

Pattern of Land Utilization in the Parambikulam - Aliyar Project Region *

by

M. SRINIVASAN¹, V. MEENAKSHISUNDARAM²
R. SUBRAMANIAM³

Synopsis: In this paper, the general pattern of land utilization in the Parambikulam - Aliyar Project region is discussed. A number of suggestions have been offered for better utilization of the existing resources.

Introduction: "Rational use of Land and Water resources is slowly becoming a basic policy of many Governments. Here tofore, these resources have been used and misused by a trial and error method and many countries have suffered severely. This applies particularly to the tropics and sub-tropics, where the introduction of land and water use methods which have given good results in temperate climates, have often been the cause of deterioration of soil fertility. If the hopes the world places in the productivity of these regions to take care of ever increasing populations are to materialize, then a revision of land and water use methods in these areas is imperative".

1. Land utilization in Tropical Areas, Food and Agricultural Organisation, 1952 P. III.

This brings into lime light the need for a scientific study of the use and development of land resources. The present paper is a step in this line.

Objective: The main objective of this paper is to analyse, from the data available the general pattern of land utilization in the selected sample of the Parambikulam - Aliyar Project region which would serve as a bench mark survey to study the impact of river valley project on land use.

Method of Research: The present paper is based on the data collected from actual enquiries in 360 holdings of the twelve villages selected at random from Pollachi, Udamalpet, Dharapuram and Palladam taluks. Selection of villages was based on the probability proportion to the number of villages benefitted by the Parambikulam - Aliyar Project in each taluk and enquiries were conducted in 360 holdings of the three different size groups, viz., small (0-4.99 ac) medium (5 to 14.99) and large (15 ac & above). The following is the list of villages selected :

¹ Professor of Agricultural Economics, ² & ³ Assistant Lecturers in Agricultural Economics, Agricultural College & Research Institute, Coimbatore-3.

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- Pollachi Taluk* : 1. Anaimalai 2. Athu Pollachi 3. Avalappampatti 4. Kullakampalayam 5. Possaripatti.
- Dharapuram Taluk* : Suryanallur.
- Udamalpet Taluk* : 1. Sellampalayam 2. Modakkupatti 3. Vadugapalayam 4. Amanthakadavu.
- Palladam Taluk* : 1. Melapalayam 2. Senjari Ayyampalayam.

Results of Analysis: The land utilisation statistics as per village returns for the *falsi* 1370 (1960—'61) indicated the following.

The total area of the selected sample villages during the *falsi* 1370 was 35,475.98 acres of which the area not available for cultivation was 2,431.70 acres i. e. 6.8 per cent of the sample area was not available for cultivation. Similarly 3.7 per cent of the total area was cultivable wastes. Current fallow constituted 23.9 per cent of the total area of the sample. The total area cropped constituted 44.8 per cent of the total while 30.5 per cent of the total was the net area sown.

TABLE I.

Land utilisation in Parambikulam - Aliyar Project Sample Area.

Particulars	Area ac. cents	Percentage to Total area
1. Total area of the sample	... 35,475.98	
2. Area not available for cultivation	... 2,431.70	6.8
3. Cultivable waste	... 1,342.69	3.7
4. Current fallows	... 8,514.19	23.9
5. Net area sown	... 10,830.45	30.5
6. Total cropped area	... 15,907.68	44.8
7. Area irrigated	... 8,622.74	24.3

An analysis of land use pattern according to irrigation potential, indicated that about 65 per cent of the total land area was under dry lands while garden and wet lands occupied 15.9 per cent and 6.3 per cent respectively.

TABLE II.

Particulars for the sample	Area ac. cents	percentage to Total area
1. Total area under different types of lands	... 26,225.38	
2. Wet lands	... 1,768.39	6.3
3. Garden lands	... 4,489.73	15.9
4. Dry lands	... 18,354.55	65.0
5. <i>Poramboke</i>	... 2,879.80	10.2
6. Village site	... 497.89	1.8
7. Others	... 235.02	0.8

Distribution of Holdings: Nearly 29 per cent of the holdings in the 12 villages selected was between five and 10 acres while 20.36 per cent was under the size group three to five acres. The least percentage of holdings was under the size group 25 to 30 acres. The details are furnished below.

TABLE III.

Percentage of holdings according to size of land.

Size	Per cent	Size	Per cent
Below 1 acre	4.75	15 to 20	7.15
1 to 3 acres	13.59	20 to 25	4.13
3 to 5 acres	20.36	25 to 30	2.54
5 to 10 acres	28.97	above 30 acres	3.86
10 to 15 acres	14.65		

A review of the distribution of owned lands among different size groups and the different types of lands showed that average area of wetlands per holding under the size groups medium and small were 0.31, 0.31 and 0.21 acres respectively. The details for garden and dry lands are furnished below.

TABLE IV.

Average area for holding different size groups.

Area owned under	Large ac. cents	Medium ac. cents	Small ac. cents
Wet	0.31	0.31	0.21
Garden	8.5	2.9	0.88
Dry	21.4	4.9	1.62

Analysis of area per holding under different types of cultivation among the three size groups indicated the following:

TABLE V.

	Large	Medium	Small
Area Cropped	Wet	0.31	0.21
	Garden	7.6	0.87
	Dry	18.5	1.62
Pasture	0.55	0.19	0.06
Fallow	1.25	0.62	..

Discussion: The entire *ayacut* of the Parambikulam — Aliyar Project area has been under cultivation for so long a period that the natural vegetation has been replaced by cultivated crops except at the foot of the

hills. The irrigated tract is one of exceptional dryness, the rainfall is scanty and ill-distributed and the agriculturists have been mostly accustomed to dry crop cultivation such as millets, cotton etc. The area is also subjected to periodical famines. Therefore with a view to harness the available irrigation potential for the benefit of agriculture the scheme envisages mostly dry crop irrigation. For the low lying pockets of the area to be benefitted where dry crop cultivation may not be possible due to seepage effect water will be supplied for wet crop cultivation which is roughly reckoned as 20 per cent of the whole area. Water will be supplied in two seasons (i.e.) (1) June to October. (2) October to end of February. A duty of 50 acres per cusec of water for wet crop (Paddy) and 120 acres per cusec for dry crop like Millets, Cotton etc. as prevailing in the neighbouring projects is adopted in this project. This project envisages to provide irrigation for an ayacut area of 2,40,000 acres of which 80 per cent will be under light irrigation. The potentialities and problems of land utilization due to the impact of such river valley projects is worthy of scientific study especially where attempts are being made to modernise agriculture through the adoption of scientific practices. It is in this context that the present study "pattern of land utilisation in the Parambikulam - Aliyar Project Region" becomes not only important but also timely.

The results of the present study which are based on the enquiries held in 360 holdings in 12 selected villages of the project region indicated the following.

1. The proposed area under irrigation in the sample villages would be 8,610.19 acres while the existing area under irrigation during 1,370 *fasli* was 8,622.74 acres and thus an increase of 99.85 per cent over the existing area would be the effect of the project on irrigation. The result of such heavy impact on the pattern of land use will be reflected in the cropping pattern of the region through a swift switch over from dry crop cultivation into irrigated agriculture.

2. Among the uncultivated lands the acreage at present (1370 *fasli*) reported as cultivable waste was only 1342.69 acres or roughly 3.7 per cent of the total area. From this it is quite clear that the total, whatever it might be, cannot be more than a small fraction of the area under cultivation. It would therefore, be reasonable to conclude that the possibilities of increasing the cultivated area are limited and that the major increases in agricultural production have to come through raising productivity of the lands already under cultivation.

3. The major area under cultivation at the time of enquiry was under dry lands, 65 per cent of the total land area was classified as dry land while the percentages of garden and wet lands were 15.9 per cent and 6.3 per

