

Examining Food Security from a Growth Perspective

Abstract

This study examines a very pertinent issue related to growth in the existing PDS in the country. Though India runs one of the largest programs on food subsidy, the aim with which such schemes are run seems a distant reality. There has been a consistent growth in the overall budgets of government over the years. However, this growth doesn't seem to be transforming the scenario of food subsidy schemes in India. Though being on the priority list of the government, a possibility of misappropriation of funds or improper allocation of funds to the PDS cannot be ruled out. Not only on the aggregate level is the situation intricate, it is equally miserable on the state level as well. Growth charts of the government do not seem to work in reality and the actual benefit of schemes is not reaching those who need it.

Keywords: Public Distribution System, Growth, Economy, *Atta Dal* Scheme, India, Punjab.

Introduction

Food subsidy is one of the most significant features of Indian economic system. It has been a subject of discussion because of its socio-political importance. Subsidies in general and food subsidy in particular have attracted much attention of the government. Ever since the famine of Bengal in 1943, Indian government has been working on the two objectives of self sufficiency in food grains and price stability. Last five decades have seen radical changes in the food policy pursued by the government. Though the results indicate towards a considerable success, better results could have been achieved. However, studies have reported the nutrition systems to worsen in spite a rise in the GDP (Deaton & Dreze, 2009). Targeted Public Distribution System (TDPS), which is considered to be largest food subsidy program in India, has been a miserable failure in targeting the poor (Jha et al., 2013). The reason behind this is that growth in the parameters that indicate economic well being of a nation is not directly related with to increase in food subsidy than of that governments have offered in the past. *Antyodaya Anna Yojna* started in December 2000 is considered as a mile stone in government's initiatives to provide quality food and nutrition to the poor. There has been an increase in the expenditure of government on food subsidies, though not in proportion to an increase in the amount of total budget. Thus, there is a self evident need of a disaggregated analysis while looking at the requirements of food subsidy in order to develop an effective public distribution system (PDS). Although subsidies have risen yet there has been an irregular growth in the amount of subsidies as compared to the growth that in the overall government budget. In this paper, an attempt has been made to examine the movements in growth in food subsidy vis-a-vis those in the overall government budgets. An aim is to highlight the gross view and some important facts that point to a number of unsettled problems. At the outset, would like to spell out that this paper does not talk about dimensions of food subsidy which include nutritional value and problems faced by the end users. The purpose of this study is twofolds. Firstly, it aims to bring forth the growth patterns of food subsidy when compared with growth in the overall budget of the government. The second aspect highlights the budget allocation and expenditure incurred on *Atta Dal* Scheme of Punjab during the years 2007-2017.

Review of Literature

Indian government supports agriculture by way of budgetary provisions. It also does so by foregoing its revenues in certain cases (Gulati & Banerjee, 2015). However, it is interesting to see if sizeable portion of budgetary support goes towards food subsidy. Studies have critiqued the Indian food subsidy system to be unduly exaggerated by the

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governments in the past (Kumar et al., 2004). Deaton & Dreze (2009) reported worsening of nutrition systems spite a rise in the GDP. As PDS is expected to impose a massive financial weigh down on the public exchequer, these proportions need to be carefully examined.

The effectiveness of the system in terms of targeting and coverage varies from state to state and has repeatedly been under scanner. Mehrotra & Jain (2012) argued that growth in macroeconomic factors is meaningless in situations where vast population of the country remains deprived of basic things such as food and nourishment. Jha et al. (2013) in their study reported Indian PDS as a complete failure in meeting its objectives. PDS outreach was reported to be inadequate and concentrated more in relatively developed states as compared to their counter parts (Arora, 2013).

Table 1 highlights important statistics related to growth in food subsidy in India and the growth in total budget of Indian government from 2008-09 through 2018-19. Food subsidy as a per cent of total budget is not impressive (table 1). An examination of growth rates over a period of ten years does not offer an optimistic representation. As compared to growth rates in the total budget, growth rate in food subsidy is considerably less. It would be interesting to know if the amount sanctioned for food subsidy by the government has some relation with the amount of total budget. Subsequent sections of the study examine this relationship.

Objectives and Methodology

Objectives

This study has been conducted in order to test if the claims made by researchers in their studies related to ineffectiveness of PDS are justified. The following are the objectives of this research:

- i. To highlight the growth pattern of food subsidy in comparison to growth in overall government budget.
- ii. To examine the impact of total government budget on levels of food subsidy in India.

Methodology & Data

The present study incorporates a descriptive research design in order to achieve the stated objectives. Trends in food subsidy amount sanctioned and overall government budget have been highlighted with the help of charts. In order to examine the impact of total government budget on the level of food subsidy, regression analysis has been applied to get some meaningful inferences. The study is based on analysis of secondary data which has been sourced from various government websites and reports. Utmost care has been taken to source the data from reliable sources.

Hypothesis

Based on the review of literature in the field of study, the following hypothesis has been formulated:

H₀₁: There is no significant impact of growth in total budget of the government on the level of food subsidy in India.

Data Analysis and Interpretation

This section of the study provides insights into the results. A careful examination of trends and patterns in government budget and its impact on food subsidy has been undertaken. The results have been report from table 1 through table 3 supported by relevant figures (figure 1 to figure 4).

Examining the Trends

Table 1: Expenditure on food subsidy (2008 to 2018)
(in Rs. Crores)

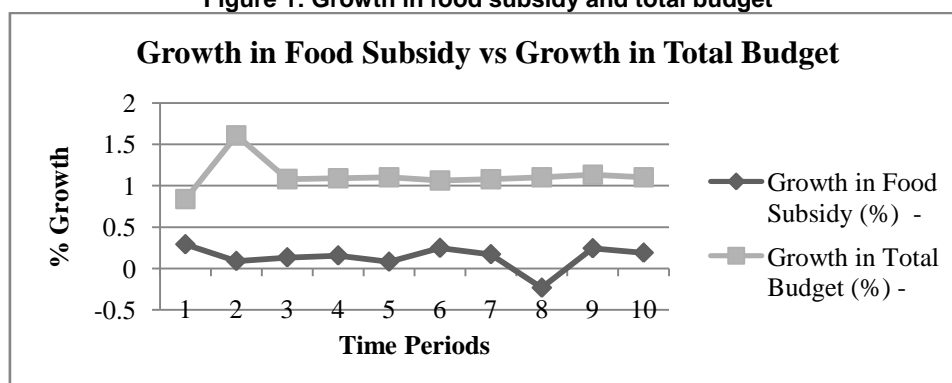
Year	Food subsidy	Growth in Food Subsidy (%)	Total budget	Growth in Total Budget (%)	Food subsidy as a % of total budget
2008-09	43,751	-	8,92,878	-	4.9
2009-10	58,443	0.290	7,49,269	0.839	7.8
2010-11	63,844	0.088	12,04,604	1.608	5.3
2011-12	72,822	0.132	13,00,393	1.080	5.6
2012-13	85,000	0.155	14,16,667	1.089	6
2013-14	92,000	0.079	15,59,322	1.101	5.9
2014-15	1,17,671	0.246	16,57,338	1.063	7.1
2015-16	1,39,419	0.170	17,87,423	1.078	7.8
2016-17	1,10,173	-0.235	19,67,375	1.101	5.6
2017-18	1,40,282	0.242	22,26,698	1.132	6.3
2018-19	1,69,323	0.188	24,53,957	1.102	6.9

Source: Expenditure Budget & Union Budgets 2008-09 to 2018-19; PRS.

A disparity in the growth of these two important economic benchmarks is clearly visible. Especially in year 2013-14 and 2016-17, the differences between the budget growth and food

subsidy growth have worsened. Figure 1 highlight these differences clearly.

Figure 1: Growth in food subsidy and total budget

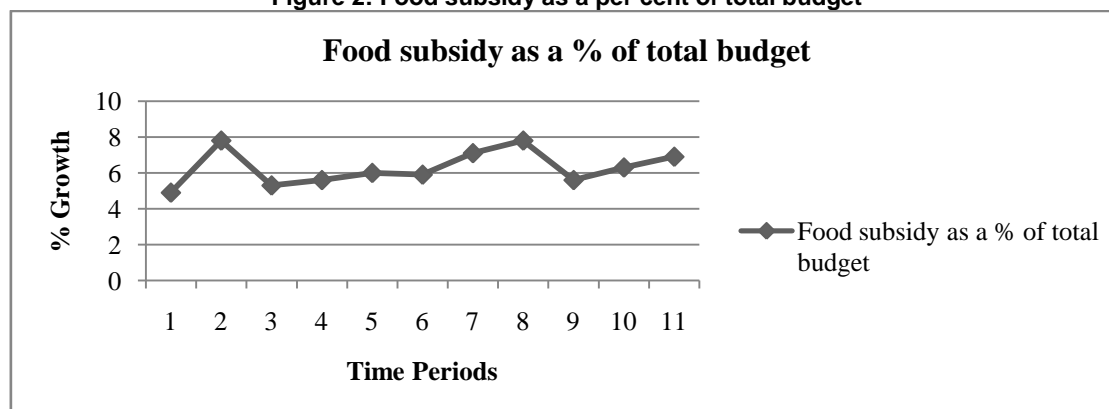


Source: Authors' own calculations based on secondary data.

Growth in total budget should not be seen in economic sense only. Though being one of the fastest growing economies of the world, with the government aiming at 9 per cent growth rate in the future, we have huge populations sleeping hungry. Experts have argued over this 9 per cent growth rate, when huge

number of people including children remains deprived of the basic things such as foodstuff and nourishment (Mehrotra & Jain, 2012). Figure 2 represents the share of food subsidy in the total budget of the government. Inevitably, the graph depicts a dismal picture.

Figure 2: Food subsidy as a per cent of total budget



Source: Authors' own based on secondary data.

Analyzing the Impact

We now examine if the amount sanctioned by the government for the overall budget of the country has an impact on the amount sanctioned for food subsidy. As there has been a reported discrimination in the budgets with respect to amount sanctioned for various states in India, the outreach of PDS is found to be highly inadequate and concentrated more in relatively developed states as compared to their counter parts (Arora, 2013). Table 2 provides results of bivariate regression model where amount of food subsidy has been taken as a dependent variable and total budget amount is the independent variable. The regression has been run on two sets of series. Panel A reports regression results of impact of amount of total budget on the amount of food subsidy. Panel B reports the impact of growth in

these two variables, thus, not considering the absolute amounts. The impact is clearly visible. The amount of total budget has a significant impact on the amount sanctioned for food subsidy. A t-stat of 8.588 indicates the direction of impact to be positive with p-value being 0.000. An impressive R^2 (0.891) signifies that government's total budget has a huge impact on the total amount sanctioned for food subsidy. However, the results do not hold when the variables are converted in terms of their growth rates over the years. As reported in Panel B, the impact of growth in total budget on growth in food subsidy is not significant with a p-value of 0.406. These results clearly indicate that growth in food subsidy is not in line with growth in the government's total budget. The same has also been depicted in figure 1.

Table 2: Results of regression analysis

Panel – A				
DV	IDV	R^2	t-stat	p-value
FS	TB	0.891	8.588	0.000
Panel – B				
DV	IDV	R^2	t-stat	p-value
Growth in FS	Growth in TB	0.088	-0.878	0.406

Source: Authors' own based on secondary data. FS and TB are food subsidy and total budget respectively.

Table 2 demonstrates that changes in the government expenditure allocation with respect to food subsidy are not related to changes in the allocation to its overall budget. In order for the growth to be conclusive, there is a strict need for concurrence of budget growth and subsidy growth. To ensure food security, India runs the largest number of food schemes (Ghumaan & Dhiman, 2017). Growth of an economy and food security is mutually reinforcing process over the course of development in any nation. Economic growth contributes towards food security by increasing the resources available for investment, to support agricultural growth, to increase productivity of goods and services within an economy, by reducing poverty and increasing household's access to food (Timmer, 2004).

The area of concern is that a vast population of the poor is still waiting for the benefits of food subsidy to reach them. We examine this issue with respect to the *Atta Dal* Scheme which is being run by Punjab government in the state. This is the second important aspect under examination in the present study. A comparison of allocated budget and total expenditure raises several questions on the efficacy of such schemes and government initiatives. Mere existence of food in geographical dimensions of a region doesn't entitle the residents to consume it;

rather they must exercise adequate monetary control that makes them capable to purchase the necessary supplies (Dreze & Sen, 1989). Though National Food Security Act (NFSA) of 2013 was passed with an aim to provide advancement and reformation to public distribution system, the guarantee of satisfactory access to quality food to the poor seems to be a distant dream. Table 3 reports budget allocations and the actual expenditure incurred on PDS in the state of Punjab from 2007-08 to 2016-17. Clearly, the allocation in the budget will not do any good to the people as actual total expenditure done is not sufficient. Specifically for the years where the expenditure has been 'Nil', the amount gets eroded into channels of corruption. Allotted but unutilized amount must be carried forward to the next year allotted budget. However, the same does not seem to happen as is evident from table 3 which highlights budget allocation *vis-a-vis* actual expenditure incurred on *Atta Dal* scheme in Punjab state. Optimum levels of food production alone are not enough to meet the requirements of the growing population. Equitable distribution will definitely be an optimistic way to achieve the goal of the government to provide affordable and nutritional food to the poor.

Table 3: Budget allotment, expenditure and number of beneficiaries under *Atta Dal* Scheme of Punjab

Year	Budget Allotment	Total Expenditure	Total Number of Beneficiaries (in lacs)
2007-08	250	31.25	12.95
2008-09	300	70.00	12.95
2009-10	300	Nil	14.51
2010-11	350	Nil	14.51
2011-12	350	147.40	15.41
2012-13	700	220.00	15.41
2013-14	400	330.00	15.41
2014-15	133	120.00	30.9
2015-16	400	70.00	27.4
2016-17	700	Nil	28.9

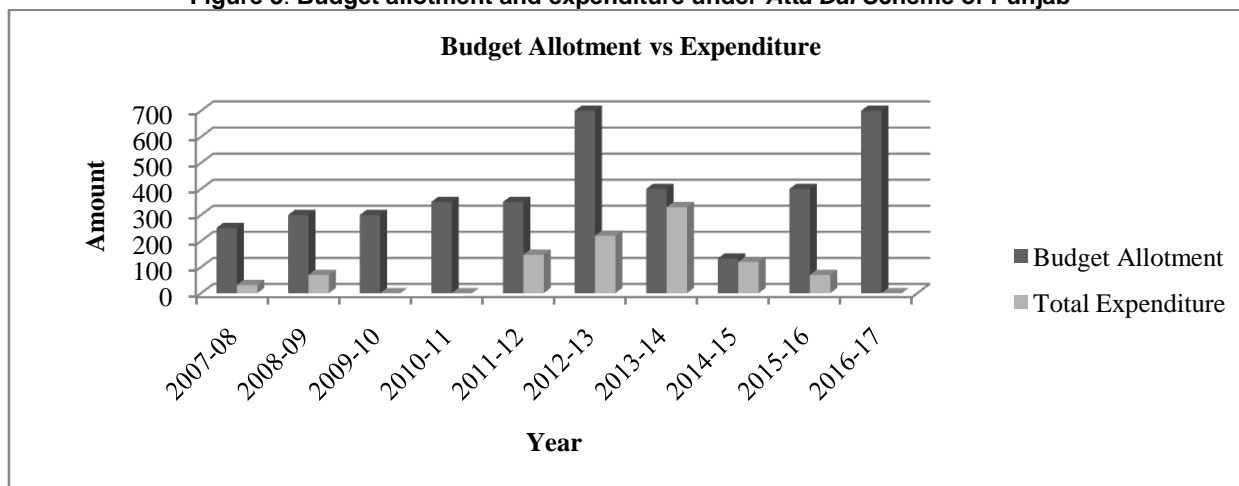
Source: Department of Food and Civil Supplies, Punjab

(Amount in Rs. crores.)

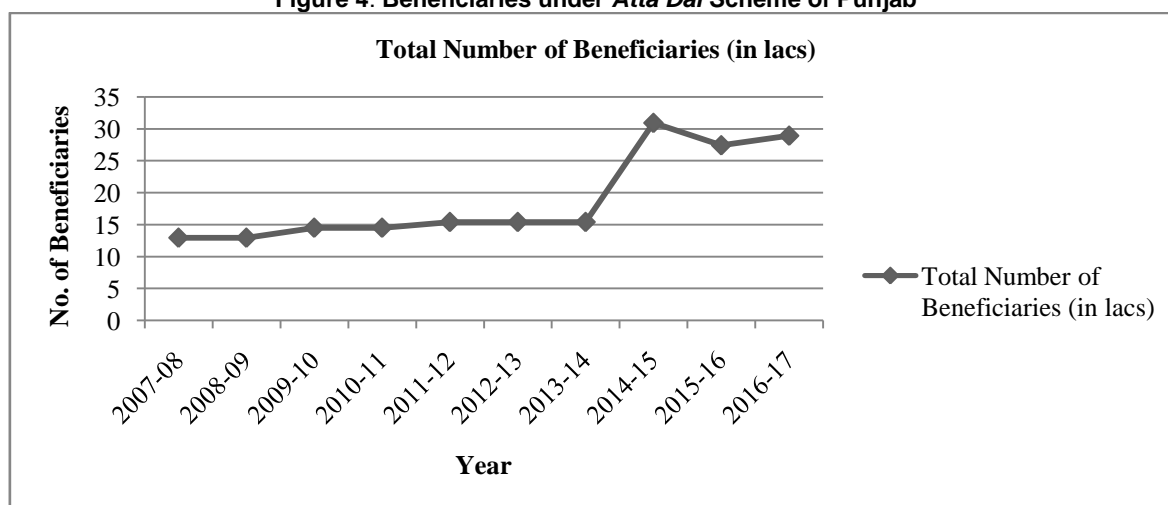
Surprisingly, the number of beneficiaries has been observed to have increased. Figure 4 depicts a pattern of growth in the number of beneficiaries of *Atta Dal* scheme in Punjab state. However, with no

expenditure done in years 2009-10 and 2016-17, the increasing number of beneficiaries raises questions on the operational efficiency and record maintenance of the government in the state.

Figure 3: Budget allotment and expenditure under *Atta Dal* Scheme of Punjab



Source: Authors' own based on secondary data. All amount in Rs. crs.

Figure 4: Beneficiaries under Atta Dal Scheme of Punjab

Source: Authors' own based on secondary data.

It is important for the government to focus on policy decisions regarding operational and administrative aspects of the *Atta Dal* scheme in Punjab. A considerable potential lies in the design of the delivery mechanism being followed. An examination of the distribution mechanism requires to be conducted on the micro level.

Conclusion

The present study provides useful insights into government policy towards public distribution system in India. The situation is highly disappointing as government is spending a meager amount of budget expenditure on PDS. The study highlights that the amount of expenditure is not consistently increasing, and in most of the years, the expenditure has decreased over a period of time. The study also highlights a gloomy picture of *Atta Dal* Scheme run by Punjab government, and the number of beneficiaries of this scheme has not changed from 2009 through 2011 (14.51 lakh beneficiaries in these years). The same appears to happen from 2011 to 2014 (15.41 lakh beneficiaries), indicating either towards negligible budgets allocated or inappropriateness of data maintained by the state government. The expenditure has been doubled in the next year which is probably due to the change of state government to attract the attention of the poor class, as the poor class being a major vote bank for the political parties. Hence an intense examination is required to review the PDS policy in order to provide food security to those who need it.

Implications and Suggestions

The results obtained from the analysis of secondary data provide meaningful insights to researchers and practitioners. The study finds the claims of previous researches stating PDS as ineffective to be reasonably made. No evidence to refute these claims has been obtained. Findings of this study make more intuitive sense to a generation of policy makers who think that PDS has been a success story in India. Authors suggest that matters

related to PDS in India needs a careful examination and there is a need to put matters into perspective rather than just reporting lucrative numbers in government reports. Results would also benefit policy makers and researchers to conduct further examination of the factors affecting the growth and effectiveness of PDS in a nation.

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