

Importance of Public Distribution System in Kerala : Problems in Converting Paddy Fields into Other Activities – A Scientific and Social Approach

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ABSTRACT

This article explains the growing importance of Public Distribution System in Kerala and its relationship with the declining trend of paddy production overtime. For this, the quantity of paddy produced in Kerala for many years and the number of people who depend on the Public Distribution System were collected. The important finding of this study was that paddy production in Kerala is declining every year. However, this study showed that the productivity of paddy had increased with each passing year. Furthermore, the study showed that there was no significant correlation between paddy production and the number of people who depend on the PDS. Kerala ranks 31st state in the number of people under the scheme of targeted public distribution system in India. Thus, it is due to something other than food production. Individuals sometimes seem to have the illusion that using the public distribution system will affect their status. Further, it is most important fact that the number of ration shops in Kerala is not less than other states. This study highlighted the need for the people of Kerala to be more aware of the public distribution system.

Key words : PDS, production, profitability

INTRODUCTION

Although food insecurity is declining globally, large populations of food insecurity persist in sub-Saharan Africa and South Asia. In the most affected countries, high rates of disease, mortality and malnutrition are associated with high poverty rates (Cuesta, 2014; FAO, 2017; United Nations Sustainable Development Goals, 2017). Despite rapid economic growth over the past two decades, many Indians have not benefited from economic growth, and are experiencing food insecurity and hunger and high rates of malnutrition. In 2016, more than 190 million people were reported to be malnourished, the highest in any country (IFPRI, 2017). The reasons behind food insecurity and famine in India are complex. Some research suggests that higher migration rates from rural to urban areas may play a role (as evidenced by the concentration of economic gains in urban areas and significant changes in the contribution of the agricultural sector to GDP (Choithani, 2016). Adverse effects of climate change lead to food insecurity, increasing unequal climate patterns, and droughts leading to uneven growth and

production of food stocks (Joshi, 2016). The latest Global Hunger Index (GHI) puts India at the top of the 'critical' category as India continues to perform poorly in tackling hunger and malnutrition. Currently, one-third of Indian children represent one-third of the world's stagnant population, and one-fifth is wasted (Von Grebmer *et al.*, 2018). Hidden appetite can permanently affect health and well-being, especially in children (Gödecke *et al.*, 2018). The Government of India has adopted a number of policies over the past 60 years to strengthen food security (Joshi, 2016). Amendments to the PDS in June 1992 sought to improve coverage, especially for those with backward, remote or difficult access to territory (DFPD Targeted Public Distribution System, 2017). The PDS was redesigned in June 1997 to better target the lower socio-economic sectors (DFPD Targeted Public Distribution System, 2017). This was followed by the introduction of the Antyodaya Anna Yojana (Hindi word for "grain scheme for the downtrodden" (Banerjee *et al.*, 2014) scheme (December 2000 and extension 2003-06) to provide high subsidized food to the poor in India. The project was an attempt to make PDS more

effective in targeting the poorest of the poor. This extension of PDS has provided food and supplies for senior citizens and pensioners for over 60 years, widows, and people with illness or disability (DFPD Targeted Public Distribution System, 2017). Some other studies are also available based on various aspects related to the public distribution system (Tanksale and Jha, 2015; DFPD Targeted Public Distribution System, 2017).

The national coverage ratio in rural and urban areas is 75 and 50%, respectively, with the poorer states receiving higher coverage than the richer states. In many cases, state governments felt that their coverage ratio under the NFSA was too low. Some states have already conducted 'developed PDS' and included more people than provided by the Center. The number of public distribution beneficiaries in Kerala is increasing every year, but the paddy production in Kerala has not increased. This article also examines whether there has been an increase in the number of cardholders following the decline in rice production in the state.

MATERIALS AND METHODS

For this study, information from many government-controlled websites was collected. The study was conducted in its entirety on the basis of the information currently available. In other words, secondary data were extensively used for this study (Agricultural Statistics, 1980-2020; Economic Review, 1980-2020; Envis Centre, 2021).

RESULTS AND DISCUSSION

According to the study, the production of paddy and paddy land had been declining steadily from year to year. At present, paddy ranks third behind rubber and coconut (Envis Centre, 2021). Although there had been a slight increase in area and production over the last few years, it had shown a declining trend in 2016-17. Details regarding area, production and productivity of rice in Kerala are shown in Table 1. In 2016-17, rice production declined to 436483 tonnes from 549275 tonnes in the year-ago, showing a decrease of - 20.54%. The yield rate of rice was 3073 kg/ha (2019-20) against the previous years of 2557 kg/ha (2009-10). Although paddy is the major food crop

Table 1. Area, production and productivity of paddy in Kerala from 1980-2020

Year	Area (⁰⁰⁰ ha)	Production (⁰⁰⁰ MT)	Productivity (kg/ha)
1980-81	801.70	1272.00	1587
1981-82	806.92	1339.87	1660
1982-83	797.89	1308.01	1639
1983-84	740.09	1207.92	1632
1984-85	730.38	1255.94	1720
1985-86	678.28	1173.05	1729
1986-87	663.28	1133.79	1708
1987-88	604.08	1032.58	1709
1988-89	577.00	1013.00	1754
1989-90	583.39	1141.23	1956
1990-91	559.45	1086.58	1942
1991-92	541.33	1060.35	1959
1992-93	537.00	1085.00	2018
1993-94	507.00	1004.00	1977
1994-95	503.00	975.00	1937
1995-96	471.00	953.00	2023
1996-97	431.00	871.00	2023
1997-98	387.00	765.00	1975
1998-99	353.00	727.00	2061
1999-2000	350.00	771.00	2203
2000-01	347.00	751.00	2162
2001-02	322.00	704.00	2182
2002-03	311.00	689.00	2218
2003-04	287.00	570.00	1984
2004-05	290.00	667.00	2301
2005-06	276.00	630.00	2285
2006-07	264.00	642.00	2435
2007-08	229.00	528.00	2308
2008-09	234.00	590.00	2520
2009-10	234.00	598.00	2557
2010-11	213.19	522.73	2452
2011-12	208.16	568.99	2733
2012-13	197.28	508.29	2577
2013-14	199.61	564.33	2827
2014-15	192.59	562.09	2919
2015-16	190.94	549.28	2877
2016-17	166.18	436.48	2627
2017-18	189.09	521.31	2757
2018-19	198.03	578.26	2920
2019-20	191.05	587.08	3073

Source : Kerala Economic Reviews.

cultivated in the state, it constitutes only 7.3% of the total cultivable area. Analyzing the area under cultivation for the last 10 years, the area under paddy cultivation was highest in 2009-10, recording an area of 2.34 lakh ha, which was 8.69% of the total yield (Envis Centre, 2021). The production in 2019-20 was 5.87 lakh tonnes which showed a declining trend to 2009-10 (5.98 lakh tonnes in 2009-10). The approximate form of PDS could be understood by looking at Table 3.

Decrease in the area under paddy cultivation and consequent decrease in production of paddy also created the problem of food insecurity in Kerala. Agricultural wet land habitat where

paddy grows provided a large range of products and services, both direct and indirect. The transformation of paddy fields was leading to many socio-economic and environmental field. At present, Kerala had a deficit of over 90% in food production. As a result of development and urbanization, two important changes have taken place in Kerala in the utilization of land resources. The first is to turn the area of food crops into an area of cash crop cultivation; the second is the conversion of agricultural lands for non-agricultural purposes.

Fair price shops are very common in India. The fair price shop, commonly known as ration shop, is located in all areas of urban, semi-urban and rural areas in our country. There are many people in our country who find it difficult to buy day-to-day goods. Fair price stores are cheap stores that offer huge subsidies for these essentials. Government ration shops offer half the price and sometimes less than half the price of all products available in the public market. Table 2 gives the number of ration shops in different states of India. Further, there is no correlation between the land area of different states and the number of ration shops.

Percentage coverage under TPDS : Manipur was in the first position, Bihar in the second position, followed by Assam, Jharkhand, Chhatisgarh, Odisha, Uttar Pradesh, Madhya Pradesh, Nagaland, Meghalaya, Dadar and Tripura (Table 4). Kerala was ranked 32nd in this Table 4. Lakshadweep and Andaman and Nicobar Island appeared at the bottom of the list. However, the number of ration shops in Kerala was not less than in other states (Table 2). In any case, it indicated that there was no correlation between the production of food grains and the distribution through the PDS. However, in some states with low food grain production were more dependent on the PDS.

SUMMARY AND SUGGESTIONS

The fact that food production in Kerala is declining but not completely dependent on PDS showed that there was no direct link between food production and PDS. But Kerala needs to understand more about the importance of PDS. The share of the agricultural sector in the GDP of Kerala was declining from year to year. The main reasons for the decline in paddy

Table 2. Statement indicating state-wise total number of fair price shops under NFSA (As on 26.12.2019)

S. No.	State/Union territory	Total number of fair price shops
1.	Andaman and Nicobar Islands	479
2.	Andhra Pradesh	28,936
3.	Arunachal Pradesh	1,943
4.	Assam	38,237
5.	Bihar	41,483
6.	Chandigarh	0
7.	Chhattisgarh	12,304
8.	D & N Haveli	63
9.	Daman & Diu	51
10.	Delhi	2,254
11.	Goa	456
12.	Gujarat	17,210
13.	Haryana	9,526
14.	Himachal Pradesh	4,934
15.	Jammu & Kashmir	6,411
16.	Jharkhand	25,532
17.	Karnataka	19,935
18.	Kerala	14,374
19.	Lakshadweep	39
20.	Madhya Pradesh	24,732
21.	Maharashtra	52,532
22.	Manipur	2,682
23.	Meghalaya	4,736
24.	Mizoram	1,252
25.	Nagaland	1,691
26.	Odisha	12,577
27.	Pudducherry	0
28.	Punjab	17,525
29.	Rajasthan	25,682
30.	Sikkim	1,362
31.	Tamil Nadu	34,776
32.	Telangana	17,170
33.	Tripura	1,806
34.	Uttar Pradesh	80,493
35.	Uttrakhand	9,908
36.	West Bengal	20,806
Total		533,897

Source : <https://dfpd.gov.in/writereaddata/Portal/Magazine/bullet120220.pdf>.

cultivation in Kerala were the declining profitability in paddy cultivation, shortage of agricultural labour, rapid increase in wages and shifting of paddy cultivation to other purposes. The sharp decline in paddy cultivation exacerbated food insecurity, rural unemployment and environmental problems.

CONCLUSION

States like Kerala, being more populous with less food production, has to explore ways to increase food production and make people aware of the potential of PDS.

Table 3. Coverage of population and estimated food grains allocation under National Food Security Act, 2013

S. No.	States/Union territories	Population (Census 2011) (in lakhs)			% Coverage under TPDS		Total no. of persons to be covered (in lakhs)			Estimated food grains allocation (Lakh tonnes)
		Rural	Urban	Total	Rural	Urban	Rural	Urban	Total	
1.	New Andhra Pradesh*	328.41	165.36	493.77	60.96	41.14	200.20	68.03	268.23	18.72
2.	Arunachal Pradesh	10.69	3.13	13.83	66.31	51.55	7.09	1.62	8.71	0.89
3.	Assam	267.81	43.89	311.69	84.17	60.35	225.41	26.49	251.90	16.95
4.	Bihar	920.75	117.30	1038.05	85.12	74.53	783.74	87.42	871.16	55.27
5.	Chhatisgarh	196.04	59.37	255.40	84.25	59.98	165.16	35.61	200.77	12.91
6.	Delhi	4.19	163.34	167.53	37.69	43.59	1.58	71.20	72.78	5.73
7.	Goa	5.51	9.06	14.58	42.24	33.02	2.33	2.99	5.32	0.59
8.	Gujarat	346.71	257.13	603.84	74.64	48.25	258.78	124.06	382.85	23.95
9.	Haryana	165.31	88.22	253.53	54.61	41.05	90.28	36.21	126.49	7.95
10.	Himachal Pradesh	61.68	6.89	68.57	56.23	30.99	34.68	2.13	36.82	5.08
11.	Jammu and Kashmir	91.35	34.14	125.49	63.55	47.10	58.05	16.08	74.13	7.51
12.	Jharkhand	250.37	79.29	329.66	86.48	60.20	216.52	47.73	264.25	16.96
13.	Karnataka	375.53	235.78	611.31	76.04	49.36	285.55	116.38	401.93	25.56
14.	Kerala	174.56	159.32	333.88	52.63	39.50	91.87	62.93	154.80	14.25
15.	Madhya Pradesh	525.38	200.60	725.98	80.10	62.61	420.83	125.59	546.42	34.68
16.	Maharashtra	615.45	508.28	1123.73	76.32	45.34	469.71	230.45	700.17	45.02
17.	Manipur	20.22	8.34	28.56	88.56	85.75	17.91	7.15	25.06	1.58
18.	Meghalaya	23.69	5.95	29.64	77.79	50.87	18.43	3.03	21.46	1.76
19.	Mizoram	5.29	5.62	10.91	81.88	48.60	4.33	2.73	7.06	0.66
20.	Nagaland	14.07	5.74	19.81	79.83	61.98	11.23	3.56	14.79	1.38
21.	Odisha	349.51	69.96	419.47	82.17	55.77	287.19	39.02	326.21	21.09
22.	Punjab	173.17	103.87	277.04	54.79	44.83	94.88	46.57	141.45	8.70
23.	Rajasthan	515.40	170.81	686.21	69.09	53.00	356.09	90.53	446.62	27.92
24.	Sikkim	4.56	1.52	6.08	75.74	40.36	3.45	0.61	4.07	0.44
25.	Tamil Nadu	371.89	349.50	721.39	62.55	37.79	232.62	132.08	364.69	36.78
26.	Telangana#	234.71	118.18	352.89	60.96	41.14	143.08	48.62	191.70	13.38
27.	Tripura	27.10	9.61	36.71	74.75	49.54	20.26	4.76	25.02	2.71
28.	Uttar Pradesh	1551.11	444.70	1995.81	79.56	64.43	1234.06	286.52	1520.59	96.15
29.	Uttarakhand	70.26	30.91	101.17	65.26	52.05	45.85	16.09	61.94	5.03
30.	West Bengal	622.14	291.34	913.48	74.47	47.55	463.31	138.53	601.84	38.49
31.	Andaman and Nicobar Island	2.44	1.36	3.80	24.94	1.70	0.61	0.02	0.63	0.16
32.	Chandigarh	0.29	10.26	10.55	38.54	47.26	0.11	4.85	4.96	0.31
33.	Dadar	1.83	1.60	3.43	84.19	51.54	1.54	0.82	2.36	0.15
34.	Daman & Diu	0.60	1.83	2.43	26.66	56.47	0.16	1.03	1.19	0.07
35.	Lakshadweep	0.14	0.50	0.64	35.30	33.56	0.05	0.17	0.22	0.05
36.	Puducherry	3.94	8.50	12.44	59.68	46.94	2.35	3.99	6.34	0.50
	Total	8332.10	3771.18	12103.28	75.00	50.00	6249.30	1885.61	8134.92	549.33

*Based on Andhra Pradesh Reorganization Act, 2014.

Source : <https://dfpd.gov.in/writereaddata/Portal/Magazine/bullet120220.pdf>.

Table 4. Coverage of population (%) under National Food Security Act, 2013 (Table prepared based on Table 3)

State/Union territory	Population (a)		b		c=a+ 100 × b		Population (d)		% Coverage under TPDS (e)		f=d+ 100 × e		g = c+f	Total population (as per census 2011) in lakhs (h)	i = g+h × 100
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Urban	Urban					
New Andhra Pradesh*	328.41		60.96		200.20		165.36		41.14		68.03		268.23	493.77	54.32
Arunachal Pradesh	10.69		66.31		7.09		3.13		51.55		1.61		8.7	13.83	62.91
Assam	267.81		84.17		225.42		43.89		60.35		26.49		251.91	311.690	80.82
Bihar	920.75		85.12		783.74		117.30		74.53		87.42		871.16	1038.05	83.92
Chhatisgarh	196.04		84.25		165.16		59.37		59.98		35.61		200.77	255.40	78.61
Delhi	4.19		37.69		1.58		163.34		43.59		71.20		72.78	167.53	43.44
Goa	5.51		42.24		2.33		9.06		33.02		2.99		5.32	14.58	36.49
Gujarat	346.71		74.64		258.78		257.13		48.25		124.07		382.85	603.84	63.40
Haryana	165.31		54.61		90.28		88.22		41.05		36.21		126.49	253.53	49.90
Himachal Pradesh	61.68		56.23		34.68		6.89		30.99		2.14		36.82	68.57	53.70
Jammu and Kashmir	91.35		63.55		58.05		34.14		47.10		16.08		74.13	125.49	59.10
Jharkhand	250.37		86.48		216.52		79.29		60.20		47.73		264.25	329.66	80.16
Karnataka	375.53		76.04		285.55		235.78		49.36		116.38		401.93	611.31	65.75
Kerala	174.56		52.63		91.87		159.32		39.50		62.93		154.8	333.88	46.36
Madhya Pradesh	525.38		80.10		420.83		200.60		62.61		125.60		546.43	725.98	75.27
Maharashtra	615.45		76.32		469.71		508.28		45.34		230.45		700.16	1123.73	62.31
Manipur	20.22		88.56		17.91		8.34		85.75		7.15		25.06	28.56	87.75
Meghalaya	23.69		77.79		18.43		5.95		50.87		3.03		21.46	29.64	72.40
Mizoram	5.29		81.88		4.33		5.62		48.60		2.73		7.06	10.91	64.71
Nagaland	14.07		79.83		11.23		5.74		61.98		3.56		14.79	19.81	74.66
Odisha	349.51		82.17		287.19		69.96		55.77		39.02		326.21	419.47	77.77
Panjab	173.17		54.79		94.88		103.87		44.83		46.57		141.45	277.04	51.06
Rajasthan	515.40		69.09		356.09		170.81		53.00		90.52		446.61	686.21	65.08
Sikkim	4.56		75.74		3.45		1.52		40.36		0.61		4.06	6.08	66.78
Tamil Nadu	371.89		62.55		232.62		349.50		37.79		132.08		364.7	721.39	50.56
Telangana*	234.71		60.96		143.08		118.18		41.14		48.62		191.7	352.89	54.32
Tripura	27.10		74.75		20.26		9.61		49.54		4.76		25.02	36.71	68.16
Uttar Pradesh	1551.11		79.56		1234.06		444.70		64.43		286.52		1520.58	1995.81	76.19
Uttarakhand	70.26		65.26		45.85		30.91		52.05		16.09		61.94	101.17	61.22
West Bengal	622.14		74.47		463.31		291.34		47.55		138.53		601.84	913.48	65.88
Andaman and Nicobar Island	2.44		24.94		0.61		1.36		1.70		0.02		0.63	3.80	16.58
Chandigarh	0.29		38.54		0.11		10.26		47.26		4.85		4.96	10.55	47.01
Dadar	1.83		84.19		1.54		1.60		51.54		0.82		2.36	3.43	68.80
Daman & Diu	0.60		26.66		0.16		1.83		56.47		1.03		1.19	2.43	48.97
Lakshadweep	0.14		35.30		0.049		0.50		33.56		0.17		0.22	0.64	34.38
Puducherry	3.94		59.68		2.35		8.50		46.94		3.99		6.34	12.44	50.96

Where, b-% Coverage under TPDS, c-Number of persons covered under TPDS in lakhs, e-% of coverage under TPDS, f-Number of persons under TPDS in lakhs, g-Total number of individuals already covered in TPDS in lakhs and i = % of population covered in TPDS.

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