REVIEW OF RESEARCH
ISSN: 2249-894X
IMPACT FACTOR : 5.7631(UIF)
UGC APPROVED JOURNAL NO. 48514
VOLUME - 8 | ISSUE - 9 | JUNE - 2019

PADDY PRODUCTION IN TAMIL NADU – A STUDY

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ABSTRACT:

The current paper attempts to analyze paddy production in India with special emphasis on Tamil Nadu. Rice has been one of the most vital food crops globally and occupies the second most produced and possessing the largest cultivated area. It is a part of the staple diet for about 50 % of the Asian population, which also accounts for 90% of rice production and consumption. Paddy is grown mainly in countries like India, China, Vietnam, Bangladesh, South Korea, United States, Japan, Myanmar, Philippines Thailand, and Brazil. The objective of the current study is to investigate the input/output relationship along with the production constraints and to suggest improvement measures accordingly. In brief, SRI technology has aided farmers in largely enriching their socio-economic conditions without the need to increase the area under rice production. The technology has emerged as an alternate means for rice production. The study relies on secondary data consolidated from various sources like Government Report, Journals, Season and Crop Report of Tamil Nadu, Directorate of Economics and Statistics, Department of Economics and Statistics, Chennai

KEYWORDS: *Productivity, SRI Technology, Season Crop, and Variety.*

INTRODUCTION

Rice is one of the most important food crop cultivated for both dietary and economic needs. It has been part of human civilization since its domestication began in 8000 BC (**Sweeney & McCouch, 2007**). This grass variety feeds half of the world population occupying the largest cultivation area for any crop. Rice plays a major role in the agro-economy of India, the agriculture sector alone constitutes 65% of employment for the rural and semi-rural populace. More recently, there has been vibrant development in the agricultural sector thatis aided by policy frameworks for development in technological, institutional and structural aspects of agriculture since independence. The archaic Five Year Plan (1951-56) sufficed agricultural policy and actions with the sole view to eradicating the food crisis. Agriculture's contribution towards GDP has been in a declining trend including its peripheral activities. The Eleventh Five Year Plan (2007-08 to 2011-12) was formulated to rectify the downward trend in agricultural growth and productivity. Consequently, the Twelfth Five

Year Plan aimed to inculcate rapid, sustainable and inclusive growth in the agricultural sector. (**Planning Commission, 2012**)

Origin Of Paddy

Paddy, a popular term originates from Proto Malay diction "Padi" meaning the wet rice field is a part of Oryza Sativa L of Graminea Family. Paddy exhibits self-pollination, the complete rice seed is termed as "Paddy" containing one rice kernel. The outer or superficial is called husk or hull, the next layer beneath is called rice bran and the innermost part is called Rice Kernel.

HISTORY OF PADDY PRODUCTION

Paddy is historically associated with India known for the important center of rice cultivation with researches claiming the primary domestication of indica variety of rice in the foothills of Eastern Himalayas. The cultivation tract spread throughout the areas encompassing Thailand, South China, Burma, Laos, and Vietnam. A variety of rice called Japonica that was domesticated from wild rice in areas adjoining South China found its way to India. This perennial wild rice is still cultivated in Nepal and Assam. The crop appeared in Southern India after its domestication from north India around 1400 B.C. It soon became widespread in fertile alluvial plains that received water supply from rivers. It is also believed that the term "rice" owes its etymological roots to Tamil word for rice "arisi"

PADDY PRODUCTION IN WORLD SCENARIO

Paddy is mainly cultivated in countries like China, India, Japan, South Korea, Thailand, Vietnam, Bangladesh, the Philippines, and the United States. About 90-92% of rice production comes from Asia alone along with the major paddy cultivation area. Food and Agriculture Organization (FAO) reports that 80% of the paddy products globally come from seven countries.

STATEMENT OF THE PROBLEM

Paddy for its stature as a primary staple diet for half the global population of the world holds greater economic significance. It is also used as a commodity for agro-economy attracting lucrative foreign exchanges. Subsequently, its production performance and improvement are directly dependent on the efficient utilization of resources. The profitability of the crop is determined by quantifying its cost of production with net returns obtained, which largely relies on the effective utilization of production resources. Further, the study of cost and returns structure of paddy would help the farmers in ensuring proper resource combinations to augment the paddy yield, thereby increasing the profits.The crop production entails till consumption, the interim phase ultimately relies on marketing. The efficiency of the process is determined by the marketing system. The marketing of agriculture of good is more complex and complicated than other goods. In the Indian Scenario, this process is dampened by the ensuing bottlenecks affecting the consumption pattern.

IMPORTANCE OF THE STUDY

Paddy production plays an important role in the socio-economic matrix of millions of small farmers that have not been given adequate academic light. The relative research has been increasing in recent times. The productivity, area and production trend of paddy at global, national and state-level (Tamil Nadu) surmises once the commodity (paddy) is exported. The existing agro-economy attributes like paddy marketing channels, marketing efficiency and perception of the farmers on the marketing system have not been examined in detail. The current study aims to address this research gap. The study will help in comprehending the paddy production and marketing system at the India level.

SCOPE OF THE STUDY

The current study focuses on examiningpaddy production in India with special reference to Tamil Nadu. The study is an attempt to analyze the paddy production, productivity and cultivation area on a national scale with discussion on production problems and trends of paddy cultivation.

OBJECTIVES OF THE STUDY

The objective of the present study

1. To find out the input-output relationship and constraints in the production of rice crop
2. To analyze production and productivity of paddy at the world level and national level
3. To Give suggest suitable measures for its remedies.

METHODOLOGY

The study relies on secondary data consolidated from various sources like Government Report, Journals, Season and Crop Report of Tamil Nadu, Directorate of Economics and Statistics, Department of Economics and Statistics, Chennai.

ANALYSIS AND DISCUSSION

The table shows that the area under paddy cultivation was lowest as 41.78 MHs in 1994-95 and highest as 45.91 MHs in 2009-10 and further decreased to 43.39 by the end of the reporting year 2017-18. There is a variation in the area under paddy cultivation during the study period due to various reasons such as climatic conditions. The production of paddy was lowest as 71.82MTsin 2004-05 and highest as 106.65 MTs in 2015-16 and further decreased to 104.32 MTs in the reported the year 2017-18. The productivity of paddy was lowest as 1744 Hectares in 1994-95 and highest as 2461 Hectares in 2014-15 and further decreased to 2404 hectares in the reported the year 2017-18. All these shows an erratic production and productivity trends of paddy crop in India.

It is seen from the table that the area under paddy in the Kuruvai season during the year 2017-2018 increased by 16.80 percent over the previous year. Correspondingly production also increased by 18.90 percent. It is interesting to note that in the third season namely Navarai that there is an increasing trend both in area paddy cultivation and productivity significantly.

FINDINGS OF THE STUDY

- The findings suggestthat area under paddy in the Kuruvai season during the year 2017-2018 increased by 16.80 percent over the previous year. Correspondingly production also increased by 18.90 percent.
- The Study was found that paddy cultivation was lowest as 41.78 MHs in 1994-95 and highest as 45.91 MHs in 2009-10 and further decreased to 43.39 by the end of the reporting year 2017-18. There is variation in the area under paddy cultivation during the study period due to various reasons such as climatic conditions.

Table - 1
Year wise Area and Production of Paddy in India during 1993-94 to 2017-18

Sl.No.	Year	Area (Million hectares)	Production (Million Tons)
1.	1993-94	42.65	74.68
2.	1994-95	41.78	72.86
3.	1995-96	42.54	80.30
4.	1996-97	42.81	81.81
5.	1997-98	42.84	76.98
6.	1998-99	43.43	81.73
7.	1999-00	43.45	82.54
8.	2000-01	44.08	86.08
9.	2001-02	45.16	89.68
10.	2002-03	44.71	84.98
11.	2003-04	44.90	93.34
12.	2004-05	41.18	71.82

13.	2005-06	42.59	88.53
14.	2006-07	41.91	83.13
15.	2007-08	43.66	91.79
16.	2008-09	43.81	93.36
17.	2009-10	45.91	96.69
18.	2010-11	45.54	99.18
19.	2011-12	41.92	89.09
20.	2012-13	42.86	95.09
21.	2013-14	44.01	105.30
22.	2014-15	42.75	105.23
23.	2015-16	44.14	106.65
24.	2016-17	44.11	105.48
25.	2017-18	43.39	104.32

Source: Directorate of Economics & Statistics, DAC&FW, 2018

Table -2
Season wise area production and yield of Paddy in Tamil Nadu

Season	**Area (in ha)**	**2017-2018**		**Area (in ha.)**	**2016-2017**	
		In terms of Rice			**In terms of Rice**	
		Production (in tonnes)	**Yield Rate (in kgs/ha)**		**Production (in tonnes)**	**Yield Rate (in kgs/ha)**
Kuruvai	345004	1356184	3931	295280	1140409	3862
Samba	1441304	3331633	2312	1375510	3498309	2543
Navarai	145295	495568	3411	118380	401236	3389
Total	1931603	5183385	2682	1789170	5039954	2817

Source: Season and Crop Report of Tamil Nadu – 2018. Department of Economics and Statistics, Chennai.

CONCLUSION AND POLICY IMPLICATION

- India is still largely an agrarian country, with more than 60% populace sourcing employment from direct and passive agricultural activities. Agriculture in India sustains the livelihood of major rural and semi-urban masses. Its key challenges and priorities can be optimized in the wake of global standard necessity if better co-ordination of policy framework and its implementation is executed.
- Initiation of innovative farming techniques to counter-pressing issues such as food shortage, natural catastrophe, and extreme weather conditions, poverty. There has been a considerable spike in organic farming amounting 29 fold during the previous five years that has created space for quality-centered, no-debt profitable livelihood alternatives. Since the inception of consumer-based and state of the art market controlled agro-economy system, the realm has grown 25-30% every year. Likewise, Farming under Greenhouse technology has improved productivity by 3-4 times better than normal farming practices. Similarly, Poly-House Farming techniques have also increased out at about 10 times, which can play an important role in the eradication of poverty in accordance with millennium development goals (1990-2015). NABARD has extended its support to up to 90% of Rural Infrastructure Development Fund (RIDFs).

- Under the purview of science and technology wing of the Government of India, about twenty-one, science-based voluntary groups were provided with grants to support their work at the village level. The move is directed to encourage and patronize scientific research and development among rural sections. There has been increased emphasis on thematic networking and co-ordination within such science and technology-based field groups.National Food Security Mission (NFSM) was launched in 2007 to view to increase the food grains production capacity to up to 20 million tonnes (10 mt. for rice, 8 mt. for wheat and 2 mt. for pulses) during the 11th Five Year Plan. The results have shown a promising increase in yields in different regions. The ATMA (Agricultural Technology Management Agency) programmewas launched to promote the state government's efforts to revive the extension. This programme sought to provide an opportunity to enhance the extension system. The returns obtained from agriculture research and extension will be considerably higher than other counterparts.
- There has been increased prioritization on public-private partnership (PPP) in recent years to improve the infrastructure and other growth indicators. Establishment of about 1 lakh common service centers to attain sustainable commercial and socio-economic goals by providing IT-based and non-IT based services for about 600,000 villages. Various community-based organizations, Self-help groups, Establishment of private micro financed institutions like SKS to provide financial assistance to the rural community. Provision of Urban Amenities in Rural Area (PURA) provided landmark opportunities for livelihood and provision of private sector service of infrastructure project has greatly improved the opportunities and provided scope for spectral disparities.
- Dr. M.S. Swami Nathan, the distinguished agricultural economist, commented, "The agrarian crisis has its roots in the collapse of the rural economy...Unemployment leading to the out-migration of the asset- less is growing. The minimum support price mechanism is not operating for most commodities. At every level of the livelihood security system, there is a tendency to make a profit out of poverty. Something is wrong in the country side. Despite improved offerings in the form of low farm credit in recent times. The government supervised the development of small farmers through the provision of Minimum Support Price (MSP), providing easy credit, availability of investment on cold storage, encouraging the production of high-value products like milk, fruits, and vegetables. The credit and loan service must be availed for the development of allied activities like animal husbandry, herbal cultivation, silk cultivation, fishery, and horticulture.
- India is touted being the second-largest producer of food crops, in spite of boasting all possible aspects for prosperous agriculture productivity it stills lags in a global race with contribution as less as 0-9% in World Food trade. There have been action plans suggested improving the prevailing condition based on the Prime Minister's council on trade and industry report. Unflinching attention and promotion of export commodities like tea, mangoes, spices, rice, grapes, and other agricultural produce. Provision for regulated export of certain excess commodities on a yearly basis and adhering to international contractual terms. Installation of Cold Storage facilities at all ports and airports to be stepped up. Establishment of one central agency and increased freight subsidy.Establishment of Agro and Food Development and Export Promotion Council to avail loan for grading, cold chain units with processing units at 9% per year. Provision of 3 Year moratorium for repayment of term loan and interest. 100 % refinance by NABARD to banks and financial institutions to help fund horticulture product export.
- The Researcher through the current structural,institutional andtechnologicalreformsfortheoverallgrowthoftheeconomy.The government should play a greater role in key marketing attributes like price mechanism, Research, and development, technology and trade. It is also observed that private partner interference with the association of government can help achieve the goal of sustainable agricultural growth. All the while stressing the need to enhance the living standards of rural poor to eliminate the socio-economic constraints like poverty, hunger, and malnutrition. It also befits appropriate honours to the father of our nation, Mr. M.K Gandhi who likened India with the following passage "the true India is not to be

found in its few cities but in its seven hundred thousand villages, if the villages perish, India will perish too".

- In brief, SRI technology has aided farmers in largely enriching their socio-economic conditions without the need to increase the area under rice production. SRI technique is shown to increase rice production without increasing the area under cultivation and positioned itself as an effective means of profitable rice cultivation.

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