the approval of the Thanthoni Union Panchayat Commissioner for this scheme. They started digging the road-side for laying the pipeline from Sukkaliyur to Appipalayam village. Normally pipelines would be laid from the well to the place where the water would be utilised. In this case, a reverse procedure was adapted.

On 3 Sep. 2002, Appipalyam village people held a meeting to discuss this issue. They decided that they would allow Karuppampalayam and Sukkaliyur people to draw drinking water from the well in Appipalayam limits only if those villages pass a resolution in their Panchayat that the drinking water well within their limits had become contaminated and so alternative sources should be explored. Appipalayam people were convinced that they could force the pollution control board and the TWAD to take effective steps to stop water contamination in their area only if there was official admission of the known fact that the entire 5 sq.km area around Sukkaliyur had become totally contaminated and water there could not be used for drinking.

However, Karuppampalayam panchayat was not willing to pass such a resolution. The President of Karuppampalayam, of which Sukkaliyur is a hamlet, himself is a dyeing factory owner.

Once the digging for the pipeline came up to Appipalayam Panchayat limits, Appipalayam villagers joined together and stopped further digging. A conflict ensued. The Panchayat Union officials convened a Peace Committee meeting in June 2002 in the Panchayat office at Chettipalayam. There the Appipalayam people argued that the Amaravathi river flowed in Sukkaliyur also and that the people of Sukkaliur should draw the water from the Sukkaliyur area itself. The officials replied that the water in that area had become contaminated. The Appipalayam people countered that it had never been officially admitted. The Panchayat Union officials could not convince the Appipalayam people to release drinking water to Sukkaliyur from their village limits.

Meanwhile, on 3rd August 2002 the people of Mochakottampalayam, a village located in the opposite bank of Amaravathi river to Appipalayam village, had petitioned the District Collector that the drinking water in their region had become contaminated by the discharge of effluents from the dyeing units in their area. On 4th August 2002 the District Collector, Karur, had issued a warning to all the dyeing units located along the Thirumanilaiyur and Pallapalayam Rajavaikkals (channels) that they would be closed because their discharges had made the water unfit for drinking purposes. So he had suggested that all of them should immediately treat their effluents with reverse osmosis process. To my knowledge this was the first admission from official sources that the effluents from the dyeing units had made the water in their region not fit for human consumption.[1] [A digression on T.N.P.L pollution]

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1 T.N.P.L is the largest paper factory in India. It is located in Pugalur near Karur. It uses large amount of water for its operations. It draws the water from the Cauvery river. After use in the factory the water was discharged into the Pugalur channel flowing via Thottakurichi. A large number of farmers using this water found that the water was contaminated and seriously affected their crops and reduced their yields. At the same time, another set of farmers claimed that they were getting water which they would not have got otherwise had it not been for the discharge from TNPL. They supported the discharge of the used-up water from TNPL into the channel. So there were internal conflict among the farmers regarding the pollution caused by TNPL. TNPL itself was claiming that it was treating the water properly and that what was let out was not contaminated.

In 1992, the Pugalur Consumer Protection Committee with Engineer TN Sivasubramaniyan its President wrote to Pugalur TNPL factory to stop contaminating the water sources in the region. The TNPL responded by saying that it was taking all steps to remedy the defects. However the actions of TNPL did not satisfy the Pugalur Consumer Protection Committee. So they filed a case in 1997 in the Madras High court against TNPL's actions resulting in environmental degradation. The Madras High court appointed a committee consisting of Justice K.A. Samy, A.G. Kulkarni, Director of Central Paper Research Agency and Prof. M. Ravindran of Indian Institute of Science to report on this issue to the High court. Their report was submitted in Nov. 1999. On the basis of the report, the Madras High court passed an order on Aug 3, 2000. They have ordered TNPL to implement the recommendation of the committee. Now TNPL has stopped letting out its effluents into Pugalur Channel. They are now letting out their effluents in a private plot in Moorthipalayam, where they grow raw material for their paper factory. They also supply water to private farmers who are willing to use that water.

Karuppampalayam Panchayat appealed to the Commissioner of Thanthoni Union to help them get drinking water for its people. The Commissioner, in turn, informed the Dt. Collector about the opposition from Appipalayam people. The Dt. Collector held that drinking water was a priority item, and that it should be provided first, and any dispute among the villagers could be settled later. Accordingly he ordered the RDO to directly oversee the laying of the pipeline to Sukkaliyoor, and to arrest anyone who resisted the action. So the RDO, Commissioner and Police came with the earthmoving machine on 9 Sep. to Appipalayam to execute the Dt. Collector's order. However, the Appipalayam people offered united resistance. As a law and order situation was anticipated, the RDO decided to convene a Peace Committee Meeting.

The fact that Appipalayam people were taking protective action to prevent their water sources from being contaminated instigated the Sukkaliyur people, whose water source had already been contaminated, to make a protest. On 23 Sep. Sukkaliyoor people organised a road roko against the polluting dyeing factories. They broke the pipelines of Common Effluent Treatment Plants. Next day the MLA, officials and Pollution Control officials inspected the entire area. TV and media highlighted the problem.

The Peace Committee Meeting was held on 26 and 27 Sep. 2002 at RDO office. The representatives of Appipalayam and Karuppampalayam Panchayats, dyeing factory owners and the Karur MLA, and authorities of revenue, police and pollution control departments participated in the meeting, where the pollution problem and the contamination of drinking water was seriously discussed.

Thiru. T.N. Sivasubramanyan, Karur MLA, is an Engineer and had led the agitation against pollution by TNPL. He offered a compromise formula. He impressed on the dyeing factory owners that they would have to stop pollution. So he suggested that:

- The dyeing factories and CETPs must individually or collectively establish 'reverse osmosis' [RO] plants, which would eliminate the problem. Six months time would be given to them to establish them.
- Meanwhile, the dyeing factories and CETPs which were letting out polluted water in ground in Appipalayam and Karuppampalayam areas should stop till they laid pipelines and left it in the channel at a point beyond the inhabited section of Sukkaliyoor. Once the RO plants were established, this pipeline could be abandoned as it would become useless. Letting out pollutants in the channel would be permitted only for six more months.
- Once the dyeing factories stopped discharging effluents in private lands, Appipalayam people should allow the drinking water pipeline to Sukkaliyur to be expeditiously completed.

All the participants agreed to the formula, and signed an agreement to that effect in the RDO office.

Within a week, the seven dyeing factory owners who were letting out effluents in their private lands in Appipalyam limits informed the President that they would stop production till the new pipeline to remove the pollutants to the channel was laid. On that promise, Appipalayam people allowed the drinking water pipeline to Sukkaliyur to be completed. Those seven dyeing units kept their promise and so the pollution problem in Appipalayam area was temporarily solved.

However there was no sign of any of the private dyeing units and CETPs starting any RO plants. There was disagreement among the people of Karuppampalayam and Sukkaliyur about the alignment of the proposed pipeline to let out all the pollutants into the channel and about the point where the discharge was to be made. When the CETPs started laying the pipeline, some people objected to the alignment. So that part of the agreement was not given effect to. Karuppampalayam and Sukkaliyur pollution problem remained unsolved. There was no unity among the people of those hamlets.

When the sixty days time limit for the execution of the agreement expired, there was another uprising of the common people of Karuppampalayam and Sukkaliyur against pollution. As the MLAs compromise formula had not been executed (except with reference to Appipalyam area) and as both the dyeing units and the people had violated its provisions, the MLA pleaded his helplessness in the matter. The Peace Committee meetings did not produce any effect. There was continuing disturbance in those hamlets.

The Tamilnadu Pollution Control Board sent its secretary to investigate the matter. He came and inspected the sites. He found the display boards in Appipalayam wells warning the people that the water in them were unfit for animal and human consumption. These boards were displayed after the water had been tested for contamination. He also saw the discharge points of effluents into the channel. On his report, the Board ordered on 29th Nov. closure of the two CETPs and other private dyeing units totalling about 120 in the area, excluding the seven which acted according to the agreement.

A large number of labourers employed in those factories lost their employment. The dyers lost an important source of income. The pollution control board pressurised them to accept the condition that they would install RO plants within six months. As the investment was high, they resisted. The textile industry in Karur in Jan. 2003 announced that they would go on a strike if the dyeing units were not allowed to reopen.

On 28 Jan. the pollution control board permitted the dyeing units and CETPs to reopen. However the pollution problem of the area has attracted the attention of Tamilnadu Human Rights Commission, which sent its representatives to investigate. For Sukkaliyur people, the drinking water problem has been solved, but the pollution problem remains.

In Aug. 2003, a set of Karuppampalayam and Sukkaliyur people are reported to have filed a case in the Green Bench of Chennai High Court against the dyers who are causing the pollution problem. The people of the locality are anxiously awaiting the verdict of the court.

Water Releases from the Reservoir – 2003

The south-west has failed again till September in 2003

So the drought continued in the summer of 2003 also. Water sales intensified in the region. The water table began to fall at an alarming rate. Many of the bore wells which were supplying water began to dry off. Those who were selling water dug deeper bore wells. Farmers began losing hope over the prospects of agriculture regaining its old prosperity.

Dyeing factories gave advances to the bore well owners to deepen their wells and to purchase generators. With every such deepening, the ground water table was also going down. So some bore wells which were previously successful had to be abandoned. For many small farmers, the capital loss due to such abandonment was really enormous.

The advancing south-west monsoon in the catchments area of Amaravathi bestowed only scanty rainfall in the summer of 2003. In June-July, 2003, the Amaravathi reservoir level reached only about 36 feet, against a full level of 75 feet. To meet the drinking water requirements of the villages and towns downstream, the Chief Minister ordered release of water from the reservoir "for ten days from Saturday for areas under Udumalpet, Dharapuram and Karur Assembly constituencies."

"While 2,000 cusecs is being released from the reservoir for the first three days, 1,500 cusecs for the next four days and 1,000 cusecs for the last three days". [The Hindu -20 July, 2003]

Water was released at the dam on 21 July, 2003. The PWD and revenue authorities took all precautions to see that water from the river was not diverted in any of the twenty five channels in the old ayacut area. So the water flowed along the riverbed till it reached the tail end. In Chettipalayam, there was a limited flow of water for about five days from 26 July. The drinking water wells were recharged. Hoping that there would be rainfall to supplement the flow, a few pump set-pipe line owners planted turmeric, and onion as an intercrop. But others took the cautious route and planted Cholam, (bajra) mainly as a fodder crop. The flow was certainly life giving flow for common people. It had only a limited impact on agricultural operations since there was no flow in the channels.

It did not rain again till the end of August, 2003. Drinking water scarcity returned to almost all the villages and towns downstream. The people clamoured for another flow in Amaravathi. The water level in the Amaravathi reservoir reached about 30

feet by the first week of Sep. 2003. Chief Minister ordered another release of water in Amaravathi exclusively for drinking water purposes. For two days 1,500 cusecs was to be released and for the next eight days, 1,000 cusecs was to be released.

Water was released on 13 Sep. 2003. This time the PWD and revenue authorities did not enforce the order that water should not be allowed to be diverted in the upper channels in the old ayacut system. So water flow did not reach beyond Dharapuram. There were angry protests from the villagers in the lower reaches of the river. But nothing could be done. In the Panchayats, acute water scarcity prevailed.

Even the Cholam crop raised by the pump set- pipe line farmers began to wither. The onion intercrop in the turmeric fields totally withered away. Drinking water for cattle became a major issue.

The receding south-west monsoon came to the rescue of this region in the last week of September. Within a fortnight, nearly six to eight inches of rains fell in the region ending three years of draught. North-east began around 20th of October. Slowly the water level in the reservoir began to increase. By 18 Nov. 2993, it reached 60 feet.

Generally all sowing operations for most of the crops would be over by September every year in this region. But due to scarcity of water, all sowing had been suspended this year. When the reservoir level reached 35 feet by the first week of November, lower riparians clamoured for a release of water. But no release was made. Even when the reservoir level reached 50 feet, water was not released in the river. By 20th Nov. water level in the reservoir reached 60 feet. Now the lower riparians have started complaining that water release is deliberately postponed to conserve water to cater to the needs of upper riparians. No explanation is forthcoming as to why water is not released in the river, even after the storage has reached relatively comfortable level. Thus the conflict is still continuing even after the rains!

SECTION VII

CONCLUSION

On 26th April 2002, Thiru. C.S. Si., who laid the first pump set – pipeline in Chettipalayam hamlet to irrigate more than forty acres of his dry land, died. His body was cremated on the Amaravathi bed near the spot where his pipeline began and where his forefather's had settled first in mid 19th century. His forefathers sold their lands in Cauvery belt to migrate here, because they found this area to be fertile, endowed with perennial water supply, and was having vast opportunities for advancement. The irony was that the relatives of Thiru. C.S.Si. had to purchase a tanker load of water to douse his funeral pier, to pick pieces of his bones to perform the last rites! Such was the severity of drought in this region.

If 1970-80 marked the high water mark in this hamlet's economy, the year 2002 marked its very nadir. Many pump set – pipeline holders had to allow their sugarcane, banana and turmeric crops to dry up. For the first time a few villagers began purchasing water to satisfy their domestic or ceremonial needs.

The boundaries of acceptable behaviour have changed drastically in the hamlet in the last fifty years. The customary modes which were dominant in the past have almost disappeared. Now a hybrid has replaced it. The life-cycle ceremonies are still celebrated as in the past. But the sharing of work and benefits in them according to a predetermined pattern has disappeared completely. A cash nexus has now replaced it. Payments in kind have almost disappeared. Cash wages have become the norm. So performance of life cycle ceremonies costs wads of money now. Labouring classes have switched over to eating rice, giving up coarse cereals. The persons in the lowest rung of the economic ladder are becoming conscious of their rights. Girl children wear churidars and cycle to school. Untouchability still continues to exist, but is on the wane.

In 1950, every young boy would be trained to plough. Today, very few young men are learning to plough with animal power. Draught animal population has drastically fallen. Use of wooden ploughs has become extremely rare.

Consumer culture has spread fast, thanks to TV.

After the death of C.S. Si., the largest house in the Chettipalayam hamlet is kept locked. During the floods of 1977, many labourers' houses were washed away. They have moved to a new colony about one km. away. In the last three decades, many supervisory landlords have moved away from the hamlet. Now there are only about 15 inhabited houses in the hamlet. It is slowly becoming a ghost hamlet.

Fortunately, the neighbouring Kizhakkalur and colony are growing in size and prosperity. The owner-cultivators and labourers live there.

Young boys and girls refuse to believe that their elders crossed the Amaravathi river by 'Parisal' (leather boat) when they were young! Nor would they believe that packs of foxes used to roam in the river bed in the night, and that the 'kuttukkadu' gave them a hiding place and shelter. The river which once recharged and regenerated water is totally dry for most of the year now.

In 1950, sale of land was considered to be an unimaginable calamity. Now there are many who are willing to sell land, but there are no takers.

The irrigated land in the entire Appipalayam village was about 42 ha. in 1950. Now it has exceeded 200 ha, most of it in No.6 account, mainly due to pump set – pipe line combination.

The drinking water wells in the riverbed are not getting enough percolation water to supply the needs of the hamlet. No one imagined even in 1990s that the wells in the riverbed would not be able to supply even the drinking water needs of the hamlet! With every additional bore well, the subsoil water table is also sinking fast.

Agriculture was the sole occupation of its people in pre-independence days. Now it is the sole occupation only for the elders. Less than fifty per cent of the younger generation are engaged in it. Agriculture is no longer an attractive profession. If they are offered a choice, most practitioners would probably leave agriculture at present.

There were many famines in this region in the past. At no time within the memory of the dwellers in the hamlet did the drought continue for three years consecutively. At no time in the past did the people suffer so much even to secure drinking water for people and cattle.

One striking difference between the past famines and the present one is that now labourers are not available for agricultural work. During the earlier drought years, when a farmer decided to sow an acre of paddy and searched for labourers, there would be so much oversupply from so many surrounding villages that he would find it an embarrassing task to eliminate the excess supply. But during the current famine, that phenomenon was totally absent. The number of labourers exclusively dependent on agricultural work is shrinking in every village in this region. The drought drastically reduced the area under cultivation. Nevertheless, there was difficulty in obtaining labour for timely operations. In fact, for the labouring classes, it was income from non-farm occupations which mitigated the suffering from the famine.

In 1950, the hamlet was unaware of the issue of pollution. Now it is putting up a brave fight to prevent its spread.

Amaravathi river supplied the life blood of the hamlet. In the past it was a healthy river. Thanks to its abundant sand cover, it was flowing perennially, at least in a trickle. Now the sand cover is almost gone. It looks anaemic. It is bone dry. Even the remaining sand is being mined downstream. In 2002, water flowed in it only for twenty five days. Compared with 1950s, the farmers face much greater uncertainty about its flow today, after the construction of a reservoir to stabilise its supplies!

Chettipalayam was once reputed to be a prosperous hamlet in the Karur region. Now its future is not so clear.