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THE IMPACT OF INTENSIVE AGRICULTURAL DISTRICT PROGRAMME ON THANJAVUR DISTRICT

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Abstract

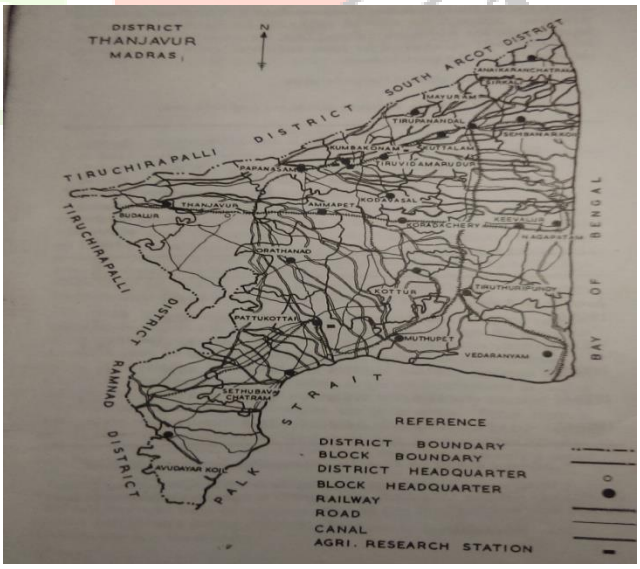
Agriculture is the largest employment sector of India over the years and also the backbone of Indian economy. It provides employment opportunities both skilled and non-skilled labourers, but at same time, the inadequate of the growth of food production in the early years of the dawn of independence was a matter of serious problems of the Government of India. In 1957 and 1958 the steep fall of crop production as also called the year of drought and caused the attention on the seriousness of the food production substantially. In this situation, the Government of India invited the experts of agricultural scientists sponsored by Ford Foundation to make a careful study of Indian agriculture and make recommendations for future action. The team visited some of the Villages in Thanjavur district along with local experts. It submitted its report in 1959 entitled India's Food Crisis and taken steps to meet it. The team observed that "India is facing a crisis in food production .The crux of the problem is food enough for the rapid increasing population. The team went on to say that this target of 110 million tones could be achieved if an all out food production programme is undertaken. The Government of India accepted in general the recommendations of the team. Finally the Intensive Agricultural District Programme (IADP) was also known as Package Programme brought out in November, 1963. It covered the first two years of the implementation of the scheme viz., 1961-1962 and 1962-1962-1963. Definitely it made great impact on agricultural production in seven districts including Thanjavur district the entire nation were fed up by a few districts. Besides, it brought agricultural revolution through rapid production particularly mechanization .This paper is an attempt to trace the impact of the IADP on Thanjavur district because the district is everywhere greenish but people were starved, theoretically we can analyses this but practically to do something to change the agrarian society.

Introduction

A new programme named as IADP was formulated which was launched gradually from 1960. The third five year plan (1961- 1965) incorporated this programme into the planned development process. This programme was popularly known as a "package programme". The IAD programme was started in July 1960 in seven selected districts in various states. They were (I) West Godavari in AP, (ii) Shahabad in Bihar, (iii) Tanjore in Tamil Nadu, (iv) Raipur in MP, (v) Ludhiana in Punjab; (vi) Pali in Rajasthan; and (vii) Aligarh in UP. The IAD programme was launched in the district in the kharif season of 1960 - 61 in 317 villages selected from 23 blocks. The coverage had extended to 570 villages in 26 blocks during the year 1962 - 63 and further to 957 villages in 28 blocks in 1963 - 64. During the year 1964 - 65, the programme covered 1,557 out of 2,657 villages spread over all the 36 blocks in the district. The number of farm plans prepared increased from 36, 683 in 1960 - 61 to 68,689 in 1962 - 63 and to 1, 05,437 in 1963 - 64. During the year 1964 - 65, the number of farm plans prepared was 1, 56,556. The farm plans prepared covered 12 percent, 23 percent, 35 percent and 52 percent of the total number of families in the district in the years 1960 - 61, 1962 - 63, 1963 - 64 and 1964 - 65 respectively. The cultivated area covered under farm plans also increased from 0.92 lakh hectares in 1960 - 61 to 1.75 lakh hectares in 1962 - 63, to 2.80 lakh hectares in 1963 - 64 and to 4.46 lakh hectares in 1964 - 65 representing about 13 percent, 24 percent 39 percent and 61 percent respectively of the cultivated area in the blocks covered.

Area of the study

Thanjavur is a coastal district in Tamil Nadu and occupied a unique position, because it has attracted the attention of many agricultural scientists of our country particularly the Ford Foundation and other leading scientific institutions. The main crop of the district is paddy and about a quarter of the total production in the state comes from Thanjavur district. This has earned the name ‘Granary of Tamil Nadu’ and Rice Bowl of Tamil Nadu to the district.



Apart from its agricultural importance the district has its rare regional and historic importance too. The great Chola emperor Karikala constructed the Grand Anaikkattu across river Cauvery, which is channelizing the water to the tail part of the district. Thanjavur is a coastal district in Tamil Nadu and occupied a unique position, because it has attracted the attention of many agricultural scientists of our country particularly the Ford Foundation and other leading scientific institutions. The main crop of the district is paddy and about a quarter of the total production in the state comes from Thanjavur district. This has earned the name ‘Granary

of Tamil Nadu' and Rice Bowl of Tamil Nadu to the district. Apart from its agricultural importance the district has its rare regional and historic importance too. The great Chola emperor Karikala constructed the Grand Anaikkattu across river Cauvery, which is channelizing the water to the tail part of the district. The economy of Thanjavur is purely agrarian. A vast and well planned net work of irrigation channels stretching to 1676 miles (2698 km) has brought over 60% of the land under the plough. Various scientific methods were being explored and experimented one after the other, to break through the traditional method of farming in our country. This was the Intensive Agricultural District Programme started in the early 1960s with adoption of new agricultural strategy. The new agricultural strategy relies on high-yielding varieties of crops, multiple cropping, the package approach, modern farm practices and spread of irrigation facilities. The biggest achievement of this strategy has been attainment of self sufficiency in food grains. Agrarian reforms during this period took back seat while research, extension, input supply, credit, marketing, price support and spread of technology were the prime concern of policy making of this programme.

Land utilization pattern in Madras state and Thanjavur district

Type of land use	Tamilnadu state			Thanjavur district		
	Acres	Hectares	% to total	Acres	Hectares	% to total
Net area sown	14,962,650	6,055,175	46.5	1,479,657	5,98,796	61.8
Forests	4,659,096	1,885,471	14.5	31,055	12,891	1.3
Barren and uncultivable waste	2,201,913	891,083	6.0	78,532	31,781	3.3
Land put to non-agricultural use	3,332,174	1,348,485	10.4	483,536	1,95,680	20.2
Cultivable waste	1,720,998	696,463	5.3	81,575	33,012	3.4
Permanent pastures and other grasing lands	861,640	348,694	2.7	15,753	6,375	0.7
Lands under miscellaneous trace crops and	669,144	270,793	2.1	101,450	41,059	4.2

groves						
Current fallows	2,305,423	9,32,972	7.2	51,630	20,897	2.2
Other fallow lands	1,447,311	58,585,706	4.5	68,596	27,760	2.9

***Source**: Season and crop report – Madras, 1963 – 64*

Area under principle crops in the district (1963 - 64)

Principal crops	Area in acres	Area in hectares	Percentage of total cropped area
Paddy	14,59,358	6,04,341	79.4
Varaga	31,884	12,903	1.7
Ragi	8,509	3,443	0.4
Cholam	4,048	1,638	0.2
Cumbu	2,334	945	0.1
Total cereals	15,42,819	6,24,356	82.0
Greengram	46,183	18,690	2.5
Blackgram	22,753	9,208	1.2
Total pulses (other than horsegram)	73,120	29,591	3.9
Fruits and vegetables	39,673	16,055	2.2
Total food crops	16,74,506	6,77,648	89.0
Groundnut	60,513	24,489	3.2
Coconut	39,353	15,926	2.1
Green manure	87,729	35,502	4.7
Total non-food crop	2,07,052	83,790	11.0
Total food and non-food crops	18,81,558	7,61,438	100.0

***Source**: Season and crop report – Madras, 1963 – 64*

Crop demonstrations involving all the recommended package of practices are laid out in farmers' fields with their full participation. The number of such demonstration on paddy laid out since the inception of the programme came to 1280 in 1960 - 61, 1933 in 1961 - 62, 2100 in 1962 - 63, 2732 in 1963 - 64 and 1818 in 1964 - 65. The results successfully demonstrations are disseminated to farmers in the villages through the media of printing press, as the demonstrator farmers are not likely to remember all the details to be able to give out their experience in full to their neighbours in the villages. The results of these demonstrations conducted during 1961 - 62 to 1963 - 65 showed that the yields of paddy in the treated plots were higher by 24 to 27 percent in the case of kuruvai paddy 26 to 27 percent in the case of samba paddy and 24 to 30

percent in the case of thaladi paddy as compared to the controls set up as foils. The increase in yields obtained in kuruvai paddy demonstration during 1964 - 65 was also higher 25 percent as compared to controls. Analysis of the results of 1964 - 65 demonstration showed a return Rs.2.62 for each additional rupee spent on the package of practices.

Special effort had been taken to educate the farmers of Thanjavur in the use of chemical fertilizer. A number of fertilizer festival were organized in various parts of the district at the appropriate time with a view to inducing more and more farmers to take to fertilizer oriented cultivation. It is assessed that the fertilizer organized in the district during 1963 - 64 resulted in an increase about 25 percent in consumption of fertilizer as compared to the consumption during the corresponding season of 1962 - 63 lack of provision for stocking supplies at a large number of centre s within easy reach of farmers had a restraining influence on the off-take of fertilizer. The position has subsequently improved and now there are 380 primary cooperative societies undertaking distribution of fertilizer as agent of the Thanjavur cooperative marketing federation and the Thanjavur district cooperative supply and marketing society. The increase in the off-take of chemical fertilizers in the district is indicated below.

	Distribution of fertilizer in tonnes	
year	Nitrogenous (in terms of ammonium sulphate)	Phosphatic (in terms of super phosphate)
1960 – 61	17,460	13,574
1961 – 62	20,940	17,687
1962 – 63	26,326	28,422
1963 – 64	29,020	34,748
1964 – 65	41,899	45,562

Agriculture implement

An agricultural implements workshop is under construction at Thanjavur. This workshop is intended for the following (a) to carry out educational and developmental working in agricultural implements as applicable to particular area, (b) to supervise field testing of implements, (c) to produce sufficient number of prototypes of new implements for demonstrations, (d) to service the vehicles such as trucks, jeeps, tractors, etc. employed in the programme, and (e) to train villages artisans in development and repair implements and farmers in their operations. Agriculture engineering in charge of the workshop is at present engaged in collections preliminary data regarding improved local implements in use in the district. The tractor workshop which was in existence in Thiruvarur has also been placed under the charge of the agricultural engineer. There were 26 tractors used with the workshop and 10 more have been ordered so that each of the 36 blacks

will have one tractor. The tractors are being hired out to cultivators for the ploughing and transporting of agricultural requisites and threshing ear-heads.

Cooperatives

There were 16 primary marketing societies functioning in the district during 1964 - 65 as also in1959 - 60. However, significant progress has been recorded during the last5years by way of increase in membership, share capital and value of agricultural produce handled by these societies. The membership of these societies increased from13,684 in 1959 - 60 to19,177 in1962 - 63, 25,774 in 1963 - 64 and 26,608 in 1964 - 65. The share capital increased from Rs.4.04 lakhs in1959 - 60 to Rs.6.78 lakhs in1962 – 63 Rs. 8.20 lakhs in 1963 - 64 and Rs. 8.21 lakhs in1964-65. Till 1961 - 62 the marketing societies were doing very little marketing business and there was no effective linking of credit with marketing. Since, January 1962 the two district marketing societies were purchasing paddy on outright purchase basis from the members of credit societies in the package area through the agency of primary marketing societies. The value of agricultural produce, largely paddy, handled by the primary marketing societies increased from Rs.18.32 lakhs in1961 - 62 to Rs. 26.60 lakhs in 1963 – 64 and then steeply to Rs. 97.82 lakhs in 1964 - 65.

Year	Total shorter loans advanced (Rs. In lakhs)	Percentage of loans in kind	Percentage of loans disbursed in terms of		
			Fertilizer	Pesticides	Improved seeds
1961 – 62	71.23	25.2	20.7	1.3	2.6
1962 – 63	91.47	51.4	41.2	4.4	2.9
1963 – 64	127.38	38.0	35.0	2.0	0.8
1964 – 65	215.24	44.3	-	-	-

Storage godowns

As against 504 cooperative godowns needed saturate the district, 319 godowns existed on 30th June, 1965 and 16 were under construction. During the year 1964 - 65, 31 godowns were added to the number existing at the end of June, 1964.

Use of manure and fertilizers

Thanjavur is one of the advanced districts of the country in respect of the use of manure and fertilizers. The results of the survey indicated that almost all the farmers in the district applied organic manures or chemical fertilizers to their crops. During 1961 - 62, the first year of the survey, about 70 percent of the cultivators applied chemical fertilizers; their proportion increased to 75 percent in 1963 - 64. In the kharif season, chemical fertilizers were applied mostly with organic manures.

Percentage area benefited by manures and fertilizers and rates of application

About 75 percent of the area under kuruvai and samba crops during the year1961 - 62 received farm yard manure and this rose to 85 percent or more during the years 1962 - 63 and 1963 - 64. While percentage area under samba Paddy crop benefited by application of nitrogenous as well as phosphatic fertilizers increased from1961 - 62 to 1962 - 63, it declined for kuruvai and remained at more or less same level for samba during 1963 - 64. Area under thaladi crop, benefited by phosphatic fertilizers also increased during the period, but there was a slight decline in the percentage area under that crop benefited by nitrogenous fertilizer. During1963 - 64 mixed fertilizers gained very much popularity, particularly for thaladi paddy crop raised in the rabi season.

Average yield of rice in quintals per hectare in the field of participant and non-participant cultivators in Thanjavur district

Crop	Year	Percentage of Participant Cultivators	Average Yield in Quintals per Hectare	
			Participant Cultivators	Non-Participant Cultivators
Rice (Kuruvai)	1962 – 63	33	17.5	16.8
	1963 – 64	29	16.5	16.1
	1964 – 65	55	17.5	17.1
Rice (Samba)	1962 – 63	31	16.4	15.0
	1963 – 64	28	16.5	14.4
	1964 – 65	35	17.7	17.7
Rice (Thaladi)	1962 – 63	32	15.2	13.1
	1963 – 64	28	13.7	12.7
	1964 – 65	52	17.1	15.3

A highly commendable achievement of the IADP in Thanjavur district had been the evolving of an early maturing and high yielding paddy strain known as A.D.T-27 at the regional Research Station, Aduthurai. The strain was a cross between a Japonica type and an Indian type of paddy. It was an early maturing variety with duration of about 105 days, was highly responsive to fertilizer application and yields about 5,228kg.per hectare. The strain was raised on an area of 81 hectares in 1964-65 and the aggregate yield reported was 410 tonnes. During 1965 Kuruvai season, 2027 hectares were put under this variety. In view of its outstanding performance, a scheme for its multiplication and distribution to cover an area of 81000 hectares in the Cauvery Delta by the end of 1966 has been sanctioned by the State Government. Another new

strain of paddy evolved at the Aduthurai Research Station in Selection 2701. This variety has also become readily acceptable to the farmers of its non-lodging quality and higher yields.

Over 95 per cent of the paddy crop in this district was grown under irrigated conditions. Further, an equally large percentage of fields were receiving organic manure or chemical fertilizer singly in combination with each other. Thus the standard of practices followed in the district may be considered as of a higher order than those found in most of the other districts in the country. Fertilizer application was adopted in about 41 percent to 80 percent of the fields under various paddy crops. The average yield rate in the field benefited by fertilizer application was generally higher than in the field not so benefited for the entire paddy crops. The increase in the field rate obtained in the fertilized field ranged from 1.3 quintals of rice per hectare for samba crop to 2.5 quintals of rice per hectare for thaladi crop. As the results are based on survey data this difference need not necessarily be due to the application of fertilizer alone.

As regards contribution of the improved seeds, about 50 percent to 60 percent of the paddy field in different years were reported to be sown with improved strains. ADT 3 and ADT20 were the popular strains for the kuruvai crop, while CO 25 was the main improve strains adopted for both samba and thaladi crops. The average yields rates for these improved varieties were about one to two quintals of rice per hectare higher than those for local varieties. It was observed that improved seeds buted through the government or cooperative agencies gave higher yields than those distributed through non-institutional sources.

Use of insecticides and pesticides were reported in about 15 percent of field selected for crop cutting experiments during 1964-65.

REFERENCE

Brown, D.D., *Agricultural Development in Indian Districts*,
Cambridge, Mass., 1971, Harvard University Press.
Easter, W.K. *Regions for Indian Agricultural Planning and Management*,
1972, Ford Foundation (mimeo).
Government of India, Expert Committee on Assessment and Evaluation,
First· Report 1963, Second Report 1966, Third Report 1967, The
Intensive Agricultural District Program.
1970, Fourth Report: Modernizing Indian Agriculture.
Planning Commission, 1951, First Five Year Plan.
Planning. Commission, 1956, Second Five Year Plan.
Planning Commission, 1961, Third Five Year Plan.
Planning Commission, 1970, Fourth Five Year Plan.

Saini, G.R. 1969, "Resource-Use Efficiency in Agriculture," Indian Journal of Agricultural Economics, Vol. XXIV, No. 2.

Narindhar M.S. Randhawa, Farm Planning Project Under Intensive Agriculture District Programme in India, Indian Journal of Agricultural Economics, Vol XX,No:3July-September 1965.

Rakesh Mohan and Robert Evenson, Intensive Agriculture District Programme in India; A New Evaluation, The Journal of Development Studies, Vol: 11 1975 Issues: 3.

First report on Intensive Agricultural District Programme 1960-63, (Expert Committee on Assessment and Evaluation Ministry of Food, Agriculture Community Development and Cooperation, Department of Agriculture, Government of India).

Second report on Intensive Agricultural District Programme 1960-65, (Expert Committee on Assessment and Evaluation Ministry of Food, Agriculture Community Development and Cooperation, Department of Agriculture, Government of India).

Shanmugasundaram V. Studies in the Economics of Farm Management in Thanjavur District (Tamilnadu), Directorate of Economics and Statistics, Ministry of Agriculture (Krishi Mantralaya),1967-68.

Season and Crop Report, 1960-61.

Season and Crop Report, 1961-62.

Season and Crop Report, 1962-63.

Season and Crop Report, 1963-64.

Season and Crop Report, 1964-65.

Natarajan P. Food Production in Tamilnadu Government Press, Chennai 1970.

Golden Jubilee Souvenir Aduthurai Rice Research Institute.