



# **Concurrent Evaluation of Implementation of National Food Security Act, 2013 in the State of Madhya Pradesh**



**Monitoring Institute:**

**Atal Bihari Vajpayee Institute of Good Governance and Policy  
Analysis, Sushasan Bhawan, Bhopal**

**Submitted to:**

**Department of Food and Public Distribution,  
Ministry of Consumer Affairs, Food, and Public Distribution,  
Government of India,  
Krishi Bhawan, New Delhi -110111**

**Concurrent Evaluation of Implementation of National Food Security Act,  
2013 in State of Madhya Pradesh**

**Phase-II (2020-23) – Round II**

**Period of Study: 1<sup>st</sup> September 2021- 28<sup>th</sup> Feb 2022**

**Districts covered: Betul, Dewas, Rajgarh & Shajapur**

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## Acknowledgment

The Government of India made a historic decision to provide food and nutrition security to people by ensuring that they have access to an appropriate amount of high-quality food grains at cheap rates, allowing them to live a dignified life. The 'National Food Security Act (NFSA)' was passed in 2013 to provide people with food and nutrition security by giving access to enough quantities of high-quality food grains at competitive rates, allowing them to live a dignified life. The Act changed the Targeted Public Distribution System (TPDS) from a welfare-based system to one based on human rights. Since the NFSA's introduction, the Ministry of Food, Consumer Affairs, and Public Distribution have been closely monitoring the implementation of the NFSA/PDS, mostly through official sources such as periodic progress reports, frequent meetings, and field visits. However, for enough empirical data for the qualitative evaluation of the program, more in-depth, incisive, and thorough monitoring of the implementation process regularly is required.

The project *“Concurrent evaluation of National Food Security Act-2013”* has been carried out at the Atal Bihari Vajpayee Institute of Good Governance and Policy Analysis (Monitoring Institution), sponsored by, the Department of Food and Public Distribution, Krishi Bhawan New Delhi, Government of India in the year 2021-22.

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## Executive summary

The study evaluated the impact of NFSA, 2013 during the period from 1<sup>st</sup> Sept 2021 to 28<sup>th</sup> Feb 2022. The objective of the implementation of the National Food Security Act 2013 is to drive the size of two-thirds of the population of India out of food deprivation and hunger. The authorized entitlement of food is accompanied by the prevailing Public Distribution System (PDS). The department of 'Ministry of Consumer Affairs, Food & Public Distribution' of India played a key role in the efficient implementation of the NFSA Act, 2013 across the states of India.

The research on such an evaluation process facilitates observing the key impact indicators as well as the outcome of the program. The key objective of such evaluation is to evaluate the performance of the National Food Security Act, 2013 to improve the quality of implementation or delivery services for the beneficiaries in Madhya Pradesh. The technique of cluster sampling has been applied to form the sample.

The research team considered 75 households from each of the four sampled districts of Madhya Pradesh as a sample unit for NFSA ration card holders. Again, the NFSA unit constitutes 60 PHH and 15 AAY in each sampled district. The research investigated the extent of accessibility of the food grains by the beneficiaries from their respective FPSs. The investigation extended to observe the leakage in the distribution mechanism of food grains. Such investigation has been carried out based on observation of the quality of food grains, price of food grains, etc. The research observed majority of sample beneficiaries were aware of the intra-state or inter-state portability facilities. The department of food and civil supplies arranged different sources of authentication for the distribution of food entitlements among beneficiaries under the PMGKAY scheme. The research team found that the distribution of the food grains entitlement under the PMGKAY scheme is accessible to every beneficiary. In the sample area, most of the sample FPS is owned majorly by cooperatives, the research observed that though all the FPS operate efficiently some of the limitations were attached with some of the FPS dealers.

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## List of Abbreviations

NFSA: National Food Security Act

PHH: Priority Household

AAY: Antyodaya Anna Yojana

TPDS: Targeted Public Distribution System

PDS: Public Distribution System

MI: Monitoring Institution

FPS: Fair Price Shop

DSO: District Supplies Office

DBT: Direct Benefits Transfer

VC: Vigilance Committee

Ae-PDS: Aadhaar Enabled Public Distribution System

GOI: Government of India

RC: Ration Card

Epos: Electronic Point of Sale

GoMP: Government of Madhya Pradesh

ANBS: Atma Nirbhar Bharat Scheme

IEC: Information, Education & communication

ONORC: One Nation One Ration Card

## CONCURRENT EVALUATION OF IMPLEMENTATION OF NATIONAL FOOD SECURITY (NFSA) ACT, 2013

### Chapter-1 Introduction

The Food department of Madhya Pradesh has asked for a concurrent evaluation study of the sanctioned project named “Concurrent evaluation and monitoring of National Food Security Act 2013”. The above project has been sanctioned by the Government of India for a period of 3 years w.e.f 2020-2023. In 2013, the National Food Security Act (NFSA) was passed with the overall objective of providing food and nutrition security to people by providing access to foodgrains at affordable prices. This Act translated the Targeted Public Distribution System (TPDS) from a welfare approach to a rights-based approach to social protection. Under the Act, Priority Households (PHH) are entitled to receive 5 kg of food grains per person per month, and Antodaya Anna Yojana (AAY) households are entitled to 35 kg of food grains per month at a highly subsidized price. To strengthen the ongoing monitoring of National food Security Act or Public Distribution System implementation and to provide more in-depth, incisive, and comprehensive empirical evidence on regular basis, the Department of Food, Consumer Affairs, and Public Distribution implemented a scheme of Concurrent Evaluation of Implementation of NFSA during 2020-23.

#### 1.1 Objectives and Scope of Study

To assess the overall progress of implementation of NFSA (2013) across the State (Madhya Pradesh), measure and monitor the change in the following:

- 1. At systemic level:** Assessing and analysing the progress of implementation of various aspects of the NFSA 2013.
- 2. At beneficiary level:** Evaluation of the benefits of NFSA on the target groups to achieve the objectives of the NFSA.

This study was conducted through quantitative as well as qualitative data. The emphasis was major to evaluate the objectives aligned with the Scheme NFSA 2013 was implemented in the state. All the Thematic Focus areas/Indicators approved under the project for concurrent evaluation were assessed. The primary data was completely based on surveys (from those who availed the benefits), semi-structured interviews with departmental staff associated with this work, a case study, and a checklist.

## 1.2 Sample Selection and Research Methodology

The allocation of the total sample in states was based on their population. The detailed analysis of Population Census 2011 published by Govt. of India for Madhya Pradesh state reveals that the population of Madhya Pradesh has increased by 20.35% in this decade compared (2001-2011) to the past decade (1991-2001). Madhya Pradesh is the state of India with population of Approximate 7.27 Crores (72,626,809). Based on the Agro-climatic characteristics, the State of Madhya Pradesh is classified into the following six National Sample Survey (NSS) regions: Vindhya, Central, Malwa, South, Southwestern, and Northern.

It is interesting to note that the districts are more or less homogenous in terms of cropping patterns, rainfall availability, climate and physical features within the NSS regions. Table 1 represents the actual sample size and districts were Betul, Dewas, Rajgarh and Shajapur. According to the Terms of Reference shared, the sample size of the study was as follows: -

| Districts | NFSA | FPS | Total no. of Beneficiary |
|-----------|------|-----|--------------------------|
| Betul     | 75   | 5   | 80                       |
| Dewas     | 75   | 5   | 80                       |
| Rajgarh   | 75   | 5   | 80                       |
| Shajapur  | 75   | 5   | 80                       |
| Total     | 300  | 20  | 320                      |

Table 1 Sample Districts and number of beneficiaries

There was a total of 320 beneficiaries in the study as per the sampling plan which further has been categorized into Subcategories viz; NFSA cardholders and FPS owners as indicated in table 2.

| Districts | PHH (Urban) | PHH (Rural) | AAY (Urban) | AAY (Rural) | TOTAL PHH | TOTAL AAY | TOTAL |
|-----------|-------------|-------------|-------------|-------------|-----------|-----------|-------|
| Betul     | 44          | 16          | 11          | 4           | 60        | 15        | 75    |
| Dewas     | 44          | 16          | 11          | 4           | 60        | 15        | 75    |
| Rajgarh   | 44          | 16          | 11          | 4           | 60        | 15        | 75    |
| Shajapur  | 44          | 16          | 11          | 4           | 60        | 15        | 75    |

Table 2 Bifurcation of NFSA Beneficiaries

The Table 2 describes about the further bifurcation of the NFSA beneficiaries comprising two categories Priority Household (PHH) and Antyodaya Anna Yojana (AAY). Out of the total PHH beneficiaries 44 were from Urban and the remaining 16 belong to the rural areas from the respective sample districts. Similarly, from Antyodaya Anna Yojana 11 beneficiaries belong to Urban and the rest 4 belong to rural areas from the sample districts.

### **1.3 Data Collection and Analysis**

There are following stake holders in the study: NFSA Beneficiaries which include both PHH & AAY Households and Fair Price Shops of the sample districts. Structured questionnaire was designed for all three stakeholders. The analysis of the data covers major aspects of the study: beneficiary selection and ration card management system, the management of Fair Price Shops, supply chain management, FPS automation. The data collected from the NFSA, & Fair Price Shops was completed using Unique IT- Tool software named KOBO Toolbox. Data Wrapper was used for Visualization and Microsoft Excel for the Data Analysis.

### **1.4 Beneficiary Selection and Ration Card Management**

The Concurrent Evaluation of implementation of NFSA Act, 2013 in the State of Rajasthan has been assigned to AIGGPA as Monitoring Institute. In the state, there are 52 districts. As per ToR of concurrent evaluation of implementation of National Food Security Act, 2013, the data have been collected in 04 sample districts of Madhya Pradesh on half-yearly basis. For the purpose of concurrent evaluation of implementation of NFSA Act, 2013 in the second round of the year 2020-21, the four districts have been selected randomly. Similarly, the villages and urban towns have been selected through multistage random sampling.

There are following stakeholders in this study:

- a) NFSA beneficiaries comprising of PHH and AAY households.
- b) Fair Price Shops (FPS) owners

The beneficiaries were interviewed using a structured questionnaire for the stakeholders, The analysis of the data covers six major aspects of the study: Beneficiary selection and ration card management system, the management of Fair Price Shops, FPS automation, ONORC, PMGKAY.

### 1.5 Description of Study area/ Sample

The survey of NFSA was done in four districts enlisted in table 3. As per the sampling plan given by the Government of India. The detailed information regarding the various categories of NFSA beneficiaries across the sampled districts is collected from the respective District Supplies Office. The figures enlisted in the table has been taken from the portal and contains the unique identification of family (called Samagra id), the name of the household head, and members in the family, house address, and category of NFSA beneficiaries. Table 3 presents the overall coverage details of beneficiaries covered under NFSA in the state

| S.no | Districts | Population | Population Covered under NFSA | Percentage % Of population covered under NFSA |
|------|-----------|------------|-------------------------------|-----------------------------------------------|
| 1    | Betul     | 1,57,5362  | 2,93,231                      | 19%                                           |
| 2    | Dewas     | 1,56,3715  | 2,39,843                      | 15.3%                                         |
| 3    | Rajgarh   | 1,54,5814  | 2,75,166                      | 17.8%                                         |
| 4    | Shajapur  | 1,51,2681  | 1,36,569                      | 9.0%                                          |

Table 3 Percentage of Population covered under NFSA

Source: <https://mp.gov.in/>, <http://epos.mp.gov.in/>

### 1.6 NFSA Coverage Details

| S.no | Districts | AAY Cards | PHH Cards | PHH Members |
|------|-----------|-----------|-----------|-------------|
| 1    | Betul     | 32445     | 260779    | 1122925     |
| 2    | Dewas     | 22983     | 216805    | 968445      |
| 3    | Rajgarh   | 28095     | 247067    | 1092300     |
| 4    | Shajapur  | 12318     | 124236    | 565715      |

Table 4 NFSA Coverage Details

Source: <http://nfsa.samagra.gov.in/>

Table 4, presents the percentage of population covered under NFSA in the sampled districts; different categories of beneficiaries identified under the NFSA and the total number of AAY Cards, PHH Cards and PHH Members.

## Chapter 2: Ease of access, leakages and diversion.

The successful implementation of the NFSA act 2013 is dependent on a number of factors, including beneficiary awareness of NFSA entitlement, timely availability and proper distribution of food grains at sample FPS, beneficiary satisfaction with FPS opening and closing times and food grain quality, and special dispensation for the elderly, infirm, physically challenged, and others for food grain distribution at FPS.

### 2.1 Timely availability of Food grains and percentage offtake by households in the sample Fair Price Shops.

The research team observed that availability of food grains varies across all the sampled districts in fair price shops. It's significantly depends on the time of visiting of the beneficiaries in their respective fair price shop. For example, the fair price shops are functioning on their scheduled working hours. The table 5 highlights the numbers of beneficiaries that succeeded to collect their food grains in a single visit. The research team observed that some of the sample beneficiaries of the Betul, Dewas and Rajgarh FPS succeeded to get their entitlements in a single visit. However, the sample beneficiaries of Shajapur FPS did not succeed to get their entitlements in a single visit. The highest number of percentage offtake was seen in Dewas (91.5%) followed by Betul (87.9%) and Rajgarh (84%) and in Shajapur (83%).

| S.no | Districts | Availability of food grains during single visit | Percentage offtake by Households |
|------|-----------|-------------------------------------------------|----------------------------------|
| 1    | Betul     | Yes                                             | 87.9%                            |
| 2    | Dewas     | Yes                                             | 91.5%                            |
| 3    | Rajgarh   | Yes                                             | 84%                              |
| 4    | Shajapur  | No                                              | 83%                              |

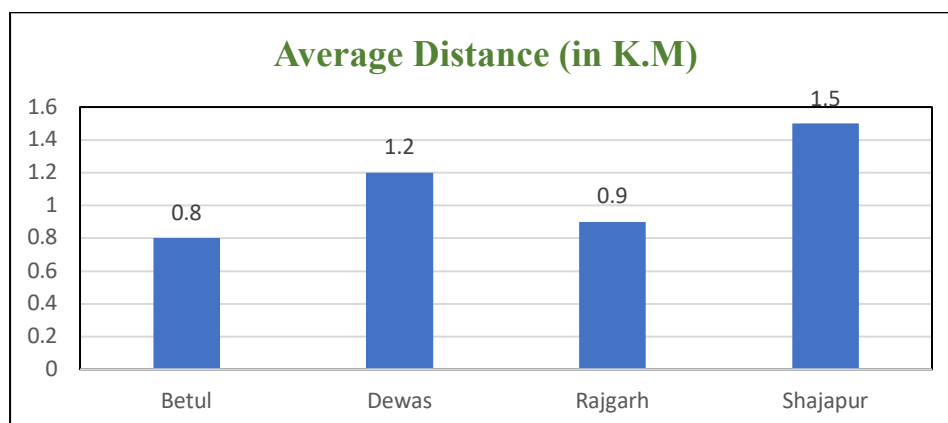
*Table 5 Availability of Foodgrains in Sample Districts*

### 2.2 Average distance of Fair Price Shop from Beneficiary's Home.

The distance between the FPS and beneficiaries' house is one of the key factors of receiving the entitled food grains in a single visit by the beneficiaries. The longer distance between the FPS and house of beneficiaries creates some difficulties for the beneficiaries to reach the FPS within the stipulated time limits. Such a long distance also creates difficulties to carry the entitled food grains by the beneficiaries.

As depicted in Graph 1, the research team observed that the sample beneficiaries of

Betul and Rajgarh FPS had on an average approximately 0.8 and 0.9 kms to FPS from their home, and such distance significantly determines the receiving of entitled food grains in a single visit. Similarly, the sample beneficiaries of Dewas FPS faced on an average approximately 1.2 kms to their registered FPS from their home. However, the sample beneficiaries of Shajapur FPS faced on an average 1.5 km of distance between FPS and their home.



*Graph 1 Average Distance Of FPS in all Sample Districts*

### 2.3 Awareness levels of beneficiaries regarding NFSA entitlement/ FPS opening and closing time.

Beneficiaries must be aware of the eligibility/identification criteria for receiving NFSA benefits in order to get food grains. The table 6 demonstrates sample household understanding of eligibility/identification requirements for NFSA benefits. On an average, 90% of sample families reported knowing the eligibility/identification criteria for receiving NFSA benefit.

| S. No | Particulars                                                      | Responses | Districts   |             |             |             |
|-------|------------------------------------------------------------------|-----------|-------------|-------------|-------------|-------------|
|       |                                                                  |           | Betul       | Dewas       | Rajgarh     | Shajapur    |
|       | Awareness about eligibility/ Criteria for availing NFSA Benefits | Yes       | 68<br>(91%) | 72<br>(96%) | 59<br>(79%) | 71<br>(95%) |
|       |                                                                  | No        | 7<br>(9%)   | 3<br>(4%)   | 16<br>(22%) | 4<br>(5%)   |
|       |                                                                  | Total     | (91%)       | (96%)       | (79%)       | (95%)       |

*Table 6 Awareness Level of beneficiaries regarding eligibility*

It is worth noting that 22% of the sample respondents in Rajgarh were unaware about the

entitlements under NFSA. Apart from getting responses about the awareness levels of beneficiaries regarding entitlements under NFSA, the research team interviewed the beneficiaries regarding the delivery services of their respective fair price shop as depicted in Table 7.

|          | Particulars                                 | Responses                            | Districts |       |         |          |
|----------|---------------------------------------------|--------------------------------------|-----------|-------|---------|----------|
|          |                                             |                                      | Betul     | Dewas | Rajgarh | Shajapur |
| <b>1</b> | No of days Ration Shop opens in a month     | <10 days                             | 0         | 0     | 2       | 12       |
|          |                                             | 10-15 days                           | 25        | 30    | 35      | 40       |
|          |                                             | 15-20 days                           | 30        | 38    | 18      | 20       |
|          |                                             | More than 20 days but not full month | 20        | 7     | 20      | 3        |
| <b>2</b> | Satisfaction with no of working days of FPS | Very Satisfied                       | 68        | 75    | 73      | 69       |
|          |                                             | Satisfied                            | 9         | 0     | 2       | 6        |
|          | Satisfaction with Timings of distribution   | Very Satisfied                       | 65        | 75    | 67      | 60       |
|          |                                             | Satisfied                            | 10        | 0     | 8       | 15       |

*Table 7 Feedback regarding operation of FPS*

Addressing satisfaction with the number of working days of the FPS, 95 percent of sample households stated that they were very happy with the number of working days of the FPS, while 5 percent said they were satisfied with the number of working days of the FPS. It is worth noting that all of the sample households (100%) were either very satisfied or happy with the number of working days provided by the FPS.

In terms of FPS opening and closing times, the majority of survey respondents stated an average of 8:00 a.m. to 5:30 p.m. Regarding satisfaction with FPS opening and closing hours, 89 percent of sample households said that they were very satisfied, while 11 percent

reported that they were just satisfied with FPS opening and closing times. Nearly 80% of the sample families were either extremely happy or satisfied with FPS's opening and closing times.

The majority of sample FPS dealers (44 percent) stated that FPS is open for 10-15 days per month, 35 percent stated that FPS is available for 15-20 days, and 17 percent stated that FPS is open for more than 20 days although not all days. Table 6 illustrates the average operational time of FPS (Table 8).

| S.no | Districts | Opening Time<br>(Daily Average) | Closing Time<br>(Daily Average) | Average Open<br>hours |
|------|-----------|---------------------------------|---------------------------------|-----------------------|
| 1    | Betul     | 10:00 am                        | 5:30 pm                         | 7.5 Hrs               |
| 2    | Dewas     | 8:00 am                         | 5:00 pm                         | 11 Hrs                |
| 3    | Rajgarh   | 10:00 am                        | 5:00 pm                         | 7 Hrs                 |
| 4    | Shajapur  | 09:30 am                        | 4:00 pm                         | 6.5Hrs                |

*Table 8 Operational time of FPS*

The time of FPS opening is one of the prime factors for the beneficiaries to avail their food entitlement. The research team observed that different beneficiaries found different times of opening hours in the different FPS. Most of the beneficiaries found FPS opens between 6.5 to 11 hours in a day. However, each and every FPS remains open at least 8 hours per day. All the FPS dealers open their FPS during morning shift from approximately 8 am to 10:00 am and close their shops from approximately 4:00 pm to 5:30 pm.

#### 2.4 Food grain quantity purchased and price entitlements

The quantities of commodities received by the sample beneficiaries under different FPS highlights the variation in the supply of food grains from the FPS to beneficiaries. On the basis of observations of sample NFSA households (10 PHH & 5 AAY) survey from each FPS, and it was observed that amount of food entitlement supplied to the sample beneficiaries is different in different FPS. The research team observed that supply of food grains varied according to size of the PHH family members. Because the amount of food grains supplied under AAY is fixed irrespective of family size. The respondents were asked about different aspects based on the type of commodity availed, it was observed that beneficiaries in all the sampled districts have availed different commodities viz, Rice, Wheat, Atta and coarse grains.

As far as problem of underweightment is concerned, majority of the respondents 99 percent sample respondents/households did not experience problem of under-weight in last three months (Table 9), whereas rest of the sample respondents/households experienced problem of underweightment in rare cases. In terms of being overcharged for food grains at any point during the previous months, all 300 sample households (100%) reported that they had not been overcharged for food grains at any point in the previous year.

| S.No | Particulars                                | Responses                       | Districts |       |         |          |
|------|--------------------------------------------|---------------------------------|-----------|-------|---------|----------|
|      |                                            |                                 | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Experiences the problem of Underweightment | Yes                             | 0         | 3     | 1       | 0        |
|      |                                            | No                              | 75        | 72    | 74      | 75       |
|      |                                            | Not Aware                       | 0         | 0     | 0       | 0        |
| 2    | Overcharged by FPS                         | Yes                             | 0         | 0     | 0       | 0        |
|      |                                            | No                              | 75        | 75    | 75      | 75       |
|      |                                            | Not Aware                       | 0         | 0     | 0       | 0        |
| 3    | Source of Information about distribution   | Personal Visit to FPS           | 30        | 20    | 40      | 45       |
|      |                                            | Ration shop Dealer              | 40        | 25    | 25      | 15       |
|      |                                            | Friends or Neighbours           | 5         | 30    | 10      | 15       |
|      |                                            | SMS alert from State Department | 0         | 0     | 0       | 0        |

*Table 9 Issues of Under-weightment and Overcharging*

## 2.5 Perception of Beneficiaries about quality of Food grains.

The provision of good quality food grains is one of the important purposes of food security. The study on the quality of food grains supplied by the fair price shops significantly determines the success of implementing food security program. Table 10 illustrates the perception of beneficiaries about the quality of food grains distributed under NFSA. If FPS supplied deteriorates quality of food grains to the beneficiaries, then it forced the beneficiaries to move to the open market to buy their necessary food grains. It leads to the failure of successful operation of PDS in the economy.

| S.No | Particulars                                | Responses                    | Districts |       |         |          |
|------|--------------------------------------------|------------------------------|-----------|-------|---------|----------|
|      |                                            |                              | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Satisfied with Quality of Food Grains      | Dissatisfied                 | 5         | 15    | 3       | 25       |
|      |                                            | Satisfied                    | 43        | 58    | 60      | 45       |
|      |                                            | Very Satisfied               | 27        | 2     | 12      | 5        |
| 2    | If Dissatisfied, Reasons                   | Foreign Extraneous particles | 3         | 7     | 0       | 10       |
|      |                                            | Broken and Weevil            | 1         | 3     | 0       | 6        |
|      |                                            | Discoloured food grains      | 1         | 5     | 3       | 9        |
| 3    | Raised Concerns to Authority for redressal | Yes                          | 0         | 15    | 3       | 20       |
|      |                                            | No                           | 5         |       |         | 5        |

Table 10 Perception of Beneficiaries regarding quality of foodgrains

Under the NFSA, every household/beneficiary expects superior quality food grains. In total, 17 percent of sample households were dissatisfied with the quality of food grains, 68 percent were satisfied, and 15 percent were extremely satisfied with the quality of grains. As a result, 83 percent of sample families were satisfied or extremely satisfied with grain quality. 7% of the 48 sample respondents (17%) who were dissatisfied with the quality of food grains revealed the presence of foreign Extraneous matter, 3% broken/weevil grains, and 7% discolored food grains. The majority of these sample respondents expressed concerns to the FPS authority regarding the quality of the food grains.

## 2.6 Consumption of food grain by households and share of PDS foodgrains.

The consumption of food grains by beneficiaries has been considered in Table 11

| S. No | District | Yes | No | Total (%) |
|-------|----------|-----|----|-----------|
| 1     | Betul    | 75  | 0  | 100%      |
| 2     | Dewas    | 72  | 3  | 96%       |
| 3     | Rajgarh  | 74  | 1  | 99%       |
| 4     | Shajapur | 75  | 0  | 100%      |

Table 11 Satisfaction with the proportion of commodities given through NFSA

It was revealed that majority of the respondents are receiving food grains from FPS per month. In Total, 98.6 percent of sample families were happy with the amount of wheat provided by PDS, whereas 2% were dissatisfied with the proportion of food grains provided by PDS. The sample homes that were dissatisfied with the quantity of wheat provided to them wanted a share of other commodities through the PDS. Only wheat was distributed to NFSA cardholders in the majority of areas.

## 2.7 Status of Silent ration cards.

There is Electronic Ration card management system ERCMS system in place at the district level to assess the Silent Ration Cards, especially for RCs against which food grains are not lifted for three consecutive months. None of the NFSA ration card holders that did not lift ration in last three months was not reported in any of the 20 FPSs among the sampled Districts.

## 2.8 Special Dispensation for old, infirm, physically challenged.

Under the NFSA, there is an unique provision for the elderly, chronically ill, and physically handicapped to receive rations at their doorsteps. In total, 13 sample families (4.3%) indicated that their members of the family were Old/PwD, whereas 287 sample households (95.6%) claimed that they had a mixed age group.

Regarding nomination/home delivery facility at the sample FPSs, cardholders in all four districts (Betul, Dewas, Rajgarh, and Shajapur) were not availing nomination/home delivery facility at any of the 20 sample FPSs, with the exception of one in Betul as Nominee for collection of food grains.

| S.No | Particulars                         | Responses               | Districts |       |         |          |
|------|-------------------------------------|-------------------------|-----------|-------|---------|----------|
|      |                                     |                         | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Any Family Member PWD               | Yes                     | 3         | 6     | 2       | 2        |
|      |                                     | No                      | 72        | 69    | 73      | 73       |
| 2    | Total NFSA cards (old and disabled) | Home Delivery of Ration | 0         | 0     | 0       | 0        |
|      |                                     | Nominate other person   | 1         | 0     | 0       | 0        |

Table 12 Special Dispensation for Old, Inform and Physically Challenged

## Chapter 3 : Fair Price Shop Management

Fair Price Shop is the crucial entity under the National Food Security Act, 2013 for implementing out the NFSA Act, 2013, from which food grains are distributed to eligible beneficiaries. As a result, the effectiveness of NFSA implementation is related to the effective management of Fair Price stores. As a result, improved management techniques may be implemented at the FPS in order to carry out the NFSA with greater openness, dedication, and responsibility.

The findings related to access to food grains entitlements and automation of 20 FPSs covering 04 sample districts namely, Betul, Dewas, Rajgarh & Shajapur are stated below;

### 3.1 Ownership pattern of FPS dealer.

For the FPS to distribute food entitlements on a timely manner to the recipients, the state government set up several sorts of infrastructure or networking systems. The nodal state government's department of food and civil supplies is in charge of monitoring and controlling these FPS. Private persons, gram panchayats, cooperatives, and women SHGs, among others, were granted such licences by the state government. The research team visited 20 (FPS) fair price shops in each of the sampled districts, including 2 rural and 3 urban as depicted in table 13.

| S.no | Particulars             | Responses                 | Districts |       |         |          |
|------|-------------------------|---------------------------|-----------|-------|---------|----------|
|      |                         |                           | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Ownership of FPS Dealer | Private (License)         | 0         | 2     | 0       | 0        |
|      |                         | Panchayat Raj Institution | 0         | 0     | 1       | 0        |
|      |                         | Cooperative               | 5         | 2     | 2       | 3        |
|      |                         | Women Self Help Group     | 0         | 1     | 2       | 2        |
|      |                         | Others                    | 0         | 0     | 0       | 0        |

Table 13 Ownership pattern of FPS Dealer

The possession of a fair price shops depends on the issue of license. The state government issued such licenses. The research team observed that most of the sample FPS (60%) in all the sampled districts were owned by the cooperatives, 25% by Women Self Help Groups, 10% by private owners and 5% by local Panchayat.

### 3.2 Adherence to Food Distribution Calendar.

The Indian government enhanced infrastructural facilities connected to food security with the help of state governments. Infrastructure development aided the public distribution system in its mission to serve beneficiaries. Such facilities allow for the timely supply of food grains in a transparent and effective manner. Shops at reasonable prices. Food grains were distributed in Fair Price Shops from the first to the last day of each month. Every FPS owner/manager stated the same thing. However, it has been reported that mostly the distribution is done within first two weeks after receipt of the food grains from FCI godowns. Fewer instances were also reported in Shajapur, where distribution took place in the third and fourth weeks of the distribution cycle.

The respondents in sampled districts were asked about the road connectivity to FPS shops from their home locations, it was observed that all the districts have good connectivity of roads except one FPS owner in Rajgarh district. The accessibility of beneficiaries towards FPS shops are very well mapped as per the responses received (Table 14)

| S.no | Is the FPS connected by a metal road | Betul | Dewas | Rajgarh | Shajapur |
|------|--------------------------------------|-------|-------|---------|----------|
| 1    | Yes                                  | 5     | 5     | 4       | 5        |
| 2    | No                                   | 0     | 0     | 1       | 0        |
| 3    | Total                                | 5     | 5     | 5       | 5        |

*Table 14 Accessibility of FPS*

### 3.3 Doorstep delivery of Food Grains-Experience and Issues.

The implementation of e-POS system is the primary step for the efficient and transparent initiatives in the public distribution system. The allocation of commodities between the FPS generates via individual e-POS feedbacks installed at the FPS and the details of allocation entitlement are uploaded on the State PDS Portal. The Government of Madhya Pradesh supplies ration to FPS dealers in quite systematic way during its allocation at the district level. The respondents were asked about the doorstep delivery of food grains and charges incurred for timely delivery of ration as mentioned in Table 15.

The study team looked into the topic of doorstep delivery of food grains further and questioned several people about the payment for such delivery. It was revealed that 100 percent sample FPSs

reported that they were not charged by transporter or others for transportation of food grains up to doorsteps of FPS.

All 20 sample FPSs (100%) in four sample districts reported receiving food grain delivery to their door. As a result, transportation of food grains was not a difficulty. Furthermore, when asked In how many days the FPS's received doorstep delivery of food grain in the previous month, 100% of the sample FPSs reported that the food grains were received in advance except the one FPS in Shajapur where one FPS received within the first week. As a result, all of the sample FPSs got food grains in advance and had the required number of food grains to distribute to the beneficiaries.

| S.no | Particulars                                                             | Responses                      | Districts |       |         |          |
|------|-------------------------------------------------------------------------|--------------------------------|-----------|-------|---------|----------|
|      |                                                                         |                                | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Door-step delivery of Foodgrains                                        | Yes                            | 5         | 5     | 5       | 5        |
|      |                                                                         | No                             | 0         | 0     | 0       | 0        |
| 2    | If Yes In how many days did you get the doorstep delivery of foodgrains | Food grain received in advance | 5         | 5     | 5       | 4        |
|      |                                                                         | Within 1-3 days                | 0         | 0     | 0       | 0        |
|      |                                                                         | Within first week              | 0         | 0     | 0       | 1        |
|      |                                                                         | Within a fortnight             | 0         | 0     | 0       | 0        |
|      |                                                                         | More than a fortnight          | 0         | 0     | 0       | 0        |
| 3    | Charged by Transporter for transportation of food grains                | Yes                            | 0         | 0     | 0       | 0        |
|      |                                                                         | No                             | 5         | 5     | 5       | 5        |

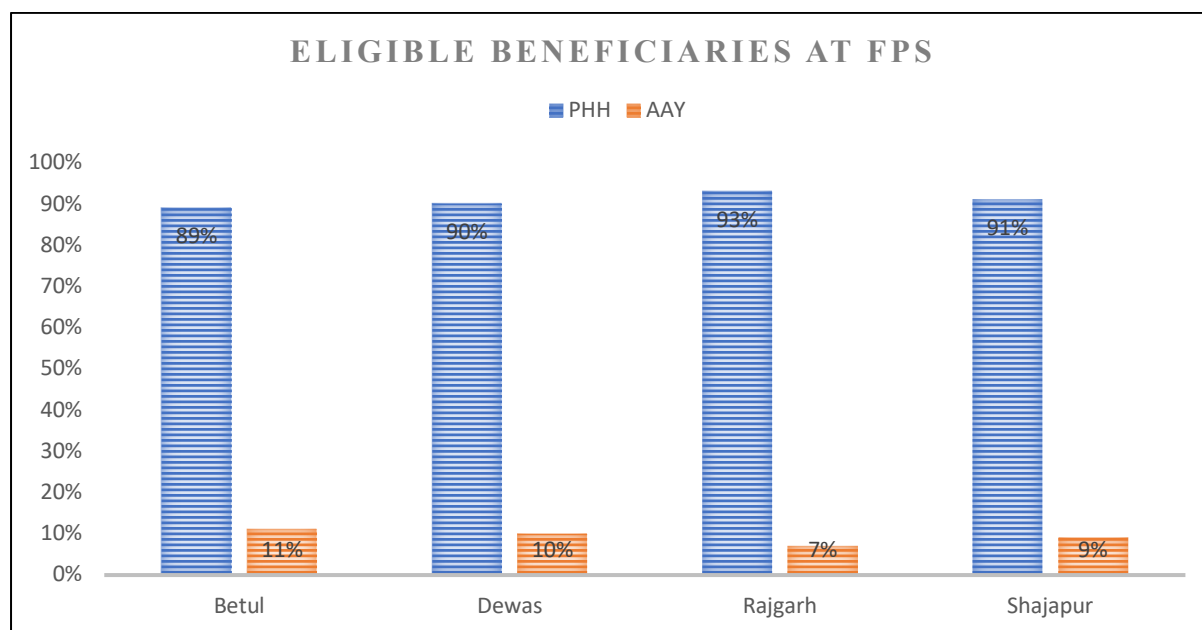
Table 15 Doorstep Delivery and Transportation

### 3.4 Quality of Service Delivery: Ration Card Beneficiaries attached with the FPS.

| S.no | District | PHH  | AAY | Total |
|------|----------|------|-----|-------|
| 1    | Betul    | 2709 | 328 | 3037  |
| 2    | Dewas    | 2841 | 338 | 3179  |
| 3    | Rajgarh  | 3986 | 303 | 4289  |
| 4    | Shajapur | 3316 | 329 | 3645  |

Table 16 Eligible Ration Cardholders in Sample Districts

As far as eligible ration card holders attached with sample FPS's are concerned, in total, 90 percent ration cardholders at sample FPSs were PHH and 10 percent ration cardholders at sample FPSs were AAY (Table 16). District-wise, maximum percentage of PHH cardholders was at Rajgarh (93%) and Shajapur (91%). Also the maximum percentage of AAY cardholders was at Dewas & Rajgarh (10%) each. Similarly, maximum percentage of PHH beneficiaries (93%) was at Rajgarh, maximum percentage of AAY beneficiaries was at Dewas and Rajgarh (10 %) as illustrated in graph 2.



*Graph 2 Eligible Beneficiaries at FPS in Sample Districts*

### 3.5 Excess Food Grains Available at FPS.

The research team further extended the enquiries and interviewed the FPS dealers regarding the delay of delivery services of food grains to FPS during the last 6 months. The effective management of whole PDS system under NFSA can be judged by response of the stakeholders in terms of satisfaction on the issue of delivery of the right quantity, right quality delivered/ supplied on right time.

As Illustrated in (Table 17) 75 percent sample FPSs reported that they had no excess foodgrains left after closing the sale. Also 25 percent sample FPSs reported about having excess food grains left after closing the sale, It was adjusted after 2-3 months in the food grains allocated for the next month.

The research team also investigated the issue related to the payment of getting FPS dealers commission. The amount of commission depends on the numbers of beneficiaries attached with the FPS. The larger the beneficiary's list, higher the amount of entitled quantity sold and the commission of FPS had been increased. Every month the FPS dealers submit the challan amount after deducting their commission. In all the sampled Districts none of the cases with regard of getting dealers commission delayed was reported.

| S.no | Particulars                                                   | Responses | Districts |       |         |          |
|------|---------------------------------------------------------------|-----------|-----------|-------|---------|----------|
|      |                                                               |           | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Excess Food grains left after closing the sale                | Yes       | 0         | 1     | 2       | 2        |
|      |                                                               | No        | 5         | 4     | 3       | 3        |
|      | If Yes Adjusted in food grains allocated for this month       | Yes       | 0         | 1     | 2       | 2        |
|      |                                                               | No        | 5         | 4     | 3       | 3        |
|      | Payment of the dealers Commission from the department delayed | Yes       | 0         | 0     | 0       | 0        |
|      |                                                               | No        | 5         | 5     | 5       | 5        |

*Table 17 Excess Foodgrains and Dealers Commission*

### 3.6 Display of IEC material at FPSs.

One of the primary goals of food security is for the public distribution system to operate transparently and efficiently. The Food and Civil Supplies Department strives to run the FPS as efficiently as possible. As a result, fair-price shop owners were told to showcase various forms of relevant information on food grain distribution in front of their stores. The research team investigated the same and discovered that all FPS dealers have a notice board, hoardings, banners and traditional black board posted in front of their FPS. However, some of the information provided by the FPS dealers were slightly different. It was observed that all the respective Fair Price Shops had enough space for the Banners and posters regarding the schemes and information related to ration distribution.

Given the significance of Information Education and Communication (IEC), it is critical to disseminate the NFSA principles and their components. As a result, IEC is a crucial component and a key contributor in increasing demand among NFSA recipients. According to the findings, the display of IEC/Awareness material in 20 sample FPSs has been summarized in table 18.

| S.No | Particulars                                   | Responses | Districts |       |         |          |       |
|------|-----------------------------------------------|-----------|-----------|-------|---------|----------|-------|
|      |                                               |           | Betul     | Dewas | Rajgarh | Shajapur | Total |
| 1.   | IEC material on grievance redressal mechanism | Yes       | 5         | 5     | 5       | 5        | 100%  |
|      |                                               | No        | 0         | 0     | 0       | 0        | 0     |
| 2.   | IEC material on ONORC                         | Yes       | 4         | 4     | 5       | 4        | 85%   |
|      |                                               | No        | 1         | 1     | 0       | 1        | 15%   |
| 3.   | IEC material on e-KYC                         | Yes       | 3         | 5     | 5       | 3        | 80%   |
|      |                                               | No        | 2         | 0     | 0       | 2        | 20%   |

*Table 18 Display of IEC / Awareness material at FPS*

All the following information was also displayed at the Fair Price Shops as annexed in Annexure.

- Opening and Closing time of Fair Price Shops.
- Samples of PDS foodgrains for distribution.
- Monthly entitlement of PHH & AAY category and their retail issue price per kilogram.
- Total number of PHH & AAY households/ beneficiaries.
- Quantity of commodities received, distributed & in stock ration status.
- Toll free helpline number.
- Name and contact details of vigilance committee members and authority for lodging complaints.

It was also noticed that Stock register, commodity wise record, register of beneficiaries and sales were well maintained by the Fair Price Shops in all the sampled districts. However, it was also observed that electronic weighing scale was used in all the FPS shops for measuring the quantity of food grains.

### 3.7 Issues of Foodgrains with e-PoS.

The automation of FPS was initiated under NFSA in 2013, as part of the "end-to-end computerization of PDS operations." Following the progressive implementation of the NFSA,

Madhya Pradesh Government have taken similar initiatives. For the distribution of assigned allocation, the automation of FPS necessitates the connection of electronic point-of-sale (e-POS) equipment. The state of Madhya Pradesh has put e-POS machines at several FPS and converted the ration card database to a digital format. These computerised point-of-sale computers were used to verify and record the transaction history related to distribution of ration at FPS. The basic purpose of installation of e-PoS machines is to alleviate the identity error occurred at FPS level. The mitigation of identity error facilitated the benefits to the actual beneficiaries and use of biometric authentication such as fingerprints through Aadhaar authentication serving such objective. It significantly impacts on the reduction of leakages and efficient operation of public distribution system on ground level.

Following the verification of a beneficiary's identification through biometric authentication, e-POS devices display the entitlement amount and fair pricing for such beneficiaries. The FPS dealer has the authority to catalogue the sale, which is also recorded on the state PDS portal. It's referred to as a 'e-POS Aadhaar enabled PDS.' All of the sample FPS dealers in all the sampled districts had e-POS equipment, as per stakeholder consultation. The transaction history is electronically stored, and these e-POS devices biometrically authenticate the beneficiaries. All recipients were expected to link their Aadhaar cards to their ration cards. This transaction information was also available on state PDS portal.

### 3.8 Percentage of Biometric Authentication

The biometric authentication system has been reported in all four sampled districts: Betul, Dewas, Rajgarh, and Shajapur. 100% of the 20 sample FPSs reported the installation of AePOS at FPSs. The use of e-PoS for getting food grains under PDS by sample households is depicted in table 19, wherein 100% respondents reported use of e-PoS for getting food grains under PDS.

| S. No | Particulars                        | Responses | Districts |       |         |          |
|-------|------------------------------------|-----------|-----------|-------|---------|----------|
|       |                                    |           | Betul     | Dewas | Rajgarh | Shajapur |
| 1     | Received food grains through e-PoS | Yes       | 75        | 75    | 75      | 75       |
|       |                                    | No        | 0         | 0     | 0       | 0        |
| 2     | Get printed receipt                | Yes       | 60        | 70    | 55      | 45       |

|   |                                                                        |                                 |    |    |    |    |
|---|------------------------------------------------------------------------|---------------------------------|----|----|----|----|
|   | from e-PoS                                                             | Sometimes                       | 8  | 0  | 10 | 12 |
|   |                                                                        | No                              | 7  | 5  | 10 | 18 |
| 3 | If Yes, Local language printed on receipt                              | Yes                             | 0  | 0  | 0  | 0  |
|   |                                                                        | No                              | 75 | 75 | 75 | 75 |
| 4 | Average number of Authentication for successful Authentication         | 1 Attempt                       | 68 | 70 | 73 | 66 |
|   |                                                                        | 2 Attempts                      | 7  | 5  | 2  | 9  |
| 5 | In case of Failure, Alternative method adopted by FPS Owner            | Ration is denied                | 65 | 71 | 73 | 53 |
|   |                                                                        | Received without authentication | 0  | 0  | 0  | 0  |
|   |                                                                        | Using exceptional Management    | 10 | 4  | 2  | 22 |
| 6 | Satisfied with system of using e-PoS to authenticate people for ration | Very Satisfied                  | 0  | 0  | 0  | 0  |
|   |                                                                        | Satisfied                       | 75 | 75 | 75 | 75 |
|   |                                                                        | Dissatisfied                    | 0  | 0  | 0  | 0  |

*Table 19 Issues with use of e-PoS machine*

In total, only 76.6% sample households reported they got printed receipt from e-PoS device, 10% households reported that they sometimes got printed receipt from e-PoS & 13% sample households reported that they never got printed receipt from e-PoS device. The reason given by FPS dealer for not giving printed receipt to beneficiaries was the more time of printing in e-PoS for completing one transaction and the cost of the printing. However, 100% respondents reported that they did not get the printed receipts in local language Hindi.

The average number of authentication attempts required for successful authentication is crucial for establishing beneficiary credibility in e-PoS. In terms of the average number of authentication tries required for successful authentication, 92 percent of sample respondents claimed that they had taken just one attempt, whereas 8 percent of sample respondents reported that they had taken two attempts for successful Biometric Authentication. Thus Majority of the respondents received their food grains in one successful attempt. In terms of failed e-PoS transaction, majority (87%) of the respondents responded denial of ration in case of failed e-PoS, However 13% reported adoption of Alternative Exceptional management for distribution of ration in all the sampled districts.

Regarding the sample household satisfaction with the system of using e-PoS machine and Aadhaar to Authenticate the beneficiaries, 100% of the sample respondents were satisfied with the system of using PoS device and Aadhaar to authenticate the people for ration.

### 3.9 Reasons for Biometric Failure.

The research team investigated about the reasons of failure of biometric authentication while visiting FPS shops for availing the ration entitlements as shown in Table 20. The FPS owners during stakeholder consultation cited various reasons for the failure of Biometric based authentication.

| S.No | Particulars                                               | Responses                              | Districts |       |         |          |
|------|-----------------------------------------------------------|----------------------------------------|-----------|-------|---------|----------|
|      |                                                           |                                        | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Success rate of Biometric Authentication                  | 0-25%                                  | 0         | 0     | 0       | 0        |
|      |                                                           | 25-50%                                 | 0         | 0     | 0       | 0        |
|      |                                                           | 50-75%                                 | 0         | 0     | 0       | 1        |
|      |                                                           | 75-90%                                 | 4         | 4     | 3       | 4        |
|      |                                                           | 90-100%                                | 1         | 1     | 2       | 0        |
| 2    | Reasons for not having 100% biometric Authentication      | Low Aadhaar Seeding                    | 0         | 0     | 0       | 0        |
|      |                                                           | Authentication Failure due to mismatch | 4         | 4     | 3       | 3        |
|      |                                                           | Connectivity Issue                     | 1         | 1     | 2       | 2        |
|      |                                                           | Other                                  | 0         | 0     | 0       | 0        |
| 3    | Alternative Methods used in case of failed authentication | Iris Authentication                    | 0         | 0     | 0       | 0        |
|      |                                                           | Aadhaar based OTP                      | 2         | 1     | 0       | 1        |
|      |                                                           | Fusion Finger                          | 0         | 0     | 0       | 0        |
|      |                                                           | Ration not Given                       | 3         | 2     | 4       | 3        |
|      |                                                           | Others                                 | 0         | 2     | 1       | 1        |

Table 20 Biometric Authentication at FPS

In all the sampled districts, the sample FPS reported the success rate of biometric authentication in the FPS was more than 80% but lesser than 90-100%. Out of the sampled FPS's, who opted for not having 100% success rate, 70% sample FPS's responded with authenticate failure due to mismatch of fingerprints, whereas 30% sample FPS reported connectivity issues as a reason for not having 100% Biometric Authentication.

The research team investigated about the provisions for beneficiaries in case of failed biometric authentication while visiting FPS shops for availing the ration entitlements. The alternative methods adopted by the FPS involved various modes viz Iris Authentication, Aadhar enabled OTP authentication, Fusion finger, and e-Samagrah ration cards, it was observed that majority (60%) of the ration card holders were denied ration in case of failures.

### 3.10 Time Taken for e-PoS Transaction.

In total, 32% of sample households reported that the average time to complete one transaction through Ae-POS was up to 30 seconds, 58% reported that the average time to complete one transaction through Ae-POS was 30 seconds to 60 seconds, and 10% reported that the average time to complete one transaction through Ae-POS was more than 60 seconds. It may be deduced that the majority of sample homes (90 percent) spent less than or equal to one minute completing a single transaction using Ae-POS (Table 21).

| S.No | Particulars                                  | Responses         | Districts |       |         |          |
|------|----------------------------------------------|-------------------|-----------|-------|---------|----------|
|      |                                              |                   | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Average time taken for one e-PoS transaction | Up to 30 secs     | 22        | 25    | 33      | 17       |
|      |                                              | 30-60 secs        | 53        | 40    | 41      | 41       |
|      |                                              | More than 60 Secs | 0         | 10    | 1       | 17       |

*Table 21 Average time taken for transaction*

### 3.11 Exception Management Practices for Ration Distribution at FPS.

The sample respondents who reported failed finger print authentication believed that the FPS owner utilized exception management to sell ration. The exception management practices used by the FPS owner were OTP on the RC holder's mobile, according to all of the study respondents (100%). The State government used Aadhaar-based OTP authentication as an alternate technique in the event of a beneficiary's finger print authentication failure at Ae-POS, ensuring that NFSA cardholders were not denied rationing by FPS. The state's action aided in the seamless distribution of food grains to NFSA recipients, which is unquestionably laudable.

| S.No | Particulars                                                                        | Responses                       | Districts |       |         |          |
|------|------------------------------------------------------------------------------------|---------------------------------|-----------|-------|---------|----------|
|      |                                                                                    |                                 | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | In Case of Failed fingerprint Authentication, Exceptional practices adopted by FPS | Ration is denied                | 0         | 0     | 0       | 0        |
|      |                                                                                    | Received without authentication | 0         | 0     | 0       | 0        |
|      |                                                                                    | Using exceptional Management    | 75        | 75    | 75      | 75       |

*Table 22 Use of Exception Management*

## Chapter 4 : One Nation One Ration Card and Intra-State Portability

A prominent consequence of the Covid-19 pandemic was an increase in food insecurity globally, particularly in underdeveloped nations where hunger and malnutrition are epidemics. Middle class workers, the destitute, and the downtrodden were the worst hurt by the collapse of livelihood opportunities and consequent exodus from urban regions. The inability to obtain local ration cards, which could be used to receive government subsidized commodities through the Public Distribution System, was one of the key reasons for the rising food insecurity among these groups. Millions of migrants who did not 'belong' to their workplace lacked documentation that would have allowed them to receive PDS rations and other social security benefits.

One of the highest priorities of the Department of Food, Civil Supplies & Public Distribution, Government of India, is the implementation of the One Nation One Ration Card (ONORC) plan. This will give all eligible ration card holders and beneficiaries covered by the NFSA the option to access their entitlements from any location in the nation.

### 4.1 Awareness Regarding Intra- State and National Portability.

The various aspects of ONORC implementation is depicted in Table 23;

| S.No | Particulars                                         | Responses   | Districts |       |         |          |
|------|-----------------------------------------------------|-------------|-----------|-------|---------|----------|
|      |                                                     |             | Betul     | Dewas | Rajgarh | Shajapur |
| 1    | Aware about portability Option                      | Yes         | 5         | 5     | 5       | 5        |
|      |                                                     | No          | 0         | 0     | 0       | 0        |
| 2    | Received any training on ONORC                      | Yes         | 5         | 5     | 5       | 5        |
|      |                                                     | No          | 0         | 0     | 0       | 0        |
| 3.   | No of beneficiaries changed after ONORC portability | Increased   | 1         | 2     | 1       | 0        |
|      |                                                     | Decreased   | 0         | 0     | 0       | 0        |
|      |                                                     | Stayed same | 4         | 2     | 4       | 5        |
|      |                                                     | Not Aware   | 0         | 1     | 0       | 0        |
| 4.   | Change in Profitability after ONORC                 | Increased   | 0         | 0     | 0       | 0        |
|      |                                                     | Decreased   | 0         | 0     | 0       | 0        |
|      |                                                     | Stayed same | 5         | 4     | 5       | 5        |
|      |                                                     | Not Aware   | 0         | 1     | 0       | 0        |
| 5.   | Shop Timings changed after ONORC/portability        | Increased   | 0         | 0     | 0       | 0        |
|      |                                                     | Decreased   | 0         | 0     | 0       | 0        |

|   |                                                                        |             |   |   |   |   |
|---|------------------------------------------------------------------------|-------------|---|---|---|---|
|   |                                                                        | Stayed same | 5 | 5 | 5 | 5 |
|   |                                                                        | Not Aware   | 0 | 0 | 0 | 0 |
| 6 | Received extra ration over entitled quantity to adjust for portability | Yes         | 0 | 0 | 0 | 0 |
|   |                                                                        | No          | 5 | 5 | 5 | 5 |
| 7 | Denied ration to Interstate portability transaction                    | Yes         | 3 | 1 | 2 | 4 |
|   |                                                                        | No          | 2 | 4 | 3 | 1 |

Table 23 Usage of ONORC

#### 4.2 Awareness on Intra-state and Inter-State Portability.

100% of the sample FPS dealers were aware of the portability options for beneficiaries to take/lift/pick their ration. In addition, all sample FPS dealers received ONORC / Portability training from the state nodal department.

#### 4.3 Impact of Portability on Number of Beneficiaries availing ration, profitability of FPS Dealer.

In terms of the change in the number of beneficiaries following the ONORC plan, 98% of the sample FPS dealers said that there appeared to be no impact and that the number of beneficiaries remained the same. However, after the Scheme's introduction and execution in the state, 97% of the sample FPS dealers chose that their profitability remained the same, while 3% were unaware of the change. Additionally, no sample FPS revealed a change in FPS timings in any of the examined districts.

#### 4.4 Process of extra allocation of foodgrains to adjust for portability transactions.

In terms of meeting the criteria of portability demand at FPS, 100 percent of sample FPS dealers claimed that they did not get any extra ration beyond the entitled quantity to compensate for portability transactions. Regarding denial of ration to beneficiaries owing to inter-state portability transactions, half of the sample FPS dealers reported it, while the other half of the sample FPS dealers stated that they did not deny ration to beneficiaries due to inter-state portability transactions.

#### 4.5 Any issues/ difficulties faced in implementing portability transactions.

The following issues/difficulties were encountered by sample FPS dealers while conducting portability transactions: buffer stock of food grains was not given to FPS dealers

for portability, and ration cardholder awareness of portability was very poor. They did not come to receive rations under portability since the FPS owner did not support portability at initially. The biggest issues/difficulties encountered by sample FPS dealers in executing portability transactions include a lack of buffer stock of food grains at FPS and a lack of knowledge among ration cardholders about portability.

## Chapter 5 : Pradhan Mantri Garib Kalyan Yojana (PMGKAY).

The "Pradhan Mantri Garib Kalyan Package (PMGKP)" was a 1.70 lakh crore comprehensive relief package provided by the Indian government for the benefit of impoverished citizens. In March 2020, such an effort was launched to aid underprivileged individuals in their fight against the Corona Virus. The scheme's goal is to assist the underprivileged by providing food and cash to alleviate the beneficiaries' difficulty of purchasing vital goods. The system comprised a lot of initiatives for participants' benefit in many areas such as health, food, and so on. One of the initiatives included in the package is the "Pradhan Mantri Garib Kalyan Anna Yojana" (PMGKAY). The Indian government has agreed to give the monthly per capita allowance. The initiative provides 5 kg of wheat or rice and 1 kilogram of chosen pulses each home every month at no cost. The plan was initially implemented for the following three months; however, it was later extended until November 2021. The Government of Madhya Pradesh has also adopted the PMGKAY plan for the benefit of the underprivileged.

### 5.1 Evaluation of PMGKAY Benefit Delivery.

The study found the proper distribution of food grains among the beneficiaries. The all beneficiaries received their food grains through the Aadhaar links. The other method of food grain distribution has not been found. At Government level all efforts are taken to make the system more effective and ensure the availability, affordability and accessibility of ration under Initiative PMGKAY to the poor.

| S.No | State          | District | Total FPS | NFSA HH Covered | PMGKAY food grains as per norms |    |
|------|----------------|----------|-----------|-----------------|---------------------------------|----|
|      |                |          |           |                 | Yes                             | No |
| 1    | Madhya Pradesh | Betul    | 5         | 75              | 75                              | 0  |
|      |                | Dewas    | 5         | 75              | 75                              | 0  |
|      |                | Rajgarh  | 5         | 75              | 75                              | 0  |
|      |                | Shajapur | 5         | 75              | 75                              | 0  |

Table 24 Coverage of PMGKAY

The coverage of the scheme PMGKAY in all the sampled districts showed satisfactory results, wherein all the beneficiaries got easy access towards the ration during lockdown so as to ensure proper food security. About 90% of the beneficiaries got ration through Aadhaar and Finger scan authentication at the dealer location, which shows the proper implementation of the scheme in all the registered Fair Price Shops. According to the table 24, the study included four sample districts. It was reported that in all four sampled districts, all sample respondents received their free rations under PMGKAY.

## 5.2 Distribution of Pulses/Commodities under PMGKAY.

| S. No | Districts | No. of Commodities Provided |
|-------|-----------|-----------------------------|
| 1     | Betul     | Wheat                       |
| 2     | Dewas     | Wheat, Rice                 |
| 3     | Rajgarh   | Wheat, Rice                 |
| 4     | Shajapur  | Wheat                       |

*Table 25 Distribution of Commodities under PMGKAY*

The table 25 summarizes the number of commodities provided in the four sampled districts; it was revealed that no beneficiaries got pulses under PMGKAY to NFSA ration card holders; yet, the majority of respondents in all four sample districts received just wheat and rice.

## 5.3 Mode of receiving food grains under PMGKAY.

| Mode of Receiving Ration |                                               |                                               |                                                                       |                                                        |             |
|--------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------|-------------|
| Districts                | Home delivery through Aadhaar and Finger scan | Home delivery without Aadhaar and Finger scan | Through Aadhaar and Finger scan authentication at the dealer location | Without Aadhaar and Finger scan at the dealer location | Grand Total |
| Betul                    |                                               |                                               | 75                                                                    |                                                        | 75          |
| Dewas                    | 1                                             | 2                                             | 70                                                                    | 2                                                      | 75          |
| Rajgarh                  |                                               |                                               | 75                                                                    |                                                        | 75          |
| Shajapur                 |                                               |                                               | 74                                                                    | 1                                                      | 75          |
| Grand Total              | 1                                             | 2                                             | 294                                                                   | 3                                                      | 300         |

*Table 26 Mode of Receiving Foodgrains under PMGKAY*

The table 26 clearly describes the system through which the beneficiaries received the ration. All of the sample respondents (98 percent) reported receiving food grains under PMGKAY through Aadhaar-based OTP authentication. However, 7% of the beneficiaries received either through home delivery with or without finger scan at the dealer location.

## **Chapter 6 : Key Findings and Recommendations.**

The Concurrent Evaluation & Monitoring of execution of NFSA has been undertaken in the State of Madhya Pradesh from 1<sup>st</sup> September 2021 to 28<sup>th</sup> February 2022. Efforts have been made to assess the management of Fair Price Shops, beneficiary selection and ration card management, accessibility, doorstep delivery, food grain distribution cycle at districts and FPS, capacity building for FPS automation, ONORC, Portability and status of NFSA households and PMGKAY. In order to meet the objectives of NFSA, 2013, concurrent evaluation study has been undertaken covering 04 districts viz. Betul, Dewas, Rajgarh and Shajapur in four different zones of the State to assess the overall progress of implementation of NFSA across the State and measure and monitor the change it has brought in, specifically at the systemic level i.e., assess and analyze the progress of implementation of various aspects of the NFSA 2013 & at beneficiary level namely, evaluate the benefits of NFSA on the target groups to achieve the objectives of the NFSA.

- The State's implementation of the NFSA, 2013 is commendable because it is well-planned and systematic in terms of identifying eligible beneficiaries, categorizing them as Priority Household (PHH) or Antyodaya Anna Yojana (AAY), timely allocation, monthly distribution of food grains to beneficiaries, online management of FPS and its automation.
- The beneficiaries expressed that the duration of opening PDS shop and satisfaction level of timings is quite satisfactory. It was observed that except a few occasions due to poor connectivity, overall, the e- PoS machine is well functioned at FPS level.
- The printed receipts were not made available to the all the beneficiaries. There was hardly any delay in receiving of foodgrains and also no nomination / home delivery facility at FPS.
- Display of Information regarding working hours of FPS, entitlement of foodgrains, details of card holders and stock details are well maintained in all sample FPSs visited.

The whole NFSA execution team is youthful and vibrant, with a commitment to excellent delivery and meeting the Act's objectives. The whole concurrent assessment process was centered on examining the input, process, output, and outcome, as well as the strengths and shortcomings of the NFSA, 2013 implementation in the sample districts, capable of evaluating the mechanism in place to carry out the NFSA, 2013 as well as how the beneficiaries have benefited and what more needs to be done to improve the Act's efficacy. However, even the best execution initiative certainly needs improvement over a period. It also required proper

shaping and handholding support with time. Based on the findings of the concurrent evaluation study, following key findings and recommendations have been drawn in order to improve the efficiency, efficacy, accessibility and quality of execution for greater satisfaction of the targeted beneficiaries.

1. Of the entire NFSA eligible ration cards, 10% were AAY and 90% were PHH recipients.
2. More than 90% of sample households reported knowing the eligibility/identification requirements for receiving NFSA benefits.
3. 98 percent of sample FPSs were accessible by pucca road, and the majority of sample households travelled 0.7KM to 1.1KM to FPS, which is manageable.
4. 95 percent of sample households stated that they were very happy with the number of working days of the FPS, Also 80% of the sample households were either extremely happy or satisfied with FPS's opening and closing times.
5. Majority of the sample respondents (87%) reported that they were able to receive entitled quantity of food grains from the FPS in a single visit. All the FPS dealers open their FPS during morning shift from approximately 8 am to 10:00 am and close their shops from approximately 4:00 pm to 5:30 pm.
6. Merely 1 percent sample respondent/household experienced problem of under-weight in last one month and 100 percent respondents reported that they were not overcharged for food grains any time during last one year.
7. In total, 17 percent of sample households were dissatisfied with the quality of food grains, 68 percent were satisfied, and 15 percent were extremely satisfied with the quality of grains.
8. Most of the sample FPS (60%) in all the sampled districts were owned by the cooperatives, 25% by Women Self Help Groups, 10% by private owners and 5% by local Panchayat.
9. 100 percent sample FPSs reported installation of AePOS at FPSs and were reported operational. Thus, majority of sample households (99.7 percent) were satisfied with the system of using PoS machine & Aadhaar to authenticate people for ration.
10. In total, only 76.6% sample households reported they got printed receipt from e-PoS device, 10% households reported that they sometimes got printed receipt from e-PoS & 13% sample households reported that they never got printed receipt from e-PoS device.
11. Majority of sample respondents (92 percent) received their food grains only after one successful authentication attempts.

12. In all the sampled districts, the sample FPS reported the success rate of biometric authentication in the FPS was more than 80% but lesser than 90-100%. Out of the sampled FPS's, who opted for not having 100% success rate, 70% sample FPS's responded with authenticate failure due to mismatch of fingerprints, whereas 30% sample FPS reported connectivity issues as a reason for not having 100% Biometric Authentication.
13. It can be inferred that the average time taken to complete one transaction through Ae-POS by majority of sample households was (90 percent) either less than 1 minute or 1 minute.
14. The State government implemented Aadhaar-based OTP authentication as an alternate method in the event of a beneficiary's finger print authentication failure at Ae-POS, ensuring that NFSA cardholders were not denied rationing by FPS. The state's action aided in the seamless distribution of food grains to NFSA recipients, which is unquestionably laudable.
15. In total, all 20 sample FPSs (100%) in four sample districts reported receiving food grain delivery at their doorstep. As a result, transportation of food grains was not a difficulty, since all of the sample FPSs got food grain delivery at their doorstep. Similarly, 100% of the FPSs in the study claimed that they were not charged by the transporter or others for the transportation of food grains up to FPS. In addition, 100 percent of sample FPSs stated that the department's payment of dealer's commission had not been delayed. At all of the sample (100%) FPSs, the operational mode of selling food grains was successful biometric authentication.
16. In the state's ONORC implementation, 100% of the sample FPS dealers were aware of the portability options for beneficiaries to take/lift/pick their ration. In addition, all sample FPS dealers received ONORC / Portability training from the state nodal department.

## Key Recommendations

In some of the sample districts, the regular deletion and addition is a continuous process, which certainly provide space for new entrants into the list of NFSA beneficiaries. In some of the sample districts, beneficiary selection rules should be adjusted based on present family circumstances. In some cases during Stakeholder consultations in sampled districts, If a household registered under NFSA faces any natural calamity, such as the loss of an earning member, an accident, family separation, or the separation of elderly people from their families, then the districts should prioritize the selection of the family under the NFSA and should be empowered like giving space in terms of including the above families into NFSA.

The members mentioned in the RCs should be given food grains rather than few members in the RCs may be 3 out of 5 given food grains because of non-authentication of name in the E-PoS biometrics. However, the families having Ration Cards were given ration in majority of cases during the study. There were few instances reported where all registered members in the RCs were not given ration as per entitlement due to technical glitches in E-PoS devices.

Although the sample districts have done good job in terms of seeding Aadhaar cards with ration cards as about 96% sample beneficiaries have seeded Aadhaar card in all the sampled districts, it is recommended that the seeding Aadhaar cards with ration cards should be completed in the all the districts to facilitate efficient delivery of food grains without any delay.

Of the sample FPSs selected, 98% were accessible through by pucca road. The ration dealers are strictly following the instructions given like, display of sample food grains, opening closing times, monthly entitlements, retail issue price etc. As per the group discussion with FPS dealers in sample districts and are interested in including other facilities like banking correspondence or selling other needed items, as it can add to their income. It is hereby recommended that, apart from Wheat and Rice, other items such as Pulses, Millets, Coarse Grains, Sugar, oil etc. should also be included in PDS as widely demanded by the beneficiaries.

In case of failed e-PoS transection, a printed receipt in Local language, should be issued at every transaction and given to beneficiaries stating the quantity and price paid.

Despite close to 17 percent of the sample families expressed concern about food quality, it is critical to ensure the fair quality of food grains given by the FPS. There should be a consensus that households will use whatever food grains are provided from FPS.

FPS automation is an important aspect of the reforms in the PDS system; the e-PoS device must be of very good quality and integrated updation of the supporting software must be regularly updated and bugs fixed. According to the FPS owners and beneficiaries we spoke with, the e-PoS machine sometimes during peak time of distribution takes multiple attempts for authentication. Regular malfunctions cause them to suffer. Apart from improving the quality of the e-PoS machine, the government must also assure the availability of information infrastructure, such as Internet access and energy. The issue of failure of biometric authentication needs to be taken care in order to avoid the delay in distribution of food grains once the beneficiaries has reached to the FPS.

With regard to the issue of underweightment of commodities in FPS shops, only a few occurrences have been documented; however, it is hereby advised that weighing scales be calibrated from an accredited laboratory and accompanied by a certificate of periodical calibrations. With the progress of technology advances, such weighing scales should be linked to an online e-Pos system. Two POS machines may be deployed at FPSs with RCs greater than 800-900 to ensure timely ration distribution.

A well-managed storage structure is required to ensure effective delivery of high-quality food grains in precise quantities. To ensure this, a mechanism must be installed at each FPS, or at least within a reasonable distance from each depot. Roof leaks, patched walls, and decrepit structures are all prevalent elements in the system, it is critical to develop and manage structures in a proper scientific manner. Pest management, quality control, and other areas require special care.

## Chapter-9 References

### References

(AePDS.mp.gov.in.). Retrieved from <https://nfsa.gov.in/>

*Aadhaar enabled Public Distribution System -AePDS.* (n.d.). Retrieved from AePDS:  
<https://epos.mp.gov.in/>

*National Food Security Portal.* (n.d.). Retrieved from National Food Security Portal, Department of Food & Public Distribution ,Government of India : <https://nfsa.gov.in/>

*मध्य प्रदेश समग्र पोर्टल.* (n.d.). Retrieved from Samagra Portal: <http://samagra.gov.in/>

**Notes :**