



Trends and Issues of Infrastructure and Agricultural Development In Tamil Nadu



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❖ AGRICULTURAL INFRASTRUCTURE

Infrastructure is a significant component of economic development, and it facilitates for the all-around development of a country. The agricultural infrastructure includes all of the basic services, facilities, equipment, and institutions needed for the economic growth and efficient functioning of the food and fiber markets. Among all kinds of infrastructure, agricultural infrastructure plays a vital role in a developing country where a larger percentage of poorer section of the society depends on this sector for subsistence.

The growth enhancing nature of infrastructure warrants a closer scrutiny of the relationship between the level of agricultural development and the level of agricultural infrastructure from the regional perspective. It plays a dominant role in alleviating poverty and the overall growth of agricultural sector and its components such as growth of agricultural employment, income, output, etc. The level of infrastructure in agricultural sector is one of the major factors that could explain the regional balances and imbalances in the agricultural growth.

❖ STATEMENT OF THE PROBLEM

Infrastructure plays a pivotal role in the development of any economy, which is true in both the rural and urban areas. Sector-wise, agriculture needs lot of infrastructural inputs that include irrigation, electricity, road, transport, market, insurance, etc. As agriculture is the backbone of a country's economic growth and development, continuous augmentation of infrastructural facilities in the rural areas becomes inevitable.

Suicide of farmers is the clear reflection of the status of the agricultural sector and that of rural infrastructure. However, such suicides have not been found in Tamil Nadu, though rural-urban migration has been on the rise, indicating bleak future of the rural areas in the State.

In this background, it is necessitated to examine the extent of availability or the lack of infrastructural facilities in the rural areas, especially for agricultural operations and the problems faced by the farmers in availing the same.

This study will analyse the schemes being provided by state(Tamil Nadu) and central(India) governments towards the agricultural development including Agricultural infrastructure and the impact of the schemes.

❖ INDIAN GOVERNMENT SCHEMES FOR AGRICULTURAL INFRASTRUCTURE

The Indian government has implemented several schemes and initiatives to develop agricultural infrastructure across the country. These schemes aim to enhance productivity, promote sustainability, and improve the livelihoods of farmers. Here are some notable agricultural infrastructure schemes initiated by the Indian government:

1. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY): Launched in 2015, PMKSY aims to expand the area under irrigation, improve water use efficiency, and ensure the integration of water sources. It includes components such as Accelerated Irrigation Benefit Programme (AIBP), Har Khet Ko Pani (Water to Every Field), Per Drop More Crop, and Watershed Development.

2. National Agriculture Market (eNAM): eNAM is an online trading platform for agricultural commodities that facilitates transparent price discovery and fair remuneration for farmers. It aims to create a unified national market for agricultural produce by integrating APMC (Agricultural Produce Market Committee) markets across states.

3. Pradhan Mantri Fasal Bima Yojana (PMFBY): PMFBY provides crop insurance coverage and financial support to farmers in case of crop failure due to natural calamities, pests, or diseases. It aims to stabilize farmers' income and encourage them to adopt modern agricultural practices.

4. Rashtriya Krishi Vikas Yojana (RKVY): RKVY is a centrally sponsored scheme that provides financial assistance to states for the development of agriculture and allied sectors. It supports activities such as infrastructure development, research and development, capacity building, and market interventions.

5. Paramparagat Krishi Vikas Yojana (PKVY): PKVY promotes organic farming by providing financial assistance for organic inputs, capacity building, and certification. It aims to improve soil health, enhance biodiversity, and ensure chemical-free food production.

6. Pradhan Mantri Kisan Sampada Yojana (PMKSY): PMKSY focuses on the development of food processing infrastructure to reduce post-harvest losses, increase value addition, and create employment opportunities in rural areas.

7. Sub-Mission on Agricultural Mechanization (SMAM): SMAM promotes the adoption of farm mechanization technologies to increase productivity, reduce drudgery, and enhance the efficiency of farm operations. It provides subsidies for the purchase of agricultural machinery and equipment.

8. National Mission on Sustainable Agriculture (NMSA): NMSA aims to promote sustainable agriculture practices such as organic farming, conservation agriculture & climate-resilient cropping systems. It focuses on soil health improvement, water conservation & climate change adaptation.

❖ TAMILNADU GOVERNMENT SCHEMES FOR AGRICULTURAL INFRASTRUCTURE

The government of Tamil Nadu has also implemented several schemes and initiatives to develop agricultural infrastructure within the state.

Kudimaramathu Scheme: This scheme focuses on the restoration and rejuvenation of water bodies such as lakes, ponds, and canals. It involves desilting, strengthening bunds, and implementing water management techniques to enhance irrigation efficiency and groundwater recharge.

Tamil Nadu Agricultural Modernization and Extension Project (TANAM): TANAM aims to promote modern agricultural practices, enhance productivity, and improve market access for farmers. It includes components such as farm mechanization, soil health improvement, and value chain development.

Integrated Farming System (IFS) Scheme: The IFS scheme encourages farmers to adopt integrated farming practices that integrate crop cultivation with livestock rearing, poultry farming, and fisheries. It aims to improve farm income, resource use efficiency, and sustainability.

Rice Intensification Programme (RIP): RIP promotes the System of Rice Intensification (SRI) technique, which involves the use of less water and seedlings, wider spacing, and organic inputs to increase rice yields. The scheme aims to enhance rice production while conserving water resources.

Tamil Nadu Sustainable Dryland Agriculture Project (TNSDAP): TNSDAP focuses on improving agricultural productivity in dryland regions by promoting sustainable farming practices, watershed development, and soil conservation measures. It aims to enhance the resilience of farmers to climate change and variability.

Tamil Nadu Horticulture Development Agency (TANHODA): TANHODA implements various schemes to promote horticulture cultivation, including protected cultivation, orchard development, and post-harvest management. It provides subsidies and technical support to horticulture farmers.

Free Distribution of Agricultural Inputs: The Tamil Nadu government provides free distribution of agricultural inputs such as seeds, fertilizers, and pesticides to small and marginal farmers. This initiative aims to reduce the input cost burden on farmers and improve their access to essential agricultural inputs.

Tamil Nadu Agricultural Marketing Board (TANMAB): TANMAB implements infrastructure development projects to modernize agricultural markets, including the construction of cold storage facilities, market yards, and rural godowns. It aims to improve market access and reduce post-harvest losses.

❖ IMPACT OF AGRICULTURAL INFRASTRUCTURE ON AGRICULTURAL DEVELOPMENT

State and Central Government schemes, along with various other initiatives, demonstrate the government's commitment to enhancing agricultural infrastructure and promoting the welfare of farmers across the country.

For this study, agricultural production and land utilization statistics of Tamil Nadu state has been taken for analysis and furnished as a sample.

Area, Production & productivity of agricultural crops in last 10 years :

S. No.	Crops	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
I	Area (Lakh Hectares)													
1	Paddy	17.89	19.30	18.45	19.06	19.04	14.93	17.26	17.95	20.00	14.43	18.29	17.21	19.07
2	Millets	6.99	7.24	6.53	6.31	6.38	6.42	9.33	9.27	8.67	7.18	8.85	9.24	9.61
3	Pulses	6.09	5.36	5.36	6.37	6.68	5.11	8.16	8.84	8.88	7.85	8.25	8.51	8.24
	Total Foodgrains	30.97	31.92	30.34	31.74	32.10	26.46	34.75	36.06	37.55	29.46	35.39	34.96	36.92
4	Cotton	0.99	1.15	1.04	1.21	1.35	1.33	1.51	1.87	1.48	1.48	1.82	1.35	1.70
5	Sugarcane	3.54	3.09	2.93	3.16	3.46	3.48	3.13	2.63	2.52	2.18	1.72	1.66	1.31
6	Oilseeds	6.59	5.85	4.95	4.49	4.49	3.90	4.08	4.15	4.07	3.23	3.80	3.90	4.09
	Total Area	42.09	42.01	39.26	40.60	41.40	35.17	43.47	44.70	45.62	36.35	42.73	41.87	44.02
II	PRODUCTION (Lakh MT)													
1	Paddy	50.40	51.83	56.65	57.92	74.59	40.50	71.15	79.49	73.75	35.54	66.38	61.31	72.65
2	Millets	13.57	17.51	16.35	15.57	23.24	13.43	32.74	40.79	34.25	13.45	35.19	37.08	36.32
3	Pulses	1.85	1.67	2.04	2.46	3.69	2.13	6.14	7.67	5.85	3.39	5.56	5.51	6.05
	Total Foodgrains	65.82	71.01	75.04	75.95	101.52	56.05	110.03	127.95	113.85	52.38	107.13	103.90	115.02
4	Cotton (L.Bales)	2.01	1.88	2.25	2.48	3.82	2.55	4.17	5.99	3.27	2.02	4.39	3.20	4.18
5	Sugarcane (Cane)	380.70	328.00	297.60	342.50	389.75	340.14	324.54	280.93	255.08	189.88	171.54	170.96	141.19
6	Oilseeds	11.52	10.43	9.46	9.33	11.14	8.16	9.61	9.85	9.32	6.04	10.38	9.41	10.75
III	PRODUCTIVITY (Kg/Ha.)													
1	Paddy	2817	2682	3070	3039	3918	2712	4123	4429	3687	2463	3630	3562	3809
2	Millets	1941	2419	2504	2468	3642	2092	3508	4401	3950	1873	3976	4013	3777
3	Pulses	303	312	381	386	552	417	752	868	659	432	675	647	735
	Total Foodgrains	2125	2225	2473	2393	3163	2118	3167	3549	3032	1778	3028	2972	3115
4	Cotton	343	279	368	349	481	326	469	545	375	231	410	404	419
5	Sugarcane (cane) (MT/Ha)	108.0	106.0	101.0	108.0	113.0	98.0	104	107	101	87	100	103	108
6	Oilseeds	1748	1783	1911	2078	2479	2092	2355	2374	2292	1870	2730	2413	2626

The above statistics of increasing productivity in all types of crops while comparing the financial years 2008 and 2020. This data indicates that agriculture industry growing in production wise year on year gradually hence the agricultural infrastructures are impacting positively.

Land utilization (Area in hectares) :

Classification	Year 2019-20	% share to total geographical area	Year 2020-21	% share to total geographical area
Current Fallow land	920379	7.1	893065	6.9
Net area sown	4738297	36.4	4833296	37.1
Gross area sown	5942134	45.6	6155731	47.2

The above statistics of increasing Net sown area and multi crops while comparing the financial years 2020 and 2021 along with decrease in Fallow land in those years indicate that agriculture industry growing in production.

❖ SUGGESTIONS

Government has spent for RIDF till 2010-11 was Rs. 88359.09 crore .Of the cumulative amount sanctioned up to March 2011, 43.4 per cent has been for roads & bridges 33.0 per cent for irrigation and 12.5 per cent for social sector i.e., facilities like schools, drinking water and health.

The remaining 11.1 per cent went to power and other sectors. In 2010-11, Number of Commercial Bank Branches in Tamil Nadu 6767 Nos including 1967Nos in Rural areas which is 29.1% of state average;389Nos of Kanchi district's Banks including 122 Nos of rural banks which is 31.4% district average.

More than 95 per cent of the villages have been electrified in Tamil Nadu in 2011.Tamil Nadu & Punjab are the two states in India, which is providing electricity at free of cost to agriculture.

In 2010-11,there were 277 regulatory Markets,108 godowns and 29 grading centres available in Tamil Nadu but no cold storage facility in this state, which is quite important for those who are engaged in perishable products. The Government needs to invest in creating more number of cold storage facilities, regulatory markets. Overall availability of bank credit is quite less and even among those who could access it, there is huge delay in getting a loan sanctioned. This calls for simplification of procedures and formalities which are related to bank credit. Assured irrigation encourages high value crops, commercial farming and more number of crops. Hence, the Government needs to invest in creating more irrigational facilities. Irrigational resources are to be maintained well.

Rain water harvesting system in rural areas is not being followed up seriously; If local authorities and farmers work together, ground water level may be increasing which will help agriculture.

Provision of better roads in the rural areas is quite necessary as it enables not only quick and easy access to inputs, but also to better marketing facilities.

Besides roads, better transport also facilitates farmers to carry input and produce in the rural areas. The Government has to ensure frequent and better transport access to the farmers who especially cultivate floricultural and other perishable crops.

The Government must generate adequate schemes and facilities to educate farmers on simple and productive agriculture.

The Government does not procure or fix prices for crops like sorghum(cholam), Pearl Millet(cumbu) or Finger millet(Ragi). Due to this negligence, the small and marginal farmers could invest more for irrigation and cultivate these products as dry crops.

Agricultural equipment and machinery cannot be afforded by the small and tiny farmers who have a small amount of land and are spending much due to lack of agricultural laborers. The government can provide such equipment and machinery in a nominal charge to encourage them.

Demanding collateral / security as a pre-condition for credit sanctioning affects the tiny, marginal and small farmers, who have very little land. Hence, the Government can bring in necessary modifications in order to enable the vulnerable sections of the farming community to access bank credit.

❖ CONCLUSION:-

This study indicates the increment in interest of farmers in agriculture industry as the positive impact of both the state and central government invitations on encouraging and supporting steps towards Agriculture development. However, Governments shall focus much on price regulations of agricultural products, Agricultural equipment and machinery which will also encourage the farmers additionally.

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