



An economic analysis of public distribution system on food security in Karnataka

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Abstract

Public distribution system is India's one of the major scheme among the welfare schemes, its existence is not only in India but also covered major part of the global scenario. Food security through public distribution system provides social security, in Karnataka state PDS card holders nearly 15056632 crore household (Karnataka at glance 2021-22). India's Public distribution system is generally depends on imports of food grains. Objective of the study is to know the process of commodity procurement, storage, and distribution in Karnataka, to know the trends in food grains provided under the public distribution system. This study is based on secondary data; various Karnataka economic survey and Karnataka at glance reports. This current study also proposes techniques to improve the PDS in places, particularly poor families. The PDS should be helpful in reaching out to the poor in order for it to be successful.

Keywords: Food security programmes, public, AAY, BPL, APL, distribution

Introduction

India has one of the most severe levels of undernourishment in the world while having one of the highest agricultural outputs. The presence of this dichotomy is due to a number of factors ^[1]. Food security across the nation was in an alarming situation recently during the global fight against the COVID-19 pandemic. Many families experienced income loss as a result of events like lockdowns, which ultimately created good day's circumstances for everyone's access to food. In order to offer food security to qualified households and reach a condition where hunger is nonexistent, the Department is constructing a Public Distribution System through which it is delivering predetermined quantities of food grains at subsidized rates to below poverty line homes ^[2]. In Karnataka, the Public Distribution System (PDS) was developed as a system for managing scarcity and distributing food grains at reasonable costs. Fair Price Shops (FPS) total 18490 and are located throughout the revenue villages. To achieve the goal of a hunger-free State, the National Food Security Act of 2013 (NFSA) and Annabhagya are two significant initiatives.

Each priority household member (PHH) will start receiving 7 kilogram of food grains in the 2017-18 fiscal year, while Anthyaodaya Anna Yojane (AAY) households will receive 35 kg of food grains gratis. Up till November 2020, the State will have 1.34 crore PDS card holders, totaling 3.88 crore Public Distribution System beneficiaries. When everyone, at all times, has physical and financial access to enough, safe, and nutritious food that satisfies their dietary needs and food choices for an active and healthy life, then there is food security. (World Food Summit, 1996) ensuring that everyone always has physical and financial access to the essential meals they require. (FAO, 1983) Food and nutrition security must be ensured if the sustainable development goal of ending all forms of hunger (SDG-2) is to be achieved. (Karnataka Economic Survey 2020) In India, the incidence of under nutrition is 16.3%, per the Global Food Security Index 2022. Additionally, 33.4% of Indian children are underweight, 33.9% are stunted, and 3.8% are obese. The human development index for India is 0.65. India is ranked 68th out of 113 large nations. (Global Food Security Index 2022)

Challenges with Food Security in Karnataka

- Population

¹ <https://byjus.com/>

² Karnataka Economic Survey 2022-23

- Poverty
- Climatic Change
- Inadequate food distribution
- Corruption
- Inadequate storage facilities
- Unmonitored nutrition programmes

Reviews of Literature

Soumik R, Banjul B and Subhadip P (2016) ^[9]: The best-fit models of total food grains for each of the three factors were discovered in this study. For each of the three parameters—procurement, off-take, and stocks—the predicted values for total food grains were observed in the years 2017 at 64.14, 58.24, and 45.96 million tonnes, respectively. The study used the Box and Jenkins univariate Auto Regressive Integrated Moving Average (ARIMA) model, which was based on secondary data technique from 1972 to 2013 and predicted values were estimated for 2017.

Vinod Naik and Nethrayini (2019) ^[2]: focused on the effect of NFSM on the local economy in a few Karnataka state areas. The study's timeframe was broken down into three sections: timeframe-I (pre-NFSM), which included the years 1998–1999 to 2007–2008; Period-II (post-NFSM), which covered the years 2008–09 to 2015–16; and Period-III (overall period), which covered the years 1998–1999 to 2015–16. The key finding was that Period III saw considerable increases in both the area and production of a few selected pulses, according to an examination of compound growth rates.

Nisargapriya, Shivalingappa & Loksha (2017) ^[8]: According to their research, the Annabhagya program only provides the bare minimum amount of essential food grains at the lowest prices, especially to poorer households. It was clear that these households still worried about not having the variety of foods they preferred to eat and occasionally had to settle for a small selection of foods because of a lack of affordability. The current study is based entirely on primary data collection techniques used in interviews.

Research gap

A gap statement is found in the introduction section of journals, working paper, and article. In their all above of the

review of literature the study regarding of public distribution system and food security. They are study only public distribution system in India, but no one viewed clearly PDS in Karnataka.

Objective

- To know the process of commodity procurement, storage, and distribution in Karnataka.
- To know the trends in food grains provided under the public distribution system in Karnataka.

Methodology

The study used secondary data, and the information was gathered from both public and unpublished sources, including book reviews, journal articles, working papers, books, magazines, newspapers, reports, and legitimate websites.

Materials and Methods

Table 1: Total PDS Card Holders in Karnataka

Year	AA Y	BPL	APL	Total cards in the state
2009-10	15.57%	10.09%	23.67%	15140795
2010-11	14.65%	9.93%	17.85%	13630416
2011-12	15.57%	9.81%	17.12%	13434423
2012-13	14.51%	10.17%	15.63%	13333296
2013-14	14.28%	9.91%	12.36%	12454905
2014-15	13.20%	10.89%	8.74%	12299632
2015-16	10.41%	11.20%	0.59%	10531797
2016-17	10.30%	11.36%	0.99%	10742794
2017-18	10.16%	12.71%	1.47%	11997063
2018-19	10.15%	14.12%	1.56%	13226461

Source: Various Karnataka economic surveys

The table above shows who has a public distribution system card in Karnataka. In Karnataka, the number of Antyodaya Anna Yojana (AAY) card holders declined dramatically between 2009-10 and 2016-2017, including 1199700, 11228912, 1199700, 1118371, 1100340, 1017034, 801845, and 793321. In Karnataka, the proportion of PDS cardholders living below the poverty line (BPL) varies from low to high. PDS card holders in Karnataka who are above the poverty line have also reduced. Overall, the overall number of PDS cards in the state declined and climbed.

Table 2: Allotment and off take of food grains for different categories (In MTs)

Year	Rice			Wheat		
	Allotment	Off take	Percent age	Allotment	Off take	Percentage
BPL(Excluding AAY)						
2009-10	669840	669558	99	140544	140544	100
2010-11	808606	807617	99	168145	167203	99
2011-12	932982	922982	99	114005	113975	99
2012-13	869891	869488	100	205743	205524	100
2013-14	288080	288127	100	38378	37269	97
2014-15	949826	904054	95	208535	206683	99
BPL(Including AAY)						
2015-16	1873543	1873462	99	333746	333595	99
2016-17	1404806	1404806	100	280412	280412	100
2017-18	2309036	2309036	100	74323	74323	100
2018-19	1634225	1634225	100	46186	46186	100

Source: Karnataka Economic Survey

The information enclosed Food grain allotment and distribution for various categories AAY (Antyodaya Anna Yojana), BPL (Below Poverty Line). Under the AAY, allotments and off take of food grains increased about 100 percent from 2009-10 to 2017-18. From 2009-10 to 2013-

14, rice and wheat product allotment and consumption increased under the BPL. In rice and wheat products, allotment and off take of food grains grew and fell from 2009-10 to 2013-14 under the APL.

Table 3: Allotment and off take of food grains for APL Card holders (In MTs)

Year	Rice			Wheat		
	Allotment	Off take	Percent age	Allotment	Off take	Percentage
2009-10	914170	857699	94	119507	93142	78
2010-11	912078	832084	91	129743	103320	79
2011-12	970067	902392	93	92094	87484	94
2012-13	1037940	961963	92	97512	90052	93
2013-14	541661	529697	98	24686	24533	99
2014-15			-			
2015-16	2379	2379	100	2452	2452	100
2016-17	6911	6911	100	6788	6788	100
2017-18	28907	28907	100		-	
2018-19	19478	19478	100		-	
2019-20	35429	35429	100		-	

Source: Karnataka Economic Survey.

The table above displays allotment and consumption of food grains for various APL (Above Poverty Line) groups. Under the PDS, allotments and off take of food grains grew about 100 percent from 2009-10 to 2019-20. In the 2013-14 fiscal

years, allotment and off take of food grains increased under the APL in rice 98% and wheat 99% products, respectively. Furthermore, under the APL, allotment and off take of food grains increased by 100% from 2009-10 to 2019-20.

Table 4: District wise Fair Price Shops and Ration Card Holders in Karnataka

Sl. No.	District	Ration Shops			Ration card holders		
		Urban	Rural	Total	Anthyodaya		
					Urban	Rural	Total
1	Belagavi	437	1347	1784	10297	58759	69056
2	Bagalkote	188	536	724	10052	36400	46452
3	Vijayapura	141	712	853	6880	35371	42251
4	Kalburgi	214	770	984	9070	54795	63865
5	Bidar	158	569	727	5040	34991	40031
6	Raichuru	170	558	728	10227	42329	52556
7	Koppal	73	395	468	5332	32381	37713
8	Gadag	100	247	347	4582	24143	28725
9	Dharwada	234	266	500	6245	23724	29969
10	Uttara Kannada	81	325	406	960	15361	16321
11	Haveri	102	348	450	5955	41302	47257
12	Ballari	129	234	363	7355	19694	27049
13	Chitradurga	64	523	587	2851	39702	42553
14	Davanagere	193	514	707	6691	39151	45842
15	Shivamogga	173	398	571	6532	31504	38036
16	Udupi	54	241	295	3694	24919	28613
17	Chikkamagaluru	78	445	523	1925	20668	22593
18	Tumakuru	212	875	1087	2918	47031	49949
19	Kolara	136	465	601	2672	27343	30015
20	Bengaluru U	1101	239	1340	20351	8137	28488
21	Bengaluru R	73	295	368	1712	12706	14418
22	Mandya	95	628	723	2406	32175	34581
23	Hassan	124	758	882	1446	22022	23468
24	Dakshina Kannada	91	387	478	3609	19657	23266
25	Kodagu	23	249	272	461	9674	10135
26	Mysuru	323	695	1018	5872	44677	50549
27	Chamarajanagara	53	447	500	2639	33333	35972
28	Chikkaballapura	84	456	540	1778	26823	28601
29	Ramanagara	118	441	559	2254	16787	19041
30	Yadgiri	71	329	400	4501	25019	29520
31	Vijayanagara	54	283	337	6387	33452	39839

Source: Karnataka at Glance report 2022

The Fair Price Shop (FPS) is a component of India's public sector established by the Government of India that provides discounted rations to the underprivileged. Table 4 describes the details of Karnataka's fair price stores by district. Karnataka has a total of 20122 PDS active shops, with Belgaum district having the most (1784), Bangalore Urban district having the second-highest number of 1340 PDS active shops, Tumakuru district having the third highest number of 1087 PDS active shops, Kodagu district having the lowest number of only 275 PDS active shops, and Vijayanagara New District having the second-lowest number of 337 PDS active shops. Belgaum district has the most PDS active ration card holders (69056), while Kodagu district has the fewest (10135 PDS active ration card holders).

Conclusion

The current study focuses on An Economic Analysis of Public Distribution System on Food Security in Karnataka, and it is discovered that ration card holders are increasing. It is one of India's most important poverty-reduction programs. It enhances food and nutrition security, and social protection programs in Karnataka have helped to improve incomes while also protecting the population, particularly the poor. Overall, the government improved the PDS Programs from year to year due to poverty reduction, increased employment opportunities, and level of living, which ensured rural development in Karnataka.

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