CHAPTER II

THE BACKCLOTH

Tamil Nadu, one of the fourteen states of the Indian Union, is a territory in the southern peninsular part of the Indian subcontinent. The Western Ghats, a line of mountains, runs down the peninsula like a spine. The land sloping from it to the Bay of Bengal in the east is the territory of this state. It lies wholly in the tropic between 8° 4' to 13° 4' north. It is fully exposed to the monsoons and is one of the hot regions in the world.

The land sloping from the spinal mountain range to the sea, of distances varying from 50 to 100 miles, makes two kinds of stretches. (See Fig. 2.1). The plateau till the slope is interrupted by a chain of low, flat-topped hills, and then a low-lying flat coastal region. It leaves a flat plain in the south, extending to the tip of the peninsula in the south. The physiography of the land, thus gives rise to three regions: the central plateau, a coastal region along the eastern coast line of the state and the southern
The rivers in the state flow from the mountain ranges in the west to the sea in the east. While none of them are navigable, two of them form important river basins in the state. The most important river in the state, the Cauvery, originates in the state of Karnataka to the north of Tamil Nadu, flows across the central plateau dividing it into two, issues out into the coastal plain, exhausts itself in a rich alluvial delta and flows out as a thin stream into the sea. All along the course of this river, paddy is cultivated and its delta is the richest paddy cultivating area in the state. The other is the river Tamaraparani, which originates in the Western Ghats, flows across the southern plain where it is used extensively to irrigate paddy cultivation before it enters the sea. The other rivers, flowing from the hills to the sea, break up the central plateau and are used intensively to irrigate paddy crops along the way.

The state has a coast line of about 620 miles which provides no natural harbour capable of accommodating ocean-going vessels. Three ports handle the over-seas traffic, the most important among them
being Madras. Nagapattinam and Tuticorin, the other two ports, handle very little traffic compared to the Madras port.

The weather in the state is hot and tropical, the maximum temperature going up to 110°F (43°C) and the minimum reaching 55°F (18°C). The movements of the sun and the monsoon winds give a cycle of four seasons; two monsoon seasons, one cold season and one hot season in the year. The cold and hot seasons succeed each other taking between them the first six months of the year, and the two rainy seasons take up the rest of the year.

The state gets its two seasons of rain: the first from the south-west monsoons (mid-June to mid-October), and the second from the retreating north-east monsoon (mid-October to mid-December). The rains in these seasons determine the major agricultural cycles in the state. The direction of these winds and the topography of the state mark out the main rainfall regions in the state. (See Fig. 2.2). The capital letters rank the retreating north-east monsoon rainfall and the lower-case letters, the south-west monsoon rainfall. The rainfall pattern divides the state into three broad regions:
**Tamil Nadu**

Rainfall Regions:

- **A** 5 500, **a** > 260
- **B** 280-500, **b** 190-260
- **C** 200-, **c** 75-190
- **D** < 200, **d** < 75
- **A1** 250-560
- **B1** 300-500

*From K. Ramamurthy "Rainfall Regions in Tamil Nadu in This is Tamil Nadu. The 21st International Geographical Congress S. 27, Madras Symposium, December 1968, facing p. 20."*
(i) The coastal region $A_a$, $A_b$ and $B_a$, $B_b$ which gets two good seasons of rain.

(ii) The southern region which gets one good season of rain (mid-October to mid-December) $A_c$, $A_d$ and $B_c$, $B_d$.

(iii) An interior region which gets low rainfall in both seasons, $C_b$ and $D_b$, $D_c$, with an adjoining region $D_a$ and $C_a$, which gets one fairly good season (mid-June to mid-October) by the South-West monsoon.

Paddy, or 'wet' crop is sown with the rain, one main crop for each season of rain. The coastal region, which gets two good seasons of rain, grows two crops and often a third crop in the year. The northern part of the central region grows one main crop of this grain in the year and the southern plain, one crop with the season of rain and one more with irrigation. The central region, which gets hardly any rainfall in both the seasons, grows paddy in the river basin, but for the most part, a variety of 'dry' crops of inferior millets. Quite distinct ecologies obtain in the territory of the state, formed basically, by the terrain, rainfall cond-
-itions and the agricultural regimes.

The ecological differences that one might suspect over the territory of the state on the above grounds have to be searched for, using a great amount of fairly elaborate data if they are to be confirmed and actually located. Organization of data, for this purpose, poses two problems. Firstly, the problem arising out of the size and variety of the data needed. The fineness of the differentiation that one can make would depend upon the degree of disaggregation the data would permit. That would proportionately raise the variety and 'spread' of the information to be processed. Secondly, all the information has to be location-specific. Besides the magnitude, the exact unit of the territory to which that item of information pertains needs also to be specified. And arising out of the methodology of this study, the items of information need to be handled in such a way that they can be viewed simultaneously as often as necessary.

These problems can be solved for simultaneously, by appropriate 'entitation'. It is convenient

1 See Chapter I.
2 Graham Chapman, op.cit. p. 3.
to take the administrative units of the state as the entities because data are collected and published for the administrative divisions. The administrative divisions of the territory of the state are made at four levels:

(i) The state (area 129,900.6 km²)
(ii) The districts (mean area: 9992.35 km²)
(iii) The taluk (mean area: 1261.17 km²)
(iv) The village (mean area: 8.26 km²)

It would be ideal to have villages as the entities because the area over which the data is aggregated would be the least. But the number of entities in that case would be $\frac{3}{4}$, 735. This is an inconveniently large number; besides, it would leave out the towns completely. The next higher level administrative unit is, therefore, chosen to be the entities and they are 103 in number. Each of these administrative divisions is a unique

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locality, simultaneous with the others and together they exhaust the territory of the state. They are marked in Fig. 2.3. Data used is organised into a set of variables, each of them observed for each of the administrative divisions of the state at the taluk level.

While each observation for an entity will be a value of the concerned variable, no attempt is made to 'factorise' the entities into these variables, neither are they added up for each entity in the index-number fashion to yield a singular descriptive measure. Factorisation will compromise the individuality of the entity. Index-numbering of the characteristics will entail loss of information which the variables, by their variety and simultaneity, would convey about particular localities. Ecology which is a holistic notion, one whose dimensions are therefore uncertain, is better sensed through the variety and simultaneity of characteristics than by a single added up measure.

What is suggested by the above is a taxonomic approach, treating the area designated by each of the taluks as an 'organism' describable by the presence or absence of some among a finite set of character-
## TALUKS AND CODE NUMBERS LISTED BY DISTRICT

### Chingleput:
- Ponduru 1
- Tiruvallur 2
- Madras City 3
- Saidapet 4
- Sripoonthur 5
- Tiruttani 6
- Kanchipuram 8
- Chingleput 9
- Maduranthakam 10

### North Arcot:
- Arkanam 7
- Cheyuv 11
- Arcot (p. Walajah) 12
- Walajahpet 13
- Gudivadham 14
- Vellore 15
- Arni 16
- Wandiwas 17
- Polur 20
- Vaniyambadi 21
- Tirupattur 22
- Chengam 23
- Tiruvannamalai 24

### South Arcot:
- Tiruvanamalai 18
- Ginger 19
- Tirukkottur 25
- Vellurupuram 26
- Cuddalore 29
- Chidambaram 30
- Vriddhachalam 31
- Kalakurichi 32

### Dharmapuri:
- Harur 12
- Uthangarai 34
- Krishnagiri 35
- Hosur 36
- Denkanikota 37
- Dharmapuri 38

### Thanjavur:
- Kumbakonam 46
- Mayuran 47
- Sirkali 48
- Namilam 50
- Nagapattinam 51
- Tiruchchirapalli 52

### North Arcot:
- Salem 39
- Mettur 50
- Omalur 70
- Salem 41
- Attur 71
- Kamakoti 72
- Rastipuram 73
- Tiruchirapalli 74
- Sakkarai 75

### South Arcot:
- Tiruchirapalli 76

### Thanjavur:
- Manapparai 80
- Karur 84

### Madurai:
- Vedasandur 81
- Palani 82
- Kodaikanal 88
- Dindigul 89
- Melur 90
- Madurai North 94
- Madurai South 95
- Nilakkottai 96
- Periyakulam 97
- Uthampalayam 98
- Vaijampatti 99
- Tirumangalam 100

### Thanjavur:
- Tirupattur 91
- Tiruvadanai 92
- Sivaganga 93
- Aruppukottai 101
- Paramakudi 102
- Ramankudupuram 103
- Panampulichetti 104
- Madukurtur 105
- Sattur 106
- Sivapupuram 108

### North Arcot:
- Kanyakumari 109
- Vilavanur 111
- Kalkudam 112
- Theni 113
- Sankarankovil 114
- Kovilpatti 115
- Tuticorin 116
- Sivakasi 117
- Tirunelveli 118
- Tenkasi 119
- Shenkottai 120
- Ambasamudram 121
- Tiruchendur 122
- Nagur 123
istics. There is, however, an unavoidable aggregation, when these areal units have to be summed into an ecological region. But if the areal units are homologous and contiguous with each other, as they need to be if they are to form an ecological region, then summing of each characteristic over them cannot be objectionable.

The method used in this study raises one more serious problem with data. So that the analysis does not suffer because of data gaps in the period of the study (1900-1970), regionalisation has to be done once for all and it has to be assumed that it remains constant over the period of seventy years. This means, in turn, that the characteristics by means of which a region is defined must be assumed to be constant over a period of seventy years. This is unavoidable. It has to be assumed, for instance, that the cropping pattern worked out on the 1960 data, obtained without change from 1900 onwards and similarly, the rural density, size of the

village and so on. While this can certainly be objected to, that the ecologies collectively designated by them is more or less constant over the period, could be less objectionable, given that the whole territory is almost as rural and agricultural today as it, perhaps, was in 1900. The loss in realism on this account is, however, frankly admitted.

Subject to that limitation the following characteristics are chosen:

(i) Density of rural population.

(ii) Average village size.

(iii) Number of village settlements per 100 km² of rural area.

(iv) Degree of concentration of land holding

(v) Agricultural labour per 100 acres of cultivated area.

(vi) Percentage of workers in household industry

(vii) Village fairs per thousand rural population.

(viii) Scheduled castes/tribes to rural population.
Some of the above characteristics are demographic and the others economic; but the cropping pattern at the locality is given primacy over these. The cropping pattern determines the cycle of agricultural activity. This, being the activity of almost the entire rural population and one on which the entire population subsists, is presumed to influence the 'way of life' of the people more than anything else. Recognising the primacy of this factor, it is first used to delineate the ecological regions. After delineating the regions according to cropping pattern, the above set of eight characteristics are applied to further describe these in terms of settlement pattern and related economic characteristics.

To make the data fit a taxonomic scheme, the range of values of each of the above characteristics observed for the taluks is cut off in such a way that they add to the description of the regions they belong to, as determined by the cropping pattern data. If the value of a characteristic for a taluk is below the cut-off point it is deemed not to have the characteristic; if it is above the cut-off point then it is

6 See Chapter I, p. 16
thought of as possessing the characteristic. The range of values of each of the characteristics is thus converted into a binary scale.

Delineation, on the basis of cropping pattern data, is done according to the following procedure: Firstly, the crops grown are grouped in three categories - paddy, millets and cash crops. Paddy is a single crop, which is the chief staple for people in most parts of the state. Millets refers to a group of inferior cereals: cumbu (Pennisetum typhoides), ragi (Eleusine Coracana), varagu (Paspalum Scrobiculatum) and samai (Panicum Miliare). The cash crops grown in the state are chiefly oilseeds, cotton and sugar cane. If any of the above categories of crops are grown on not less than forty percent of the cultivated area in a taluk, then, that taluk is described by that category of crops. It is found that, excepting about ten taluks, all the 103 taluks can be unambiguously described according to this rule. The ambiguous taluks are described by the category which claims the highest percentage of area cultivated or joined with the cropping region it happens to be contiguous with. Grouping of taluks according to the 40 percent rule, it is found, gives two principal cropping regions
and three minor ones, which taken altogether exhaust the area of the state. (See Fig. 2.4). The regions and their respective sizes are given in Table 2.1

Table 2.1 Crop Regions in Tamil Nadu

<table>
<thead>
<tr>
<th>Crop Regions</th>
<th>Area</th>
<th>Percentage to state area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Paddy Region</td>
<td>47,511.0</td>
<td>36.77</td>
</tr>
<tr>
<td>Northern Cash-crop Region</td>
<td>7,717.0</td>
<td>5.97</td>
</tr>
<tr>
<td>Central Millet Region</td>
<td>57,678.0</td>
<td>44.63</td>
</tr>
<tr>
<td>Southern Cash-Crop Region</td>
<td>8,125.8</td>
<td>6.29</td>
</tr>
<tr>
<td>Southern Paddy Region</td>
<td>8,194.3</td>
<td>6.34</td>
</tr>
<tr>
<td>State (Maidas District excluded)</td>
<td>129,226.0</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(Sources: Season and Crop Reports and Census of India, 1971).

The above crop regions correspond broadly, as one would expect, with the principal rainfall regions in the state. The coastal paddy region correspond with Aa, Ab and Ba,Bb which have two seasons of rain. It

7 See Fig. 2.2
Tamil Nadu

Regions: based on cropping pattern data

Northern Cash crop

Central 'Dry'

Coastal 'wet'

Southern Cash crop

Southern 'wet'
includes the rich delta of the river Cauvery (Ab, Bb). The paddy region extends to the south to include the Ac region which has only one season of rain. The northern cash crop region corresponds roughly with the Ca rainfall region which gets one fairly good season (mid-June to mid-October) of rain. The cash crop grown here is oilseeds. The central millet region contains the rainfall regions Da, Db, Dc and Db. The rainfall here is poor in both seasons except Da, which has good June-October season of rain. The millets grown here are 'dry' crops. The southern plains Bc and Bd have one good season of rain (mid-October to mid-December) and it corresponds to a cash crop region (Bc) where cotton is grown and a paddy region to the south of it. The southern paddy region contains an important river basin where two crops of paddy, in a year, are raised.

These broad ecological regions can be further described in terms of the eight characteristics listed above. It is convenient for this purpose to adopt a method of natural classification. This is a procedure for determining whether a characteristic

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8 Peter H.A. Sneath and Robert R. Sokal, op. cit. pp. 25-27
is typical of an entity or not. In our case, the number of taluks in a region which has a certain characteristic is counted. If more than 60 percent of the taluks in a region are found to possess the particular characteristic, then it is decided that the characteristic is typical for the region. If the percentage is around fifty, then it is contended that the characteristic might be typical; and if less than fifty it is considered untypical of the region. The typical characteristics of each region and the possibly typical ones are then taken together as the basis for further qualitative description of the regions. The data yielded by the above procedure is presented in Table 2.2.

In Table 2.3, data in Table 2.2 is presented in the binary form using the division rule given above.

The characteristics for each region are plotted in Fig. 2.5 - 2.12. According to the Table 2.3 and the Figures, the two principal regions of the state, the coastal paddy region and the central millet region contrast sharply. The rural density characteristic and the village density characteristic are not decisive for the coastal
<table>
<thead>
<tr>
<th>Regions</th>
<th>Rural Density</th>
<th>Villages per 100 km²</th>
<th>Mean size of village</th>
<th>Size of holding</th>
<th>Agricultural labour per 100 acres of cultivated area</th>
<th>Percentage of scheduled castes to rural population</th>
<th>Workers in household industry to total workers</th>
<th>Village fair for 100 rural workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Paddy</td>
<td>56.00</td>
<td>44.00</td>
<td>48.20</td>
<td>52.00</td>
<td>12.00</td>
<td>88.00</td>
<td>29.50</td>
<td>70.50</td>
</tr>
<tr>
<td></td>
<td>65.05</td>
<td>34.15</td>
<td>58.54</td>
<td>41.46</td>
<td>12.20</td>
<td>87.80</td>
<td>25.64</td>
<td>74.36</td>
</tr>
<tr>
<td>E. Cash Crop</td>
<td>38.33</td>
<td>16.67</td>
<td>33.33</td>
<td>66.66</td>
<td>100.00</td>
<td>66.67</td>
<td>33.33</td>
<td>66.67</td>
</tr>
<tr>
<td>Central Millet</td>
<td>26.57</td>
<td>71.42</td>
<td>5.41</td>
<td>94.59</td>
<td>74.28</td>
<td>25.71</td>
<td>65.00</td>
<td>34.15</td>
</tr>
<tr>
<td>S. Cash Crop</td>
<td>10.00</td>
<td>90.00</td>
<td>100.00</td>
<td>30.00</td>
<td>70.00</td>
<td>100.00</td>
<td>33.33</td>
<td>66.67</td>
</tr>
<tr>
<td>S. Paddy</td>
<td>45.45</td>
<td>54.50</td>
<td>100.00</td>
<td>90.90</td>
<td>9.00</td>
<td>100.00</td>
<td>40.00</td>
<td>60.00</td>
</tr>
</tbody>
</table>
Figure 2.5

TAMIL NADU

Density of Rural Population

- Above 250/km²
- Below 250/km²
Figure 2.6

TAMIL NADU STAT

Number of villages per 100 km$^2$ of rural area.
Figure 2.7

TAMILNADU STATE

Rural Population per Village

☐ Above 2000
☐ Below 2000
Figure 2.8

TAMILNADU STATE

Size of holding.

50% of holding 2.5 acres or less

Less than 50% of holding, 2.5 acres or less.
Tamil Nadu

Agriculture labour per 100 km² of cultivated area.
Figure 2.11

TAMILNADU STATE

Workers in Household Industry to Total workers.
paddy region. The ambiguity results from the inclusion of the one season rain (Ac) region in it, on cropping pattern criterion. If that region is excluded, then the characteristics become decisive, as indicated by the starred entries in the Table. The coastal paddy region can now be described as follows:

It is a coastal region, which has two good seasons of rain in the year, enabling, at least, two crops of paddy to be grown in the area. More than forty percent of its cultivated area is under paddy. It is an area of small landowners, who cultivate the land intensively employing non-family, paid agricultural labour belonging, possibly, to the scheduled castes. There is very little household industry in the area.

The rural area in this region is densely settled. The population lives in a large number of small villages which lie close to each other. Although a surplus producing region, there is no indication of much village-level exchange and trade in the region. This region is hereafter called the 'wet' region.
The central millet region, in turn, can be summed by the following description:

The central millet region is a plateau at some elevation from the sea. The sea, being at some distance away from it has little influence on the climatic conditions and ecology of the region. It is a hot, low-rainfall region and therefore a dry region. A variety of crops which can be grown in 'dry' conditions and some others irrigated by rivers or well water are grown in this region. Agricultural activity, judged by the size of low-caste agricultural labourers, is not intense in this region. It is conducted mostly by the farmer households without much hired labour. The rural areas in the region are sparsely populated. The population, however, tends to be concentrated in a few large villages which are at considerable distances from each other. Judging by the crop grown and the intensity of cultivation, the area cannot be said to produce agricultural surplus of any size, even so or perhaps because it is so, there is some amount of exchange and trade that go on at the village
level. Such a region, we describe as the 'dry' region.

These two appear to be the two principal ecologies in the territory of the state. If the different aspects in the two descriptions could be connected in a causal chain, one might say that the ecologies arise basically from a physiography which set climatic conditions, particularly in terms of distinct rainfall regimes.

These give rise to distinct patterns, modes and levels of intensity of agricultural activity, which, for a people who subsist almost entirely on agricultural activity, set the parameters that determine their different ways of life. This final aspect is indicated by the rural settlement patterns associated with each of the two principal ecologies that can be identified in the territory of this state. It is not necessary, however, to labour a causal sequence connecting physiography and weather with settlement patterns; all that is needed for our purpose is to observe the various aspects simultaneously for each region and to note the sharp contrast they make with each other. And if the various aspects refer to the same regions, then they have to be internally connected with each other. Ecology is a concept that serves to ration-
alise such interconnections of characteristics.

The remaining minor regions can be taken as deviations from any one of the above two types. Thus, the northern cash crop region shares most of the characteristics with the 'wet' region and may be treated as a deviant 'wet' region. The southern region, since its characteristics appear to be close to that of the 'dry' region can be thought of as the deviant of the 'dry' region. The regionalisation that yielded the two principal types and their deviants is basic to our study. That basically is the 'blanket' needed for the study of urbanisation activity in the state.

Historical evidence suggests that coastal 'wet' region was earlier settled.\(^9\) Settlers from the coastal 'wet' region were the first colonisers of the central 'dry' region, followed by waves of settlers from the neighbouring states of Andhra and Karnataka.\(^{10}\) Well irrigation, one of the present day


\(^{10}\) See also, Burton Stein, 'Agrarian Integration in South India', in Land Control and Social Structure in India History, Eric Frykenburg (Ed.), Madison, Millwaukee and London, 1969, pp. 180-195.
characteristics of 'dry' cultivation, evolved here only as late as the 17th century. 'Dry' agriculture, that characteristic of the central 'dry' region, is then a much later development than the wet paddy cultivation that one finds in the coastal region of the state. The associated settlement pattern in the 'dry' region is also something more recently accomplished than the settlement pattern in the coastal paddy region.

Earlier settlement of the region and the recognised labour-absorbing capacity of paddy cultivating areas, could be an explanation for dense rural settlement in the coastal region. But the particular pattern of settlement found here has to be explained by a very different set of factors. A region which is more or less of uniform fertility, and enjoys two good seasons of rain, approximates closely the 'homogeneous plain of agricultural activity'. "If possibilities for agriculture" as in

11 ibid. p. 21
such a region, "were about equal every where and if natural resources (water, fertility and labour) were uniformly available, the most economic solution assuming complete divisibility would be an even distribution of all activities." Given rain, which is finely divisible, land which can be shared by tenancy agreements and labour of low castes tied to the land, negligible machinery, indivisibilities, except of the minute sorts, cannot be associated with 'wet' cultivation. If it is 'indivisibilities' in production that give rise to hierarchies and primacies then 'wet' regions of the above description are not likely to yield any such formations of settlement patterns. A distribution of a dense rural population in a larger number of small settlements, each not too distant from the other, would be the case, as observed in the coastal 'wet' paddy cultivating region in the state. Since the 'commodity basket' produced in every square kilometre would be exactly the same, namely 'paddy', there would be little occasion for

trade and exchange in such areas at the rural level. The marked absence of village fairs in the coastal region has therefore an interpretation, consistent with the agro-economy of paddy cultivation regions.

A 'dry' region, in clear contrast, cannot be treated as homogeneous in the same sense. Early settlement, it is noted, were in places in the dry area "where water was available." "From the 10th century onwards" writes Brian Merton, "individual Vellalar families, probably, began to establish themselves in locales were water was available. There was, probably, some cases of short fallow cropping, a shifting cultivation, using ploughs and cattle (Boserup, 1965) and also some annual dry cropping. Shifting cultivation may have also been practiced by migrant Vellalas. Livestock grazing, too, was important. Some irrigated agriculture also began to appear in areas where tank systems and small weirs (anaikates) could readily be constructed." It is clear that as far as one important resource, namely, water was concerned, it is not uniformly available in a 'dry' region and therefore the possi-

14 Brian Merton, op. cit. p. 21
ibilities of agriculture are not equal everywhere in it.

Settlements cannot be freely located in such a region. Cultivation and settlements have to be in locations where water was available. This arises out of one important resource, namely, water, being 'indivisible' over space. The characteristic of rural population being concentrated in a few large villages at considerable distance from each other, as noted for the central 'dry' region of the state, has therefore an interpretation in terms of indivisibility over space of a crucial resource.

The crops grown in 'dry' conditions: cotton, tobacco, vegetables and pulses, are not all food crops and therefore, they have to be exchanged between villages to get fairly even distribution of food grains. Exchange and trade, unlike in a 'wet' region, is a possibility and a requirement in the 'dry' condition. This requirement appears to be met by the late 18th century by a well-developed system of periodic markets. "The striking feature of this periodic market network, however,

Brian Merton, op. cit. p. 22
was its orientation towards the rural population. Most such markets were located away from the Kasba towns. They were clearly sited so as to serve as places of exchange for the agricultural population. Such markets can be seen at the lowest level in a new well developed central place system." The existence of such village fairs is a characteristic, although not a decisive one, of the 'dry' region of the state.

"Indeed, periodic markets, which are a common feature of life in a developing world and which existed as travelling fairs in medieval Europe" argues Keith Chapman, "may be regarded as mobile central places. They represent a logical response to the constraints imposed by poor mobility and their timing and location are determined by the same principles which govern the structure of a fixed central place system." On the strength of that argument, and that of our finding that village fairs are more or less typical of the 'dry' region, we

16 ibid. p. 23
17 See Table 2.3
18 Keith Chapman, People, Patterns and Processess, Arnold Heinemann, p. 265
can infer that the pattern of rural settlements in a 'dry' region is hierarchical as that of urban places typically is.

Some resemblance of the rural settlements and urban settlements is suggested by the hierarchical order. It is, in fact, a little closer than what one might suspect. If urban places are places of non-agricultural activity, so are about 35 per cent of villages in the 'dry' region. A study of Fig. 2.11 will show that for a group of taluks in the heart of the 'dry' region this is indeed so. This taken together with the fact that the 'dry' regions are better served with village roads than the 'wet' regions, indicates quite some traffic in the rural area in the products of household industry through and among hierarchies of mobile central places. The whole phenomenon may then be thought of as a fluid, informal urban cover in the rural area, the like of which is not indicated in the 'wet' paddy cultivating region in the state.

The disconnection between such urban covers and the traffic based on the proper urban places in

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See Table 2.2
a region has been noted in India. Sudhir Wanmali in his study of the periodic systems of marketing of agricultural produce in Maharashtra notes that, the small farmers in the study area "transact their business with the traders in hoata (periodic markets) which as functional entities, operate in a different geographical space" than do the regulated markets.\textsuperscript{20} "What needs to be emphasised", he observes, "is that such hierarchies are of an extremely local nature, reflect a spatial form of functional specialisation; and operate in a given socio-economic context."\textsuperscript{21} Barbara Harriss notes the same in her study of the marketing system in one of the districts of the state.\textsuperscript{22}


\textsuperscript{21} ibid

\textsuperscript{22} Barbara Harriss,'Rural Urban Economic Transactions: A Case Study from India and Sri Lanka, Centre of Asian Studies, University of Cambridge, 1976, p. 182.
The point here is that this situation is more typical of the 'dry' region than of the 'wet', at least as far as this state is concerned. It is difficult to establish this for want of data. But the suggestion can certainly be made stronger. David Washbrook, in his well-known study of the 'dry' economy, notes, firstly, the dominance and control of rich peasants over the rural economy of the 'dry' regions. The existence of a powerful landed group is suggested by the existence of large landed holdings in the 'dry' area. More pertinently, he notes a clear trade gap between the towns and the country-side in the region: "(Moreover), non-village-based credit and trading groups had failed to penetrate the dry regional economy and to mount a challenge to the rich peasants' village hegemony. This failure was caused by several factors. In the first place, there was no high volume of trade to sustain specialist mercantile groups. The precariousness of agriculture and of prices in international markets inhibited crop specialisation. Most villages harvested a variety of produce - grains, vegetables as well as cotton and oilseeds. Most trade was localised between small circles of adjacent villages and only a fraction of the produce of any one

See Table 2.2
'rural locality' was ever exported. Similarly, the demand for commodities from the outside was limited to a few luxury goods and cattle. With so little scope for the development of broad trading relations between the village and the larger marketing structures, there was little room in the village for the specialised merchant. In the immediate vicinity of the big towns, of course, urban merchants, seeking supplies for their shops, might establish some more permanent village connections. But beyond this, the most usual relationship which mercantile groups had with the country-side was only through the carts which they sent out at harvest time to pick up a loose fraction of the crop. In a basically subsistence economy, they were far too removed from the sources of production to exercise any considerable influence".  

In a 'wet' region which yields a surplus of food grain, the situation is different. Agrarian organisation centered around traditional functionaries, the 'Mirasdars', who collected the surplus

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and decided how it was to be disposed. "The Mirasdars' domination of agrarian products was complete" observes Washbrook. "Within his estate, the Mirasdar was the centre of commodity exchange: He drew off the produce of the soil and distributed food clothing, shelter and other necessities to his subordinates. He insulated his workers from the external forces of the market. Contemporary observers note the apparent timelessness of agricultural operations in the district. Money never became a significant element in the composition of rural wages or rent agreements nor did the price mechanism come to regulate the distribution of food and services."\(^{25}\) Such a functionary, came to combine in himself, the functions of procuring, transporting, trading and financing rural agrarian activity and was allied with, if not identical with, the urban-based trading interests. That appears to have eliminated the need and the possibility of the fluid, informal urban cover that is associated with the precarious subsistence-growing rural economy of the 'dry' region.

The differences are sharp as they are pervasive. They appear fundamental as they seem to

\(^{25}\) Ibid. p. 87.
subsume differences in the basics, such as that of physiography, weather, agrarian conditions, and institutional arrangements. They are, therefore, grounds for quite meaningful differentiation and of such import that they cannot be homogenised away, or randomised as available approaches to urbanisation would require one to do. Such differences between the principal regions, together with those among their respective deviants, structure the backcloth over which the traffic in goods, people and information flow in the territory of the state.

The 'configuration' of connections over them is controlled, among other things, by one important parameter, namely the transport network. This important parameter determines the traffic between the regions and to a considerable extent, the location of the urban places over the territory. The description of it would give some indication of at least one of the parameters that control the possible designs in the urbanisation activity over the territory of the state.

The transport system, over the territory of the state, is made up of a state wide railway network, the national highways, the state highways
and the district and village roads. The railway system was completed by the year 1900 and the system, as it obtained in the year 1950, is presumed to have existed from 1900, which is taken as the initial period of the study. The general orientation of the railway system and the national highways is more or less the same. They branch radially from Madras, the administrative centre and the historical port town of the state. (See Fig. 2.13). One of the lines, broadguage railway and national highway, traverse the central 'dry' region, pass through a gap in the mountain range on the western boundary of the state and go on into the neighbouring state of Kerala. The other line, a metreguage railway line and national highway traverse through the coastal 'wet' region, make a detour into the central 'dry' region, pass through the southern cash crop region and terminate in the southern paddy region. These two main lines are cross-connected at five places by link lines across the width of the state; and these form the transport lines that connect the two principal regions of the state. One of them connecting the Deltaic sub-region of the coastal 'wet' region with the prime urban centre in the 'dry' region is an important one in
Tamil Nadu
Transport Network

Figure 2.13
the history of the state. It keeps the course of the river Cauvery, and joins at Erode, the transport route to the neighbouring state of Kerala. This is an ancient trade route; the merchandise carried along with this route reaching such distant places as Rome and Egypt in the ancient days. The urban places along the transport routes that connect the state with places outside the state are at an advantage, compared with the ones along the coast line route, because the geography of the state is such that they can have trade links with the neighbouring states. Thus, towns along the broadguage line in the 'dry' region developed early as centres of entrepot trade. Among the coastal line, the port towns developed into export points of goods (oil-seeds, hides and skins and cotton) to the rest of the world. The establishment of the railways, more specifically those link lines that connect the two principal regions facilitated the flow of grains from the coastal regions to the urban centres in the 'dry' region.

26 Brenda E.F. Beek, Peasant Society in Konku, University of British Columbia Press, Vancouver, 1972, p. 30

27 Brian Merton, op. cit. p. 22.

28 Washbrook, op. cit. p. 12.
region for terminal consumption and export to the other states.

The urban centres in the territory that served as nodes in the statewide traffic and trade can be located in relation to the transportation network.

This is done by means of a connectivity score, similar to that used by Amitabh Kundu for regionalisation. In terms of the connectivity score, ten towns can be identified. All these towns, except two, one of which is the state capital, are located

29  Srinivasa Raghava Iyengar, Progress of the Madras Presidency During the Last Forty Years, Government of Madras, 1892, p. 61.


Kundu takes the number of transport lines terminating in a town to be a measure of its connectivity. In our case, only the railway lines, national highways and state highways are considered, and the score is not averaged over the region. Towns having a score of six and above are taken as important nodes.

31  Madras, Salem, Coimbatore, Karur, Tiruchirapalli, Villupuram, Madurai, Dindigul, Tanjavur and Tiruvarur.
in a circle at the centre of the territory of the state. This group of towns, may be taken to be the grid of the traffic over the region in the territory of the state.

Apart from the grid, the configuration of urban places, viewed as terminals, can be brought into the backcloth and described in relation to it. The distribution of urban places among the regions and their density in each of them is presented in Table 2.4.

Table 2.4

Distribution of Urban Places in 1900 Regionwise

<table>
<thead>
<tr>
<th>Region</th>
<th>Area</th>
<th>Number of Towns</th>
<th>Towns per 1000 km² of area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Coastal Paddy</td>
<td>47,511.0</td>
<td>55</td>
<td>1.1576</td>
</tr>
<tr>
<td>2. N. Cash Crop</td>
<td>7,717.0</td>
<td>5</td>
<td>0.6480</td>
</tr>
<tr>
<td>3. Central Millet</td>
<td>57,678.0</td>
<td>29</td>
<td>0.5028</td>
</tr>
<tr>
<td>4. S. Cash Crop</td>
<td>8,125.8</td>
<td>9</td>
<td>1.1076</td>
</tr>
<tr>
<td>5. S. Paddy</td>
<td>8,194.3</td>
<td>16</td>
<td>1.9526</td>
</tr>
<tr>
<td>Total</td>
<td>129,226.0</td>
<td>114</td>
<td>0.6822</td>
</tr>
</tbody>
</table>

The configuration of urban places over the territory, the Table shows, is not homogenous. It is notably sparse in the 'dry' region and the North-
ern cash crop region. It is dense in the coastal 'wet' region and maximally so in the southern paddy region. The preponderance of towns in the 'wet' region, all things considered, would not seem to be a chance phenomenon. "The delta", to quote Washbrook, "provided an agrarian surplus which had made possible sophisticated regional government from the time of the Cholas." One remarkably sophisticated instrument of regional government, has been the temple. An important 'place' in the older period, according to Burton Stein, was a temple, centred in a 'm̲j̲u'. During the medieval period, it was the largest employer, often the biggest single land owner and consumer in an area. It supervised rural development projects such as buying waste land and settling community of weavers in it or supervised irrigation schemes. The increasing complexity of this function, as it came eventually to mean aggregating large number of peasant communities, was made possible by urbanisation generally, primarily by the rise of temple centres. The rise of urban places,

32 Washbrook, op. cit. p. 86
33 Burton Stein, op. cit. p. 15
35 Burton Stein, ibid.
particularly in the 'wet' region can be associated with that development.

It is held that rapid development of towns from the 11th century onwards is associated with the rapid expansion of trade during the Chola period. The volume of trade, it is pointed out, maintained a large number of towns, mainly, concentrated in the coastal regions of the state during the Vijayanagar period in the 14th century. The historical reasons, however, are not independent, one can see, of the surplus yielding characteristic of the 'wet' coastal region.

The economic and political activisation of the central 'dry' region began a couple of centuries later, when, non-agricultural artisan and merchant communities moved in. Political organisation came into the area with the rise of warring local chief-tains during the fifteenth century who encouraged further migration of artisans and merchants. To

36 Romila Thapar, op. cit. p. 207

37 ibid, p. 207

38 Brian Merton, op. cit. p. 32
use the language peculiar to the culture of this region, one could describe its history as the 39
history of 'left handed' development.

The point is, the history of the peoples in the territory of the state is not homogeneous, either. It is structured strongly, as other matters are, in terms of the sharply contrasting ecological conditions of the distinct agro-economic regions, the territory of the state can be clearly differentiated into.

39 Brenda E.F. Beck, op. cit. p. 32

Artisans and merchants who by profession are not dependent on land are described as 'left-handed' castes in traditional South Indian parlance, while the land-dependent communities are described as the 'right-handed' ones.