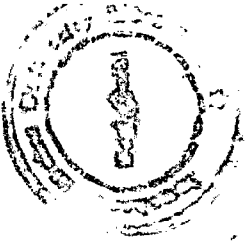


**LIQUOR CONSUMPTION IN KERALA**  
**A Study with Special Reference to the**  
**Decline of Toddy**

DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF  
MASTER OF PHILOSOPHY IN APPLIED ECONOMICS  
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NEW DELHI

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**TRIVANDRUM**  
**1987**




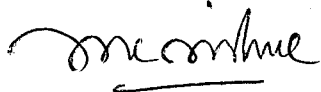
I hereby affirm that the research for this dissertation titled "Alcohol Consumption in Kerala A Study with Special Reference to the Decline of Toddy" being submitted to the Jawaharlal Nehru University for the award of the Degree of Master of Philosophy was carried out entirely by me at the Centre for Development Studies.

Trivandrum.

  
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Certified that this dissertation is the bonafide work of Sri Sananda Kumar.S. and has not been considered for the award of any other degree by any other University. The dissertation may be forwarded for evaluation.

  
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## CHAPTER 1

### INTRODUCTION: TODDY INDUSTRY IN KERALA

Alcohol in one form or other has been a universal beverage, prevalent in all communities in all ages. The kind of alcoholic beverages and the level of their consumption reveals considerable variations not only between societies but also within the same society over time. They are determined by a complex set of socio-economic, cultural, religious and ecological factors. The present study seeks to document and explain the trends in the consumption pattern of alcoholic beverages in Kerala with special emphasis on toddy, the traditional drink of the region. In this introductory chapter we shall present a brief description of the characteristic features of toddy and the evolution and growth of the industry. It will help us to define the problem of the present study as well as serve as a useful background to our analysis in the subsequent chapters.

#### Toddy-its Nature and Charecteristics.

There is hardly a natural source of sugar from which some sort of alcoholic beverage is not made. Alcohol is produced from a wide variety of vegetable materials like sugarcane,

jaggery and molasses, various types of cereals such as rice, barley, wheat etc., fruits such as grapes and cashew, flowers rich in honey such as mahuwa, starchy tubers such as tapioca and potato and from sap juice of palms such as coconut, palmyrah, sago, date, etc (1). These beverages are prepared basically through three processes: Various types of wine as well as palm beverages are made by direct fermentation of the sugar present in the fruit juice or sap juice. In the case of beer, beverage is brewed i.e. it is prepared through the conversion of starch cereals into sugar by the action of enzymes and their subsequent fermentation. And finally, there are various spirits that are derived through the fractional distillation of the directly fermented or brewed beverages. The alcoholic content of the distilled spirit is understandably much higher than the fermented or brewed beverages.

Toddy is used as a generic name to denote alcoholic beverages that are formed through direct fermentation of various types of palm juices. The unfermented sap juice is known by the name "neera" in India (2). The neera undergoes self-generated alcoholic fermentation by the action of wild yeasts within a few hours of its collection. The fermentation process may be delayed if sterilised and lime treated collecting pots are used. The fermentation may go on for a period of maximum three days after which bacterial activity brings down the alcoholic content and acetic acid is formed. In fact, it is through this method, that

Vinegar is traditionally prepared in Kerala(3).

Due to its relatively low alcoholic content—the average alcoholic content of toddy consumed in Kerala may be taken as 6 percent(4)—toddy may be consumed in reasonable amounts without harm to the physical system or fear of drunkenness. And it used to be a part of the traditional diet of manual labourers among the lower castes in Kerala. There was a widespread belief in the nutritive value of toddy and its richness in vitamins and minerals and it was considered as a restorative beverage by field labourers (5). It used to be considered even as a preventive medicine for silicosis and pneumoconiosis caused by inhalation of silicious particles, dust or grit. It was also claimed to be a good diuretic that can be utilised effectively in cases of Lithiasis (6).

In Kerala toddy is almost entirely tapped from coconut palms. Palmyrah toddy was also significant before the state re-organisation. But its importance drastically declined when the palmyrah tapping regions of southern Travancore was integrated with TamilNadu. The sago palm (Choondapana) is also tapped in certain districts. As can be seen from Table 1.1 coconut palm constitutes nearly 97 per cent of the total trees tapped in Kerala.

Table 1.1.The Distribution of Palms Tapped in Kerala by Districts - 1983/84

Districts	Coconut Palm		Palmyrah		Sago Palm	
	I	II	I	II	I	II
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	2650	2610	1140	1200	0	0
Quilon	11909	11707	0	0	0	0
Alleppy	24597	24933	0	0	10	15
Idukki	1431	656	100	0	847	1017
Kottayam	16619	17826	0	0	4614	4559
Ernakulam	20520	21296	0	0	4097	4182
Trichur	26502	28332	1163	784	217	1408
Palghat	5655	2963	10697	10568	805	167
Malappuram	2469	2336	0	622	1522	1423
Cailcut	6363	7254	0	0	321	302
Cannanore	22724	25729	0	0	134	154
Wynad	325	382	0	0	145	153
<u>Total</u>	141764	145957	13100	11974	12712	13380

Source: Excise Department, Administrative Report Kerala Excise Department, 1983-84, Government of Kerala, Trivandrum, 1985.

Note: I and II refer to the 1st and 2nd half of the year respectively.

The palms can be tapped throughout the year. But by tradition a tree is continuously tapped, only for a period of six months and given rest for the next six months. The common belief is that the yield of toddy or nuts would be higher if it is given rest. The yield of toddy can vary according to the season of the year, the time of the day when it is drawn and other attendant circumstances. During rainy season the toddy yield increases and it declines in summer. Similarly, the yield of palms along the backwaters will be higher than that of trees in the dry areas.

The daily average yield of toddy is estimated by the excise department to be 1.5 liters for coconut tree, 1 litre for palmyrah tree and 4.50 for sago palms.

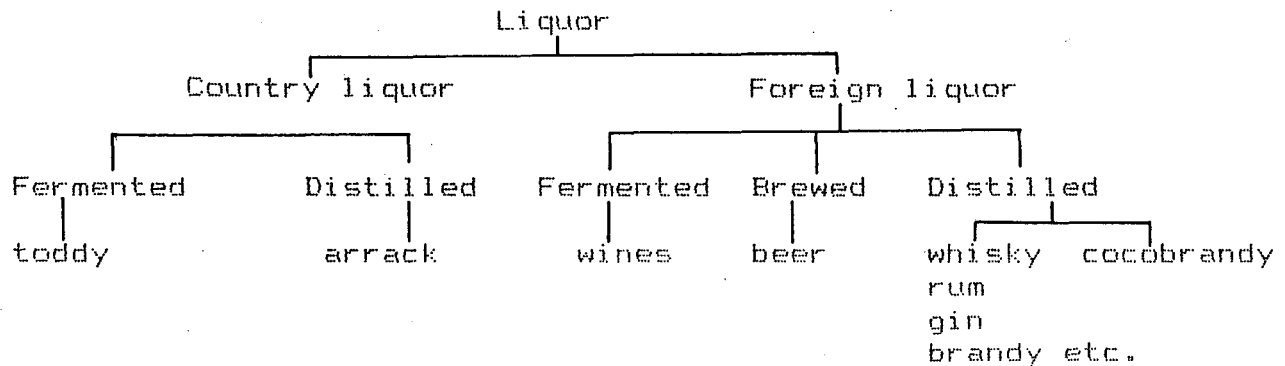
The tapping of the palms is a skilled work. The toddy is drawn from the unopened flower spathes of the palm. The unopened flower spathe is prepared by slightly bruising it with gentle taps with a small mallet, traditionally made from deer bones. To prevent it from opening the spathe is tightly bound with coir. The preparation period may extend to three weeks in the case of sago palm while only less than one week is required for palmyrah. In the case of coconut palm, two weeks of preparation is required.

When the spathe is nearly ready to produce toddy the free end of the spathe is cut. The sliced tip is rubbed with a special mud to fill up all the crevices. A light earthen pot is placed over the spathe. During the preparation the spathe would have gradually bent over and consequently the toddy flows into the pot. The tapper usually changes the pot twice a day, in the morning and evening. Each time he shaves off a thin slice from the end of the spathe, smear the end with herbal leaves and mud, and taps gently with the mallet. He has to take special care that the toddy is not spilt on the tuft of the tree and damage it. Two or three spathes may be tapped at the same time. And each one can be tapped up to a period of two months.

Drawing of toddy from various species of palm trees is a common feature of all palm growing tropical countries(7).

Therefore, it is not surprising that in Kerala where coconut palms are in abundance, toddy has been the traditional alcoholic beverage of the people. The traditional distilled alcoholic beverage, known as arrack, was also usually prepared from toddy. Apart from toddy arrack, distilled spirits from cashewnut fruits, brewed rice as well as gur was also consumed, though to a much less extent. Toddy and arrack, the traditional alcoholic beverages, are known as "country liquors" in excise regulations.

Wines from grapes and apples, brewed beverages like beer, and distilled spirits such as whisky, gin etc. from malted or unmalted cereals, rum from cane molasses, brandy from grapewine etc made their appearance during the colonial period. Their consumption spread among the native elite during the latter part of nineteenth century. These imported liquors were known as "foreign liquors". Today the term foreign liquor is applied not only to the imported alcoholic beverages but also similar drinks manufactured in India - Indian Made Foreign Liquor (hereafter IMFL). However, it may be noted here that most of the IMFL is only an imitation of the genuine whisky, brandy and gin etc., all of them being manufactured from the same base i.e. cane molasses. The differences lie in the level of distillation, the flavouring and colouring material added etc. Arrack is no more prepared from toddy but from the cane molasses itself. Distilled toddy is marketed as a 'foreign liquor' with appropriate colouring materials added, under the brand name cocobrandy. The classification of alcoholic beverages in Kerala is summarised in the chart below.



### Evolution of the Toddy Industry

Alcohol in modern times has everywhere been closely regulated by the governments. The motivations have been two fold: (a) to restrict the consumption of liquor and curb the dangers of alcoholism, and, perhaps more importantly, (b) to earn revenue. Given the relatively inelastic demand for alcohol it provides an ideal commodity for taxation. No wonder, the evolution of toddy industry is closely allied to the evolution of abkari regulations.

Eventhough during the pre-independence period, Kerala formed three distinct administrative regions, i.e. the Malabar district of Madras Presidency and the princely states of Cochin and Travancore, the broad contours of the evolution of the abkari systems have been very similar. One may discern three distinct phases in their evolution: (a) the profession tax system (b) the revenue farming-out system and (c) the independent shop auction system.

In the traditional society of Kerala ( and it continues



to be so even today) the toddy drawing was a caste occupation of the ezhavas, an intermediate, polluting caste. The hereditary occupation of the ezhavas was the rearing and cultivation of coconuts, and processing of its various products especially toddy drawing and arrack distilling(8). In the Tamil districts of southern Travancore, palmyrah tapping was undertaken by the shanar community. By ancient custom a sort of profession tax was imposed on toddy drawers and distillers of arrack, known as "Kathi Chatti" or "Knife and Still" tax. This practice was prevalent throughout Kerala, though the method of collection and the rate of tax might reveal regional variations. In Travancore it was collected by Vicharippukars and Pillaimars specially appointed for this purpose(9). In Malabar the customary tax continued even under the Mysore rule and was retained by the British, though at an enhanced rate. In 1801-02, the tax on Kathi (toddy drawer's knife) varied from .50 paise to 1 rupee and on chatti (the still of the distiller) from 1.5 rupees to 3 rupees(10). It was illegal to use any knife or still that were not specially marked by the authorities. However, there was large scale evasion of the tax and the system proved to be inefficient. It was replaced by the farming-out system.

Under the new system the privilege of manufacture and sale of toddy and arrack and collection of abkari revenue thereof over large tracts of land, say a taluk, were farmed out to the highest bidders either annually or, more often, for longer periods. The farmer could open as many shops, depots or

distilleries in the area allotted to him and sublet them.

Colonel Munro introduced it in parts of Cochin, as early as 1812. It was gradually extended to throughout the Cochin state(11). BY 1860 the whole of Malabar district had also come under farming-out system.

Travancore experimented with certain interim arrangements before finally adopting the farming-out system. In 1870 instead of the profession tax, Travancore introduced a tree tax of 3 1/2 annas ('Chethu Pattam') and a duty on jaggery and arrack. Due to difficulties of enforcement of the duty, the attempt was given up and a system of licensed contractors was implemented. Apart from the license fee, the contractors had to pay a tax on the toddy and arrack shops, as well as a duty on the arrack manufactured. Finally in 1822-23 farming-out system was introduced in Trivandrum taluk. By 1860 the direct abkari collection by Travancore Government had become negligible(12). Thus by middle of 19th century, the new abkari system had become prevalent throughout Kerala.

It resulted in a significant increase in revenue collection of the government. In Malabar, abkari revenue which had stagnated throughout the first half of the 19th century, never crossing Rs.70,000 mark, reached a record level of 2.8 lakh rupees in 1872(13). Similarly, the Travancore abkari revenue which was less than Rs 60,000 in 1859-60 steadily rose to around 6 lakh rupees before the turn of the century(14).

But the farming-out system too had various

shortcomings. Its basic weakness was that the government had no control whatsoever on the manufacture and conditions of sale of alcohol. An official committee of Government of India admitted: "As the combined privilege of manufacture and vend was granted to the same person, the contractor had his own say in the distribution of shops. These were multiplied in the profitable areas and out of the ways were left to be supplied by the illicit distillers. The result has been maximum consumption and minimum revenue to the government...The contractor's enjoyed the trade in alcohol as a monopoly and the profit of the monopoly went into their pocket and not into the coffers of the state" (15). Further, the control of toddy and arrack jointly under the same person had also potential of distorting the consumption pattern depending upon the relative profitability of toddy and arrack for the contractor. But it was considered that in Kerala, "where toddy arrack alone was then drunk and toddy shop-keeper had the materials for distillation always ready to hand" the separation of the manufacture and vending of the two was not possible (16).

The desire to maximise the revenue, however, led to a gradual replacement of farming-out system by a system of independent auction of each shop or group of shops to the highest bidder. Not only were the privileges of vending toddy and arrack separated, but also the rights of manufacturing and vending of arrack were separated. The right to manufacture arrack rested with the government and was exercised by means of contracting it to one or two central distilleries. Initially the

arrack was distilled from toddy itself. But soon toddy was replaced by molasses. In 1906 toddy arrack was banned in Malabar and the sole right to manufacture arrack from molasses and supply it to the shop contractors was given to Parry & Co.

In the case of toddy, the shop contractor continued to exercise the privilege of manufacturing the liquor. But toddy could be tapped only from trees that were specially marked for the purpose by the Abkari officials on the payment of a tree tax.

The Independent shop system was introduced in Travancore in 1877-78. By 1923-24 it was successfully extended to all the taluks except the hilly tracts of Devikolam. The extension of the new system in Malabar was even faster. It was introduced in 1886 in a few municipal areas but by 1881-82 had covered the whole district. Cochin was slowest to adopt the new system.

By the turn of the century a system of licencing of foreign liquor taverns had also developed. Thus we find government exercising control in every kind of liquor as well as every aspect of their manufacture and sale. The consequence was a rapid increase in abkari revenue which reached a peak of Rs 16 lakhs in Malabar and Rs 27 lakhs in Travancore by 1920-21 (17).

#### The Impact of the Temperence Movement

The substantial increase in the abkari revenue was not a mere reflection of the increased tax rates and rentals, it also reflected an increase in the consumption of alcohol in Kerala, a phenomenon which caught the attention of many a discerning

official. As far back as 1906, Nagam Aiya, the Dewan Peshkar of Travancore, expressed concern at this trend: "Considering that Hindus are a very abstemious people and the Mohammedans altogether debarred, according to their injunctions of their religion from the use of alcoholic drinks, it is undoubtedly a satire of our time, that temperance has to be preached in the chief centres of Indian population" (18). Consumption of foreign liquor among the "better classes" and the "well to do people had increased" (19). More importantly "even the lower orders of the labouring population (who) were satisfied with a comparatively innocuous drink drawn from coconut and palmyrah trees" had begun to develop new tastes for harder liquors like arrack (20). The shift from toddy arrack to cheaper molasses arrack perhaps also influenced the increased incidence of consumption of arrack. Increase in the consumption of arrack also would explain to some extent why the increase in the number of toddy tappers between 1901 and 1921 was only of a moderate scale (see Table 1.2).

Table 1.2.

## Growth of the Workforce in the Toddy Industry 1901-1931

Year (1)		Malabar (2)	Cochin (3)	Travancore (4)	Kerala (5)
1901	P	16,972	10,114	39,312	66,398
	M	16,972	10,108	39,231	66,311
	F	-	6	81	87
1911	P	25,668	6,985	45,251	77,904
	M	25,668	6,985	45,251	77,904
	F	-	-	-	-
1921	P	21,624	9,605	47,824	79,053
	M	21,610	9,605	47,824	79,039
	F	14	-	-	14
1931	P	10,919	4,573	23,246	38,738
	M	10,919	4,514	23,246	38,679
	F	-	59	-	59

Source: The relevant Census Reports.

Note: P=Persons, M=Male, F=Female.

The total number of toddy tappers increased from 66,000 to 78,000 between 1901 and 1911 and marginally to 79,000 during the next decade. Travancore region presents a relatively more steady increase while in Malabar the number of toddy tappers declined between 1911 and 1921.

Among the British administrators also there was concern about the increased incidence of liquor consumption. The Excise Committee was enjoined by the authorities " to bear in mind that so far as present information goes tari (toddy) is the least noxious of all the forms of alcohol in common use in India and it would be a grave evil to discourage its use. If this result should be purchased at the cost of driving the people to more

deleterious intoxicants and no considerations of revenue could be permitted to justify such a course " (21). However, it was the revenue considerations which ultimately prevailed. We have already noted the implications of the shift to cheaper molasses arrack.

As a result, the abkari policy of the British government became an important target of attack of the Indian nationalists. The nationalist critique was that the rising trend of alcohol consumption was a direct result of British abkari policy of maximisation of revenue, notwithstanding their pious statements regarding the need to restrict the consumption of liquor. The question of temperance was raised in the Congress resolutions even as early as 1888 (22). However it was with the rise of Mahatma Gandhi to the national leadership in 1921 that prohibition became an important slogan of the national movement. It became an important element of the constructive programme of the Congress. Under the leadership of Gandhi the temperance movement took course to active agitation in the form of picketing of toddy and other liquor shops. The picketing agitation attracted severe police repression which only made it an even more attractive form of anti-government agitation. The movement received an added impetus with the formation of Congress ministries at the provincial level in 1937. Congress ministries in Madras, Uttar Pradesh, Bihar, and Central Provinces introduced prohibition in selected centres despite the loss of considerable revenue involved.

Prohibition was an important activity of the nationalists in Kerala also, especially, of those in Malabar(23). With respect to Travancore and Cochin it was another stream of the temperance movement that created more significant impact. Temperance was an important programme of the social reform movement amongst the ezhava community, whose caste occupation as we noted also included toddy tapping. The traditional occupation of toddy drawing also carried along with it a stigma of ritual impurity and earned for the ezhavas derogatory name "Kotti" ( derived from the colloquial term for tapping). Sreenarayana Guru, the spiritual leader of the reformation movement, was very emphatic in his denunciation of liquor. Abstinence from liquor was an important element of the sanskritisation programme that he enunciated (24). One of his most famous statements was "Liquor is poison, never tap it, sell it or drink it" (25). His campaign had far reaching consequences. Some of the ezhava social reform activists who wanted to link the reform movement to the national politics made use of the abstinence campaign. In certain parts of Travancore like Shertallai the agitation took violent forms including, forcible disruption of liquor trade and confrontation with the police (26).

The public pressure on the Government of Travancore was such that in 1920 it appointed a Prohibition Committee to look into the matter. The Committee recommended a gradual reduction in the supply of arrack and in the number of liquor shops. The



number of arrack shops in Travancore declined from 697 to 393 between 1919-20 to 1940-1941. The number of toddy shops declined during the same period from 1200 to 1055. The abkari revenue declined from around Rs 27 lakhs to Rs 20 lakhs. The decline in liquor shops in Cochin was even sharper. Between 1904-5 and 1935-36, toddy shops declined from 2632 to 368 and arrack shops from 663 to 191 (27). And in Malabar it is seen that the abkari revenue never crossed the peak reached in 1920-21.

The above development resulted in a sharp decline in the number of toddy tappers in all the three regions. The total number of toddy tappers nearly halved from 79,000 to 39,000 ( See Table 1.2.) A part of the decline may have been due to conscious misreporting by the respondents in an atmosphere surcharged the temperance movement. But definitely there was an occupational shift away from toddy drawing. A large number of toddy drawers also migrated to Ceylon (28).

The temperance movement received a set back when the Congress ministries resigned their offices in 1939. The prohibition experiments which they had initiated were scratched. The war conditions also gave a spurt to the consumption of liquor. The abkari revenue began to once again climb up (29).

### The Prohibition Period

Following the attainment of independence the drive towards total prohibition was revived with vigour. "Prohibition of all alcoholic liquor and intoxicating drugs other than for

medicinal purposes " was enshrined as a directive principle of the Constitution itself. It was decided to introduce prohibition in a phased manner. Malabar and Chittoor Taluk of Cochin became dry on 1st October 1947. In August 1948, Neyyatinkara became the first taluk in Travancore to go dry. With the integration of Travancore-Cochin, prohibition was extended to 4 more taluks, Trivandrum, Nedumangad, Chirayankil and Pathanapuram. The last of the taluks to go dry was Kottarakkara on 1st April 1955.

Thus, at the time of the formation of Kerala in 1957, 58 per cent of the area containing around 56 per cent of the population was under prohibition. In terms of the modern day district boundaries the northern most districts of Canannore, Calicut, Malappuram and Palghat and the southern most district of Trivandrum were completely under prohibition. Trichur (3 out of 5 taluks) and Quilon (2 out of 6 taluks) were under partial prohibition. The central districts of Ernakulam, Alleppy and Kottayam continued to be wet (30).

However since 1955 "successive governments...dared not either to extend the prohibition to new areas or to scrap it from areas where it existed" (31). An important reason for the hesitation was the financial problems of the government. It was realised that the state could not afford to forego the revenue from abkari given the severe strain in the state's finances during the post integration period. There was also a feeling of frustration regarding the enforcement of the prohibition laws. The net result was that the state continued to be under partial

prohibition with dry and wet areas coexisting side by side, making the prohibition enforcement all the more difficult.

Co-operative societies were started to manufacture jaggery from toddy in order to give relief for ex-tappers. In 1962-63 there were 287 palm-gur cooperative societies in the state reportedly producing 1452 tonnes of jaggery (32). However, there were widespread complaints that the figures for production of jaggery were fictitious and that palm-gur cooperative societies acted as covers for illicit manufacture and vending of toddy .

A Palm-Gur Enquiry Committee was constituted by the government. The committee confirmed most of the allegations. It brought out numerous instances of fictitious book entries and gross irregularities. The reason was that coconut jaggery production was not at all a remunerative occupation. A coconut palm tapper engaging ten to fifteen trees could not make more than Rs.1 to 1.5 a day. The Committee noted that "the only way in which tappers are making a living out of their job is by indulging in illicit use of its juice and by fermenting it and selling it as toddy" (33).

On the recommendation of the Committee, the palm-gur cooperatives were re-organised and in 1966-67 there were only 180 societies in existence producing 1069 tonnes of jaggery (34). But the Administration Report of the Excise Department for the year admitted that complaints of misbehaviour by the societies and the tappers engaged by them were common as in the past (35).

Thus it may be concluded that eventhough prohibition was a crippling blow to toddy industry, the industry continued to survive even in the prohibition areas partly on the basis of jaggery production and partly catering to the demand for illicit toddy.

There is no way to have any close estimate about the extent of illicit liquor consumption in the prohibition areas. However, one may infer the relative magnitude of illicit liquor trade of the dry and wet regions from the trend in excise and prohibition crimes. Of course, it is assumed that the intensity of police operations both in dry and wet areas to be equal. In this context it may also be noted that since the contractors in the wet areas have a vested interest in curbing the manufacture and vending of illicit liquor, there is no reason to assume any laxity on the part of enforcement authorities in the wet areas.

The data provided by the Report of the Study Team on Prohibition reveals that the incidence of excise and prohibition crimes detected in Malabar region increased at a much faster rate when compared to Travancore-Cochin which contained the wet areas of the state between 1957-58 to 1962-63 (36). We have tabulated the crime statistics for 1962-63 for prohibition areas and non prohibition areas separately. The total number of cases registered according to various clauses of prohibition act and Abkari act were 11226 in the former areas, while in the latter areas it was only 2626. That is to say, the crime rate in the prohibition areas were four times the rate in the non-prohibition

areas. Assuming the intensity of police operations to be equal in dry and wet regions, one may conclude that the incidence of illicit manufacture is four times higher in the dry areas than in the wet areas. Or in other words, the prohibition led to a four fold increase in illicit liquor manufacture in the dry areas.

The immediate effect of prohibition must certainly have been a drastic fall in consumption of liquor, almost to nil, due to the non-availability of liquor. But the latent desire for liquor soon began to respond to the illicit liquor. The price of illicit liquor was relatively much lower when compared to licit liquor. It was reported that in the wet areas of Quilon the cost of arrack per bottle of 750 ml. was eight to ten rupees while in the dry areas illicit liquor was available at Rs 2.50 per bottle (37). Despite the lower price the bootlegger was able to get a profit margin between 500 to 1000 percent on the cost of production (38). The lure of profit provided the impetus to illicit liquor activity and cheaper price an incentive for consumption. Illicit liquor manufacture with its very high profit margin was, in short, a case of supply creating its own demand.

On a rough estimate, by the early 'sixties the total illicit liquor consumption in prohibition areas must have been in the order of 40 to 50 per cent of the level of consumption of liquor in the non-prohibition areas. A small part of it was certainly being met by the illicit toddy supplied by the jaggery societies. But apart from the toddy supplied by the jaggery societies the illicit tapping of toddy was severely

constrained by the audio-visual openness that the process of toddy tapping involved. More over, storing and transporting the bulk quantities of toddy was also very difficult. On the other hand illicit arrack had a distinct advantage in terms of possibilities of concealed production and transport. The illicit arrack could be manufactured with the help of certain crude implements and using locally available raw-materials such as jaggery, ammonium sulphate, barks of certain trees, rotten tubers and fruits (39). Further, the illicit distillation by its diffused nature and vending networks created new drinking habits and spread the demand for liquor more widely. Another source of illicit liquor in Kerala, was the various ayurvedic asavams and arishtams. Normal ayurvedic preparations contain only a low percentage of alcohol. But in the place of the genuine ayurvedic preparations intoxicating beverages with similar colour and aromatic substance were widely sold. Many a ayurvedic physicians became mere stockists for large scale manufacturers of illicit liquor under the guise of ayurvedic preparations (40). Thus the demand for liquor in prohibition areas was more and more met by cheaper distilled spirits at the expense of the traditional alcoholic beverage, toddy.

#### Toddy Industry in Non-Prohibition Areas

Now we shall turn to the toddy industry in the wet areas. It was estimated that in 1964-65, 15635 tappers were engaged for drawing toddy from coconut and sago palms in the wet

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areas (41). The earnings and income of these workers were definitely higher than their counterparts in the prohibition areas. However, in many areas due to the influx of tappers from the prohibition areas as well as the return of immigrants from Ceylon, underemployment among the tappers had increased. As the Minimum Wages Committee of 1958 reported "there was a time when sufficient number of tappers could not be found in particular locality. But of late employment position in the industry has been giving occasion for great concern ..... This super abundance of labour depending on tapping work has adversely affected the employment position in the industry. The inevitable consequence of redundant labour in the industry is large scale unemployment and consequent discontent among the tappers" (42). This growing discontent formed the background of the development of inter-regional trade union movement in the industry.

Toddy tapping industry was indeed one of the sectors in which the trade union activity had attained a level of maturity even before Independence. But these organisations had remained a localised phenomenon. In 1958-59 there were 36 registered trade unions in the industry (43). The fact that the workers were all drawn from the same caste and thus shared not only common economic grievances arising from numerous petty exactions and malpractices of the shop contractors, but also from social inferiority and grievances arising from their low caste position and derogatory attitude of the society to their occupation, facilitated rapid emergence of a common bond and a sense of union

among the toddy tappers. The emphasis of Ezhava Social Reform Movement on prohibition, perhaps, also facilitated their rapid conversion to the left social movements. The latter proclaimed affinity towards radical streams in the Ezhava Social Reforms Movement but did not propagate prohibition (44). It was invariably the communists who took interest in organising the tappers in various localities. Consequently, the toddy tappers from the very beginning constituted a militant and advanced section of organised working class in Kerala. Along with the communist party many toddy tapper's unions were also banned in 1949. But the repression, and the formation of a rival Congress trade union did not erode the morale of the toddy tappers. The movement received a shot in the arm when in 1951 some of the prominent leaders of the toddy tappers union were elected to the Legislative Assembly. The union activities were revived in 1952 and a Travancore-Cochin Toddy Tappers Federation was formed. Its formation marks a new phase in the development of trade union movement in the industry.

There was a wide variety of wage rates and diversity in working conditions in the industry. The wage rates varied, ranging from 8 paise in Thodupuzha to 19 paise in Mattanchery for a litre of coconut toddy in 1957 (45). As a normal practice the payments of tappers was made according to the toddy measured by them. But the unit of measurement varied from place to place. It was also a source of malpractices by the contractors. The average distance the toddy had to be carried by



the tappers to the collection point or the shop also varied. Wherever the unions were relatively stronger, the workers were able to wrest special allowance for transporting toddy above a minimum distance. Supply of tapping implements and accessories, payments of double wages on national and festival holidays, leave with wages, preparation allowances etc. were also some of the other gains. They were also able to restrain the arbitrariness of the contractors in determining the quality of toddy, as well as allotment of trees to the tappers. But in all these, significant regional variations continued to be present. In certain places it was reported that there were tappers who were engaged on daily wages. With the formation of inter-regional federations, demands for the tappers in the whole state began to be put forward and efforts were co-ordinated to reduce the inter-regional differences.

There was a spurt in the strike and agitational activities. These strikes caused great anxiety to the contractors who had to recoup their investment within a limited time period. Further, neglect of trees that were being tapped could damage the trees and cause heavy loss to the contractors. Government was also alert to the disputes in the industry due to the revenue loss they entailed.

The recommendation of the Minimum Wages Committee of 1958 as well as 1965 went a long way to standardise the wages and work practices in the industry. They also resulted in a substantial increase in the benefits. There was standardisation

of the mode of payment, unit of measurement and other labour practices in the industry. The collective negotiations through the Industrial Relations Committee (established in 1951) also facilitated fixation of standardised bonus rates, dearness allowances etc (46).

The <sup>greater</sup> standardisation of wages and other benefits as well as labour practices, resulted in giving a more organised nature to the industry as a whole. Unions also began to play a greater role in the recruitment of tappers and allocation of work within each locality. Industry had been notorious for its instability of working conditions, as the employers changed with every abkari auctions. The contractors individually had no permanent interest in any particular locality given the uncertainty of the outcome of the next auction. The emergence of inter-regional trade union federations and state-wide collective bargaining forced the contractors also to organise themselves into a state wide association in 1954. The employers association tried to exert pressure on the unions and the government by boycotting the annual auction in 1957. The communist ministry in power decided to meet the challenge by encouraging the formation of cooperative societies of tappers to run the toddy shops.

The result was an interesting organisational innovation in the toddy industry. In 1958-59 all the toddy shops in 5 ranges in the state were given to cooperative societies of the tappers. Concession with respect to tree-tax was given to the

societies. The negotiated rental were also much lower than the prevalent auction rates (47). The cooperatives proved to be successful as long as government patronage continued. There was significant increase in the earnings of the workers in the cooperative fold (48). The cooperatives collapsed once the communist ministry was dislodged. The new government took a vindictive attitude to the cooperatives and created numerous obstacles to their smooth functioning. The government resolved that the cooperative societies had to compete with the private contractors in the annual auctions. Only concessions allowed were, reduction in the deposit requirement for the cooperative societies and a remission by one half of the last instalment of the rental payment, "provided the payment due to the government were remitted in time" (49). In 1962-63 no shops were taken in auction by the societies. But in many areas the labour practices introduced by the cooperative societies had by then become customary and had to be accepted by the contractors.

#### The Post Prohibition Period

Meanwhile the critics of the prohibition policy increased. Toddy tappers formed "Toddy Protection Societies" even in the prohibition regions (50). Many independent people also began to seriously consider whether it was worthwhile to stick on to a policy which was not only difficult but was also actually aiding and abetting the bootleggers at the expense of the state exchequer. The leftist parties supported the withdrawal

of prohibition which had proved to be a failure in practice. With the victory of United Front led by the left in 1967, the fate of the prohibition was sealed. Kerala Government decided upon a complete reversal of prohibition policy from 1st May, 1967 when prohibition was lifted in the dry areas of the state.

Table 1.3

Distribution of the Toddy Tappers in Kerala

Districts	1971		1984	
	No of tappers (1)	% share (2)	No of tappers (4)	% share (5)
Trivandrum	825	2.73	881	1.97
Quilon	1300	4.30	2617	5.84
Alleppy	3702	12.28	3657	8.16
Idukki	-	-	2297	5.12
Kottayam	3587	11.87	4640	10.35
Ernakulam	6093	20.17	7914	17.65
Trichur	6187	20.48	10690	23.84
Palghat	3448	11.41	6167	13.76
Malappuram	840	2.78	1863	4.16
Calicut	740	2.45	940	2.17
Canannore	3490	11.55	3167	7.06
Kerala	30212	100.00	44833	100.00

Source: Census Report, 1971, Administration Report of the Kerala Toddy Tappers Welfare Fund Board, 1984.

The 1971 census revealed that there were 30212 toddy tappers in the state. According to the latest figures available their number has increased to 44833 in 1984-85. As can be seen from Table 1.3 around 65 per cent of the workers are concentrated in the erstwhile non-prohibition central districts. Another point that may also be noted that the total number of the tappers in the state is still around half the workforce in the industry in 1921.

The organisation of the industry has broadly continued to be as in the past. The number and location of shops is determined by the government and the privilege of sale through specified shops is sold in auction every year to the highest bidder, who has to remit 3/10th of the rental or 'kist' at the time of the auction and the rest in equal instalments over the years. Besides, he has also to pay tree tax for the trees selected for tapping. The whole state is divided into 104 excise ranges. From 1969 instead of each shop being separately auctioned whole ranges began to be auctioned as a single lot. In 1981 there was a brief reversion to the single shop auction system. From 1984 each range was divided into a number of groups of shops and a system of group auction was introduced. Eventhough there is no statutory regulation, it has become customary to treat workers in different localities to be attached to the shops in those localities so that the tappers do have a security of tenure if the contractors change. The trees are leased in by the contractors who directly pay the "pattom" to the land owners.

Due to the militant trade union activities among the workers the period also witnessed a significant increase in the wages as can be seen from the following table 1.4 depicting the trend in the wages and other payments in one of the most important centres of toddy industry in the state.

Table 1.4

Trend in the Wages and Other Payments of Toddy Tappers in Anthikkad, Trchur, 1967-68/1984-85

(Rupees)

year	price/ litre	DA/ days	Dw/yr	Bonus %	TA/ tree	PC, TC tree	Av. real monthly earnings
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1967/68	0.35	1.14	23	8.33	11.50	14	155.00
1976/77	0.50	3.50	33	10.00	17.50	19	293.00
1977/78	0.75	4.00	33	8.33	20.00	23	478.00
1978/79	0.77	7.83	33	18.00	20.00	23	595.00
1979/80	0.77	8.08	33	18.00	20.00	23	605.00
1980/81	0.77	10.85	33	18.00	20.00	23	668.00
1981/82	0.80	13.50	33	18.00	20.00	23	825.00
1982/83	2.40	4.27	18	6.50	29.00	32	729.00
1983/84	2.40	4.27	18	6.50	29.00	32	729.00
1984/85	2.00	4.00	27	8.33	29.00	23	656.00

Source: K.P. Kannan, "Of Rural Proletarian Struggle Mobility and Organisation of Rural Workers In Kerala, India, 1986, p.196

NOTE: DA=Dearness Allowance, DW=Double Wages, TA=Tool allowance, PC=preparation charges, TC=Transport Charges.

Between 1967-68 and 1981-82 it is seen that the basic wage rate (the price paid to the tapper for the toddy) increased by more than 128 per cent. When we consider their total earnings, despite a decline in the average output from 8 litres

per day to 6.5 litres a day, it is seen that the monthly earnings increased by 432 per cent . Their average earnings is not only significantly higher than the other sections of rural workers like agricultural labourers but also the average earnings of workers in the traditional industrial sector like cashew, coir, brick and tile. It also compares well with the earnings of the workers in many of the modern factories (51).

An important institutional innovation of the period has been the formation of Kerala Toddy Tappers Welfare Fund Board in 1970. The board consists of a government official as chairman and representatives of contractors and trade unions. Its formation has removed the problems arising from decentralised nature of production and the constant turn over of the employers for the successful implementation of the non-wage benefits schemes like provident fund, gratuity etc. The provident fund and gratuity contributions were to be collected by the Welfare Board. The Board besides paying the provident fund and gratuity on retirement, provides also loan facilities to the workers. Board upto 1983-84, has collected a sum of 3018.05 lakh rupees (52). The Toddy Tappers Welfare Fund Board is today considered as a model for the introduction of similar schemes for other unorganised industrial sectors in the state.

#### Statement of the Problem.

The above rosy picture that we have depicted is rapidly evaporating. It provides the point of departure for our enquiry .

To begin with, as can be seen from Table 1.4 there has been a decline in the wage rate, for toddy per litre, the D.A., the number of days for which double wages are given and the percentage of Bonus between 1981-82 and 84-85. The average monthly earnings of the tappers have declined by 12% between 1981-82, did not increase in 1983-84 and further declined by another 10% in 1984-85. It has been assumed that the output of toddy per worker has remained at 6.5 litres per day in the above calculation. But there is reason to believe that the employment available to toddy tappers has also declined. As can be seen from Table 1.5 the number of trees that are tapped in the state has not increased commensurate with the increase in the number of tappers. The average number of trees per tapper has declined from 5 in 1970-71 to less than 4 in 1983-84.

Table 1.5

The Number of Palm Trees Licensed for Drawing Toddy

Period (1)	Av. number of trees (2)	No of toddy tappers (3)	No of trees/worker (4)
1971/72	151154	30212	5
1981/82	163131	42457	3.84
1982/83	161347	43040	3.75
1983/84	161622	46324	3.49

Source: Census Report, 1971, Toddy Tappers Kerala Excise Department, Administration Report, relevant issues.

It leads us directly to the trend in the production and consumption of toddy in Kerala since the lifting of prohibition in 1967. We shall address to this question in the Chapter 2 of



our study. An attempt will be made not only to analyse the overall decline of the consumption of toddy in Kerala, but also of the inter regional pattern of its decline.

Another issue of concern is the trend in rental collection from toddy industry. This can be seen from Table 1.6, the toddy rentals has been stagnating in the recent period. As a share of the total of abkari revenue of the state the decline of the toddy industry is even more startling. The share has declined from 63 per cent in 1967-68 to 10.07 per cent in 1983-84. The above information leads to another set of questions that are analysed in chapter 3 of our study. What is the overall trend in the liquor consumption in Kerala? What are the changes that have taken place in the consumption pattern of alcohol in the state? Does the trend in rentals reflect any real increase in the consumption of other alcoholic substitutes for toddy like IMFL and arrack?

Table 1.6

Year	Rental revenue	Trend in the Revenue From Toddy.			
		Toddy Tree tax	Total Revenue	Toddy (Rupees lakhs)	
(1)	(2)	(3)	(4)	% Share in total rental rev (5)	% Share in total excise rev (6)
1961/62	174.2	23.8	201.0	77.56	62.00
1962/63	202.1	23.9	226.0	77.59	63.00
1963/64	227.6	24.5	252.1	77.36	65.00
1964/65	281.5	24.4	305.9	79.05	67.00
1965/66	302.0	25.4	327.4	78.88	65.00
1966/67	347.8	32.7	380.5	78.83	64.00
1967/68	529.8	50.6	580.4	53.93	63.00
1968/69	663.8	48.5	712.3	71.99	73.00
1969/70	408.2	67.7	475.9	60.88	55.00
1970/71	392.5	64.5	467.0	55.50	47.00
1971/72	356.0	54.8	410.8	43.79	41.00
1972/73	300.2	41.0	341.2	49.52	36.00
1973/74	238.5	44.6	283.1	43.27	24.00
1974/75	246.6	47.5	294.1	31.27	19.00
1975/76	269.4	47.7	317.1	23.57	-
1976/77	350.1	49.2	399.3	18.18	12.87
1977/78	437.9	52.5	490.4	18.74	12.55
1978/79	547.4	56.0	603.4	18.75	14.26
1979/80	683.4	51.7	735.1	15.20	12.05
1980/81	814.4	55.4	869.8	15.92	13.34
1981/82	1055.3	52.3	1107.6	26.40	20.51
1982/83	616.9	48.9	665.8	12.96	9.08
1983/84	731.7	51.7	783.4	14.74	10.07

Note: Total rental revenue is the total of auction revenue from toddy, arrack and IMFL.

Source: Excise Department, Administration Report, relevant issues

In Chapter 4 we seek to analyse the factors that have influenced the decline in the consumption of toddy in Kerala in the post prohibition period. We shall look into the factors that have governed the demand for toddy such as relative prices, and

income as well as changes in the consumption tastes arising from other factors such as urbanisation. An attempt is also made to analyse the possible supply constraints restraining the consumption of toddy.

In the concluding chapter, Chapter 5, we shall summarise our arguments and to draw some of the implications of the present trends for the future of toddy industry in Kerala.

#### Notes and References:

1. Alcohol may also be synthetically produced from ethylene, obtained from refinery gas.
2. According to Abkari Act of Kerala, Toddy has been defined as "fermented or unfermented juice drawn from coconut, palmyrah, date or any other kind of palm tree". Thus the sweet toddy or neera also comes within the scope of the word toddy. Government of Kerala, Kerala Excise Manual, Vol 2, Ernakulam, 1972, p. 59.
3. Tauro Patric, 'Vinegar from coconut and neera and coconut water', Indian Coconut Journal, 1963, 17(1) pp. 19-14.
4. Kerala Excise Manual, vol 2, Government of Kerala, Trivandrum, 1972, P. 57. At the peak of its fermentation the alcoholic content of toddy may go up to 8.1 per cent.

5. Analysis of toddy  
 (Specific gravity at 20 Cent. 1030 to 1040 pH-5-6)

Nitrogen	0.06 to 0.07	per 100 cc.
Protein	0.37 to 0.44	do.
Alcohol.EtOH	3.00 to 5.00	do.
Carbohydrates	5.00 to 6.00	do.
Ash	0.06	do.
P2O5 Phosphorous	0.70	do.
Acidity	15.00 to 18c.	N/10 Alkali
Vitamin B1,	30 micrograms	per 100 gms.
Vitamin B2,Riboflavin	500	do.
Nicotinic acid	5 mgms	do.
Vitamin C	15 mgms	do.

Tek Chand, Report of the Study Team on Prohibition, vol 1, Planning Commission, 1964, New Delhi, pp. 183, 182.

6. See the report prepared by Department of Nutrition, Government of Bombay in Tek Chand, Report of the Study Team on Prohibition, Vol 1, Planning Commission, New Delhi, 1964, pp. 181-184.

7. R. Child, Coconuts, Longman Group Ltd, London, 1974, pp. 295-6.

8. See Anantha Krishna Iyer, The Tribes and Castes of Cochin, Cosmo Publications, New Delhi, 1981, p. 327. It should be noted that even though all the toddy tappers were from the ezhava caste, only around 20 per cent or even less of this community could have been engaged in this profession.

9. T.K. Velu Pillai, The Travancore State Manual, Vol 4, Government of Travancore, Trivandrum 1940, p. 48.

10. C.A. Innes, Malabar District Gazettier, Madras, 1951, p 376.

11. C Atchutha Menon, The Cochin State Manual, Government of Cochin, Ernakulam, 1911, p 333.

12. See D. Bright Singh Financial Development of Travancore, Unpublished P.h.D. Thesis, Submitted to The Travancore University, 1944, p264.

13. F.B. Evans, op.cit. p.376.
14. D. Bright Singh Op.cit. pp.266-267.
15. Quoted in D. Bright Singh Op.cit. p.267.
16. F.B. Evans Op.cit. p376.
17. K.N. Krishna Swami Iyer, Statistical Appendix for Malabar District, Madras, 1933, Pages, 67&151 and D. Bright Singh Op.cit. p.273.
18. V. Nagam Aiya, Travancore State Manual, Vol 3, p.146.
19. Ibid. p.148.
20. Ibid. p.148.
21. Ibid p.147
22. See Tek Chand, Report of the Study Team on Prohibition, Vol.2, Planning Commission, New Delhi, 1964, pp.390-402.
23. P.K.K. Menon, History of the Freedom Movement in Kerala, Vol.2, Government of Kerala, Trivandrum 1972. P.
24. Sree Narayana Movement is certainly much more than mere sanskritisation process. For a detailed discussion read T.M. Thomas Issac, P.K. Michael Tharakan, 'Sree Narayana Movement in Travancore, 1888-1939, A Study of Social Basis and Ideological Reproduction, C.D.S. Working Paper No.214., Centre for Development Studies, Trivandrum, 1985.
25. M.K. Sano, Sree Narayana Guru Swami, (Malayalam) Vivekodayam Books, Irinjalakuda, 1976, P.408.
26. See Discussion on the Adjournment Motion on the repression of temperance movement in Shertallai, Proceedings of the Legislative Council, Vol.xviii, Government of Travancore, Trivandrum, 1931,

P.171-212.

27.D. Bright Singh Op.cit. P.277-278.

28.K.P.Kannan, Of Rural Proletarian Struggle Mobility and Organisation of Rural Workers In Kerala, India, Unpublished P.hd. Thesis, submitted to the Institute of Social Studies, The Hague, The Netherlands, May, 1986.

29.Dr.M.J.K.Thavaraj, Report of the Taxation Enquiry Committee, Government of Kerala, Trivandrum, 1969, P.176.

30.At present there are 14 districts in Kerala .Cannanore was bifurcated to form Kasargod, and Wynad was carved out of Cannanore and Calicut districts.Idukki was formed from Kottayam and Ernakulam districts and Pattanamthitta from Quilon and Alleppy districts.In order to facilitate easier analysis we shall be sticking to the nine fold district division enumerated in the text.

31.See the memmorandum submitted by C. Atchutha Menon, Secretary Kerala State Council of Communist Party. Tek Chand,Op.Cit. Vol 2. P.513.

32.Excise Department,Administration Report for the year 1962-63, Government Press, Ernakulam, 1964, P.12

33.Tek Chand Op.Cit. P.366.

34.Excise Department, Administration Report for the year 1966-67, P 12, Particulars regarding Neyyattinkara Taluk is not included.

35.Ibid.P 11 .

36. Cases Detected Under Sections of Prohibition Act and Abkari Act

Year	Travancore-Cochin	Malabar
1957/58	2048	4855
1958/59	2227	5870
1959/60	2630	7048
1960/61	3258	10216
1961/62	3563	10285

Source: Tek Chand, Op.Cit , P.104

37. Ibid. P.104.

38. Tek Chand Report of the Study Team On Prohibition, Vol 1, Planning Commission, New Delhi, 1964, P 243.

39. "Illicit distillation has become a very wide spread cottage industry in all the prohibition areas .And this distillation is carried on with all manner of materials, from used dry battery cells to centipedes. The worst poison is served as drink clandestinely. Very often drinks are sold in the form of ayurvedic preparations and essence. Those who want to drink resort to this highly deleterious things with consequent damage to their health". Tek Chand, Report of the Prohibition Enquiry Committee Vol 2, New Delhi P.503.

40. Ibid. P.106

41. E. Kuruvila Report of the Minimum Wages Committee for Toddy Tapping Industry, 1965, Government press, Ernakulam, 1966, P. 4.

42. Dy. Excise Commissioner, Report of the Minimum Wages Committee for Toddy Tapping Industry, Government Press, Trivandrum, 1958, P.5.

43. See K.P.Kannan, op.cit., pp 175.230, for an interesting case study of development of toddy tappers union in Anthikkad.
44. For a detailed discussion on the relationship between Ezhava Social Reform Movement and the working class movement in Alleppy, see, T.M.Thomas Iassac, "From Caste Consciousness to Class Consciousness": A Study of the Aleppey Coir Workers during the inter war period. 1985, EPW, Vol XX, No 4, Jan 26.
45. Dy. Excise Commissioner, Report of the Minimum Wages Committee for Toddy Tapping Industry, Government Press, Trivandrum, 1959, P. 21-22.
46. See the tables on the existing wage and other benefits in the various centres of the industry and the recommendations of the Minimum Wages Committees for Toddy Tapping Industry for the years 1958 and 1965 in Ibid and E.Kuruvila op.cit.
47. Kerala Excise Manual, 1972, Vol. 2, Government of Kerala, Trivandrum, p. 3.



48.

Monthly Earnings of Tappers Before and After the Formation  
of the Cooperative Society (in Rs)

Item (1)	1957/58 Before (2)	1958/59 After (3)	Difference (%) (4)
Price of Toddy	45.84	54.00	8.16
Preparation fee	2.00	4.00	2.00
Holiday wages	0.38	1.05	0.67
Leave with wages	0.64	2.25	1.61
Bonus	0.37	4.50	4.13
Tool allowance	-	2.08	2.08
Tree rent	19.50	24.00	4.50
Gross income	68.73	91.88	23.15
Less: Tree rent	19.50	24.00	4.50
Net Earnings	49.23	67.88	18.65

Source: Kannan, K.P. op.cit, p.193.

49. Kerala Excise Department, Administration Report, Government of Kerala, Trivandrum, 1969.

50. Tek Chand, Report of the Prohibition Enquiry Committee, Planning Commission, New Delhi, Vol 2 P.366-"The forces working to defeat prohibition was well organised. They even went to the extent of forming 'toddy protection societies' called Kallu Samrakshana Samithis. Their members and office bearers would go to the extent of victimising the informers and threatening witnesses.

51. Kannan, K.P. pp. 70 and 81.

52 Collection of Funds by the Kerala Toddy Tappers Welfare Fund Board.

Year	Fund Collection
1970/71	39.73
1971/72	63.34
1972/73	105.22
1973/74	91.81
1974/75	107.10
1975/76	167.89
1976/77	227.54
1977/78	239.83
1978/79	245.38
1979/80	273.84
1980/81	301.31
1981/82	336.69
1982/83	424.87
1983/84	393.50
<hr/>	
Total	3018.05

Source: Kerala Toddy Tappers Welfare Fund Board, Administration Report, various issues.

## CHAPTER II

### TRENDS IN THE CONSUMPTION OF TODDY

We have already noted the possibility of a decline in the consumption of toddy in the state. The present chapter is devoted to a detailed analysis of the phenomenon. We shall first present the overall trend of consumption of toddy in the state. We shall then analyse the regional variations in consumption.

#### Source of data

Our data source for this chapter is the Annual Administration Reports of the Kereala Excise Department. These reports provide taluk wise data on coconut palms, sago palms and palmyrah that are licensed for drawing toddy. We estimated the production of toddy assuming that on an average a coconut palm yields 1.5 litres, sago palm 4 litres and palmyrah 1 litre of toddy a day. We have used the production data as a proxy for consumption of toddy. For the state as a whole, this undoubtedly is a correct assumption(1).

This assumption, however need not strictly hold good at a disaggregated level. Toddy produced in one taluk may be

transported to a neighbouring taluk for sale. In the absence of any sales data whatsoever, we have no other option but to use the estimate of taluk wise production data for our analysis. Further, it must be noted that toddy being a highly perishable commodity it cannot be transported over long distances for sale.

### Trend in Overall Consumption

Table 2.1

Consumption of Toddy, 1961-62 - 1983-84

(Litres)

<u>Year</u> (1)	<u>Total Consumption</u> (2)	<u>Per-capita Consumption</u> (3)
1961-62	93988	5.42
1962-63	95725	5.38
1963-64	97709	3.36
1964-65	74940	4.01
1965-66	72414	3.79
1966-67	76611	3.91
1967-68	109957	5.49
1968-69	108542	5.31
1969-70	108943	5.21
1970-71	112150	5.25
1971-72	108361	4.90
1972-73	102016	4.60
1973-74	93326	4.13
1974-75	89268	3.88
1975-76	90322	3.86
1976-77	95179	4.00
1977-78	98502	4.10
1978-79	95593	3.88
1979-80	93340	3.73
1980-81	84501	3.32
1981-82	98527	3.81
1982-83	98078	3.73
1983-84	101805	3.81

Source: Excise Department, Administration Report, relevant years.

By 1966-67, the final year of the prohibition period the toddy consumption in the state had declined, from around 95,000 litres at the start of 1960s to around 75,000 litres. With the lifting of the prohibition the production sharply rose to over 1,00,000 litres in 1968-69. This was followed by a phase of decline reaching a trough of around 90,000 litres in 1975-76. Since then it has hovered between 95,000 and 100,000 litres.

The column (3) of Table 2.1 gives the trend in the per capita consumption of toddy in the state. To calculate the per capita consumption of toddy (as well as those of the other alcoholic beverages in the next chapter) we have assumed a constant rate of growth for population. It must also be admitted that even though the incidence of liquor consumption is very low among females and non-adult males, we have taken the total population figures for our analysis, as we are interested only in seeing the trend in relative consumption and not the actual volume of liquor consumed by an average consumer (2). In per-capita terms one may say that the consumption of toddy has more or less steadily declined from the peak year of 1967-68. The compound growth rate of the consumption of toddy for the state as a whole from the triennium ending in 1971-72 to that ending in 1983-84 works out to be (-)3.17%.

#### Consumption of Toddy: Prohibition and Non-Prohibition Taluks

We shall now examine the trends in the consumption of toddy at taluk wise, disaggregated level. The taluk wise per-

capita consumption of toddy for the years 1961-62, 1971-72 and 1983-84 are given in the maps, Map 2(a), Map 2(b) and Map 2(c). In order to facilitate easy comparison with the consumption of other types of liquor, we have converted the per-capita consumption of toddy into its alcohol content. We have taken the alcohol content of toddy to be 6 percent of the bulk. The taluks have been divided into five per-capita consumption groups: lowest consumption group of less than 0.2 litres of alcohol, low consumption group of 0.2 to 0.4 litres of alcohol, medium consumption group of 0.4-0.6 litres of alcohol, high consumption group of 0.6-0.8 litres of alcohol, highest consumption group of 0.8 and above litres of alcohol.

The Map 2(a) gives the regional pattern of consumption of toddy during the partial prohibition period. Toddy consumption was confined to the 28 non-prohibition taluks of Ernakulam (7 taluks), Alleppy (7 taluks), Kottayam (8 taluks), Trichur (2 taluks), and Quilon (4 taluks). (3) These taluks, on the whole, had a very high level of per capita toddy consumption, the average being 11.79 litres of toddy or 0.71 litres of toddy alcohol (3).

All the taluks in Ernakulam district belonged to the highest consumption group with an average per capita consumption of 17.96 litres of toddy or 1.08 litres of toddy alcohol. The non-prohibition taluks of Trichur and two out of eight taluks of Kottayam also belonged to the same group. These taluks formed a contiguous region in the central part of Kerala. In the southern

taluks of Alleppy and the non-prohibition taluks of Quilon the consumption was relatively lower. It was lowest in the predominantly hill taluks of Pathanamthitta, Peermade, Udumbanchola and Devicolam. In fact, in Devicolam taluk there was no toddy tapping at all.

With the lifting of the prohibition toddy consumption spread to all taluks in the state except Devicolam in the hills (See Map 2(b)). However, the traditional non-prohibition taluks continued to be the main centres of toddy consumption. The average per capita toddy alcohol consumption in these taluks was 0.40 litres. Eventhough it was lower than that of a decade earlier, it was significantly higher than the per capita consumption in the newly opened taluks. No taluk of the latter category, other than those of the Palghat district, the erstwhile prohibition taluks of Trichur and certain taluks in Cannanore district, had a consumption level above the lowest consumption group i.e. 0 - 0.20 litres. The average per capita consumption of toddy alcohol in the erstwhile prohibition taluks works out to be 0.15 litres of toddy alcohol.

We do not find any significant change in the relative inter-regional differences in the consumption of toddy when we examine the present day pattern in Map 2(c). The non-prohibition taluks in the districts of Alleppy, Kottayam, Ernakulam and Trichur (the hill taluks exempted) continue to be the relatively high consumption regions. The per capita consumption has further declined to 0.33 litres of toddy alcohol in the non-prohibition

taluks. In the prohibition taluks the per capita consumption for the year 1983-84 is 0.13 litres of toddy alcohol. The divergent trends in the consumption of toddy in the prohibition and non-prohibition areas can be seen in Graph 2.a.

The per capita consumption in the prohibition taluks, where toddy was reintroduced in 1966-67, stagnated at a low level and it never gained popularity. On the other hand, in the non-prohibition taluks, eventhough toddy consumption has rapidly declined over time, it continues to be one of the favourite drinks with relatively higher levels of consumption. Between the triennium ending at 1971-72 and 1983-84, toddy consumption declined at a compound growth rate of (-)2.7% in the latter region, while it declined only at (-)1.5% in the prohibition taluks.

#### Rural-Urban Differences

Surprisingly, we do not find a very sharp contrast in the contemporary consumption levels of toddy between rural and urban taluks. For the year 1983-84, the corresponding figures for two regions are 0.208 and 0.198 respectively. But it should be borne in mind that the comparison is not between urban centres and rural areas. In the absence of necessary data we have to be satisfied with dividing the taluks into urban and rural taluks on the basis of share of urban population. Taluks with urban population of more than 18 per cent (i.e. the state average) have been classified as urban. (4)

The comparison of the changes in consumption over time,



however, reveals interesting features. Graph 2.b gives a comparison of the consumption of toddy between the urban and rural taluks between 1961-62 to 1983-84 in the non-prohibition region. As can be seen the level of toddy consumption in the urban taluks was around 40 per cent higher than that of the rural taluks in 1961-62. But the decline in the consumption of toddy has been much faster in the urban areas so that from 1967-68 the urban consumption of toddy, except for the year 1971-72, has been significantly lower than the consumption in the rural areas. In 1983-84 the urban consumption was less than half the rural consumption in the non-prohibition region.

The results are not so clear when we compare the trends in the consumption for rural and urban taluks for the state as a whole, including the prohibition region (see Graph 2.c).

#### Migration Taluks and the Others

We have also examined the differences in the trend in the consumption of toddy in the migration and non-migration taluks (see Graph 2.d). Taluks that have more than 10% of the population as migrants (as per Report of the Survey on Housing and Employment of 1980) have been taken as the migration taluks namely Chirayankil, Fathanamthitta, Thiruvalla, Chavakkad and Kodungallur taluks. We have ignored the predominantly muslim migrant taluks of Tirur, and Ponnani from the computation. It may be noted that the muslim taluks of Malappuram district have a very low consumption of toddy and alcohol in general. Cannanore taluk, which also is a migrant taluk has been avoided as around 29

percent of its population lives in the urban areas. For comparison we have taken all other non-muslim (ie taluks with less than 50 percent of the population as muslims) and non-urban taluks (ie. taluks with less than 18 per cent urban population).

The non-migration taluks have a higher level of per-capita consumption. But the most notable feature is that during the latter half of the 'seventies and early 'eighties the consumption in the migration taluks has declined more sharply than the non-migration taluks. The relative compound rate of decline for the period 1974-75 to 1983-84 works out to be  $-.23$  and  $-.93$  for the two regions respectively. It was during this period that the former taluks rose into prominence as centres of migration to gulf countries. It must be admitted that one would have expected the consumption of traditional alcohol to decline more rapidly in the migration areas due to demonstration effects of foreign consumption habits.

Another pattern that may be discerned is that the hill tracts along the western ghats, excepting taluks near the Palghat gap and Cannanore district, are low consumption regions with an average per capita consumption of less than  $0.07$  litres. This is not surprising as coconut cultivation is less developed in these areas.

The Table 2.2 summarises the data presented in the Maps 2.a, 2.b, and 2.c regarding the distribution of taluks with reference to the per-capita consumption of toddy. We can see a steady movement of taluks from the higher consumption groups to

lower consumption groups.

Table 2.2

Distribution of Taluks by Level of Toddy Consumption

Consumption groups (Lts of toddy alcohol)	Number of Taluks					
	1961/62	% in total	1971/72	% in total	1983/84	% in total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lowest > 0.20	4.0	14.29	22.0	40.74	25.0	46.30
Low 0.20-0.40	6.0	21.43	16.0	29.63	19.0	35.19
Medium 0.40-0.60	3.0	10.71	5.0	9.26	7.0	12.96
High 0.60-0.80	3.0	10.71	9.0	16.67	1.0	1.85
Higest > 0.80	12.0	42.86	2.0	3.70	2.0	3.70
Total	28.0	100.0	54.0	100.0	54.0	100.0

Source: Maps 2.a, 2.b and 2.c.

The per capita consumption has declined in 45 taluks of a total of 54 taluks during the 'seventies (see Map 2.d). The only two taluks that reveal a significantly high positive growth rate (i.e. above 4%) between the triennium ending in 1971-72 and 1983-84 are the two hill taluks of Pathanamthitta and Pathanapuram that had a very low base in 1971-72. The average per capita consumption of these two taluks in 1983-84 was only .10 litres toddy alcohol.

The per capita consumption of toddy in the southern most taluks of Neyyattinkara has increased marginally during the triennium ending in 1971-72 and 1983-84. This increase is

probably caused by the demand from consumers from the adjacent state of Tamil Nadu where prohibition is still in vogue. In the non-prohibition region only two taluks, Changanacherry (Kottayam district) and Kuttanad (Alleppy district), have positive growth rates. At least in the case of Kuttanad, it is more a reflection of the taluk emerging as a production centre catering to the adjacent taluks.

More significant is the positive growth rates exhibited by the northern taluks of Hosdurg, Thaliparamba, Canannore and Tellicherry. In this connection, it may be noted that toddy has traditionally been a ritual offering to the folk gods in northern Malabar and therefore less cultural stigma is attached to the consumption of toddy. As a consequence Canannore district has the unique distinction of being the only district in the state in which the per capita consumption of toddy has increased during the 'seventies. (5)

#### Notes and References.

1. The productivity figures for toddy are also published by the Excise Department in the Administration Report. There are regional variations in productivity and the department has taken a state average.
2. See A.E. Dingle, 'Drink and working class living standards in Britain . 1870-1914' Economic History Review, vol. 25, November ,1972, pp. 608-622.
3. Idukki district was constituted in 1971 with Thodupuzha taluk of Ernakulam district and Devicolam, Udumbanchola and Peermade

taluks of Kottayam district. The district boundaries in the maps refer to the post 1971 period.

4. The urban taluks are the following :- Trivandrum , Quilon, Alleppy , Kanayannur , Cochin , Parur , Trichur , Crangannore , Palghat , Calicut , Cannanore , and Tellicherry.

5. Average Per Capita Consumption of Toddy -Districts.

Districts (1)	1961-62 1965-66 (2)	1966-67 1971-72 (3)	1972-73 1979-80 (4)	1980-81 1982-83 (5)
Trivandrum	0.00	1.12	0.79	0.67
Quilon	3.17	3.08	2.50	2.28
Alleppy	6.71	5.97	5.68	5.54
Kottayam	10.32	8.67	6.66	6.66
Ernakulam	15.60	12.29	7.51	6.75
Trichur	9.89	7.20	5.51	4.69
Palghat	0.00	3.64	3.25	3.05
Calicut	0.00	2.02	1.40	1.30
Canannore	0.00	5.51	4.90	5.09

Note: We have clubbed the data for Idukki district with that of Kottayam and Ernakulam, Malappuram with that of Palghat and Trichur and Wynad with that of Calicut and Canannore.

Source: Computed from Excise Department, Administration Reports, relevant issues.

### CHAPTER III

#### TRENDS IN THE CONSUMPTION OF SUBSTITUTES FOR TODDY

In this chapter we shall compare the trends in the consumption of toddy with those of the consumption of other alcoholic substitutes viz., arrack and IMFL. Eventhough illicit liquor is an equally important item of liquor consumed, in the total absence of any estimates of its production or consumption, it is not possible to include it in our analysis(1).

After a brief description of the data source we shall examine the trends in the overall consumption of arrack and IMFL at the state level. In the next section we shall look into the trends in the inter-regional variations in the consumption of arrack and IMFL. Finally, we shall attempt to relate them to the patterns we observed in the previous chapter.

#### Source of Data

As in the case of toddy, the Administration Report of the Excise Department is the only source of data with respect to the consumption of arrack and IMFL. The report gives the quantity of arrack that is lifted by the contractors in each taluk from the contract distillers.

As we have already seen in Chapter 1, the exclusive privilege of manufacture and supply of arrack to the shops in the state or specified areas of the state is given to one or more

distillers.(2) The distillers have to open warehouses at the headquarters of each taluk to store arrack under bond and to issue it therefrom to the contractors. The quota of arrack that is allotted to each shop is announced before the auction. The contractor can get arrack on normal rates of duty upto this quantity. If he wants to take an excess quantity he should pay a commission for that quantity. The Administration Reports contain both the quota of arrack issued to the contractors as well as the additional arrack purchased by them for each taluk in the state. Consumption on and off the premises of the shop is permitted in the case of arrack. But the contractors are not permitted to sell at any time, to any customer in excess of the limit of possession, i.e. 750 ml. Therefore the quantity issued for each taluk for sale may be taken as a fairly close estimate of the consumption of arrack in that taluk.

The Administration Reports give the data on foreign liquor imported from foreign countries, from neighbouring states and issued from distilleries and warehouses within the state.(3) The time series data constructed on this basis was seen to contain numerous anomalies which the departmental officials were not able to clarify. It was seen that in certain years there was a drastic increase in the IMFL issued as in 1961-62 and 1970-71. Further, taluk wise distribution of IMFL issued is also not available. We have used the total rental and license fee for FL shops from each taluk to estimate the taluk wise consumption of IMFL. Given the limitations of the data we have desisted the

temptation of attempting any detailed analysis of inter-regional trends of the consumption of IMFL.

Cocobrandy ( 75 degree proof) was being sold as an IMFL item in Kerala. However, it's sale has been discontinued from 1976. The average annual sale of cocobrandy in Kerala between 1961-62 to 1975-76 was only 47775.1 litres or 0.001 litres per capita. We have not included cocobrandy in our analysis.

We have converted the consumption of arrack and IMFL into their alcoholic content on the assumption that their proof strength is 75 degree (or 25 degree UP). It means that the alcoholic content of arrack and IMFL is 42.86 per cent of their bulk. The proof strength of beer varies between 6.13 degree and 17.5 degree (i.e., 82.5 degree UP and 93.87 degree UP). But on an average proof strength of beer has been taken as 8.75 per cent degree proof or its alcoholic content to be 5 per cent of the bulk (4).

#### Trend in the Consumption of Arrack and IMFL

The following Table 3.1 gives the overall trends in the consumption of arrack, IMFL and Beer in the state.



Table 3.1

Consumption of Arrack and IMFL in Kerala: 1961-62 / 1983-84  
(litres)\*

Year (1)	Arrack Consumption		IMFL Consumption		Beer Consumption	
	Total (2)	Per capita (3)	Total (4)	Per capita (5)	Total (6)	Per capita (7)
1961/62	533	0.031	1705	0.098	49	0.003
1962/63	538	0.030	191	0.011	161	0.009
1963/64	544	0.030	160	0.009	146	0.008
1964/65	551	0.030	167	0.009	200	0.011
1965/66	588	0.031	290	0.015	304	0.016
1966/67	699	0.036	145	0.007	273	0.014
1967/68	1352	0.068	376	0.019	513	0.026
1968/69	1787	0.087	194	0.009	345	0.017
1969/70	2224	0.106	228	0.011	794	0.038
1970/71	2387	0.112	1083	0.051	575	0.027
1971/72	2450	0.099	289	0.013	836	0.038
1972/73	2562	0.116	340	0.015	862	0.039
1973/74	4459	0.197	1086	0.048	1217	0.054
1974/75	6591	0.287	1996	0.087	2556	0.111
1975/76	9466	0.405	2667	0.114	957	0.041
1976/77	11681	0.491	2539	0.107	1680	0.071
1977/78	11936	0.493	3875	0.160	1724	0.071
1978/79	13410	0.544	3473	0.141	2415	0.098
1979/80	15233	0.608	3827	0.153	2378	0.095
1980/81	13541	0.532	4892	0.192	2995	0.118
1981/82	8653	0.335	4607	0.178	2233	0.086
1982/83	16430	0.625	5944	0.226	1865	0.071
1983/84	20518	0.769	7197	0.270	8078	0.301

Source: \*Total figures in '000 litres.

Computed from Kerala Excise Department,  
Administration Reports, relevant issues.

Even though arrack is a traditional country liquor its consumption was relatively very low till about 1972-73. But unlike toddy the overall consumption of arrack reveals a picture of steady increase. Before 1966-67, the rate of increase was very low and, in per-capita terms virtually stagnant. But once the prohibition was lifted, the consumption of arrack increased from around 5,88,000 litres in 1965-66 to 22,24,000 litres in

1969-70. During the next three years the annual increases were only marginal. In 1973-74 there was a spurt in the consumption of arrack. Consumption sharply rose from 2,58,000 litres in 1972-73 to 4,45,900 litres in 1973-74. Thereafter, the rate of growth once again began to taper particularly from 1976-77. And in 1980-81 and 1981-82 there was an absolute decline in the consumption. It was due to a crisis in the supply of arrack. A large amount of illicit liquor was being sold because of deficiency in government supply. A major tragedy occurred in Vypeen due to consumption of methyl alcohol claiming the lives of 70 people and blinding hundreds (5). This incident discouraged the people from consuming arrack. However, by 1982-83 the consumption had picked up and in 1983-84 it touched an all time peak of 205 lakh litres. The trend in the per capita consumption also reflects the above developments.

The consumption of IMFL followed an erratic course till around 1972-73 from whence we discern a steadily rising trend in the consumption. The per capita consumption increased from 0.015 litres in 1972-73 to 0.27 litres in 1983-84. The trend in the consumption of Beer also shows an irregular pattern even though one can discern an overall increase in the consumption.

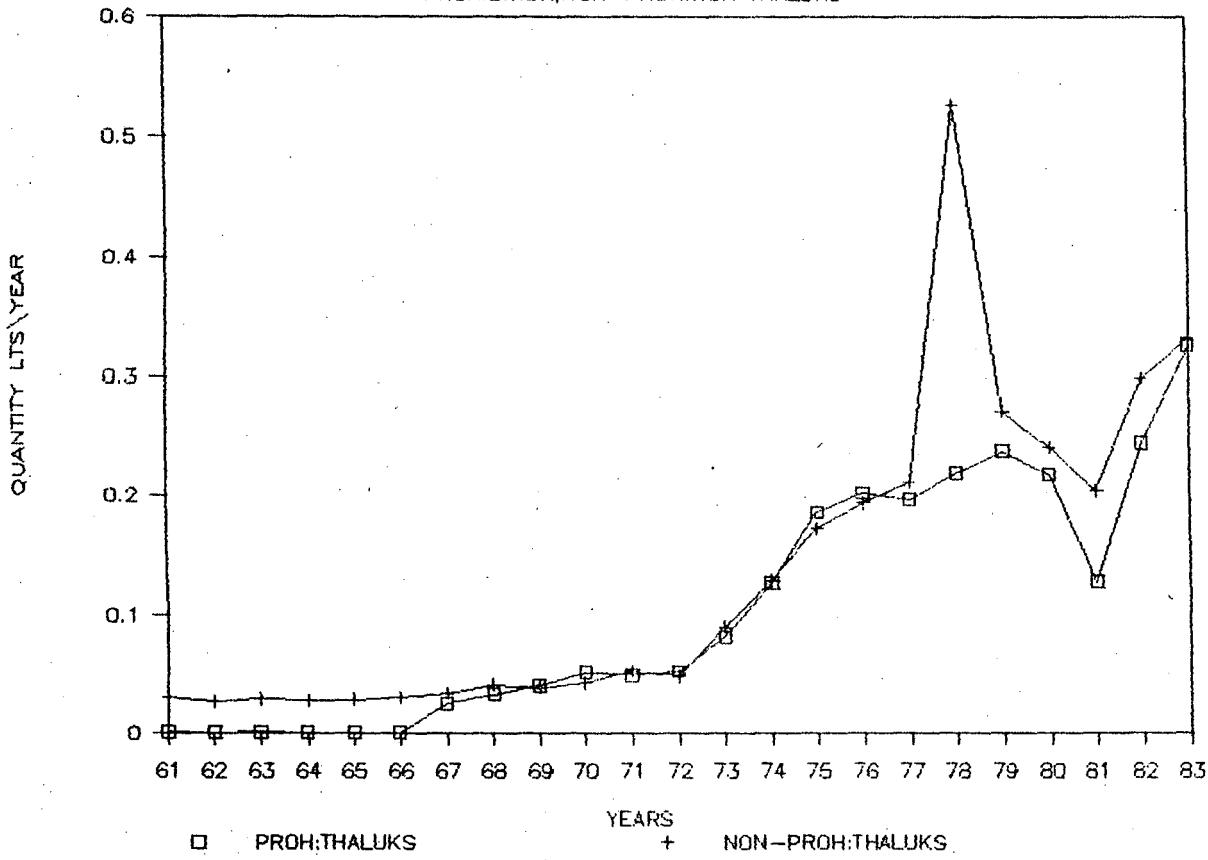
#### Regional Pattern of Arrack Consumption

The Map 3 a and Map 3.b gives the taluk wise per capita consumption of arrack alcohol for the years 1971-72 and 1983-84.

As it can be clearly noted, the consumption of arrack was

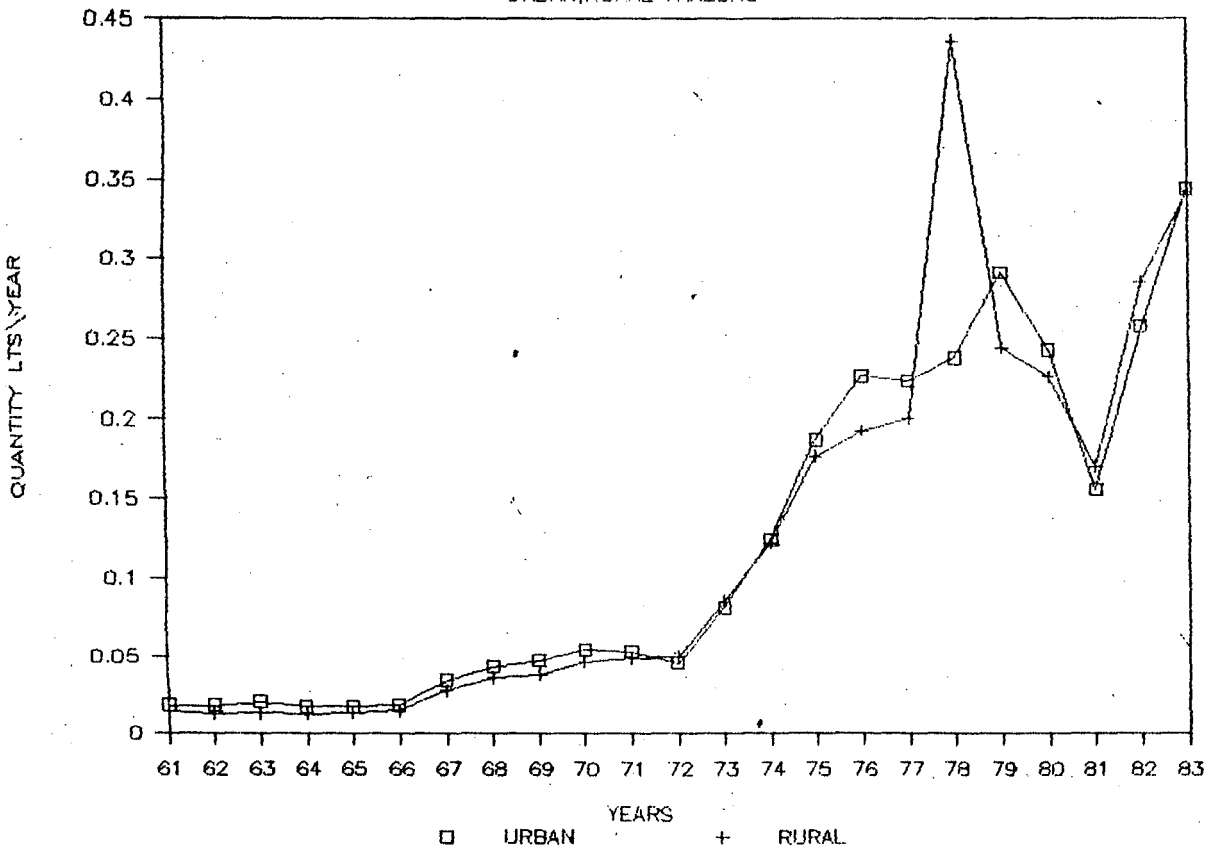
Graph 3.a

ARRACK CONSUMPTION  
PROHIBITION, NON-PROHIBITION THALUKS



Graph 3.b

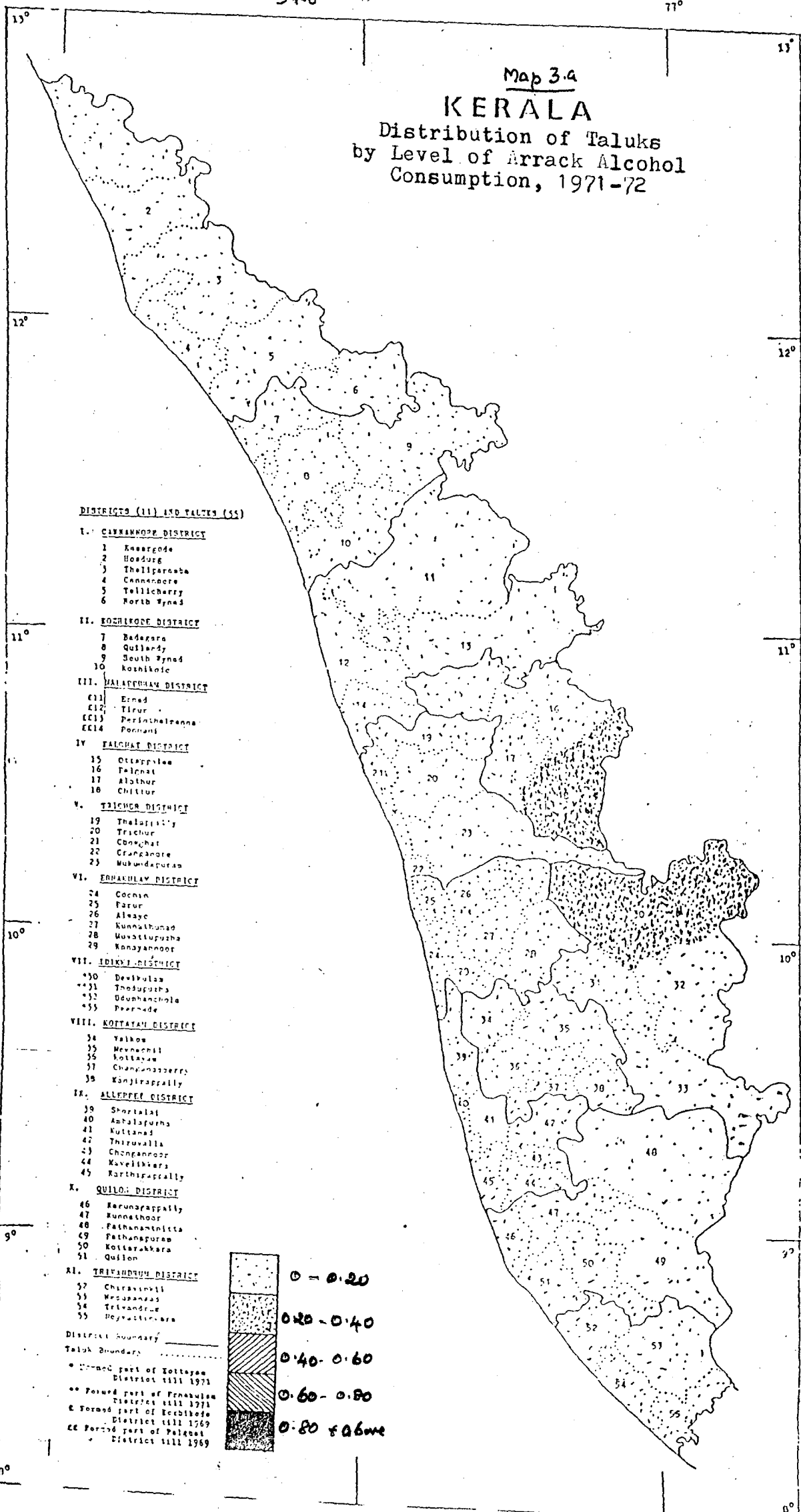
ARRACK CONSUMPTION  
URBAN, RURAL THALUKS



Map 3.4

# KERALA

Distribution of Taluks  
by Level of Arrack Alcohol  
Consumption, 1971-72



**DISTRICTS (11) AND TALUKS (55)**

**I. CANNANORE DISTRICT**

- 1 Kasargode
- 2 Hosdurg
- 3 Thelliparabata
- 4 Cannanore
- 5 Tellicherry
- 6 North Wynad

**II. KOZHICOD DISTRICT**

- 7 Bederara
- 8 Quilandy
- 9 South Wynad
- 10 Kozhikode

**III. MALAPPURAM DISTRICT**

- 11 Ernad
- 12 Tirur
- 13 Perinthalmanna
- 14 Ponnani

**IV. PALGHAT DISTRICT**

- 15 Ottappalam
- 16 Palghat
- 17 Alathur
- 18 Chittur

**V. TRICHUR DISTRICT**

- 19 Thalassery
- 20 Trichur
- 21 Chonghal
- 22 Changanore
- 23 Mubandapuram

**VI. ERNACULAM DISTRICT**

- 24 Cochin
- 25 Farur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Konyanoor

**VII. IDIKKI DISTRICT**

- 30 Devikulam
- 31 Thodupuzha
- 32 Udumhanchole
- 33 Ponnada

**VIII. KOTTAYAM DISTRICT**

- 34 Talhok
- 35 Muvattur
- 36 Kottayam
- 37 Changanassery
- 38 Kollupattanam

**IX. ALLEPPEY DISTRICT**

- 39 Shortalal
- 40 Ashrafupuram
- 41 Kuttanad
- 42 Thiruvalla
- 43 Changanoor
- 44 Kavelikkara
- 45 Karthikapally

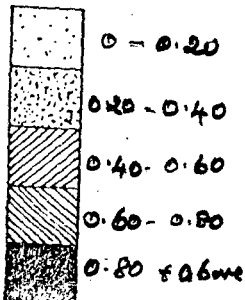
**X. QUILLO DISTRICT**

- 46 Karunagappally
- 47 Kunnathoor
- 48 Pathanamthitta
- 49 Pathanapuram
- 50 Kottarakkara
- 51 Quilon

**XI. TRIVANDRUM DISTRICT**

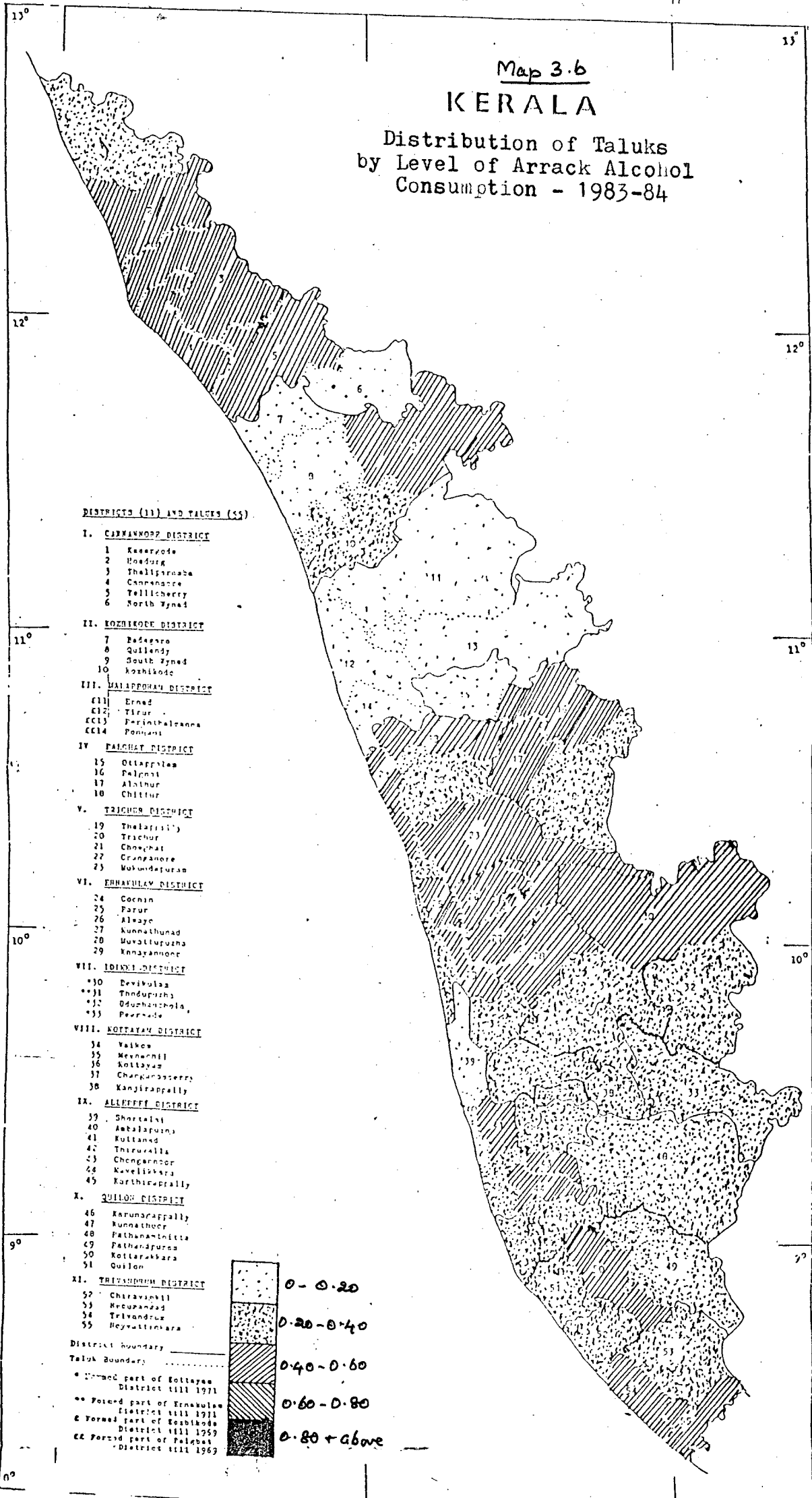
- 52 Chirayinkeezhu
- 53 Muzhappilangad
- 54 Trivandrum
- 55 Poyyattur

District boundary ————  
 Taluk boundary - - - - -  
 \* Formed part of Kottayam District till 1971  
 \*\* Formed part of Ernakulam District till 1971  
 † Formed part of Kozhikode District till 1969  
 ‡ Formed part of Palghat District till 1969



# Map 3.6 KERALA

## Distribution of Taluks by Level of Arrack Alcohol Consumption - 1983-84



**DISTRICTS (11) AND TALUKS (55)**

**I. CANNANUR DISTRICT**

- 1 Kasarwode
- 2 Poodurg
- 3 Thalassiraba
- 4 Cannanore
- 5 Tellicherry
- 6 North Zynad

**II. KOZHIKODE DISTRICT**

- 7 Padanjoor
- 8 Quilandy
- 9 South Zynad
- 10 Kozhikode

**III. MALAPPURAM DISTRICT**

- 111 Ernad
- 112 Tivur
- 113 Perinthalmanna
- 114 Ponnani

**IV. PALGHAT DISTRICT**

- 15 Ottappalam
- 16 Palghat
- 17 Alathur
- 18 Chittur

**V. TRICHUR DISTRICT**

- 19 Thalassery
- 20 Trichur
- 21 Chonghat
- 22 Cranganore
- 23 Muvattupuzha

**VI. ERNACULAM DISTRICT**

- 24 Cochin
- 25 Porur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Kanyakumari

**VII. IDUKKI DISTRICT**

- \*30 Devikulam
- \*\*31 Thodupuzha
- \*32 Odukkal
- \*33 Perumbikulam

**VIII. KOTTAYAM DISTRICT**

- 34 Vaikom
- 35 Muvattupuzha
- 36 Kottayam
- 37 Changanassery
- 38 Kanjirappally

**IX. ALLEPPI DISTRICT**

- 39 Shoranur
- 40 Ambalapuzha
- 41 Kuttanad
- 42 Thiruvalla
- 43 Chengannoor
- 44 Kavelikkara
- 45 Kuthirappally

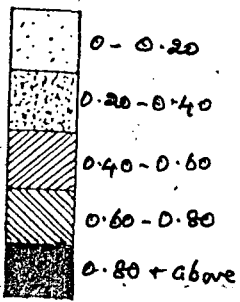
**X. QUILON DISTRICT**

- 46 Karunappally
- 47 Kunnathur
- 48 Pathanamthitta
- 49 Pathanapuram
- 50 Kottarakkara
- 51 Quilon

**XI. TRIVANDRUM DISTRICT**

- 52 Charavattil
- 53 Muzhappilangad
- 54 Trivandrum
- 55 Neyyattinkara

District boundary  
Taluq boundary  
\* Formed part of Kottayam District till 1971  
\*\* Formed part of Ernakulam District till 1971  
\* Formed part of Kozhikode District till 1959  
\*\* Formed part of Palghat District till 1969



As we have already noted, the consumption of arrack was very low before the lifting of prohibition. In 1961-62 none of the non-prohibition taluks had a consumption level which was above the lowest consumption bracket. The average per capita consumption of arrack was 0.08 litres or 0.03 litres alcohol for the non-prohibition taluks. Devicolam in the hill range, where there was no sale of toddy, had the highest level of consumption, 0.34 litres of arrack per capita.

Map 3.a gives the situation in 1971-72. Arrack was being sold in all the taluks of the state. Four taluks had consumption higher than 0.4 litres of arrack or arrack or 0.17 litres of arrack alcohol per capita. The per capita arrack consumption was relatively higher in Palghat district, the per capita consumption of the district being 0.33 litres of arrack.

The pattern entirely changes in 1983-84. To begin with we find a significant increase in the consumption of arrack in all taluks of the state. The compound growth rate for the increase in the consumption of arrack between the triennium ending in 1971-72 and 1983-84 works out to be 16.82%. District wise the highest growth rate was attained by Alleppy district (26.98%). Then comes Quilon, Trivandrum and Ernakulam which had growth rates of more than 17% each. Cannanore, Trichur and Palghat came next in order, with a rate of growth of around 14% per annum. Only regional pocket of relatively low consumption of arrack seems to be Malappuram and coastal taluks of Calicut district with their relatively higher muslim population.

Table 3.2 summarises the data presented in Map 3.a, and Map 3.b, regarding the distribution of taluks with reference to the per capita consumption of arrack. We can discern the upward shift of taluks from the low consumption groups to the higher consumption groups.

Table 3.2

Distribution of Taluks According to Level of Arrack Consumption

Consumption Groups (1) (lts. alcohol)	1961-62		Number of Taluks		1983-84	
	(2)	(3)	(4)	(5)	(6)	(7)
Lowest 0-0.2	27	96.43	53	96.36	10	18.18
Low 0.2-0.4	1	3.57	2	3.64	22	40.00
Medium 0.4-0.6	-	-	-	-	23	41.82
High 0.6-0.8	-	-	-	-	-	-
Higest 0.8 and above	-	-	-	-	-	-
Total	28	100	55	100	55	100

Source: Map 3.a and Map 3.b

In the case of arrack consumption there is practically no difference between prohibition taluks and non-prohibition taluks, neither in the level of consumption nor in the trend but for an abnormal year in 1977-78 when there is a spurt in the consumption of arrack in non-prohibition taluks. (6) And similarly we do not find any significant divergence in the trend of

consumption in Urban and Rural taluks (See Graph 3.a and Graph 3.b).

#### Regional Pattern of IMFL Consumption

For reasons that we have already stated we shall not attempt to analyse the trend in the inter-regional variations in the consumption of IMFL. We shall confine ourselves to analysing the regional variations in the consumption of IMFL and Beer for the early eighties. The average estimated distribution for the three years from 1981-82 to 1983-84 is presented in Map 3.c.

IMFL, as can be expected, is consumed more in the urban taluks. Two taluks Kanayannor and Cochin, in which the metropolitan city of Cochin is situated alone account for around 25 per cent of the consumption of IMFL and Beer in the state. All the taluks where the district headquarters are situated, except for Cannanore and Malappuram, have relatively higher level of consumption. The average consumption of the district headquarter taluks works out to be 0.32 litres of FL alcohol while in the rest of the taluks it is 0.09 litres of FL alcohol for 1981-82 to 1983-84 period. The rural-urban difference in IMFL consumption is clearly brought out by the Graph 3.c. The average consumption of the urban taluks during the period 1981-82 to 1983-84 is 0.25 litres alcohol while in the rural taluks it is only 0.07 litre alcohol. The level of IMFL consumption in the non-prohibition taluks on the average is higher than that of the prohibition taluks. It is mainly due to the presence of Cochin city in the former region. The average percapita consumption in



the former region is 0.19 litres and in the latter 0.06 litres IMFL alcohol.

#### Regional Pattern in Total Liquor Consumption

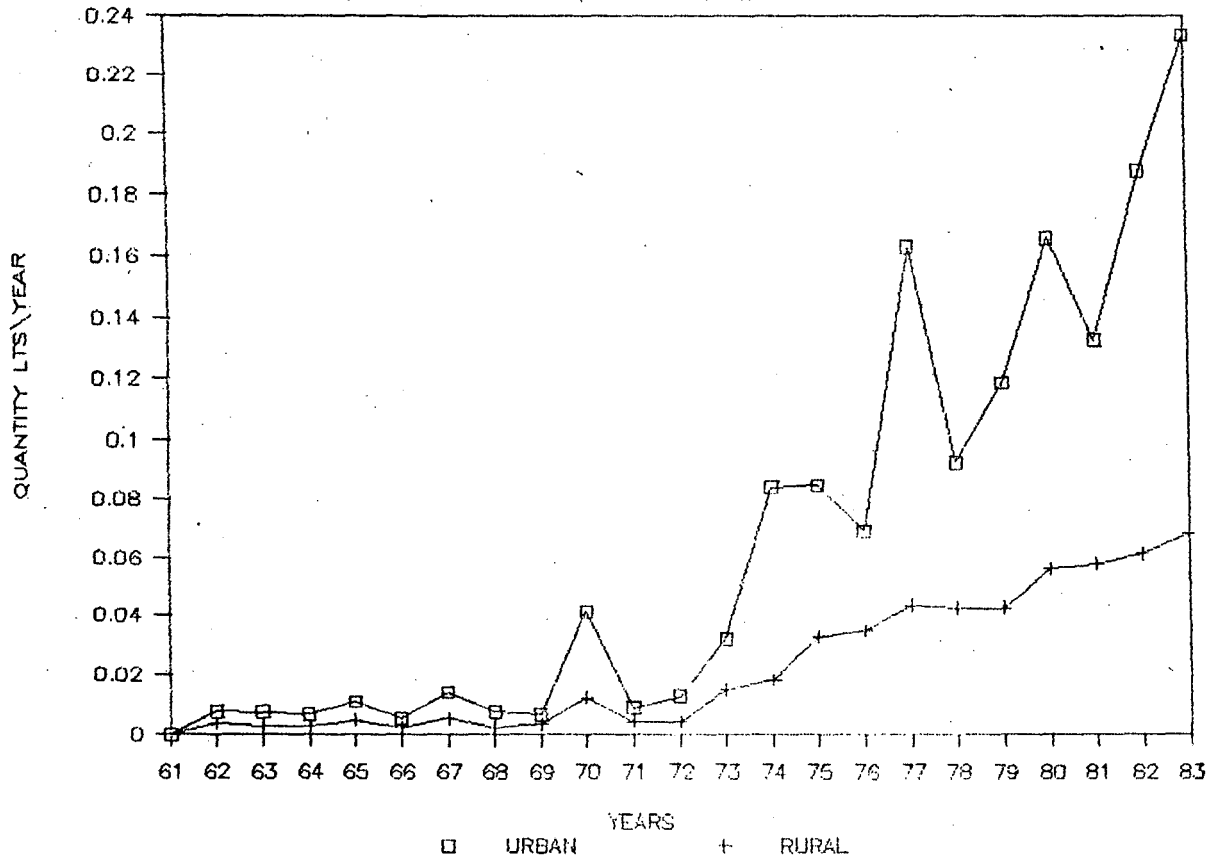
The inter-regional differences of total liquor consumption of Kerala for the years 1961-62, 1971-72 and 1983-84 are presented in Map 3.d, Map 3.e, Map 3.f. The patterns of total liquor consumption in Kerala for the years 1961-62 and 1971-72 closely follows the inter-regional variations in the consumption of toddy. This is not surprising as toddy constituted more than 80 per cent of the total liquor consumption in the state during this period. Even in 1971-72, after the prohibition had been lifted, the non-prohibition taluks continued to be the relatively higher liquor consumption region. However, the overall per capita consumption of liquor in non-prohibition taluks had declined from 0.74 litres of alcohol in 1961-62 to 0.47 litres of alcohol in 1971-72. The per capita consumption of liquor in prohibition taluks works out to be 0.20 litres in 1971-72.

In all taluks the consumption of liquor reveals a positive growth rate during the 1970s. The growth rate for overall consumption of liquor during the period between the triennium ending 1971-72 and 1983-84 is 4.05 per cent. Between 1971-72 and 1983-84 the total per capita liquor consumption in the state increased from 0.34 litres of alcohol to 0.69 litres of alcohol.

We find the following features with regard to the regional patterns in the total liquor consumption in the state:

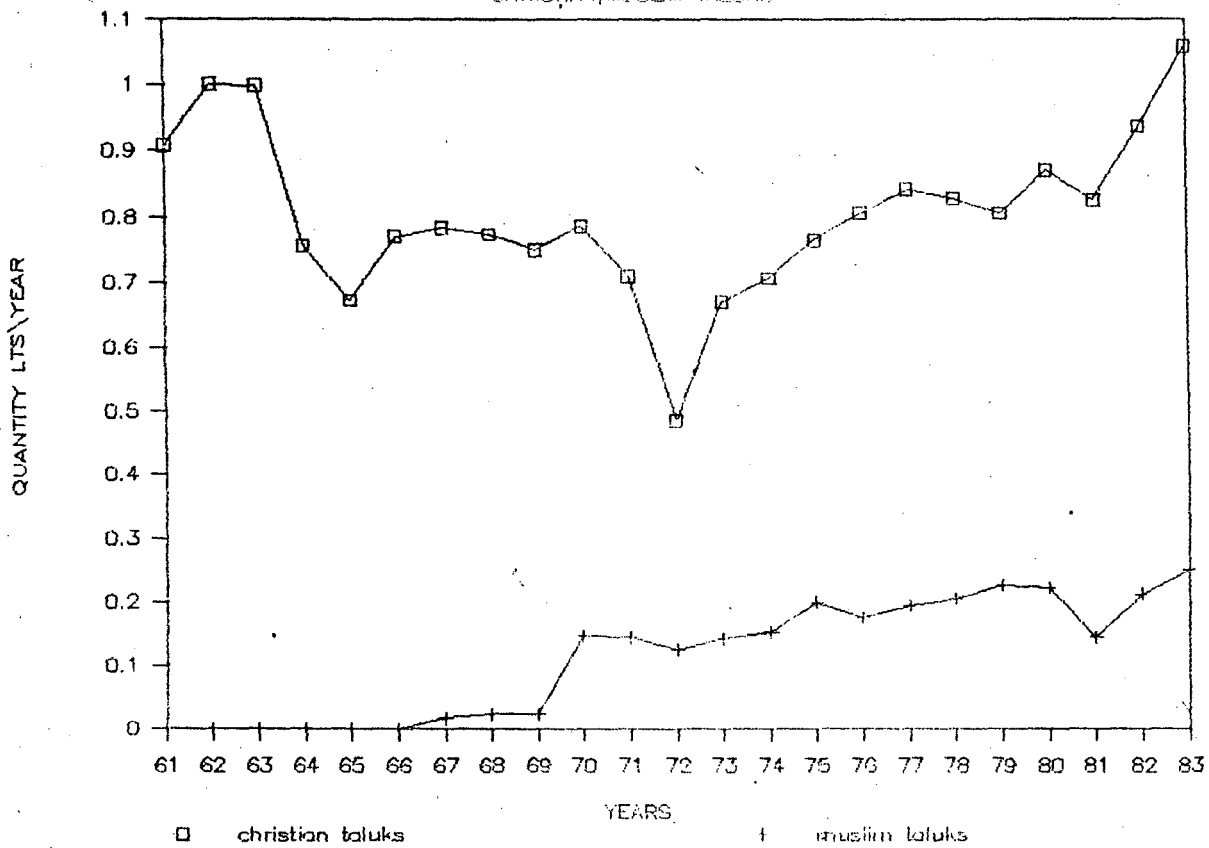
## IMFL CONSUMPTION

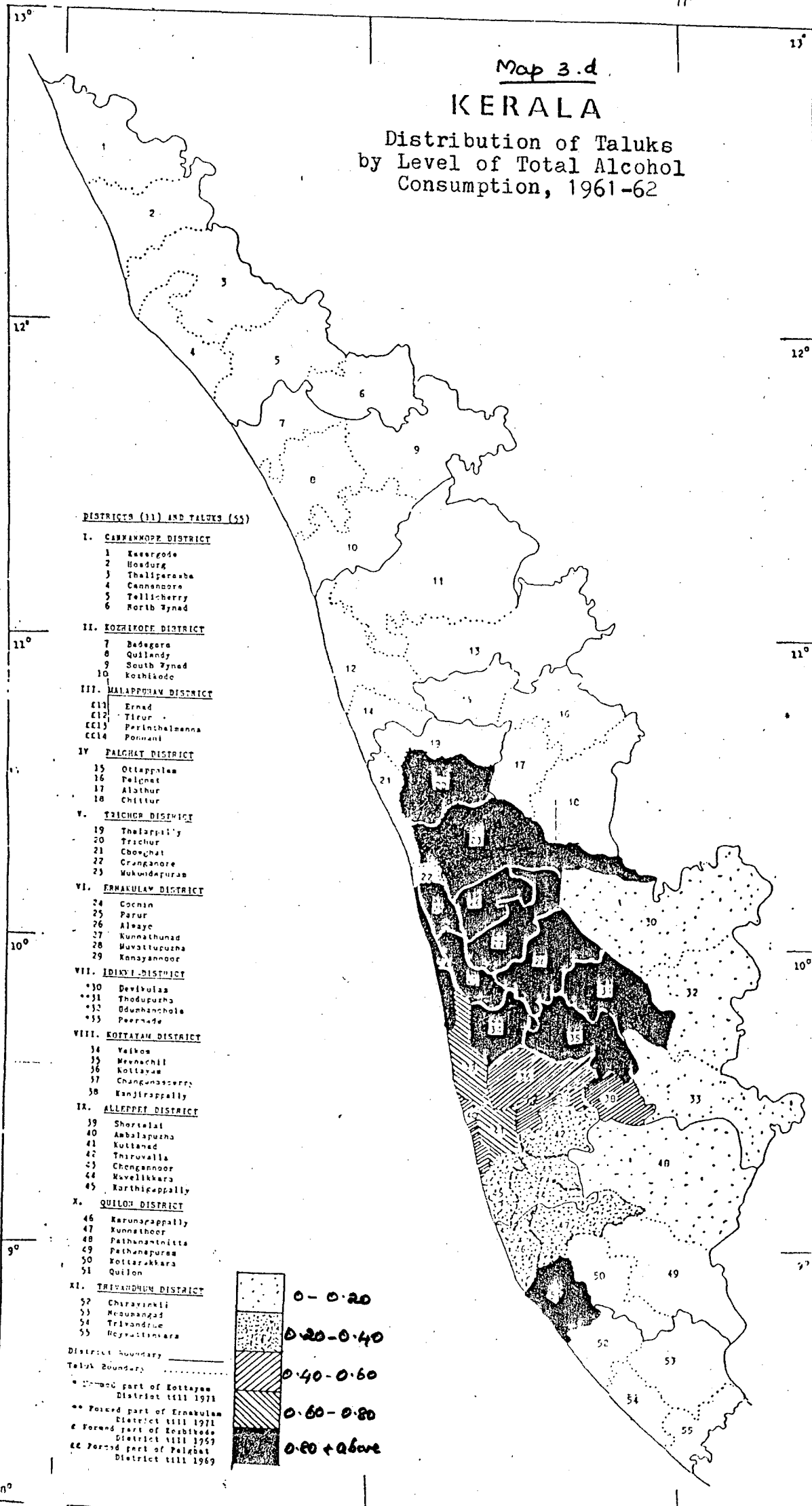
URBAN, RURAL TALUKS



## TOTAL ALCOHOL CONSUMPTION

CHRISTIAN, MUSLIM TALUKS





DISTRICTS (11) AND TALUKS (55)

I. CANNANORE DISTRICT

- 1 Kasargode
- 2 Hosdurg
- 3 Thaliparaba
- 4 Cannanore
- 5 Tellicherry
- 6 North Tynad

II. KOZHIKODE DISTRICT

- 7 Badegere
- 8 Quilandy
- 9 South Tynad
- 10 Kozhikode

III. MALAPPUZHAM DISTRICT

- 11 Ernad
- 12 Tirur
- 13 Perinthalmanna
- 14 Ponnani

IV. PALGHAT DISTRICT

- 15 Ottappalam
- 16 Palignat
- 17 Alathur
- 18 Chittur

V. TRICHUR DISTRICT

- 19 Thalappally
- 20 Trichur
- 21 Chovvannat
- 22 Cranganore
- 23 Mukundapuram

VI. ERNAKULAM DISTRICT

- 24 Cochin
- 25 Parur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Kannyanoor

VII. IDIKKI DISTRICT

- \*30 Devikulam
- \*31 Thodupuzha
- \*32 Odunthanchola
- \*33 Peermade

VIII. KOTTAYAM DISTRICT

- 34 Vaikom
- 35 Muvanchil
- 36 Kottayam
- 37 Changanassery
- 38 Kanjirappally

IX. ALLEPPEY DISTRICT

- 39 Shortelal
- 40 Ambalapuzha
- 41 Kottanad
- 42 Thiruvalla
- 43 Changanoor
- 44 Muvattupuzha
- 45 Karthikapally

X. QUILON DISTRICT

- 46 Karunappally
- 47 Kunnathoor
- 48 Pathanamthitta
- 49 Pathanapuram
- 50 Kottarakkara
- 51 Quilon

XI. TRIVANDRUM DISTRICT

- 52 Chirayinkeezh
- 53 Muzhappilangad
- 54 Trivandrum
- 55 Neyyattinkara

District Boundary

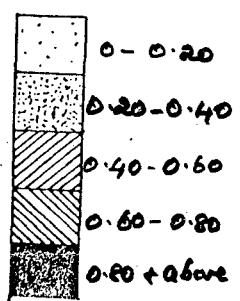
Taluk Boundary

\* Former part of Kottayam District till 1971

\*\* Former part of Ernakulam District till 1971

\*\*\* Former part of Kozhikode District till 1957

\*\*\*\* Former part of Palghat District till 1969



# Map 3.c KERALA

## Distribution of Taluks by Level of IMFL Alcohol Consumption - 1983-84

### DISTRICTS (11) AND TALUKS (55)

#### I. CAZHIKODI DISTRICT

- 1 Kasargode
- 2 Hosdurg
- 3 Thalipprabha
- 4 Cannanore
- 5 Tellicherry
- 6 North Bynad

#### II. KOCHI DISTRICT

- 7 Padanangal
- 8 Quilandy
- 9 South Bynad
- 10 Kozhikode

#### III. MALAPPURAM DISTRICT

- 11 Ernad
- 12 Tirur
- 13 Perinthalmanna
- 14 Ponnani

#### IV. PALGHAT DISTRICT

- 15 Ottappalam
- 16 Palghat
- 17 Alathur
- 18 Chittur

#### V. TRICHUR DISTRICT

- 19 Thalassery
- 20 Trichur
- 21 Chonghat
- 22 Cranganore
- 23 Mukundapuram

#### VI. ERNACULAM DISTRICT

- 24 Cochin
- 25 Farur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Kannyanpore

#### VII. IDIKKI DISTRICT

- 30 Devikulam
- 31 Thodupuzha
- 32 Edappanchole
- 33 Peenada

#### VIII. KOTTAYAM DISTRICT

- 34 Varkala
- 35 Muvattupuzha
- 36 Kottayam
- 37 Changanassery
- 38 Kottayam

#### IX. ALLEPPI DISTRICT

- 39 Shertalai
- 40 Aattappuzha
- 41 Kuttanad
- 42 Thiruvalla
- 43 Changanoor
- 44 Mavelikkara
- 45 Korthirappally

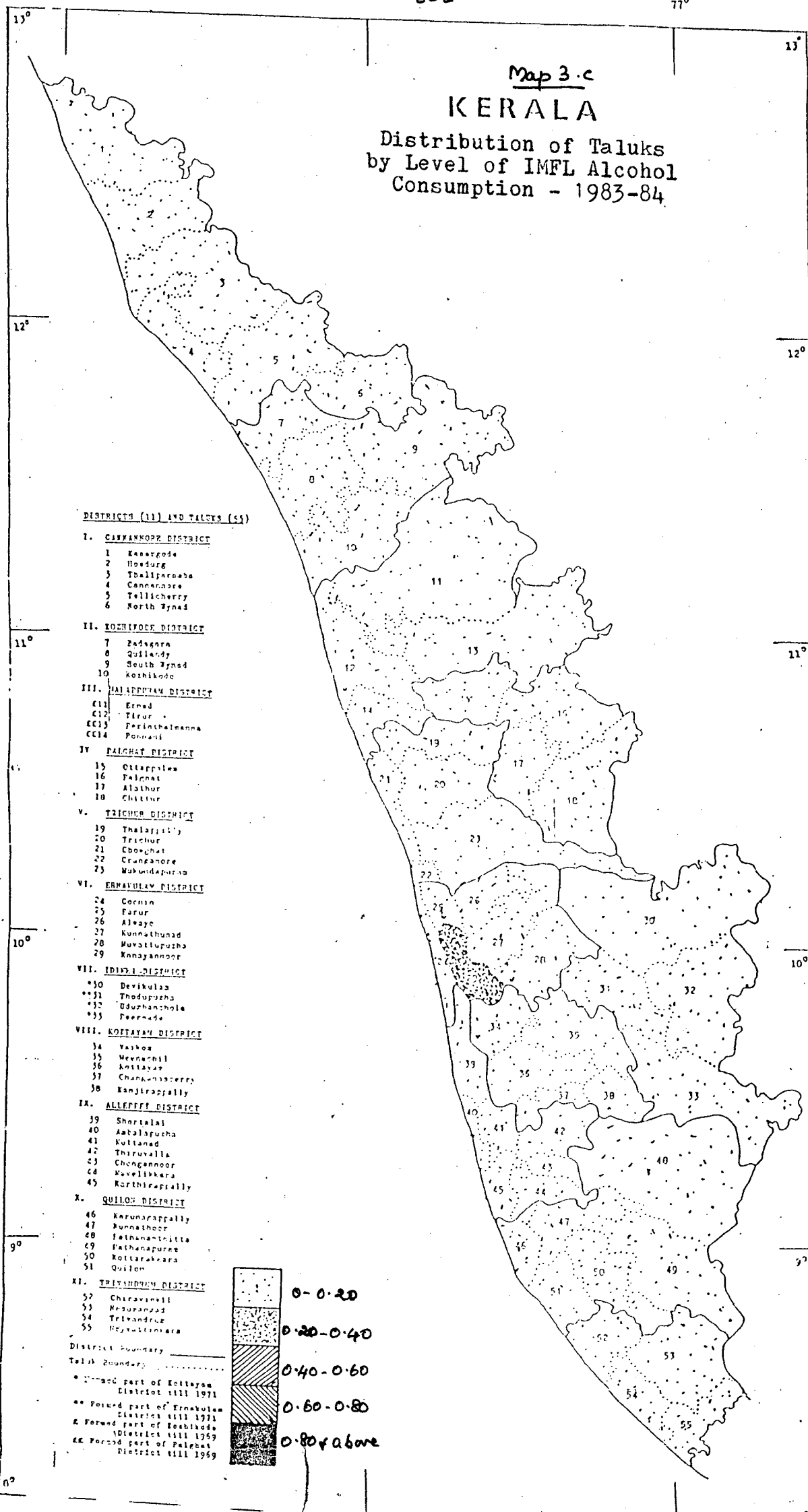
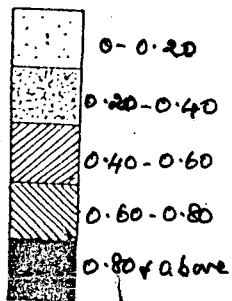
#### X. QUILON DISTRICT

- 46 Karunappally
- 47 Punalloor
- 48 Pathanamthitta
- 49 Pathanamthitta
- 50 Kottarakkara
- 51 Quilon

#### XI. TRIVANDRUM DISTRICT

- 52 Charavannil
- 53 Nedumangad
- 54 Trivandrum
- 55 Neyyattinkara

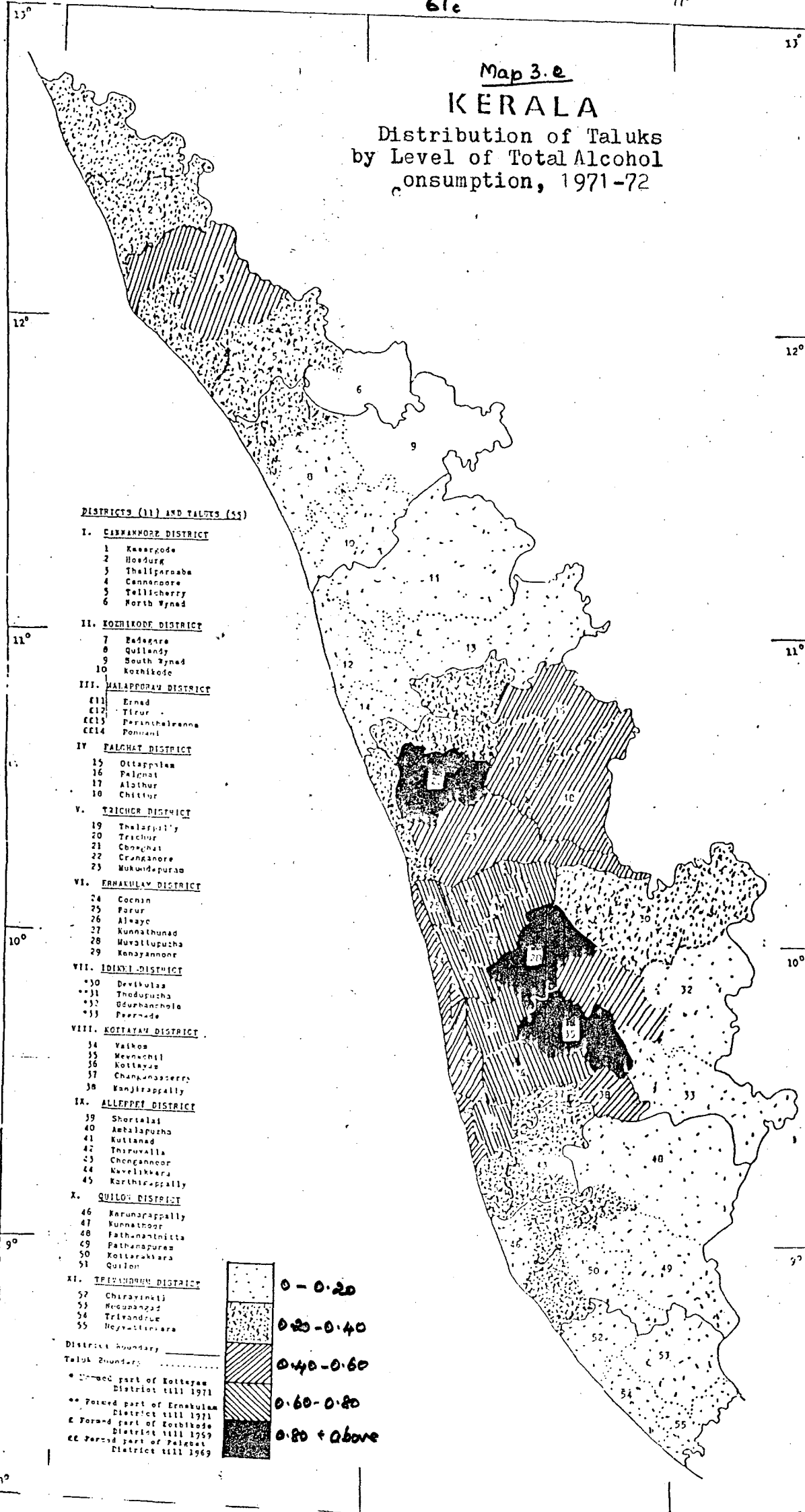
District boundary  
Taluq boundary  
\* Forward part of Kottayam District till 1971  
\*\* Forward part of Ernakulam District till 1971  
\* Forward part of Kozhikode District till 1969  
\*\* Forward part of Palghat District till 1969



Map 3.e

# KERALA

Distribution of Taluks  
by Level of Total Alcohol  
Consumption, 1971-72



**DISTRICTS (11) AND TALUKS (55)**

**I. CAZEMHORE DISTRICT**

- 1 Kaseergode
- 2 Hosdurg
- 3 Thaliparamba
- 4 Cannanore
- 5 Tellicherry
- 6 North Wynaad

**II. KOZHIKOD DISTRICT**

- 7 Badagara
- 8 Quilandy
- 9 South Wynaad
- 10 Kozhikode

**III. MALAPPOURAM DISTRICT**

- 11 Ernad
- 12 Tirur
- 13 Paranthalassana
- 14 Ponnani

**IV. PALNAT DISTRICT**

- 15 Ottappalam
- 16 Palnati
- 17 Alathur
- 18 Chittur

**V. TRICHUR DISTRICT**

- 19 Thalappilly
- 20 Trichur
- 21 Changanal
- 22 Cranganore
- 23 Mukkidepuram

**VI. ERNAKULAM DISTRICT**

- 24 Cochin
- 25 Porur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Kenyannoor

**VII. IDIKKI DISTRICT**

- \*30 Devikulam
- \*31 Theodupuzha
- \*32 Gudranthole
- \*33 Perambra

**VIII. KOTTAYAM DISTRICT**

- 34 Vaithon
- 35 Meenachil
- 36 Kottayam
- 37 Changanassery
- 38 Kanjirappally

**IX. ALLEPPEY DISTRICT**

- 39 Shortalai
- 40 Amlapuzha
- 41 Kuttanad
- 42 Thiruvalla
- 43 Changanncor
- 44 Kuvilikkara
- 45 Korthippally

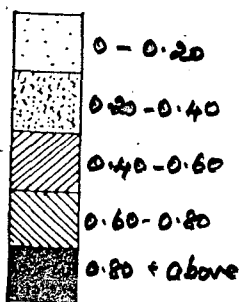
**X. QUILON DISTRICT**

- 46 Karunagappally
- 47 Kunnathoor
- 48 Pathanamthitta
- 49 Pathanapuram
- 50 Kottarakkara
- 51 Quilon

**XI. TRIVANDRUM DISTRICT**

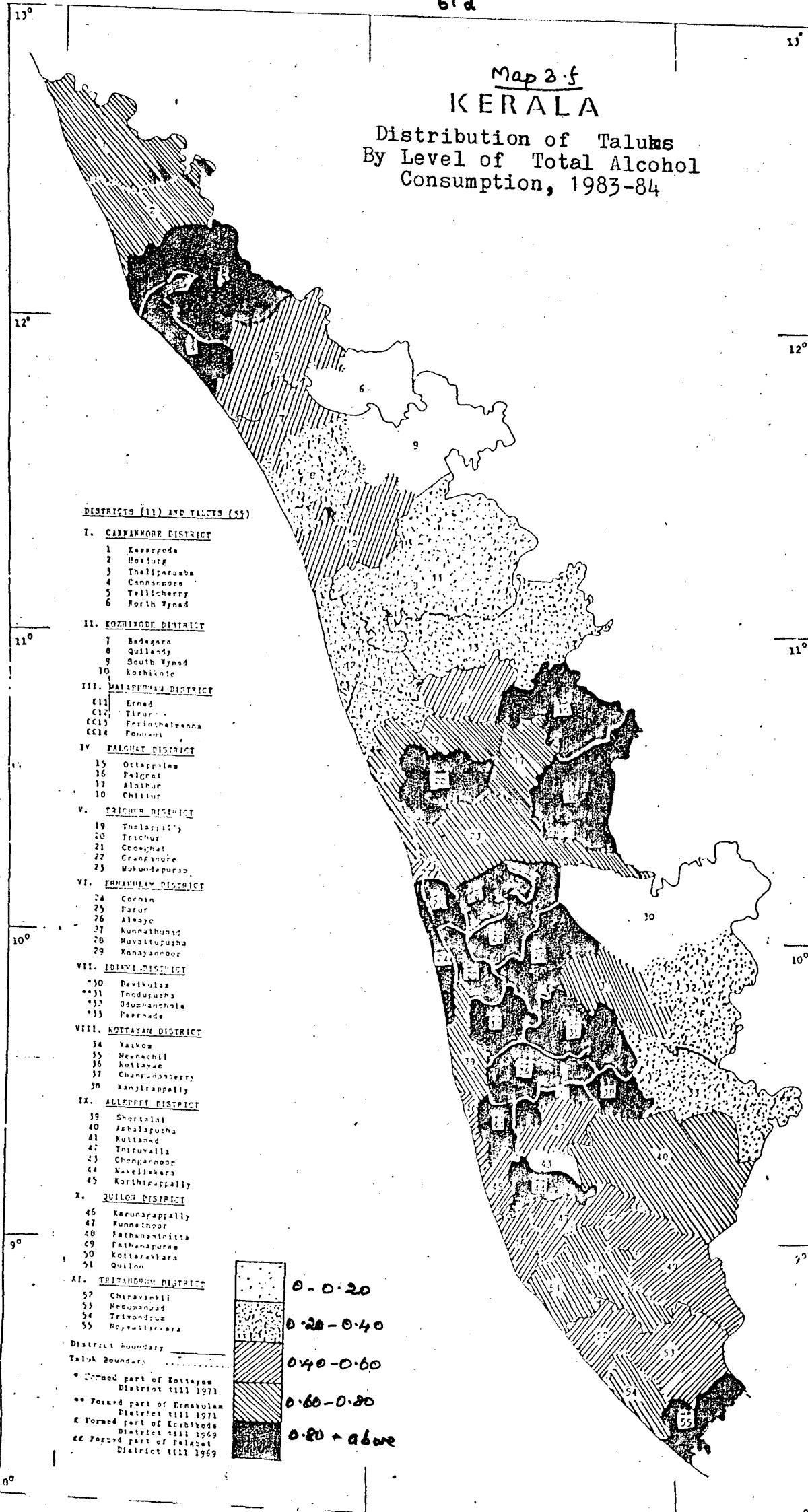
- 52 Chirayinkeezh
- 53 Moolanthur
- 54 Trivandrum
- 55 Neyyattinkara

District boundary: ————  
 Taluk boundary: - - - - -  
 \* Former part of Kottayam District till 1971  
 \*\* Former part of Ernakulam District till 1971  
 \* Former part of Kozhikode District till 1959  
 \*\* Former part of Palnati District till 1969



Map 2.5  
KERALA

Distribution of Taluks  
By Level of Total Alcohol  
Consumption, 1983-84



DISTRICTS (11) AND TALUKS (55)

I. CANNANMOR DISTRICT

- 1 Kasargode
- 2 Hosur
- 3 Thaliparaba
- 4 Cannanore
- 5 Tellicherry
- 6 North Tynad

II. KOZHIKODE DISTRICT

- 7 Badagara
- 8 Quilandy
- 9 South Tynad
- 10 Kozhikode

III. MALAPPURAM DISTRICT

- 11 Ernad
- 12 Tirur
- 13 Perinthala
- 14 Ponnani

IV. PALGHAT DISTRICT

- 15 Ottappalam
- 16 Palghat
- 17 Alathur
- 18 Chittur

V. TRICHUR DISTRICT

- 19 Thalassery
- 20 Trichur
- 21 Chepphat
- 22 Cranganore
- 23 Muvattupuzha

VI. ERNAKULAM DISTRICT

- 24 Cochin
- 25 Parur
- 26 Alwaye
- 27 Kunnathunad
- 28 Muvattupuzha
- 29 Kanayannoor

VII. IDIYI DISTRICT

- \*30 Devikulam
- \*\*31 Thodupuzha
- \*\*32 Oduppanchala
- \*\*33 Pappad

VIII. KOTTAYAM DISTRICT

- 34 Vaikom
- 35 Meechil
- 36 Kottayam
- 37 Changanassery
- 38 Kanjirappally

IX. ALLEPPI DISTRICT

- 39 Shortalai
- 40 Anjalipuzha
- 41 Kuttanad
- 42 Thiruvalla
- 43 Changanassery
- 44 Kavelikkara
- 45 Kozhikappally

X. QUILON DISTRICT

- 46 Karunappally
- 47 Kunnathoor
- 48 Pathanamthitta
- 49 Pathanamthitta
- 50 Kottarakkara
- 51 Quilon

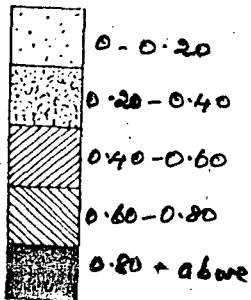
XI. TRIVANDRUM DISTRICT

- 52 Charavakkal
- 53 Neevannad
- 54 Trivandrum
- 55 Kollam

District Boundary

Taluk Boundary

- \* Formed part of Kottayam District till 1971
- \*\* Formed part of Ernakulam District till 1971
- \*\* Formed part of Kozhikode District till 1969
- \*\* Formed part of Palghat District till 1969



Firstly, according to the official data, the hill tracts generally have a lower consumption of liquor. But such a conclusion can be misleading. It is generally considered that the consumption of illicit liquor tends to be significantly higher in these tracts. Further, empirical studies in India have shown that the incidence of families consuming liquor is much higher in the plantation centres than other working class centres (7).

Secondly, the traditional Muslim areas of Malappuram and coastal Calicut constitute another low consumption region. This experience is in sharp contrast to the consumption trends in the predominantly Christian centres in central Kerala. The contrast is brought out sharply in Graph. 3.d. The compound rate of growth of alcohol consumption in 6 taluks of the state with more than 50 per cent of the population from Christian community is 2.01 per cent. In 1983-84 the per capita consumption of alcohol in the 6 predominantly Christian taluks (ie. taluks in which more than 50 per cent of the population is from Christian community) works out to be 1.06 litres while for the predominantly Muslim taluks (ie. taluks in which more than 50 per cent of the population is from Muslim community) it is only 0.25 litres.

Thirdly, in the traditional non-prohibition taluks the consumption level tends to be higher. The average per capita consumption of alcohol in 1983-84 in the former is 0.89 litres while in the latter is 0.51 litres. However, the rate of growth of consumption is relatively higher in the prohibition taluks

than in the non-prohibition taluks. For the period 1971-72 and 1983-84 the corresponding figures for the two regions are 3.44 per cent and 5.82 per cent respectively.

Finally, the level of consumption in the urban areas is higher than that of the rural areas. The per capita consumption in rural taluks is 0.61 litres alcohol while in the urban taluks it is 0.80 litres in 1983-84.

#### Trends in the Overall Consumption of Liquor

The Table 3.3 gives the percapita consumption of various types of liquor alcohols in Kerala during the period 1961-62 to 1983-84. (See also Table 3.4). The trends evident in this graph is depicted in graph 3.e. It is seen that the overall consumption of alcohol in Kerala has increased and the share of toddy in consumption has steadily declined. The decline in the importance of toddy may be divided in to four phases.



Table 3.4

Per Capita Alcohol Consumption - All Liquors.

(Litres of alcohol)

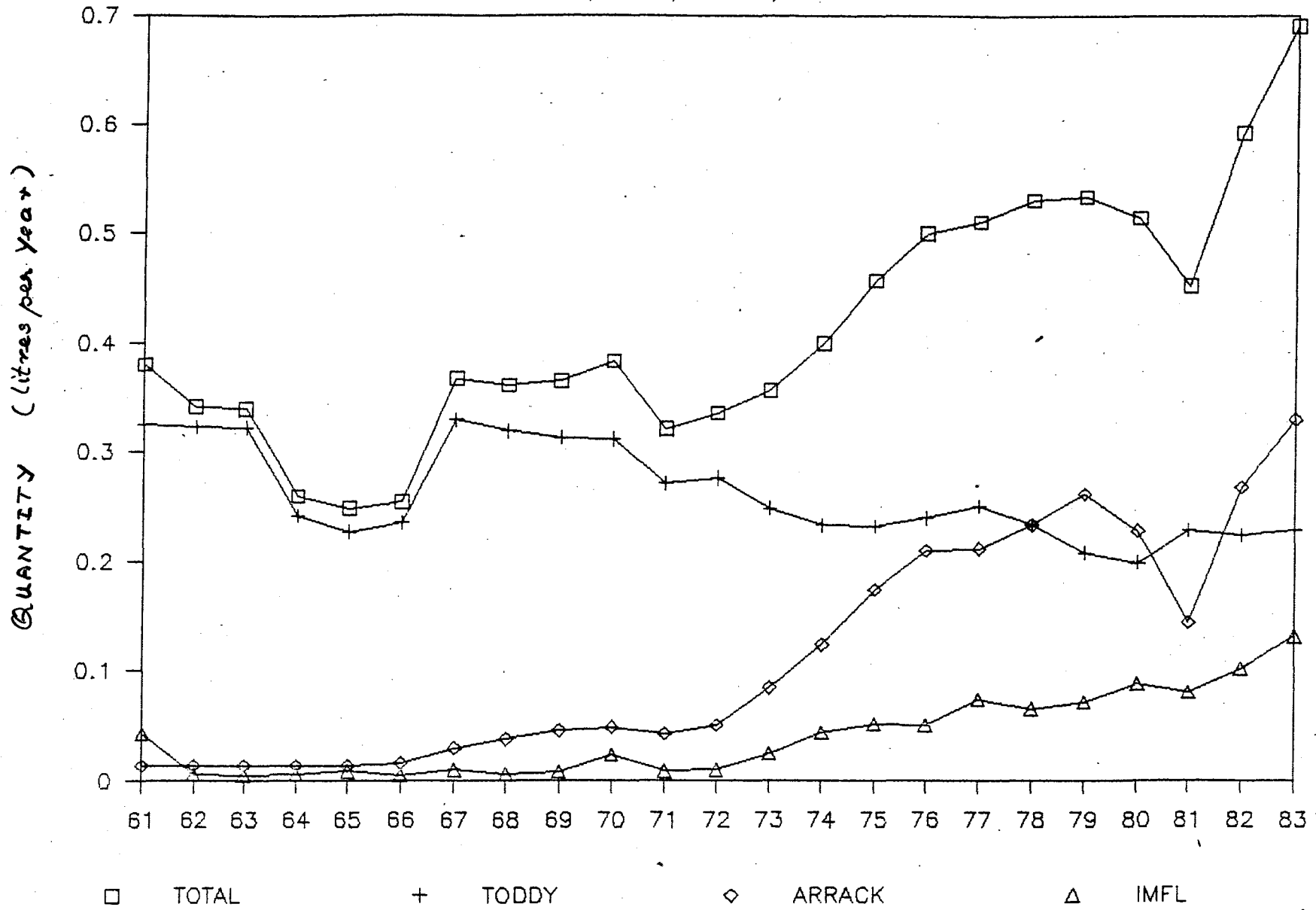
Year (1)	Toddy (2)	Arrack (3)	IMFL (4)	Beer (5)	Total (6)
1961/62	0.325	0.013	0.042	neg.	0.38
1962/63	0.323	0.013	0.005	neg.	0.34
1963/64	0.322	0.013	0.004	neg.	0.34
1964/65	0.241	0.013	0.004	0.001	0.26
1965/66	0.227	0.013	0.007	0.001	0.25
1966/67	0.235	0.015	0.003	0.001	0.25
1967/68	0.329	0.029	0.008	0.001	0.37
1968/69	0.319	0.037	0.004	0.001	0.36
1969/70	0.313	0.045	0.005	0.002	0.37
1970/71	0.312	0.048	0.022	0.001	0.38
1971/72	0.290	0.042	0.006	0.002	0.34
1972/73	0.276	0.050	0.007	0.002	0.34
1973/74	0.248	0.084	0.021	0.003	0.36
1974/75	0.233	0.123	0.037	0.006	0.40
1975/76	0.232	0.174	0.049	0.002	0.46
1976/77	0.240	0.210	0.046	0.004	0.50
1977/78	0.250	0.211	0.069	0.004	0.53
1978/79	0.233	0.233	0.060	0.005	0.53
1979/80	0.220	0.261	0.066	0.005	0.55
1980/81	0.199	0.228	0.082	0.006	0.52
1981/82	0.229	0.144	0.076	0.004	0.45
1982/83	0.224	0.268	0.097	0.004	0.59
1983/84	0.229	0.330	0.116	0.015	0.69

Source: Computed from Table 3.1 and Table 2.1

First is the prohibition period when consumption of liquor was restricted to the Central Kerala. Toddy constituted more than 90 per cent of the total alcoholic consumption during this period. The prohibition, as we have described in Chapter 1, dealt a severe blow to the toddy industry in the prohibition

# TOTAL ALCOHOL CONSUMPTION - KERALA

TOTAL, TODDY, ARRACK, IMFL.



64a

taluks from which it never recovered fully. The prohibition forcibly disrupted the centuries old drinking tastes of the people. While illicit tapping was relatively more rigorously enforced, the illicit distillation flourished in the prohibition areas. During the two decades of prohibition, people developed a taste for hard liquors. Even when prohibition was lifted toddy could never regain its traditional status in the consumption basket.

The second phase starts with the lifting of prohibition. There was a sharp increase in the consumption of alcohol in the state due to the opening up of the erstwhile prohibition region. But since then the total consumption stagnated around the peak reached in 1967-68 and even declined during the first two years of the '70s. The decline was mostly due to the decline in toddy consumption in the non-prohibition region. Even though there was a significant increase in the consumption of arrack during this phase, toddy continued to constitute more than 80 per cent of the liquor consumption.

From 1972 the overall consumption of alcohol in Kerala sharply accelerated. But the per capita consumption of toddy during this period perceptibly declines. The entire increase in the consumption of alcohol is contributed by arrack and to a lesser extent by IMFL. The share of arrack in the total alcohol consumption increases from 12 per cent in the beginning of 1970s to more than 46 per cent in 1978-79, when for the first time the contribution of arrack to total alcohol consumption in Kerala

equals the share of toddy.

Table 3.5

Trend in the Composition (% share) of Liquor Consumption

Year (1)	Toddy (2)	Arrack (3)	IMFL (4)	Beer (5)	Total (6)
1961/62	85.53	3.42	11.05	0	100.00
1962/63	94.72	3.81	1.32	0	100.00
1963/64	94.99	3.83	1.19	0	100.00
1964/65	93.05	5.02	1.54	0.39	100.00
1965/66	91.53	5.24	2.82	0.40	100.00
1966/67	92.52	5.91	1.18	0.27	100.00
1967/68	89.65	7.90	2.20	0.27	100.00
1968/69	88.37	10.25	1.11	0.27	100.00
1969/70	85.75	12.33	1.37	0.55	100.00
1970/71	81.46	12.53	5.74	0.26	100.00
1971/72	85.29	13.08	1.76	0.62	100.00
1972/73	82.39	14.93	2.08	0.60	100.00
1973/74	69.66	23.60	5.90	0.84	100.00
1974/75	58.40	30.83	9.27	1.50	100.00
1975/76	50.71	38.07	10.72	0.44	100.00
1976/77	48.00	42.00	9.20	0.80	100.00
1977/78	48.92	41.29	13.50	0.78	100.00
1978/79	43.88	43.88	11.30	0.94	100.00
1979/80	41.20	47.28	11.96	0.91	100.00
1980/81	38.64	44.27	15.92	1.16	100.00
1981/82	50.55	31.79	16.78	0.88	100.00
1982/83	37.77	45.19	16.36	0.67	100.00
1983/84	33.19	47.83	16.81	2.17	100.00

Source: Computed from Table 3.4

The period from 1978-79 may be considered to be a new phase. The decline in the toddy consumption is seen to be arrested during this phase mainly due to supply problems with regard to arrack. We have noted the arrack debacle of 1980-81. During this last phase, IMFL consumption also steadily increases

reaching an all time high of more than 18% in 1983-84. The dramatic changes that have occurred in the composition of alcohol consumption in Kerala is evident from the Table 3.4 and Graph 3.g. Between 1966-67 and 1983-84 the share of toddy has declined from 92.4% to 33.8% while that of arrack has increased from 5.98% to 47.41% and that of IMFL from 1.62% to 18.88% in the total alcohol consumption of the state.

#### Notes and References

1. By definition illicit liquor is, liquor for which duty has not been paid. It includes the arrack and IMFL that is smuggled into the state and the country liquor that is brewed at home from grains and fruits. The volume of illicit alcohol that is sold in the state is anybody's guess, its presence being an "iceberg phenomenon". The relatively easy way in which it can be made and its high profit margin make it a big business. According to Excise Department officials 1/3 of all liquor consumed in the state is illicit alcohol.

2. There are nine distilleries in the state out of which only three were the supply contractors of arrack. The supply contractors and their areas of supply in 1980-81 were a. M/s Travancore Sugar and Chemicals - Trivandrum, Alleppy, Quilon and Kottayam districts and

b. M/s Chicops Distilleries, Palghat - Calicut, Cannanore, Malappuram and Palghat districts.

3. There were four blending units in 1982-83 in Kerala. They were the Mannam Sugar Mills Cooperatives Ltd, Pandalam, Kerala Distilleries, Trichur and the South Travancore Distilleries and Allied Products, Neyyattinkara. A large quantity of IMFL is imported from other states also.

4. "Alcoholic contents of liquor can be expressed either in terms of (1) London-proof strength, and/or (2) by percentage of alcohol in bulk..... Alcohol, when absolutely pure, is said to have a 'London proof strength' or simply 'proof strength' of 174.6 degrees. It is generally known as absolute alcohol. This is not potable. At this degree of purity, unmixed with anything else, any given volume of this liquid will contain 99.9 per cent of alcohol. That is to say, when a given volume contains 99.9 (say 100) per cent alcohol in bulk, the degree of purity is 174.6 degree (say 175 degree) in proof strength. The ratio  $100/175$  (i.e.  $4/7$ ) thus represents the relation between the two measures of purity- the denominator being the degree of alcoholic strength and the numerator the content of alcohol in a given bulk or volume. Now when other substances such as water are added the alcoholic content obviously decreases in bulk, and the degree of proof strength, that is, the purity of alcohol, decreases in the same proportion in which alcoholic content in bulk decreases; so that the factor of proportionality,  $4/7$  is still maintained in new situation". Tek Chand, Report of the Study Team on Prohibition, Vol. I, Planning Commission, New Delhi, 1964, p.24.

5. See Mathrubhumi daily 1983 August, .

6. Two taluks in Alleppy district, namely, Chengannur and Karthigappilly show an abnormal increase in arrack consumption in the year 1978-79.

7. According to the Family Budget Survey of 1958/59, conducted by Labour Bureau, Simla, the percentage of working class families consuming liquor was 9.5 for factory centres. But for plantations centres the percentage of liquor drinking families was 14.06.

## CHAPTER IV

### TOWARDS AN EXPLANATION OF THE DECLINE IN TODDY CONSUMPTION

Our analysis in the previous two chapters brought out the important factors that have influenced the level of alcoholic consumption in different parts of Kerala. But it left a vital aspect of the problem unexplained--the trends in consumption over time. It is to this issue that we shall now turn.

In the present chapter we shall first discuss the various factors such as the availability of coconut palms for tapping and the constraints imposed by the marketing structures that could have affected the supply of toddy. We shall then examine the impact of changes in the relative prices and the income on the demand for toddy. However, at the outset itself it needs to be pointed out that the severe limitations of data have constrained us from any rigorous empirical analysis of the determinants of demand for liquor in Kerala.

#### Sources and Limitations of Data

There are two methods of estimating the elasticities of consumption: time series and cross sectional analysis. Both have been used in the literature to estimate the income and price elasticities of liquor. It may be noted that due to inherent difficulties in the determination of liquor elasticities, even at



an international level, studies on elasticities of liquor consumption is very much limited in number and "investigators of liquor elasticities have indicated little confidence in these estimates." (1).

It is seen that the time series analysis is constrained by the changes in liquor consumption tastes that occur over time. Even in the short period, there is often year to year fluctuations in consumption, independent of income and price, due to shifts in social psychology. Further, because of the various government regulations that bind the liquor industry all over the world, variations in the price of liquor are limited, implying fewer price observations for time series data. Variations in liquor habits make simple cross-sectional analysis across geographical regions difficult.

In the case of the present study, our efforts for a time series estimate of price and income elasticities of liquor consumption in Kerala have been rendered impossible by the absence of basic relevant data:

(a) The per capita state domestic product for Kerala is available at both current and constant prices for the relevant period. And similar data has been used by Musgrave and Stern to estimate the income elasticity of liquor in Karnataka (2). However in the case of Kerala, such a procedure would be highly objectionable, especially for the period from mid-'seventies. There has been phenomenal increase in the remittances from abroad during this period so that the net income of the state (SDP+net

remittances) is considered to vary significantly from the trend in GDP. The divergent trend of the per capita state domestic product and per capita net income of the state can be easily seen by comparing the per capita GDP with the per capita consumption expenditure of the state, as estimated by the NSS consumption surveys.

The per capita GDP increased by around 3 times in nominal terms from Rs 541 in 1969-70 to Rs 1761 in 1983-84 while the per capita consumption expenditure of the state increased by around 5 times from Rs 381 to Rs 1857 during the same period(3). In terms of per capita GDP, Kerala ranked 13th among the states in India while in terms of per capita consumption expenditure the state ranked 4th in 1983-84. The dramatic increase in the per capita consumption took place from around mid-seventies with the gulf immigration boom. In 1973-74 the per capita consumption of Rs 550 was well below the per capita GDP of Rs 811. But today, as already noted, the per capita consumption expenditure of the state is in excess of the per capita GDP. While the State Domestic Product growth has virtually stagnated(-the compound growth rate of per capita GDP at constant prices for the period 1970-71 to 1983-84 works out to be 0.3-) (4), there has been a boom in the consumer expenditure in the state.

Given this background it can be seen that per capita GDP is an irrelevant index for a time series analysis of liquor consumption in Kerala. Time series data on per capita consumption expenditure would have been a more relevant proxy for the

income. But unfortunately the observations of per capita consumption for the entire post prohibition period amounts to just six annual observations and therefore leave too few degrees of freedom for any time series estimation.

(b) Even worse is the state of affairs regarding the price indices. There is no source of published data regarding the price of various types of liquor in Kerala. With respect to toddy it is possible to construct indices of important cost elements such as labour charges and rentals for a few centres. Issue price of arrack from the distilleries is also available. But it is seen that there is significant geographical dispersion of liquor prices. In 1970, the price of per of litre toddy ranged between Rs 1.30 in Cannanore to Rs 2.45 in Trivandrum(5). Similarly, the price of per litre of arrack varied from Rs 14.00 in Cannanore to Rs 24.00 in Kottayam. Thus the index of cost of production of toddy of a specific centre may not be representative of the annual changes in the selling price of toddy in the state.

(c) Another relevant variable in the time series analysis would be the share of tax in the price. Higher the proportion of the tax element in the price of liquor, greater the incentive to shift to illicit liquor or the temptation for the seller and consumer to conceal the sale. If the consumer is concerned only with the selling price, and not with the proportion of the tax component, then the tax variable will be insignificant and vice versa. Accurate data is available on the tax incidence (rental, license fee and other taxes) on each type of liquor. But

its utility is strictly limited by the absence of relevant information on the selling price.

With respect to cross sectional analysis there is little information regarding the geographic dispersion of price and income. The important source of cross sectional analysis of consumption expenditure in India, the NSS Consumption Expenditure Reports, are not useful for analysing liquor consumption as the relevant data is not available in appropriate form. The liquor consumption is clubbed along with expenditure of other intoxicants such as tobacco, pan etc. The published reports of various rounds of family budget surveys for the construction of working class cost of living index in Kerala is even less useful, as expenditure on liquor is clubbed along with the miscellaneous expenditures.

Similarly, there is severe paucity of published information on the market structures. Excise department does not publish any information on the number of contractors, their regional distribution or their share in the markets. However, the department maintains a rent roll register for each district. The register provides information such as the name of the contractor, location of the shop, the rental for the shop, liquor quota in the case of arrack for each shop etc. We attempted to collect the relevant data from these registers for a few time points. Due to the amount of time required for the sheer collection of the data from the various district head quarters, we had to limit our data collection to the six southern districts of

Trivandrum, Quilon, Kottayam, Alleppey, Ernakulam and Trichur. Data relating to the ranges in Idukki District which was a part of the Ernakulam and Kottayam Districts in 1968-69 has not been included in the analysis. The IMFL data for 1968-69 does not include the rentals for the foreign liquor shops in the Trivandrum District, as the relevant records could not be traced.

#### Availability of Coconuts for Tapping

While discussing factors that might have affected the supply of toddy one important line of enquiry could be the impact of the crisis of coconut cultivation in Kerala on the toddy industry. As can be seen from Table 4.1, the area under coconut cultivation which had been rapidly increasing, sharply declined at the end of the 'seventies'. The productivity per hectare in terms of nuts had started declining even during the 'sixties'. The area under coconut cultivation during 1981-82/1984-85 is around 10 per cent less than the area under coconut crop at the end of the 'sixties'. And the productivity per hectare is around 30 per cent less than what it was in the 1950s. The share of Kerala in the area under coconut cultivation in India has declined from 70 per cent in the 'fifties to less than 50 per cent today.

Table 4.1

Area and Productivity of coconuts in Kerala  
(Area in '000 hectares, Productivity in nuts/ha)

Period	Area	Productivity
(1)	(2)	(3)
1951-52/53-54	430	6511
1958-59/60-61	475 (10.5)	6842 (5.06)
1968-69/70-71	730 (53.7)	5389 (-21.2)
1978-79/80-81	659 (-9.7)	4693 (-12.9)
1981-82/84-85	678 (2.9)	4718 (0.05)

Source: Dr. G. N. Rao, et. al. Coconut Development in Kerala An Ex-post Evaluation Study. C.D.S., 1987.

The increase in the area under coconut cultivation during the 'sixties was largely accounted by the shift of paddy lands into coconut lands and extension of coconut cultivation into cultivable waste lands. (6) The latter has now been exhausted. At the same time the coconut lands in the foothills are being converted into rubber plantations (7). The decline in the productivity is increasingly making coconut an unattractive crop. The decline in productivity has been attributed to the ageing of the coconut trees in Kerala and the spread of the root wilt disease that has rapidly spread all over central and southern districts of the state. The yield of the coconut declines by around 40% during the early stages of the disease

while advanced stages of the disease, the yield can decline by as much as 70%. More than 70% of the trees in Alleppy and Kottayam and around 30% of the trees in Ernakulam, Idukki, Pathananthita and Quilon districts have already been affected by the disease (8).

A recent study has emphasised the role of cultivation practices such as irrigation and deficiencies of input use as important variables that interact with the incidence of disease and age of the palms, and exert a determining " influence on maturity of the disease bringing in its trail sharp declines in yield. The villain of the peice then seems to be the low input use ..... " . (9).

To date there is no study whatsoever on the impact of low input use or root wilt disease or ageing of the palms on the toddy yield. It is generally felt that the toddy yield of the old and diseased palms are lower. (To this extent our estimates of production of toddy in the state may be over estimates). Thus, to tap the same amount of toddy contractors would have to lease more trees or pay higher tree-rent to get better trees. There has been significant escalation of tree-rent especially in the recent period (10). In certain pockets of the state where the coconut disease is very wide spread there has also been complaints about difficulties in obtaining good trees for tapping (11). But we do not think it would be right to consider non-availability of trees for tapping as an important supply constraint . The demand for trees for tapping constitutes a very small percentage of the

total coconut palms in Kerala(12). Sufficient number of trees would be available for tapping as long as the contractors are willing to pay a rate of tree rent more or less equal to the earnings possible from nut yields.

#### The Selling Outlets of Toddy

Liquor can be sold only through licenced shops or such approved outlets. It is the prerogative of the excise department to determine the number of shops for different types of liquor in each locality. It is only the right to sell liquor through these licensed shops that is auctioned to the contractors annually. Therefore, government policy regarding the opening of new shops has significant influence on the marketing network of the different types of liquor.



Table 4.2

Number of Liquor Shops in Kerala 1961-62/1983-84.

year (1)	Toddy Shops (2)	Arrack Shops (3)	IMFL* Shops (4)	Total Shops (5)
1961-62	1098	396	106	1600
1962-63	1096	393	103	1592
1963-64	1110	397	107	1614
1964-65	1109	397	109	1615
1965-66	1109	397	109	1615
1966-67	1106	401	104	1611
1967-68	2344	891	168	3403
1968-69	2377	944	-	-
1969-70	2383	939	162	3484
1970-71	2377	969	184	3530
1971-72	2364	983	181	3528
1972-73	2364	983	189	3536
1973-74	2332	983	213	3528
1974-75	2318	985	242	3545
1975-76	2314	985	248	3547
1976-77	2323	923	243	3489
1977-78	2314	993	256	3563
1978-79	2324	1001	244	3569
1979-80	2409	1190	246	3845
1980-81	2332	1000	244	3576
1981-82	2367	1820	-	-
1982-83	2296	1865	384	4545
1983-84	2454	1835	-	-

Note: \* includes licenced hotels and restaurants.

Source: Excise Department, Administration Reports, relevant years.

Table 4.2 gives the number of toddy shops, arrack shops and foreign liquor shops in Kerala from the 'sixties. The number of toddy and arrack shops more than doubled in 1967-68 compared to the previous year with the lifting of the prohibition. But since then the number of toddy shops in the state has stagnated around 2,300 while the number of arrack shops continued to slowly

increase from around 900 in 1967-68 to 1,000 in 1980-81. Then there was a sharp escalation in the number of arrack shops to 1865 in 1982-83. The number of IMFL outlets have also been steadily increasing and their number has increased from 168 in 1967-68 to 384 in 1982-83. As a consequence the share of toddy shops in the total number of liquor shops in Kerala has been declined from around 70 per cent at the end of 1970's to around 50 per cent today.

Besides, every contractor is permitted to open two sub-shops for each shop he has auctioned. But in practice the contractors open many more sub-shops than they are entitled to. It has been estimated that the total number of such illegal sub-shops thus existing is around 20000-25000. (13). We do not have the break up of these shops according to the liquor sold. But it is considered that most of them are arrack shops. Arrack shops do not require much floor space as arrack is normally gulped down, with or without water, mostly off the counter itself. While toddy, which is consumed in much greater bulk necessitates sitting arrangements for the consumers and also traditional food accompaniments such as fish curry, tapioca, etc. Toddy also requires greater storage facility. Arrack shops can be opened in any place wherever a room is available with very little overhead expenditure. This perhaps accounts for the proliferation of illegal arrack vending shops.

As a consequence the actual number of total arrack selling outlets may be even many times the number of toddy shops.

It would imply that consumers have greater access to arrack than toddy. The easy availability of arrack can influence the drinking habits.

It is not our argument that the government licensing policy consciously discriminates against toddy shops. It is more probable that the government decisions must have been responding to the demands made by the contractors and consumers. We shall now move on to discuss the operations of the contractors in the liquor market.

#### Concentration in the Liquor Market

As we have noted already, under the present practice the right to operate a shop or a group of shops for each type of liquor is auctioned to the contractors. The same contractor can bid for as many shops as he wants. He can also operate in any of the three liquor markets at the same time. As a consequence there is possibility of a high degree of concentration in the market. Table 4.3 presents the distribution of contractors by various rental size classes for the year 1968-69 and 1983-84.

Table 4.3

Distribution of Toddy Contractors According to Size Classes of Rentals in the six Southern districts 1968-69, 1983-84.

Size class of rentals (Rs.lakhs)	1968-69			1983-84		
	No.Cont- ractors	Rental	% Share of Rental	No.Cont- ractors	Rental	%Share of Rental
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0-2	651	238	65.07	281	200	37.52
2-5	21	97	26.00	60	175	32.75
5-10	2	15	4.02	13	87	16.20
10-20	2	18	5.06	4	47	8.66
20 & >	-	-	-	1	22	4.11
Total	676	368	100	359	530	100

Source: Rent Roll Registers, Excise Department.

The individual shop auctioning system facilitates smaller contractors also to operate in the markets. And this explains the preponderance of the small contractors paying less than rupees one lakh as rental. They account for 90 per cent of the number of contractors and more than 50 per cent of the total toddy rental. Their average rental was only Rs.0.30 lakhs .

The introduction of range level auctioning in mid-'seventies resulted in the elimination of the majority of the small contractors. The total number of toddy contractors in the mid-'seventies was only around 150 in the six southern districts, around one-fourth their number in 1968-69 (14). Today

the unit of auction is smaller than range. The shops are auctioned in lots consisting of 5-6 adjacent shops. It has permitted a number of smaller contractors to enter the market once again. But the total number of contractors is still less than half of what it was at the end of 1960's. The Lorenz ratio of rental shares marginally increases from 0.50 in 1968-69 to 0.56. in 1983-84. The reduction in the number of contractors and the increase in the concentration ratio points to the strengthening of the oligopolistic nature of the toddy market. It implies reduction in the market competition.

The successful contractor enjoys a local monopoly over vending of toddy in his locality. But there would always be competition between contractors in the adjacent area. If the selling price increases significantly above that of the adjacent contractors, or if there is a deterioration of services or quality of toddy compared to those of adjacent contractors, a portion of the consumers may shift to the neighbouring shops. But with the increase in the oligopolistic control and increase in the operational area of each contractor, such possibilities would be drastically curtailed. Such a situation can result in increase in prices and deterioration of quality of toddy.

This seems to be the situation that has prevailed in the toddy market in Kerala. We shall take up the issue of price increase later. We shall now confine ourself to the deterioration of the quality of toddy and services in the toddy shops. There are wide spread complaints against adulteration of toddy among the

consumers. Most of the toddy shops are unhygienic and filthy. Toddy is adulterated by mixing with water and certain vegetable liquids. To maintain the 'kick' of the liquor sedative drugs such as chloral hydrates are added. It may be noted that manufacture of toddy provides little scope for economies of scale. But large scale operations, where toddy tapped in various places are mixed and a homogenous quality of toddy is marketed over a large area by a big contractor, provide greater scope for adulteration. Adulteration of toddy becomes difficult when manufacture and sale are localised and there are personal contacts between tappers and the consumers. However, it must be remembered that even the operations of a large contractor is constrained by the perishable nature of toddy and its bulky nature that makes long distance transportation and storage difficult.

More importantly the monopoly control of even a large contractor is severely constrained by the competition from contractors vending other types of liquor in the same locality. With respect to toddy operations of arrack contractors become particularly relevant. Consumers can switch over to other types of liquor especially to arrack from toddy.

The number of contractors operating in the arrack and IMFL markets are much smaller than in toddy. But their scale of operations are much larger. In 1983-84 the average rental of 142 arrack contractors is Rs. 12.86 lakhs and that of 111 IMFL contractors is Rs. 7.76 lakhs. The average rental of toddy contractor in 1983-84 is only Rs. 1.48 lakhs. The level of

concentration in the arrack and IMFL markets is also much higher. The share of top five arrack contractors in the total rental is- 25.46 per cent for arrack 14.46 per cent for IMFL (15).

Another feature of the arrack market, is the wide spread cartel like relations that exist between the contractors. It is normal for the contractors to enter in to partnership with others to auction shops. The partners keep changing from range to range. Thus there is a close relationship between many of the arrack contractors. It is seen that 68.83 per cent of the arrack rental is paid by this kind of partnership firms in 1983-84. In 1968-69 their share in the rental was only 26.02. This feature renders the analysis of the structure difficult. For tabulating the contractors by the size of rental payment we have apportioned the rentals paid by such firms equally among the partners (16).

#### Inter linkage between the Contractors in the Various Liquor Markets.

We shall not enter into a detailed discussion of the operations of the contractors in arrack and IMFL markets. What is more relevant to our discussion here is the extent to which the contractors in the various markets are inter linked especially those in toddy and arrack markets. If for example, the same contractor controls the sale of all types of liquor in one locality, his market control would tremendously increase. His attempt to maximise profits can result in discrimination against the type of liquor that is less profitable. It is a well accepted fact that profit from toddy is less than that from arrack. There

are limitations for the extent of adulterating toddy. But arrack provides almost unlimited scope for adulteration. It has been estimated that illicit country liquor and illicit spirit smuggled from outside the state sold through the arrack shops in Kerala ranges from 50 per cent to 100 per cent of the legal sales (17). In this manner the arrack contractors are able to avoid the duty and the commission levied on the arrack supplied by the government bonded warehouses. They are also able to get arrack, at a much lower price than the issue price. This being the case the interlinkage of toddy and arrack markets can have severe consequences for supply of toddy. Table 4.4 gives the share of the larger toddy contractors in the rentals of various liquor markets as well as the total rental.



Table 4.4

Share of the Larger Toddy Contractors in the Rentals for Various Liguors. (1968-69 and 1983-84)

(Percentage Share)

	Total		Toddy		Arrack		IMFL	
	Rupees lakhs (2)	% (2)	Rupees lakhs (3)	% (4)	Rupees lakhs (5)	% (7)	Rupees lakhs (8)	% (9)
(1)								
<u>1968-69</u>								
Top 5	62.09	12.10	42.28	11.54	19.31	13.84	0.50	6.67
Top 10	87.59	17.06	60.35	16.50	26.74	19.20	0.50	6.67
Top 25	123.71	24.10	93.65	25.60	29.50	21.14	0.50	6.67
All 673								
Contra-ctores	513.42	71.42	366.39	100.00	139.53	22.60	7.50	6.67
<u>1983-84</u>								
Top 5	71.79	2.40	69.28	13.00	0	--	2.51	0.30
Top 10	120.70	4.02	109.96	20.60	0	--	10.74	1.25
Top 25	221.11	7.34	188.01	35.20	16.11	1.00	16.99	2.00
All 362								
Contra-ctores	3003.62	17.78	532.08	100.00	1608	23.25	861.03	14.75

Source: Compiled from Rent Roll Registers.

The data presented in the Table 4.4 reveals a limited level of inter-linkage between toddy and arrack market in 1968-69. The larger toddy contractors were also important operators in arrack. The largest 25 toddy contractors controlled around 25 per cent of the toddy market and also around 21 per cent of the arrack market. The shares of all the other toddy contractors in the arrack market are miniscule. However, on a close examination it was found that only 12 toddy contractors operated in the arrack market. Their total share in the toddy market was around

10 per cent and arrack market around 23 per cent.

Even in 1983-84 the share of contractors who operate both in the toddy and arrack markets, remains stable at around 23 per cent. But on a close perusal we find very remarkable changes. It is not the larger toddy contractors who are operating in the arrack market as in 1968-69. The top 10 toddy contractors do not operate in the arrack market at all. If one examines the share of the top 25 toddy contractors, their share in the arrack rentals is only one per cent. Of the 19 contractors who are operating in both arrack and toddy market only 2 have a toddy rental share of more than 5 lakh rupees. The toddy rental of the above 19 contractors is only Rs.26.9 lakhs or around 5 per cent of the total toddy rental. Most of them are mainly arrack contractors who have some minor interest in the toddy market. One can safely conclude that at present there is virtually very little inter-linkage between arrack and toddy markets in terms of operations of the contractors. In fact what is happening is that the larger contractors are moving out of toddy industry into arrack and IMFL markets. It is very evident from the data provided in the following Table 4.5.

Table 4.5

The Share of the largest liquor contractors in the rentals of various types of liquors 1968-69

(1)	Toddy		Arrack		IMFL		Total	
	Rs.lakhs (2)	% (3)	Rs.lakhs (4)	% (5)	Rs.lakhs (6)	% (7)	Rs.lakhs (8)	% (9)
Top 5	36.98	43.90	47.65	55.60	1.14	1.32	85.77	100
Top 10	39.68	33.50	77.41	65.40	1.29	1.09	118.38	100
Top 15	53.46	37.50	87.70	61.60	1.29	0.91	142.45	100
Top 20	63.05	39.40	94.98	59.40	1.91	1.20	159.94	100
Top 25	70.87	41.02	99.95	57.90	1.91	1.11	172.73	100
<u>1983-84</u>								
Top 5	3.33	0.61	409.57	76.20	124.53	23.10	537.43	100
Top 10	3.33	0.42	558.09	70.83	226.55	28.80	787.97	100
Top 15	5.12	0.53	724.40	74.81	238.84	24.66	968.30	100
Top 20	5.12	0.47	813.08	74.22	277.28	25.31	1095.48	100
Top 25	33.58	2.79	870.93	72.36	299.05	24.84	1203.56	100

Source: Computed from Rent-Roll registers, The Excise Department.

The share of the largest 25 contractors in the total rental payment has increased between 1968-69 and 1983-84 from around 33 per cent to 40 per cent of the total. The share of toddy rentals in the rental payment of the largest 25 contractors has declined from 43.90 per cent to 0.61 per cent between 1968-69 and 1983-84. During the same period the share of arrack and IMFL rentals in their total rental payment has increased from 55.60% to 76.20 % and 1.32 % to 23.10 % respectively.

We have so far examined factors that could have affected the supply of toddy. On the whole, it seems that the

demand factors are perhaps more important in explaining the changes that have occurred in the consumption pattern of liquor. We shall now examine the demand side of the problem.

Relative Price of Toddy.

Liquor consumption is generally considered to be relatively inelastic to the changes in price. Because of addition to liquor habits consumers do not respond to small variations in price. Though this may be true for the elasticity of total liquor consumption, the elasticity of demand for individual types of liquor may be significant due to the possibilities of substitution. Of the three types of liquor consumed in Kerala, an analysis of changes in the relative price of toddy and arrack becomes thus relevant. These two country liquors are consumed by poorer strata of people. In the introductory chapter we had already pointed out how the introduction of cheap molasses arrack in the place of costlier toddy arrack had led to an increased consumption of arrack relative to toddy.

As can be seen from Table 4.6 there has been a significant increase in the cost of production of toddy during the post prohibition period. The escalation of the labour cost has been the most important factor that has contributed to it. Share of labour cost in the supply price has increased from 48 per cent to 73 per cent. The cost of production (labour cost and tree rent and the tax) of toddy has increased by 425 per cent between 1967-68 and 1983-84. At the same time the supply price of arrack (ie. the issue price of the contractor including the duty) has

increased only by around 50 per cent from 2.5 in 1967-68 to 4 per cent in 1983-84 during the same period in the Trichur taluk.

Thus the price of toddy (excluding rental and gross profit) was around half the issue price of arrack in 1967-68. Now it has become almost equal to the issue price of arrack. There has not been very significant difference in the trend of rental incidence as toddy and arrack. Assuming that the trend in the cost of production of toddy presented in Table 4.5 more or less holds good for the state as a whole, one should expect a significant worsening of the relative price of toddy, during our period of analysis all over the state. In 1983-84 one litre of alcohol from toddy costs Rs.96 while one litre of arrack alcohol was only Rs.63. Given in the increase in the relative price of toddy it would only be natural that the hard drinkers from the poorer strata would prefer to consume arrack. Such preference would certainly be marked among the new consumers in the younger generations who are not habituated to drinking toddy.

Table.4.6Components of the Price of One Litre of Toddy 1967-68/1983-84 at Anthikkad

(Including price and establishment charges)

	1967/68 (Rs)	%Share in the total	1983/84 (Rs)	%Share in the total
Labour Costs				
Price/litre	0.35	29	2.40	52
D.A/litre	0.14	12	0.66	14
Other wage benefits	0.08	7	0.31	7
Total Labour Cost/litre	0.57	48	3.37	73
Lease Payment for the tree	0.09	7	0.45	10
Rental/litre	0.48	40	0.72	16
Tree-Tax/litre	0.06	5	0.06	1
<hr/>				
Total	1.20	100	4.60	100

Source: Interviews with trade union leaders and Table 1.5.

Note: Rentals/litre refers to state average.

The Incidence of Tax.

The incidence of tax, as already noted, may be an important factor influencing the substitution to illicit liquor. Musgrave and Stern's study of liquor consumption in Karnataka had concluded that the coefficient on proportion of tax in the price is significant and negative with respect to arrack consumption. Their study concluded " Competition from the illicit sector could not be ruled out even if demand depends only on price and not on the tax since a high price in the monopoly

outlet would imply a strong demand from cheaper sources. However high taxes increase the cost advantage of the illicit sector and may also imply that the licence holders themselves participate in the illegal production and sale. Their position as licensed sellers could clearly provide a cover for illegal activities." (4) This conclusion is particularly relevant for Kerala. Table 4.7. presents the per litre rental revenue on toddy and arrack. But as can be seen from the table the rental from a litre of toddy alcohol is more or less same as that on one litre arrack alcohol.

Table 4.7 Incidence of Rent for Toddy and Arrack (per litre) in Kerala.

Year	Toddy incidence of Rent (Rs.)	Arrack incidence of Rent (Rs.)
1961-62	3.14	20.91
1962-63	3.51	23.50
1963-64	3.88	26.42
1964-65	6.26	29.31
1965-66	6.95	29.75
1966-67	6.50	28.75
1967-68	5.29	36.40
1968-69	9.89	30.60
1969-70	6.25	23.82
1970-71	5.85	26.38
1971-72	5.40	38.33
1972-73	4.90	14.34
1973-74	4.26	9.18
1974-75	4.60	14.67
1975-76	4.79	16.44
1976-77	2.72	38.36
1977-78	8.60	39.87
1978-79	9.54	55.59
1979-80	12.20	48.94
1980-81	16.06	61.63
1981-82	17.85	50.56
1982-83	10.68	44.54
1983-84	11.93	34.66

Source: Administration Reports, Excise Department relevant issues.

The rental on per litre of toddy tended to decline in the early seventies but this trend has been reversed from mid-seventies. The trend in arrack rental revenue also reveals a similar pattern. It may also be noted that arrack has been subject to a duty of Rs 2.50 per litre while toddy has to pay only a tree tax whose incidence is much lower (19). On the average whole the tax constituted around 11 per cent of the selling price of toddy and 7.57 per cent for arrack.

There is virtually no information on the cost of production of illicit liquor in Kerala. The selling price of distilled illicit arrack varies between Rs 12 to Rs 16 per litre in Trivandrum district in 1983-84. Thus the difference between the rental price of licit and illicit arrack may be taken as around 100 percent. This provides a powerful incentive for production and consumption of illicit arrack. For reasons already noted in the introductory chapter production of illicit toddy is not very significant. Further, the tax on toddy is almost entirely on the nature of the auction rental which in the short run is in the nature of a fixed cost and does not provide any incentive for the contractor to conceal sales. But it is different in the case of arrack, where the duty component in the total tax (ie the non rental component) is relatively higher. The contractor himself stands to gain by selling illicit arrack. Such is the price difference between illicit arrack and licit liquor that, as we have already noted, it is a common practice in Kerala that licensed toddy shops themselves stock illicit arrack



and sell them to customers. Of the 121 number of shops in Trivandrum taluk at least 30% per cent was found to indulge in this practice.

Increase in the Per capita Income.

Finally we shall examine the impact in the rise in per capita income in the state due assigning the remittance boom since the mid-'seventies. The increase in prosperity has not been confined to the upper classes of society but has to an extent percolated down to the lower strata of society. The high level of unionisation of various sections of the workers and militant collective wage bargaining have been responsible for the spread effect of the gulf boom. Indeed, case studies of many sections of workers have pointed to a significant increase in their wage rates and, to a lesser extent, the improvement in standard of living during the last two decades (20). The recent survey of rural labourers in Kerala also indicates a significant increase in the real earnings of rural labour households (21).

The income elasticity of demand for liquor of the industrial workers in Kerala was estimated to be 1.176 for 1958-59 by the Prohibition Enquiry Committee. It was more than double the income elasticity for India as a whole 0.5646 (22). Assuming the income elasticity has not undergone any drastic change, the increase in wages would have resulted a significant increase in the consumption of liquor by the workers. Given the changes in the relative liquor prices, influence of urbanisation, changes in the market tastes etc. the increased demand has been largely met

by arrack. This would particularly be so, in the case of younger workers who have not become habituated to the traditional alcoholic beverage of toddy.

The increase in consumption of liquor by the workers fully accords with the historical experience of European working class in the initial phases of increase in the real wages during the nineteenth century. The total liquor consumption significantly increased during 1850 to 1875 period giving rise to an "apparent paradox between the rise in real wages and low standards of nutrition and health" (23). It has been shown that during this period the main determinants of variations in consumption over time was the level of wages and that there was a "positive correlation between wages and drink consumption, the closest correlation being observed after one year lag and for spirits to a greater extent than beer" (24).

We have so far looked at only one segment of the society: workers. Even for the society at an aggregate level the income elasticity of demand for liquor must be positive but probably less than unity. But the income elasticity for individual types of liquor may significantly differ. For example, study of Richard Stone of consumer expenditure behaviour in United Kingdom for 1920-1938 period showed that the income elasticity of beer, a low alcoholic beverage, was negative (-0.05), positive and less than unity for spirits (0.60) and greater than unity for wines (1.4 for British wine and 1.70 for imported wine). The income elasticity for toddy is probably very

low or even negative, signifying inferiority. It is well known that the richer classes prefer costlier now traditional foreign liquor to country liquors. Thus the net effect of the increase in the per capita income would be a rapid rise in overall liquor consumption and a decline in the consumption of toddy.

#### Notes and References

1. For a brief survey of the various estimates of liquor in various western countries as well as the methods employed see Julian.L.Simon, "Price Elasticity of Liquor in the U.S. and a Simple Method of Determination". "Econometrica, 1966, P.194.
2. Simon Musgrave and Nicolas Stern, "Acohol "Demand and Taxation in S. India in the 1972" Discussion paper no.55, January, 1895, University of Warwick.
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10. It was found that the highest rates of tree rent exist in those Districts which are also severly affected by root-wilt disease. The rates of tree rent was found to vary from Rs. 300 to Rs. 600 per month for a tree.
11. Kerala Shashtra Sahitya Parishad, Kuttanad , Trichur, 1982.
12. The total number of palms in Kerala is around 12 crores. The 3.5 lakh palm trees that are tapped forms only a very small percentage of the total.
13. See Malayala Manorama daily. (Malayalam), september17,1986.
14. Rent roll registers, Kerala Excise Department.
15. Here the number of contractors refer to the individuals and not firms.

16. Distribution of arrack contractors according to size classes of rentals.

Size class (lakhs)	1968-69			1983-84		
	No. of Contrs.	Rental Revenue Rs.lakhs	%	No. of Contrs.	Rental Revenue Rs.lakhs	%
0.00-2.00	81	39	27.89	18	18.02	1.12
2.01-5.00	9	29.5	20.94	46	144.78	9.00
5.01-10.00	8	51.74	37.07	29	205.10	12.81
10.01-20.00	0	0.00	0.00	28	342.00	21.26
20.01-& >	1	19.60	14.02	21	881.25	54.78

Source: Computed from Rent Roll register.

Distribution of IMFL contractors according to size classes of rentals .

Size class	1968-69			1983-84		
	No. of Contrs.	Rental revenue	%	No. of Contrs.	Rental revenue	%
0.00-2.00	22	7.50	100	8	9.50	1.00
2.01-5.00	--	--	--	45	157.12	17.70
5.01-10.00	--	--	--	31	218.00	25.36
10.01-20.00	--	--	--	19	218.80	25.41
20.01-& >	--	--	--	8	262.22	30.44

Source: Computed from Rent-Roll Register.

17. Interview with M.C.Thomas, Excise Department 10 th July 1987, Trivandrum.

18. Incidence of Tax on a Litre of Proof Strength of Alcohol.

Year	Toddy	Arrack
1960-61	0.46	3.33
1966-67	0.77	3.33
1978-79	0.99	3.33

Source: Administration Report, Kerala Excise Department.

19. See K.N.Harilal , Kerala's Building Industry in Transition A Study of the Organisation of Production and Labour Process, M.Phil Thesis submitted to Jawaharlal Nehru University, New Delhi, 1986.,

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21. Tek Chand, Report of the Prohibition Enquiry Committee Planning Commission, 1964.

22. A.E.Dingle, " Drink and the Working Class Living Standards in Britain, 1870-1914, Economic History Review, Vol.25, November 1972, pp.608 -622.

23. A.E.Dingle, op. cit. 1972, pp.615.

CHAPTER VCONCLUSION

The present study is an attempt to document and explain the trends in the consumption pattern of alcoholic beverages in Kerala. The focus of our attention has been toddy, the traditional alcoholic beverage of the region.

Chapter I gives a detailed historical introduction to our empirical analysis. It was seen that the evolution of toddy industry was closely related to the abkari regulations of the government. We identified three distinct phases in the evolution of abkari system in Kerala: the ancient custom of professional tax on toddy tappers and distillers, the system of farming-out of the abkari revenue introduced by the British in the early nineteenth century and finally the modern system of independent shop auctioning introduced in the latter half of the nineteenth century. The last mentioned abkari system has continued with certain modifications to the present day.

The introduction of the modern abkari system may be considered first of the set backs suffered by the toddy industry. Under the new system the monopoly right of manufacturing and supplying arrack to the shop contractors was given to one or two distillers such as Parry and Co. The Supply Contract Distillers

found manufacture of arrack from molasses more profitable and very soon coconut arrack was displaced by molasses arrack. Infact, in Malabar the production of toddy arrack was even banned. It is with the introduction of the cheap molasses arrack that the arrack consumption habit began to become wide spread.

The next major blow for the toddy industry was the introduction of partial prohibition in the state in 1947. As we have shown in detail the prohibition forcibly disrupted the traditional drinking habits of the people which were in favour of the low alcoholic beverages like toddy. Illicit distilled liquor which continued to flourish in the prohibition areas provided the only source of alcohol available to the consumers. During the two decades of prohibition people in the prohibition areas developed a new taste for hard liquors. Even when prohibition was lifted in 1966-67, toddy could not recover the traditional status it once enjoyed in the prohibition areas.

While statutory prohibition proved to be an undisputed failure which had to be finally withdrawn, one cannot but be impressed by the success of the temperance movement during the pre-independence period. As indicated by declining number of liquor shops and toddy tappers as well as stagnation of abkari revenue the consumption of liquor significantly declined during the 'twenties and 'thirties. Moral persuasion can effectively check alcoholism while statutory prohibition merely distorts the consumption patterns.



In Chapter II and III we undertook a detailed analysis of the trends in the consumption pattern of liquor during the post prohibition period. Our analysis revealed the presence of very significant inter regional differences not only in the level of liquor consumption but also in its composition. The important regional patterns in the consumption of alcohol in Kerala that has been highlighted in our analysis is summarised in Table 5.1 given below.

Table 5.1

Level and Composition of Consumption of Liquor-Regional Variations (1983-84)

Region (Taluks)	Level of alcohol Consumption (litres per capita)	Share of different Liquors			
		Toddy	Arrack	IMFL	Total
(1)	(2)	(3)	(4)	(5)	(6)
Prohibitio	0.512	24.41	61.81	13.78	100
Non-probn.	0.888	38.29	37.50	24.21	100
Rural	0.606	38.12	50.17	11.71	100
Urban	0.795	24.52	43.27	32.21	100
Christian	1.059	54.01	27.76	18.23	100
Muslim	0.252	35.31	52.38	12.31	100
Hill Taluks	0.281	15.41	67.03	17.55	100

The following conclusions may be drawn:

(a) The level of alcohol consumption is higher in the non-prohibition areas, urban areas and amongst the christian community. As we have noted, the low level of consumption in the hill taluks may be deceptive. A very significant part of alcoholic consumption in the hill areas comes from illicit liquor which is not captured in our data.

(b) The level of toddy consumption is higher in the non-prohibition areas and rural areas. Understandably it is insignificant in the hilly regions and high in the midlands and costlands where coconut is cultivated.

(c) The IMFL consumption is to a great extent localised in the urban centres - Cochin city and its suburbs alone claiming around a quarter of the consumption.

(d) Arrack is the main alcohol of the hill taluks. There is no difference in the level of consumption of arrack between prohibition and non-prohibition areas or rural and urban areas. But it forms a higher proportion of the total alcohol consumed in the prohibition areas and rural areas.

Lack of relevant income and price data prevented any attempt for a cross sectional analysis of the influence of inter-regional differences in income and relative prices of liquors on the level and pattern of alcohol consumption.

The analysis in Chapter II and III also sharply brought out the salient features of the trends in consumption over time:

(a) There has been a very significant increase in the total alcohol consumption in Kerala. The per capita consumption of alcohol increased from 0.34 litres in 1971-72 to 0.69 litres in 1983-84.

(b) The per capita consumption of toddy during the same period declined from 4.90 litres to 3.81 litres while the per capita consumption of arrack and IMFL increased very significantly during the same period. As a result the share of toddy in the per

capita alcohol consumption of Kerala has declined from an all time high of 93 per cent in 1966-67 to 33 per cent in 1983-84.

(c) The rate of increase of consumption of alcohol has been higher in areas where per capita consumption was lower in the initial period. So we find the inter regional differences in the consumption of alcohol in the state has significantly declined during the post prohibition period. Co-efficient of variation of alcoholic consumption in the various taluks of the state declines from 68.63 per cent in 1971-72 to 48.44 per cent in 1983-84.

In Chapter IV we have attempted to discuss the factors that have influenced the trends in the consumption of alcoholic beverages in Kerala. When we started our study, our hypothesis was that the supply factors played an important role in the decline toddy industry. It is evident that if there is significant concentration in the various liquor markets and the same set of liquor oligopolies operate in all the markets, then their efforts to maximise profits would have serious adverse implications for toddy whose profit potential is relatively low. Unlike toddy, arrack and IMFL gives great scope for adulteration and evasion of duty. But the data we have presented in Chapter IV do not seem support the above hypothesis. There is significant concentration in the liquor markets. But the linkage between the toddy contractors and other liquor markets is low and insignificant in 1983-84. However, it is seen that the quality of toddy as well as the services in the toddy shops have seriously deteriorated and it has become a common practice to sell illicit

distilled liquor through toddy shops.

Further arrack is more easily available to the consumers than toddy. If we take into consideration the total licensed shops as well as illegal shops that the contractors are operating, arrack shops far out number the toddy shops.

The area under coconut cultivation as well as productivity of coconut palms have been declining in Kerala. Though one can not speak about, non-availability of trees for tapping as a supply constraint, the ageing of palms, the root-wilt disease and the low input use by the cultivators would certainly affect the toddy yield of the coconut palms and hike up tree-rent for the good trees.

Our discussions about the supply factors points to the need for a comprehensive analysis of demand for alcohol. But as we have explained in detail the lack of relevant data has seriously restricted our efforts.

We find that the relative price of toddy has increased significantly with respect to arrack and illicit liquor during the period of our analysis. We have argued it to be an important factor that influenced the trends in the relative consumption of toddy and arrack. This conclusion of ours contradicts the usual assumption about the price elasticity of toddy (1). Both toddy and arrack are consumed by poorer people and, in the long run, they would certainly respond to the changes in relative prices.

The income elasticity of liquor seems to be relatively high in Kerala. The increase in the per capita income of the

people from the mid-'seventies due to the boom in remittances from foreign countries is an important factor that has influenced, the increase in consumption of alcohol in Kerala. The income elasticity of toddy may be taken as negative, signifying inferiority. The increase in the urbanisation is an important factor that has influenced the shift to IMFL.

We do not claim to have done full justice to the complex phenomenon that we have attempted to study due to paucity of data as well as time. But the trends that we have been able to analyse and document are startling and have serious implications both for the future of toddy industry as well as health of the consumers.

In Chapter IV we had noted the tendency of major contractors to shift away from the toddy industry. Contractors are finding it increasingly difficult to shift the burden of increasing cost to the consumers and prevent erosion of their profits. It has become a common occurrence in the last few years that in many areas no contractor comes forward to clinch the bid as the upset price fixed by the excise department is found to be too high. It was admitted by the excise department officials that in many ranges, the department was forced to settle for a negotiated rental with the contractors (2). The government even actively toyed with the idea of licencing individual tappers for manufacturing and selling of toddy in the

areas where contractors were not forth coming. The implementation

erosion of the strength of the trade union organisations. Though the unions have been able to stall the scheme, it has become evident that there has been a severe erosion of their bargaining power. Contractors often make the acceptance of their contracts conditional on the trade unions accepting reductions in the wage benefits and restrictions on many customary practices. These trends are likely to get strengthened as the crisis in the industry deepens.

The increase in the consumption of alcohol in Kerala has been an issue of great concern among the health experts in the state. The incidence of alcohol related diseases like Cirrhosis of liver and alcohol related road accidents have very sharply increased ○. In this <sup>t</sup> context the change in the consumption pattern in favour of hard liquors becomes relevant. We do not know the amount the illicit distilled liquor that is being consumed. But it is well known that a significant proportion of arrack sold through licenced shops is illicit liquor. Liquor tragedies killing dozens and maiming hundreds have been caused by the liquor sold through the licenced shops in Kerala. Alcoholism is infact becoming a major social and health problem in the state.

Notes and References

(1) See for example K.P.Kannan , op.cit. pp.206.

"The demand seems to be price inelastic so long as the ratio between toddy and beer remains more or less the same, i.e. roughly 1:2.5. The more likely competitor in terms of price is the country liquor called arrack but its expanded production and sale has not really affected the demand for toddy although unions make a point of citing it as weakening the toddy tapping industry. The increased wage costs have been instantly passed on to the consumers who are largely the rural and poorer urban workers."

(2) Interview with excise department officials, M.C Thomas, Trivandrum, September, 1987.

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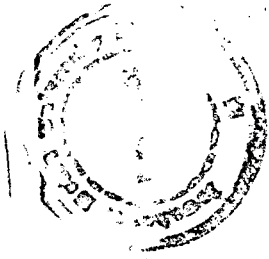
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