



## RESEARCH ARTICLE

### A STUDY OF THE FUNCTIONING OF FAIR PRICE SHOPS IN NAGALAND WITH A SPECIAL REFERENCE TO KOHIMA, PEREN AND WOKHA DISTRICTS

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#### ABSTRACT

In this paper, the role of Fair Price Shops (FPS) under Public Distribution System (PDS) in improving socio-economic condition and food security of PDS beneficiaries in Nagaland is investigated. The FPSs of all the sampled villages in the three districts of Nagaland state in India are surveyed and information is drawn out with the help of pertinent queries in questionnaire which are posed to FPSs' owners. During the survey, interaction with FPSs dealers, with the help of questionnaires, covers wide range of issues such as variety of commodities sold, problems encountered in running FPSs, demand and supply mismatch, beneficiaries' satisfaction to service rendered by FPSs, gap between dealers' report and beneficiaries' report on variety and quantity of commodities distributed to beneficiaries, dealers' perception about the impact of PDS in ensuring food security of nutritionally challenged section and improving socio-economic condition of targeted masses etc. Apart from asking questions from the questionnaire, information on any relevant issue in the functioning of FPSs is unearthed through the field survey. All the collected information is processed, analyzed and interpreted in terms of findings. The functioning of FPSs with regard to its impact on socio-economic condition and food security of the people in the state under the coverage of PDS is approximately evaluated in the paper.

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## INTRODUCTION

The PDS in India is a social safety system which is the world's largest food distribution network for ensuring food security of citizens of the country (DFPD, 2017). Highly subsidized food grains are distributed to nutritionally challenged people so as to ensure sufficient food grains for healthy living is the sole objective of PDS. The concept of food security was defined in the first world conference in 1947 as food security meant ensuring access by the people of all times to enough food for an active and healthy life. Since then countries in the world have been working towards ending hunger, achieving food security and improving nutrition, etc. with varying momentum. Public distribution history in India is sprouted from the incidence of famines and food scarcity during British India. The two severest famines that modern India witnessed were during the outbreak of Second World War 1939 and Bengal famine of 1943. At first PDS was introduced in the country in the form of fair price shop (FPS) scheme to regulate trade in food grains (Suryanaraya, 1995). The first food grains policy committee introduced informal rationing in 1943 in rural areas that had led to the introduction of licensing for free or open market in trade in food grains producing areas (Dandekar, 1994). According to Government of India (GOI), Mid Term Appraisal of 11th Five - year plan 2007-12, the green revolution had brought about remarkable rise of agricultural production in the country, and the PDS service coverage was extended to the remote and tribal inhabited areas as well as places which recorded high incidence of poverty in 1970s and 1980s.

Thus the PDS continued to function as an essential supplies programme and a general entitlement scheme till 1992, and then it was reformed as Revamped Public Distribution System (RPDS) with focus on disadvantageous areas such as far flung, hilly, remote and inaccessible areas (Shankar, 1997). RPDS operation covered desert development programme, integrated tribal development projects and designated hill areas. The RPDS was converted into the Targeted Public Distribution System (TPDS) with effect from June 1, 1997 with a focus on the poor. The TPDS was designed to expedite identification of people Below Poverty Line (BPL) for which the identification work was assigned to respective states; under TPDS every BPL family was entitled to specific quantity of food grains at subsidized prices. States were not only entrusted with the identification of the poor but also undertaking financial and stipulated administrative arrangements for the physical movement of food grains from Public Distribution Centres (PDC) to FPSs and hence distribute the same to the poor. Another salient feature of the TPDS was the Antyodaya Anna Yojana (AAY) which was launched in December 2000. The Yojana was made for focusing and targeting the poorest of the poor of BPL population. A remarkable progress in the history of addressing food security problem in India has taken ever since the Government of India enacted the National Food Security Act, 2013. The Bill extended coverage of the TPDS upto 67% of India's population - 75% of rural population and 50% of urban population; a few components of PDS such as Midday Meal Scheme and Integrated child development services were converted into legal entitlement, the affairs of food security programmes shifted from welfare based

approach to right based approach. The PDS plays enormous role economically backward state like Nagaland in ensuring food security of large segment of have-nots population. The PDS in the state is an offshoot of a system called Central Purchase Organisation (CPO) system which existed till March 1984 in the State. Under the system, food grains, medicines and other essential commodities were distributed to government servants posted in far flung, remote and inaccessible places in the state. The state introduced PDS in place of CPO as PDS was introduced in the rest of the country. The uniqueness in Nagaland with regard to the implementation of PDS is village Councils have been given the status of FPSs. Comptroller and Auditor General of India conducted Audit on PDS in Nagaland which covered the period from 2005 to 2010 through test check of records of the Directorate of FCS (Food and Civil Supplies), four Assistant Director of Supplies (ADSs)/Superintendent Of Supplies (SOS), 13 PDCs and 24 FPSs in four sampled districts of Nagaland (Report of CAG, 2011). The report indicated serious irregularities in the functioning of PDS in the state. The report revealed that the state department did not conduct any baseline survey for identification of beneficiaries and the PDS service beneficiaries were based on the data of BPL households provided by the Union Ministry of Rural Development. No periodical revision of beneficiaries' list for revamping the list of beneficiaries was conducted resulting in 41% of the deserving households in the state remained outside the coverage of PDS. The report also revealed the possibility of huge chunk of diversion and pilferage. Many non-existent institutions, hostels and Village Grain Banks (VGB) were allocated huge chunk of food grains. District level officers, vigilance committees, departmental officers and special Area officers were found either non-performing or non-existent. A few research studies too observed serious flaws in the implementation of PDS in Nagaland state. Gulati and Saini (2015) worked out estimates of leakages from TPDS off-take in the year 2011-12 for all Indian states and national average by using data from Food Bulletin and National Sample Survey Organisation (NSSO) 68<sup>th</sup> round. It was revealed that estimate of leakage in Nagaland from TPDS off-take was 94.7 percent whereas national average leakage estimate was 46.7 percent. According to World Bank's estimates of leakages from TPDS off-take based on data provided by NSSO, rounds 61 and 68, Nagaland state recorded 100 percent and 93.4 percent estimates of leakages in the years 2004-05 and 2011-12 (World Bank, 2011). Bhattacharya et al., (2017) too provided the estimates of leakages for rice and wheat in the state. The estimates of leakages provided by them were 100 percent for rice and 100 percent for wheat in 2004-05, and 91.3 percent for rice and 99.6 percent for wheat in the year 2011-12. For the first time, Ezung and Ahamed (2021) conducted an extensive and in-depth study on the performance of PDS in Nagaland with special reference to three districts of Nagaland by conducting field survey on the sampled households and FPSs' dealers. Their study unearthed, inter alia, irregularity in distribution of ration items, arbitrary pricing and allocation of ration items by the dealers, non-compliance with guidelines of National Food Security Act, 2013, anomalies and unevenness in prices, uneven distribution of ration items in terms of quantities and varieties and inclusion errors of beneficiaries. Their paper identified the indispensability of the PDS in providing a modicum of food security to the poorer sections of the state given the poor living condition of a large section of people in the state. They estimated the average income contribution due to PDS to beneficiaries per household's monthly expenditure on a few essential commodities and hence observed that uneven delivery of benefits through PDS among the villages in the same district as well as different districts was taking place. Ezung and Deka (2021) too conducted an evaluative study on the performance of PDS in Kohima district of Nagaland.

## RESEARCH METHODOLOGY

The study is empirical in which primary data are collected through field survey with the help of questionnaires from the sample of respondents selected from the population under study with the following sampling design.

**Sampling Design:** Keeping in the perspective that the research is conducted to evaluate the performance of Public Distribution System (PDS) in Nagaland with special reference to the three districts of Nagaland, i.e., Wokha, Peren and Kohima, stratified two-stage sampling design is used in this study (Singh and Chaudhary, 1995). All the villages of the three districts along with total number of households for each village are taken as the population under study in which villages are taken as first stage units (FSUs). Thus a sampling frame for the first stage sampling is prepared with the latest updated villages' lists in which the number of households of a village is taken as value of an FSU. The FSUs in each district are arranged in ascending order with respect to villages' sizes. The population of village of every district is stratified by using Dalenius's (1950) equations into four numbers of strata based on villages' sizes. The number of strata is intuitively chosen round about four by seeing the nature of heterogeneity of villages' sizes.

Thus, from each of four strata, sample size  $n_h$  (number of villages) is determined by using Tschuprow (1923) and Neyman (1934) optimum allocation

$$n_h = n \frac{N_h \sigma_h}{\sum_{h=1}^4 N_h \sigma_h}$$

sample size,  $n = \sum_{h=1}^4 n_h$ . The size of  $n$  is chosen to be 20% of total

number of villages  $N$  in the district, where  $N = \sum_{h=1}^4 N_h$ ,  $N_h$  &  $\sigma_h$

are the population size and standard deviation of the  $h^{th}$  stratum.

Thus, sample of size  $n_h$  from each stratum of population size  $N_h$  is selected by simple random sampling without replacement (SRSWOR) method. After having selected villages in the first stage, data of PDS beneficiary households of all the selected villages are collected by contacting and taking the help of headmen, church organizations and village councils of each selected village. Then the second stage sampling frame comprising beneficiary households as second stage units (SSUs) is prepared for each of the selected villages in the first stage sampling.

At the second stage, from the sampling frame of SSUs for each selected village, 15% of households are selected by using SRSWOR method. Thus 58 villages are selected in the first stage sampling and 1603 households are selected in the second stage sampling. All the FPSs which cover the selected households are surveyed. Thus, the total number of FPSs surveyed is 63. In this paper, the work is mostly confined to investigating the functioning of FPSs and the impact of FPSs' service to the beneficiaries. Only some limited data from surveying households are used when such data are required for examining the functioning of FPSs.

## FINDINGS AND DISCUSSION

The study covers four items of commodities under PDS, i.e., rice, dal (lentil), sugar and kerosene. In Kohima district, 4.17% of sampled villages do not get sugar and dal, and 25% of the sampled villages have reported that no kerosene is available although the FPSs' dealers have reported the said items are distributed to all these villages. 62.5% of sampled villages in Peren district have responded kerosene is not available whereas the information given by FPSs' dealers has indicated kerosene is distributed in the said villages. This shows pilferage of kerosene for possible diversion in black market. In Wokha district, 26.23% of the sampled villages have reported non-availability of sugar and 57.14% of the villages have reported the non-availability of dal; but the FPSs' dealers have shown records during the field survey that these commodities are sold to all the households under their jurisdiction. Thus, a huge mismatch between the dealers' response and beneficiaries' response has been observed. This has shown that a huge chunk of PDS items is not reaching the beneficiaries; instead, there is possibility of diverting the items in black market.

**Problems in running of FPSs:** On investigating problems encountered by the FPSs' dealers, it has been reported that 54.17% of FPSs' owners face problem in running FPSs in Kohima district as demand outmatches supply; 100% of FPSs' dealers in Peren district have complained they don't get sufficient quantity of ration items (quota) to meet the total quantity allocated, as per PDS norms, to the rightful beneficiaries whose names are in the beneficiaries' list under their respective jurisdictions (coverage). 60% of the sampled FPSs in the district face transportation problem due to non-payment dealers' margin and transportation charges by the state government and, therefore, they resort to recovering the transportation charge either by selling out a small quantity of ration items to open market resulting in the distribution of less quantities of ration items, below norms, or by increasing price of ration items. The dealers cannot adhere to the prices of ration items prescribed by the government of India under PDS norms.

Similarly, in Wokha district too, 68.42% of sampled FPSs' owners face the problem of shortage of quantities of ration items and therefore they are unable distribute rightful shares of the beneficiaries. 46.15% of the sampled dealers of the district have reported to be facing transportation problem for which they too resort to the recovering means as mentioned above. 79.17%, 70% and 73.68% of sampled FPSs' dealers in Kohima, Peren and Wokha district respectively have reported that they received leaked or damaged bags from their respective PDCs. In our investigation, data on monthly allotted quantity of the ration items rice, sugar and dal delivered to the surveyed FPSs from government PDCs are collected from FPSs' owners. Based on the data and total number of beneficiary households to which the ration items (quota) are distributed from an FPS, we have calculated quantities of ration items which can be distributed to a beneficiary in a month. We have also directly collected the parallel data from beneficiary households in the survey. A huge inconsistency has been observed when the quantities received by beneficiaries as per their responses are compared with quantities distributed by dealers as per the records shown to us by the respective dealers. In rice distribution in Kohima district, calculated  $t_{0.05, 24} = 3.1596$  and tabulated  $t_{0.05, 24}$  (two-tailed test) = 2.06, p-value for two-tailed test = 0.002; since calculated  $t_{0.05, 24} >$  tabulated  $t_{0.05, 24}$ , the difference between dealers' versions on the quantity of rice distributed and response of beneficiaries on quantity received is significant at 5% level of significance. It has shown that record prepared by the dealers with regard to quantity of distribution of rice per beneficiary household is different from actual quantity distributed per beneficiary household. Similarly, for sugar distribution too, in the same district, calculated  $t_{0.05, 24} = 3.223$  and tabulated  $t_{0.05, 24}$  (two-tailed test) = 2.06, p-value for two-tailed test = 0.0023; since calculated  $t_{0.05, 24} >$  tabulated  $t_{0.05, 24}$ , the difference between dealers' claim on the quantity of sugar distributed and response of beneficiaries on the quantity received is significant at 5% level of significance. For dal distribution too, calculated  $t_{0.05, 24} = 2.13$  and tabulated  $t_{0.05, 24}$  (two-tailed test) = 2.06, p-value for two-tailed test = 0.038; since calculated  $t_{0.05, 24} >$  tabulated  $t_{0.05, 24}$ , the difference between dealers' claim on the quantity of dal distributed and response of beneficiaries on quantity received is significant at 5% level of significance.

Similarly, for rice distribution in Peren district, calculated  $t_{0.05, 15} = 5.393$  and tabulated  $t_{0.05, 15}$  (two-tailed test) = 2.131, p-value for two-tailed test = 0.00007; since calculated  $t_{0.05, 15} >$  tabulated  $t_{0.05, 15}$ , the difference between FPSs owners' claim on the quantity of rice distributed per head and response of beneficiaries on the quantity received per head is significant at 5% level of significance. For sugar distribution too, in the same district, calculated  $t_{0.05, 15} = 3.796$  and tabulated  $t_{0.05, 15}$  (two-tailed test) = 2.131, p-value for two-tailed test = 0.0017; since calculated  $t_{0.05, 15} >$  tabulated  $t_{0.05, 15}$ , the difference between dealers' claim on the quantity of sugar distributed per head and response of beneficiaries on the quantity received per head is significant at 5% level of significance. For dal distribution in the district, calculated  $t_{0.05, 15} = 4.091$  and tabulated  $t_{0.05, 15}$  (two-tailed test) = 2.131, p-value for two-tailed test = 0.0009; since calculated  $t_{0.05, 15} >$  tabulated  $t_{0.05, 15}$ , the difference between dealers' claim on the quantity of dal distributed per head and response of beneficiaries on

the quantity received per head is significant at 5% level of significance. In the case of rice distribution in Wokha district, calculated  $t_{0.05, 18} = 4.865$  and tabulated  $t_{0.05, 18}$  (two-tailed test) = 2.1009, p-value for two-tailed test = 0.0001; since calculated  $t_{0.05, 18} >$  tabulated  $t_{0.05, 18}$ , the difference between dealers' claim on the quantity of rice distributed per head and response of beneficiaries on the quantity received per head is significant at 5% level of significance.

Similarly, for sugar distribution in Wokha district, calculated  $t_{0.05, 18} = 3.432$  and tabulated  $t_{0.05, 18}$  (two-tailed test) = 2.1009, p-value for two-tailed test = 0.0029; since calculated  $t_{0.05, 18} >$  tabulated  $t_{0.05, 18}$ , the difference between dealers' claim on the quantity of sugar distributed per head and response of beneficiaries on the quantity received per head is significant at 5% level of significance. Finally, for dal distribution in the district, calculated  $t_{0.05, 18} = 3.369$  and tabulated  $t_{0.05, 18}$  (two-tailed test) = 2.1009, p-value for two-tailed test = 0.0034; since calculated  $t_{0.05, 18} >$  tabulated  $t_{0.05, 18}$ , the difference between dealers' claim on the quantity of dal distributed per head and response of beneficiaries on the quantity received per head is significant at 5% level of significance.

Hence, in the distribution of all the three items, the disparity between the quantities of items distributed to a beneficiary household as per the version of FPSs' owners and the quantities received by the beneficiary household as per the version of beneficiaries has been observed. Hence, there arises a big question to the credibility in the functioning of FPSs' dealers. It is found that 87.50 percent, 75 percent and 36.64 percent of sampled FPSs' dealers in Kohima, Peren and Wokha districts respectively think that the service rendered by the FPSs is adequate. On enquiring about stocks, storages and delivery timing from PDCs, the following are found:

In Kohima district, 79.17 percent of surveyed FPSs owners in the district have stated that their stocks last till the first week of a month, 12.5 percent have stated till the second week and 8.33 percent have stated till third week and no FPSs are there in the district that their stocks last till fourth week of a month. 70.83 percent of FPSs have responded that the stocks of ration items are delivered timely to FPS from PDCs enabling the FPSs follow regular routine to distribute food grains to the beneficiaries. While inspecting the condition of storages, 37.50 percent of FPSs are found to store food grains in kutcha houses, 62.50 percent of FPSs are found to store food grains in pucca houses and no scientific houses of storage are found in the district. Regarding the mobilisation of transportation cost of lifting commodities from PDCs to FPSs, 45.83 percent of FPSs have stated that the cost is arranged by dealers themselves, 8.33 percent of FPSs have reported the cost is borne by food departments of government and 41.67 percent of FPSs have revealed that they use village development bank (VDB) fund to bear the cost of transportation. It may be noted here is that the fund of VDB is mobilized through the recovering means stated already. In the case of Peren district, 81.25 percent of FPSs' owners have stated that their stocks last till the first week of a month, 6.25 percent of FPSs' owners have stated till the second week and 12.5 percent of FPSs' owners have stated till third week of a month and no FPS has reported stock lasts till the fourth week of a month. 68.75 percent of FPSs have reported that stock of ration items are delivered timely to FPSs from PDCs ensuring timely distribution of food grains to beneficiaries. Regarding the types of storages of food grains in FPSs, 81.25 percent of FPSs are found to store food grains in kutcha houses, 18.75 percent are found to store food grains in pucca houses and no scientific houses for storage are found in the district. In matters of transportation cost, 12.5 percent of FPSs have stated that the cost is borne by themselves, 18.75 percent FPSs have stated the cost is borne by government food departments and 68.75 percent of FPSs have stated that they use village development bank fund for bearing the cost of transportation. In the case of Wokha district, 100 percent of FPSs' owners have reported that their stocks last till the first week of a month, and no FPSs are found whose stocks last till 2<sup>nd</sup> week or 3<sup>rd</sup> week or 4<sup>th</sup> week of a month. 73.68 percent of FPSs have reported that the stocks of ration items are delivered timely to FPSs from PDCs. Regarding the types of storages of food grains, 68.42 percent of FPSs are found to store food grains in kutcha houses, 31.58 percent of FPSs are found to store food grains in pucca houses and no

scientific houses for storage are found in the district. Regarding the transportation cost, 42.11 percent of FPSs have stated that the cost is borne by FPSs themselves, 5.26 percent of FPSs have stated that the cost is borne by government food departments, and 52.63 percent of FPSs have stated that they use village development bank fund to bear the cost of transportation. On enquiring about the possible impact of PDS on food security in the area of jurisdiction of FPS according to observation of dealers, the information based on the responses of dealers is given in Table 1.

**Table 1. Observation of FPSs' dealers on the impact of PDS on food security of beneficiaries**

Districts	Impact of PDS on food security (percentage of respondents)			
	Good	Bad	Satisfactory	Not satisfactory
Kohima	19.05	14.29	9.52	57.14
Peren	No idea	No idea	No idea	No idea
Wokha	5.26	21.05	10.53	63.16

Source: Field Survey

However, contribution of PDS in the consumption expenditure of beneficiaries in four items – rice, dal, sugar and kerosene – were investigated (Ezung and Ahamed, 2021). According to the authors, average percentages of contribution in the form of subsidy transfer per household per month in buying the four ration items are 28.21, 32.78 and 22.89 in Kohima, Peren and Wokha district respectively. This monthly per household income transfer has benefited a population of beneficiaries among whom 74.36 percent are of monthly income group ranging from Rs. 833/- to Rs. 10000/-. With the support of PDS, 37.47% of the beneficiaries in the average in the three districts are getting sufficient food and nutritional requirement, whereas 37.9% are getting partially satisfied. But, in spite of availing support of PDS, 24.57% are still living with abject deficiency of food and nutritional requirement. For BPL people, PDS is of great help in enabling the parents to send their children to school. Income support from PDS helps the elders of the families to send their children to school. It is observed that 60%, 70.5% and 59.24% of beneficiaries in Kohima, Peren and Wokha district respectively with overall average of 61.88% of the sampled beneficiaries of the three districts, have responded that the support of PDS help them in sending their children to school. 57.47% of the beneficiaries have responded that without the support of PDS, it will be difficult to send their children to school. Subsidy transfer from PDS helps the parents afford to send their children for primary school.

## CONCLUSION

Although PDS is not satisfactorily functioning in Nagaland, it is still giving a significant impact in the socio-economic condition of beneficiaries. If the functioning of PDS is proper, it would have given a huge impact in socio-economic uplift of economically weaker section of people. Although, the FPSs are run by village councils, possible diversion of ration items in black markets and pilferages are shown in this study. The significant disparity between the reports provided FPSs' dealers and reports collected from beneficiaries regarding quantity ration items distributed to per beneficiary per month is empirically proven in the study. Moreover, on the kinds of ration items reported to have been distributed, there is disparity between what FPSs' dealers have claimed and the report given by beneficiaries. Many beneficiaries do not get certain items although the concerned FPS's dealer has claimed the items have been distributed to those beneficiaries.

Over and above, the dealers too face problems such as insufficient quota, non-payment dealers' margin and transportation cost by the government. The government department must implement central government's instruction to state governments to form vigilance committees at the state, district, block and FPS levels consisting of persons by giving due representation to local authorities, women and destitute persons. The functioning of FPSs badly needs a major overhaul too and the vigilance committees should be made to function literally. The government in the state must address the genuine problems faced by FPSs' dealers too. In spite of many shortcomings, PDS is still giving vital support to the people in need. Since, PDS is crucial to provide food security to a large section of people, a transparent, effective and compliant to regulatory norms functioning must be taken as pressing priority by all the stakeholders.

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