

Original Research Article

Impact of Lockdown on Public Distribution System with Special Reference to Sonitpur District, Assam

Dr. Philip Mody^{1*}, Ms. Pubali Rehman²¹Associate Professor, Department of Commerce, Rajiv Gandhi University, Itanagar–Arunachal Pradesh, India²Research Scholars, Department of Commerce, Rajiv Gandhi University, Itanagar–Arunachal Pradesh, India**Article History****Received:** 17.11.2021**Accepted:** 21.12.2021**Published:** 29.12.2021**Journal homepage:**<https://www.easpublisher.com>**Quick Response Code**

Abstract: Public Distribution System was introduced in 14 January 1945 during the Second World War. It was introduced in the year way back in 1940s during Bengal famine in India. In the month of March 2020 nationwide lockdown was imposed to stop the spread of the deadly corona virus. Rationing of essential foods has become tantamount with lockdown due to the pandemic. At this time of lockdown curfew was imposed throughout the country. So, rationing of essential commodities through PDS was felt of paramount importance. The present study revealed that majority of the residents of Sonitpur district i.e. 63.5 percent of the total sample respondent have received information regarding distribution of food grains from friends and relatives. Further, 45.75 percent of total respondents have agreed that the FPS in their locality have provided good services. Likewise, 47 percent of total respondents have felt satisfied with the working hours of the FPS. Also, the study has unveiled that, 71.5 percent of the total respondents have used the food grains provided under the PDS for their own consumption. An attempt has been made in the paper to examine source of information about distribution of food grains during the lockdown; quality of good services supplied through PDS during the lockdown; uses of products provided by FPS during the lockdown and consumer satisfaction with the quality of food grains. Moreover, the paper endeavours to study assistance received from financially able person from the society during the lockdown in the study area.

Keywords: Assam; Lockdown; Public Distribution System and; Sonitpur.

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INTRODUCTION

PDS was first started on 14 January 1945 during the Second World War. The introduction of rationing in India dates back to the 1940s Bengal famine. This rationing system was revived in the wake of acute food shortage during the early 1960s, before the Green Revolution. It involves two types, RPDS and TPDS. In 1992, PDS became RPDS (Revamped PDS) focussing the poor families, especially in the far-flung, hilly, remote and inaccessible areas. In 1997 RPDS became TPDS (Targeted PDS) which established Fair Price Shops for the distribution of food grains at subsidized rates. A public distribution shop, also known as fair price shop (FPS), is a part of India's public system established by the Government of India which distributes rations at a subsidized price to the poor. Locally these are known as ration shops and public distribution shops, and chiefly sell wheat, rice and sugar at a price lower than the market price called Issue Price. Other essential commodities may also be

sold. To buy items one must have a ration card. These shops are operated throughout the country by joint assistance of central and state government. The items from these shops are much cheaper but are of average quality. Ration shops are now present in most localities, villages' towns and cities. India has more than 5.5 lakh (0.55 million) shops, constituting the largest distribution network in the world. The Revamped Public Distribution System (RPDS) was launched in June, 1992 with a view to strengthen and streamline the PDS as well as to improve its reach in the far-flung, hilly, remote and inaccessible areas where a substantial section of the underprivileged classes lives. In June, 1997, the Government of India launched the Targeted Public Distribution System (TPDS) with a focus on the poor. Under TPDS, beneficiaries were divided into two categories: Households below the poverty line or BPL; and Households above the poverty line or APL.

In the month of March nationwide lockdown was imposed to stop the spread of the deadly corona

virus. Due to the lockdown it leads to the closure of institutions all over the country. The migrant labourers faced the toughest problem. To help the citizens of the country in this period of crisis, Finance Minister Nirmala Sitharaman declared distribution of free food grains and cash payments to women, poor senior citizens and farmers. At this time of lockdown and curfew throughout the country the population are finding hard to get their basic necessities of life.

OBJECTIVES OF THE STUDY

1. To examine source of information about distribution of food grains during the lockdown.
2. To examine quality of good services supplied through PDS during the lockdown.
3. To examine uses of products provided by FPS during the lockdown.
4. To examine consumer satisfaction with the quality of food grains.
5. To study assistance received from financially able person from the society during the lockdown in the study area.

RESEARCH METHODOLOGY

- **Study Area:** The present study has been carried out in Sonitpur District of Assam. The district is divided into 14 Development blocks. Below the Block level set-up, there are Gaon Panchayats, each comprising a number of villages and governed by local-self bodies. There are three sub-divisions in the Sonitpur district 1) Tezpur (Sadar) 2) Dhekiajuli (Pt), Chariduar, Naduar Revenue Circles are coming under Tezpur (Sadar) sub-division, Biswanath Revenue Circle comes under Biswanath subdivision and Helem, Gohpur Revenue Circles comes under Gohpur subdivision. The district covers an area of 5,204 Sq.Km out of the State total areas of 78,438 Sq. Km. The rank of the district in term of area is 2nd among the district of Assam.
- **Period of Study:** The facts and figures belonged from the period FY 2011 to 2019-20 have been taken into consideration as secondary data source for the purpose of presenting an analysis of the socio-economic status of the residents and Public Distribution System in Sonitpur District. The primary data has been collected within the period of July 2020 to January 2021 by administering a structured schedule among the local residents who lives in the geographical boundary of Sonitpur District.

Sources of Data: For the present study both primary and secondary sources of information have been used.

- **Primary Data:** Essential information for the current study has been gathered through field study through a structured schedule to the beneficiaries of ration cards of Sonitpur district. The schedule has been planned to get segment profile of the respondents, the perception of the beneficiaries as for the PDS, benefits received during the pandemic and their inclination of advantages between the public authority and the general public. The schedule was created in the wake of going through different literature reviews and specialists' perspective, and just those inquiries were fused that will satisfy the targets of present study. The respondents deliberately took part to fill the schedule. Essential consideration was taken to frame the statements to get reliable information from the respondents, and furthermore, the researcher clarified the specific situation and content of the review in the local language to the respondents to have a clear understanding into the subject, and any questions of the respondents were additionally cleared on the spot.

- **Secondary Data:** The Statistical Handbook of Assam 2020 and Census and District Census Handbook of Sonitpur are most indispensable source of secondary information for data on recipients of PDS and distinctive segment information addressed in the current study. Aside from that diverse government sites like <http://fcsca.assam.gov.in/and> <https://nfsa.gov.in/State/AS> have been utilized to extricate information electronically. Other secondary information utilized in the current review have been gathered and gone along from various distributed and unpublished sources like thesis, articles, reports of government, magazines, and reports of different associations, and websites.

Sample Design

Random sampling under the Probability Sampling method has been adopted for the purpose of selecting the respondents for the present study. The entire Sonitpur district has seven tehsils and respondents were taken in proportion with the population from each tehsil. Sample frame for the present study has been selected from the FCSCA official website as depicted in the Table 1.

Table 1: Sampling Frame

SI No	Name of the tehsil	Population	Sample Size
1	Biswanath	62982	73
2	Chariduar	68326	80
3	Dhekiajuli	84601	98
4	Gohpur	18805	22
5	Halem	22344	26
6	Na-duar	43456	51
7	Tezpur	42999	50
Total		343513	400

Source: Scholar's own compilation

Sample Size

Estimation of an optimum sample size is most crucial for any research study. The required sample size for this study is calculated using Taro Yamane (Yamane, 1973) with 95 percent confidence level. The formula for calculating sample size by Taro Yamane is given below:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the required sample size, N is the population size, and e is the allowable error (percent). By substituting the numbers in the above formula, we will get:

$$n = \frac{343513}{1 + 343513(.05)^2} = 399$$

By applying the above formula resultant sample size is 399 and actual sample size 400 which is higher than the sample size prescribed by Taro Yamane (Yamane, 1973). So, the sample size taken for the study

is 400 which has been drawn from seven tehsils proportionately.

DATA COLLECTION, PROCESSING AND ANALYSIS

For the purpose of collecting primary data for this study from the respondents (PHH card holders), a structured schedule was developed. A total of 400 respondents were interviewed from the seven tehsils using a structured schedule. For processing the data, the collected data were first edited to detect possible errors through careful scrutiny of the schedules. Editing has been done in order to ensure accuracy of the data so as to facilitate appropriate coding and tabulations. Statistical software such as IBM SPSS has been used for the purpose of coding and tabulation of the data and for further analysis and interpretation. Microsoft Excel Spreadsheet has also been used for tabulation purpose and for preparing graphs and charts.

Table 2: Reliability Statistics

Case Processing Summary & Reliability Statistics			
Cases		N	Per Cent
	Valid	400	100.0
	Excluded ^a	0	0.0
	Total	400	100.0
Listwise deletion based on all variables in the procedure.			
		Cronbach's Alpha	N of Items
		0.855	4

Sources: Field Study

In this study reliability was obtained by using self-constructed variables after reviewing the existing relevant literature. Present study utilizes Cronbach's alpha to check the reliability of the scales (5-point Likert scale) used in the schedules. The reliability is test assessed with the coefficient ranging from 0 to 1. The value of alpha when closer to 1 it indicates the greater reliability. In the present study the reliability of the scale is tested with IBM SPSS Version 20.0. The reliability outcome of the scale has a Cronbach's alpha value of 0.855 for 4 items as shown in the Table 2. The satisfactory alpha coefficient value recommended for related studies lies above 0.65 in most cases (Goforth,

2015). Hence the calculated value of 0.855 is satisfactory for the present study.

For the purpose of drawing inferences and arriving at conclusions, few statistical tools were used for the present study like percentages, average mean. These statistical tools were used through IBM SPSS Version 20.0., apart from IBM SPSS Version 20.0 Microsoft. Excel has been widely used to make tables, and draw charts and diagrams.

ANALYSIS AND INTERPRETATION OF DATA

Table 3 highlights majority of the respondents (86 percent) belong to the rural area and 14 percent

belong to the urban area. From the cumulative total of number of respondents, majority of the beneficiaries 63.5 percent receive information regarding distribution of food grains from friends and relatives, followed by 29.5 percent receive information from the FPS owner, 5

percent receive information from the notice board of the FPS and only 2 percent of the respondents reveal that they receive information from Gaon Panchayat members, head of the village etc.

Table 3: Cross-tabulation of Area of the respondents and Source of information about distribution of food grains

Area	Notice board of the FPS	Friends and relatives	FPS owner	Others	Total
Rural	17 (4.9) (85)	236 (68.6) (92.9)	83 (24.1) (70.3)	8 (2.3) (100)	344 (100) (86)
Urban	3 (5.4) (15)	18 (32.1) (7.1)	35 (62.5) (29.7)	0 (0) (0)	56 (100) (14)
Total	20 (5)	254 (63.5)	118 (29.5)	8 (2)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

From the above table it can be stated that 63.5 percent of the total respondents receive information regarding the distribution of food grains from friends

and relatives. Out of 63.5 percent of respondents, 92.9 percent receive information from friends and relatives in rural area.

Table 4: Cross-tabulation of Area of the respondents and FPS is providing good services

Area of respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Rural	44 (12.8) (84.6)	105 (30.5) (80.2)	91 (26.5) (85.8)	103 (29.9) (93.6)	1 (0.3) (100)	344 (100) (86)
Urban	8 (14.3) (15.4)	26 (46.4) (19.8)	15 (26.8) (14.2)	7 (12.5) (6.4)	0 (0) (0)	56 (100) (14)
Total	52 (13)	131 (32.8)	106 (26.5)	110 (27.5)	1 (0.2)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

Friends and relatives stand as a very powerful source of information regarding distribution of food grains in rural area whereas in case of urban area FPS owner seems to be a powerful source of information regarding distribution of food grains.

Table 4 highlights a total number of 183 respondents (45.75 percent) of total respondents have agreed that the FPS in their locality is providing good services. Further it has been observed that 52 respondents (13 percent of total respondents) out of 183 respondents has responded as highly agreed and 131 (32.8 percent of the total respondents) respondents has agreed to the statement used to measure the variable. A total number of 106 respondents has opted the neutral option provided to measure the variable and they were 26.5 percent of the total respondents. The number of respondents who disagreed that FPS is providing good services is 111 (27.75 percent of total respondents). The number of respondents who highly disagreed is only 1, which is 0.02 percent of the total respondents and the number respondents who disagreed to the statement is 110, which is 27.5 percent of the total respondents.

Accordingly, it can be concluded that a higher number (45.75 percent of total respondents) of respondents have agreed that FPS is providing good services.

From the above table it can be stated that majority of the respondents (45.75 percent of total respondents) have agreed that the FPS is providing good services. Out of 45.75 percent, 37.25 percent from rural area and 8.5 percent from urban area have stated that the FPS in their locality is providing good services. Irrespective of their area of the residence, respondents are found to agree to the statement "FPS in their locality is providing good services".

Table 5 highlights a total number of 188 respondents (47 percent) of total respondents have agreed that the working hours of the FPS owner is responsible and helpful. Further it has been observed that 57 respondents (14.2 percent of total respondents) out of 188 respondents has responded as highly agreed and 131 (32.8 percent of the total respondents) respondents has agreed to the statement used to measure the variable.

Table 5: Cross-tabulation of Area of respondents and FPS owner is responsible & helpful

Area of respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Rural	47 (13.7) (82.5)	106 (30.8) (80.9)	86 (25) (86)	104 (30.2) (93.7)	1 (0.3) (100)	344 (100) (86)
Urban	10 (17.9) (17.5)	25 (44.6) (19.1)	14 (25) (14)	7 (12.5) (6.3)	0 (0) (0)	56 (100) (14)
Total	57 (14.2)	131 (32.8)	100 (25)	111 (27.8)	1 (0.2)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

A total number of 100 respondents has opted the neutral option provided to measure the variable and they were 25 percent of the total respondents. The number of respondents who disagreed that FPS is providing good services is 112 (28 percent of total respondents). The number of respondents who highly disagreed is only 1, which is 0.02 percent of the total respondents and the number respondents who disagreed to the statement are 111, which is 27.8 percent of the total respondents.

From the above table it can be stated that majority of the respondents (47 percent) have agreed that the FPS owner is helpful and responsible. Out of 47 percent, 38.25 percent from rural area and 8 percent from urban area have stated that the working hours of the FPS in their locality are convenient for them. Irrespective of their area of the residence, respondents are found to agree to the statement "FPS owner is responsible and helpful".

Table 6: Cross-tabulation of Area of respondents and Use of products provided by FPS

Area of respondents	Self-consumption	Reselling	Exchange for other commodities	Total
Rural	245 (71.2) (85.7)	85 (24.7) (89.5)	14 (4.1) (73.7)	344 (100) (86)
Urban	41 (73.2) (14.3)	10 (17.9) (10.5)	5 (8.9) (26.3)	56 (100) (14)
Total	286 (71.5)	95 (23.8)	19 (4.8)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

Table 6 highlights 71.5 percent of the total respondents have use the food grains provided under the PDS for their own consumption, followed by 23.8 percent resells the food grains received by them to others and 4.8 percent of the total respondents exchange their food grains with other commodities from the FPS. From the above table it can be stated that 23.8 percent of the respondents resells their food grains to others out of which majority (89.5 percent) belong to rural area. 4.8 percent of the total respondents exchange their food grains with other commodities from the FPS out of which majority (73.7 percent) belong to rural area. Reselling of food grains to others and exchange for other commodities can be seen more in rural areas as compared to urban areas.

Table 7 highlights a total number of 256 respondents (64 percent) of total respondents are dissatisfied with the quality of food grains. Further it has been observed that 149 respondents (37.25 percent of total respondents) out of 190 respondents have responded as dissatisfied and 107 (26.75 percent of the total respondents) respondents have shown highly dissatisfied regarding the quality of food grains. A total number of 91 respondents has opted the neutral option provided to measure the variable and they were 22.75 percent of the total respondents. The number of respondents who are satisfied with the quality of food grains is 53 (13.25 percent of total respondents). The number of respondents who are highly satisfied is only 8, which is 2 percent of the total respondents and the number respondents who are satisfied are 45, which is 11.2 percent of the total respondents.

Table 7: Cross-tabulation of Area of respondents and Satisfaction with the Quality of Food grains

Area of respondents	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Total
Rural	8 (2) (100)	37 (9.25) (82.2)	85 (21.25) (93.40)	121 (30.25) (81.20)	93 (23.25) (86.91)	344 (86)
Urban	0 (0) (0)	8 (2) (17.8)	6 (1.5) (6.59)	28 (7) (18.79)	14 (3.5) (13.08)	56 (14)
Total	8 (2)	45 (11.2)	91 (22.75)	149 (37.25)	107 (26.75)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

From the above table it can be stated that majority of the respondents (64 percent) are dissatisfied with the quality of food grains. Out of 64 percent, 53.5 from rural area and 10.5 percent from urban area are

dissatisfied with the quality of food grains. Thus, from the table it can be stated that irrespective of area of the respondents, majority of the respondents are dissatisfied with the quality of food grains.

Table 8: Cross-tabulation of Area of the respondents and assistance from financially able families during lockdown

Area of respondents	Yes	No	Total
Rural	330 (82.5) (85.9)	14 (3.5) (87.5)	344 (86)
Urban	54 (13.5) (14.1)	2 (0.5) (12.5)	56 (14)
Total	384 (96)	16 (4)	400 (100)

Source: Field Survey

Note: Numbers in parenthesis denote percentages

Table 8 highlights assistance received from financially able families with respect to area of the respondents. From the table it can be stated that 96 percent of the total respondents have received assistance from financially able families during lockdown and 4 percent of the total respondents did not receive any assistance from financially able families during lockdown. Out of the majority (96 percent) of the respondents, 82.5 percent of the total respondents belong to rural area and 13.5 percent of the total respondents belong to urban area. Alternatively, from the table it can be stated that only 4 percent of the total respondents who have stated that they didn't receive any type of assistance from financially-able families during lockdown, 3.5 percent of the total respondents are from rural area and 0.5 percent of the total respondents are from urban area. From Table 8 it can be stated that out of the total respondents' majority of the respondents has received assistance from financially able families.

CONCLUSION

Public Distribution System was first started on 14 January 1945 during the Second World War. However, it was launched in the current form in June 1947. The introduction of rationing in India dates back to the 1940s which was introduced in Bengal famine. In

June, 1997, the Government of India launched the Targeted Public Distribution System (TPDS) with a focus on the poor. Under TPDS, beneficiaries were divided into two categories: Households below the poverty line or BPL; and Households above the poverty line or APL.

In the month of March nationwide lockdown was imposed to stop the spread of the deadly corona virus. Due to the lockdown it leads to the closure of institutions all over the country. The migrant labourers faced the toughest problem. To help the citizens of the country in this period of crisis, Finance Minister Nirmala Sitharaman declared distribution of free food grains and cash payments to women, poor senior citizens and farmers. At this time of lockdown and curfew throughout the country the population are finding hard to get their basic necessities of life.

The present study revealed that 63.5 percent of the respondents have received information regarding distribution of food grains from friends and relatives, followed by 29.5 percent received information from the FPS owner, 5 percent received information from the notice board of the FPS and only 2 percent of the respondents received information from Gaon Panchayat members respectively. Further, 45.75 percent of total respondents have agreed that the FPS in their locality is

providing good services. Likewise, 47 percent of total respondents have agreed that the working hours of the FPS owner is responsible and helpful.

Further, 71.5 percent of the total respondents have use the food grains provided under the PDS for their own consumption. Also, 23.8 percent of the respondents have resold the food grains received by them to others and 4.8 percent of the total respondents have exchange their food grains with other commodities from the FPS. 64 percent of total respondents are dissatisfied with the quality of food grains. Moreover, 10.5 percent from urban area are dissatisfied with the quality of food grains. 50 percent of the total respondents who are of the opinion that no differences were observed in services before and during lockdown, 44 percent of them belong to rural area and 6 percent of total respondents belong to urban area.

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