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EFFECTIVENESS OF PUBLIC DISTRIBUTION SYSTEM (PDS) IN QUALITY OF LIFE IMPROVEMENT – A STUDY OF THE TRIBAL POPULATION OF PURULIA DISTRICT IN WEST BENGAL

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Abstract
According to the census 2011 report, Purulia occupies the 3rd position in terms of tribal population in west Bengal, where 18.45% of the population belong to the tribal communities. The five major tribal communities in Purulia are Santhal (60%), Bhumij (18%), Sabar (7%), Munda (6%), Bihor (1%) and they have been mainly living in the Bagmundi, Bandwan, Balarampur,Manbazar-II, Arsa Blocks. The present study focuses on these communities and tries to examine PDS by the yardstick of coverage of vulnerable groups, rectifying the existing imbalances between the supply and demand for consumer goods and checking and preventing hoarding and black marketing in essential commodities.

India government has adopted a wide spectrum of National Missions mandating food and nutrition entitlements for the most vulnerable section of the society. A key instrument through which these missions are implemented is PDS. The efficacy of PDS decides the success of these missions. In this context it seems imperative to study the efficiency of PDS in catering to the nutritional requirements and reducing susceptibility to infections, related morbidity, disability and mortality burden, enhancing cumulative lifelong learning capacities and adult productivity of the targeted community.

It also attempts to measure the extent of income transfer through PDS and the impact of PDS on poverty reduction. Furthermore, the study aims at identifying the constraints which are hindering the efficient operation of this system in this backward district of West Bengal, particularly those which are related with procurement, storage and distribution on the part of sellers and also the constraints like location of ration shops, duration of the shops being open etc. which are faced by the buyers. Lastly policy suggestions will be made which will lead to more transparency in PDS, enabling its better functioning and bringing out overall improvements in the quality of life of tribal people.

Keywords: *PDS and Purulia, PDS and Tribal in Purulia, Impact of proper PDS on Tribal, Transparency in PDS in Purulia, Effective PDS in Purulia, issues of PDS in Purulia*

Introduction

In the light of criticism of a very high subsidy bill, India moved away from Universal Public Distribution System (PDS) to Targeted Public Distribution System (TPDS) in 2001. TDPS aims at providing subsidies to those households which have been identified as beneficiaries based on some official criteria and therefore distinction between those in real need for assistance from those who do not need it determines the success of this system. The system being centralised, hierarchical and bureaucratic it becomes

important to study whether it is able to achieve cost effectiveness, to respond quickly to distress in localised areas and to identify beneficiaries accurately. The study focuses on the tribal population of Purulia district in West Bengal among whom the literacy rate is very low and who suffer from poor access to diverse income earning opportunities along with uncertainty of their income. This uncertainty of the income attached to their employment makes this section of population more vulnerable to the high food price. The study will try to analyse the extent to which PDS has been successful in pulling out households above the official poverty line expenditure due to ration income in the Purulia district. PDS in India is beset with many problems and the study aims at identifying the constraints which are hindering the efficient operation of this system in this backward district of West Bengal, particularly those which are related with procurement, storage and distribution on the part of sellers and also the constraints like location of ration shops, duration of the shops being open etc. which are faced by the buyers. The study is of particular relevance because it aims to identify the extent of deprivation suffered by the most marginalised and vulnerable section of the population of one of the most backward district of West Bengal.

Review of Literature

India has been facing the problem of food insecurity since a long period of time and despite maintaining huge stocks of food grains and having a Public Distribution System (PDS), hunger and malnutrition is still prevalent in many parts of India. Public Distribution System is the most important medium through which government ensures food security at micro level. But, unfortunately the functionings of public distribution system is beset with myriad problems and the differences across the states in India have further complicated the matters to the detriment of the poor. In this chapter we have tried to give an overview of some of earlier studies on Public Distribution System (PDS) in India. In recent years, there has been a proliferation of literature on PDS and it was not possible to review all available literature on the subject. Keeping in mind the limitations in terms of time and resources, we have briefly presented a review of some of the earlier studies on PDS in India and have tried to identify the gaps in research, which would again help in the formulation of the methodology of the present study.

In his study Swaminathan (2001) has focussed on the inefficiency of public distribution system and has pointed out the cruel paradox of Indian economy that, while more than 500 million people in India were undernourished and vulnerable to food security, the government held a stock of 45.5 million tonnes of food grains which was enough to provide 70 kg food grains per person to more than 600 million people. He stressed that the quantity of food grains distributed through PDS has been steadily declining, from the peak of 20.8 million tonnes in 1991 to 14 million tonnes in 1994 and further to 10.9 million in 1999-2000. He argued the decline to be a result of the policy changes of the last few years, particularly linked with the introduction of Targeted PDS. He further said that with the introduction of targeting, based on income poverty line, millions of vulnerable people were excluded from the BPL category and subsequently from the PDS. According to him TPDS has also transformed the principle of entitlements from a per capita norm to a family norm.

Mooij (2001) has attempted to describe the PDS situation in Bihar and Jharkhand, in terms of its accomplishment and its failure and has also highlighted its present position. The study revealed that the introduction of targeting led to an increased quantity of off-take in Bihar but only a part of it reached the card holders. He noted that many poor people did not have red card meant for BPL and people from almost all the categories of stakeholders were dissatisfied with the large scale misappropriation of food grains. He cited two main causes behind the poor implementation of PDS in Bihar. Firstly, there was problem in terms of physical access, as commodities arrived late, irregular or not at all. Secondly, there was the difficulty of economic access, as the people did not have cash ready at the time when the stock arrived. There was widespread and institutionalised corruption at the bureaucracy level and high ineffectiveness at the Government level.

Dutta and Ramaswami (2001) found that in Maharashtra, around thirty percent of the depraved are left out due to inadequate coverage. In AP particularly in its rural areas, errors of exclusion are substantially reduced. Additionally, the subsidies received by the poorest in AP are far higher per person than those in Maharashtra. the non-poor, who obtain substantial rural AP subsidy benefits. In this area of ap, inclusion errors are most prevalent. In Maharashtra, the non-poor in both urban and rural areas receive subsidies that are roughly equivalent to those received by the poor. In Maharashtra, thirty percent of the rice supply does not get to PDS beneficiaries. the amount spent by the central government on providing Maharashtra with subsidies for wheat and rice. The cost of giving one rupee in subsidies in 1993–1994 was Rs 1.82, but the cost of giving one rupee in subsidies to the target group (the lowest 40%) comes out to be Rs 4.02.In Maharashtra, subsidies vary from Rs 1.5 to Rs 4 per person, whereas in AP, the per capita subsidy for recipients falls between Rs 8 and Rs 12. More significantly, wealthy households appear to receive advantages on par with or greater than those of lower income categories, the significant disparity in the per capita levels of subsidies between the two states: the per capita rice subsidies in rural AP are four to eleven times higher for the bottom half of the population than the per capita rice and wheat subsidies in rural Maharashtra, and the corresponding group receives subsidies in urban AP that are three to seven times higher than those in Maharashtra.

In their study Jha and Srinivasan (2001) have examined the costs and benefits linked with the operation of PDS. With the help of data provided by Economic Surveys (1999-2000) and (2000-2001), World Bank Report (1999) and authors' calculations they have tried to identify the inefficiencies in the system. They have demonstrated that the benefit-cost ratio would increase if subsidies are targeted at the poor and the indirect benefits are accounted. They highlighted the effectiveness of universal PDS in providing food security to the poor despite incurring huge costs due to the fact that a large proportion of food subsidy want to non-poor and a large amount of grain leaked into the open market because of corruption. They further stressed that the introduction of TPDS neither succeeded in reducing the food subsidy bill nor in reaching out to the larger sections of the poor as it included the errors of exclusion and inclusion. Finally they suggested that geographical targeting comprising of the universal coverage of only those areas that had concentration of poverty could be an effective way in reaching out to the poor.

In his paper Ahmed Tritah (2003) has investigated the effect of food subsidies on food security and poverty in India. Using propensity score matching methods he observed that, while the PDS does not always reach the poor, but once the poor have access to PDS, the program is quite effective in increasing food security. Again, he found that through multiplier effect, the food subsidy created more food expenditure than the subsidy. Furthermore, he proposed a new poverty measure called 'food equivalent poverty lines'. This was developed by integrating the food content of poverty lines and relative to this poverty line he concluded that the PDS has benefited the poor.

Using field survey of Rajasthan Khera(2008) found from eight villages (out of 400 randomly selected households), 44 per cent of the households which should have been counted as BPL were wrongly excluded and a quarter had been wrongly included. Until the BPL listings are updated, it is anticipated that a household's status will not change for the following five years after it has been classified as either APL or BPL. Given that there is a correlation between holding a BPL card and a number of measures of economic disadvantage, the BPL list does succeed in targeting to some extent. However, major targeting errors also occur. Among the homes officially qualified for a BPL card, for case in point, 44% had been kicked out of the BPL. However, some wealthier households were able to make it onto the BPL lists, there is cause for worry regarding the exclusion of an important proportion of poor households from the TPDS. Another issue is that certain living in poverty would have still been rejected (according to the government's norms) even in the event that not a single ineligible household had received a BPL card. This is because of the poverty targets that the central government assigns to each state. State governments were compelled, using the expert group's estimations, to "match" the number of impoverished households to the objective after completing their BPL census.

Jha et.al (2010) have investigated the nutritional status with respect both macronutrients (calories and protein) and various micronutrients of rural households in three Indian states of Andhra Pradesh, Maharashtra and Rajasthan. They observed serious deficiencies in regard to consumption of various nutrients in all the three states and hence sought to examine the impact of two policy interventions (NREG and PDS) on nutrient intake. They have applied OLS and IV estimations for each nutrient for each state, and also conducted systems estimation for each nutrient for all states. The study revealed significant effect of the two policy interventions on nutrient intake and impact effect of a change in the policy measures, to be different across nutrients and states. They highlighted that, both nutrient-income relation and how the proportions of undernourished vary, should be taken into account for proper assessment of under-nutrition.

Focusing on the revised Public Distribution System, Dreaze and Khera (2010) has shown that in Chattishgarh it has worked successfully. De-privatising of ration shops, doorstep delivery, improved grievance redressal, greater transparency and expended coverage reflected the changes/revisions in the PDS. All these steps led to better functioning of PDS. They observed that in Chattishgarh the beneficiaries received their full quota on time and at correct price. There were absence of cheating complaints and non-diversion of food due to doorstep delivery. They concluded that poor households greatly benefitted from this system and though this was a political step but as it was highly successful, it could be followed by other states.

Using field survey data collected from the state of Rajasthan, Khera (2011) studied the effectiveness of India's Public Distribution System (PDS) as a food security intervention. She found that households had limited access to the PDS and only about one-third of the households had access to the PDS. Again, she found the utilization rate of PDS quotas to be low, only 13% of BPL households in the sample purchased their full quota of grain, and observed that many households purchased wheat from the market at higher prices before exhausting their quota. To understand this 'puzzle of under-purchase' the dual-pricing model to account for supply-side (for example, diversion) and demand-side (for example, transaction costs) constraints was used. The study suggested that under-purchase was mainly due to supply constraints and highlighted that rather than affecting the level of cereal consumption, the PDS affected the composition of cereal consumption, (moving away from more nutritious 'coarse cereals').

Himanshu & Sen (2011) highlighted that TPDS is also not effective to reduce the inclusion and exclusion error. They found that in 2004/2005 among the richest 20 percent of the population approximately 11 per cent purchased rice or wheat from the PDS while only 35 percent of the poorest 20 percent did so. In the case of poor people these findings suggest that targeting distribution is not completely successful. Due in large part to the lack of BPL/AAY cards among the poor, only 2/3 of them have PDS access. Less than 65% of households with BPL/AAY cards actually bought any grain from the PDS, indicating that there was significant self-selection among this group. Strong justifications for universalization are the well-known large exclusion errors in the distribution of BPL cards and the significant self-targeting.

Based on the secondary data received from Food and Civil Supplies Department, Bangalore, Gundegowda and Nagraj (2011) have tried to study the effectiveness and implementation of Public Distribution System in Karnataka. In Karnataka, BPL families accounted for 45 per cent and AAY families accounted for 27.5 per cent of the total off-take. The study revealed that about 73 per cent of the poor and very poor families benefitted from TPDS and only 27 per cent of APL families benefitted from TPDS, which implied that it had been successful in focusing on the poor. They observed a higher number of ration cards than the number of families recorded in 2001 census which highlighted that the number of families had increased in these 9-10 years. They noted that the government had constituted several committees like Vigilance Committee, Food Security Committee and Food Adalath to deal with the identification procedure of AAY, BPL and APL families and to monitor the system.

Kotwal et al. (2011) have proposed some models of gradual transition from the present system to a cash transfer (CT) scheme. They have investigated into the objections raised against the cash transfer (CT) system and have also put forward the flaws of the present system. According to them the problem of identification of poor is a universal one and it can be solved only universal or near universal coverage. The crucial problem of diversion of foodgrains is absent in CT scheme and while PDS is confined to rice and wheat mainly, under CT scheme, the consumers can also buy other grains of their choice. Under PDS system, the government has to procure, store and distribute the foodgrains which puts unnecessary cost burden on it. Often the consumers complain about low quality of foodgrains, inconvenient working hours of FPS, and instalments problems. Moreover, the CT scheme involves simpler administration, more flexible and cheaper implementation technique. Yet, it has been argued that the CT system leads to food price fluctuations, cash spent being on items other than and other related issues. They have proposed two models for implementation of the CT scheme; first involves bank account transfer by using the existing infrastructure and the second is related to the issue of food coupons based on the biometric identification. They finally suggested that, while the entitlement & coverage should only be defined by the central government, the state governments should decide the mode of delivery or distribution.

Based on the primary and the secondary data, Singh et al. (2011) have tried to examine the present scenario of Public Distribution System in Bihar. They observed increased levels of lifting of foodgrains in Bihar after the introduction of targeting and it increased to 96 % for wheat and 55% of the allocated in case of rice. It was found that, as most of the FPS dealers in Bihar were local level politicians who bribed the officials and were involved in malpractices only a part of foodgrains actually reached to the beneficiaries. Widespread and institutionalized corruption prevented the successful implementation of PDS in Bihar. Absence of doorstep delivery and transportation of foodgrains by the private contractors led to the diversion of foodgrains from FCI godowns to the shops. They finally concluded that PDS, being governed by mafia, was in deplorable condition in Bihar.

Based on a survey in 12 randomly selected villages of Mahasamund and Sarguja districts of Chattisgarh in 2011, Puri (2012) has shown that PDS reforms were successful. They found that 88 per cent of the respondents were satisfied with the functioning of the PDS and were regularly getting their full entitlements at fair prices. These results were due to the reforms adopted by the (Raman) government which incorporated the transfer of management of ration shops from private dealers to the organisation such as Gram Panchayat, self help group and cooperatives, increased transparent doorstep delivery and the launch of Mukhyamantri Khadyan Sahayta Yojna (MKSY) in 2007. In addition to 1.33 million households indentified as beneficiary by central government, 1.9 million new households were eligible to get subsidised foodgrains under MKSY. They stated that all these reforms led to the minimisation of exclusion errors and diversion of foodgrains. Steps such as increasing dealers' commission and procuring more food grains from farmers, making electronic weighing scale mandatory and conducting more verification drives to indentify and cancel bogus cards also played a significant role in improving the functionings of PDS in Chattisgarh. They noted that despite these reforms some unsatisfied respondents had complaints regarding the long distances of the Fair Price Shops and about 93 per cent of respondents preferred in-kind transfer to cash payments.

In a study by Sevedberg (2012), he has investigated the functioning of the TPDS and sought the possibility of replacing it by a targeted cash transfer (CT) scheme. He has compared semi universal food subsidy program and a targeted and differentiated CT scheme with the existing TPDS and has identified many flaws and inefficiencies in the working of present TPDS, which hindered it in enhancing food consumption. He noted that the government of India had to spend Rs. 9 for each rupee transferred to the poor households through the TPDS. Again, for each kg of subsidised grains bought by the poor, the offtake from central pool was 6.4 kg, which indicated that there was serious leakage, inefficiency, corruption and pilfering in the system. Moreover, malfunctioning of the system was evident from the fact that the average poor household purchased less than half of the entitled TPDS grain and it was plagued

with huge exclusion and inclusion errors. He stated that with the cash transfer scheme the households could choose the quality and variety of food items and also other items. According to him the problem of diversion of foodgrains could be solved. He suggested that a differentiated CT scheme covering about two third of all households would be a better option as it could minimize the problems of corruption and diversion.

Rao (2012) examined over 160 million Indian families, or 800 million people, may be impacted by kerosene subsidies. Kerosene is primarily utilized for cooking in urban areas, although lighting is its primary application in rural regions. Kerosene is used for lighting by about 350 million people (in 74 million households) who do not have access to electricity, but millions of people in both rural and urban regions who do have access to electricity use kerosene during the regular and chronic power outages. Similar to this, although 5.8 million urban households (~10.2%) and 1.9 million rural households (~1.2%) use kerosene primarily for cooking, an additional 28 million rural households and 5.5 million urban households probably use kerosene as a backup fuel for cooking and/or water heating. Urban kerosene demands are better served by the quota system, as seen by the 58% association between household quota usage and utilization in urban regions compared to only 22% in rural areas. However, the failure to get the desired subsidized price for the portion of the quota that households do obtain, or the fact that households purchase part of their entitled kerosene quotas on the black market, are examples of implementation problems. In Maharashtra, out of the 10 million urban residents who use kerosene for cooking, 6.7 million buy as much on the black market as the remaining amount to make up for the gap.

In their study Sadasivam and Senthamarai (2012) have assessed the present status of the Public Distribution System. They have also examined the availability of essential commodities at FPSs and the reasons for preferring the FPS items. On the basis of primary as well as secondary data, it was observed that the majority of people purchased FPS items like wheat, rice, sugar, kerosene oil and pulses to fulfil their requirements. It was reported that while PDS rice was always distributed on time, it was not so for other commodities. The results of the study highlighted that the people bought PDS items because of its low price and often refrained from buying it due to its low quality. The fact that most of the people had been purchasing these items since nearly or over 10 years emphasised the importance of PDS in fulfilling their requirement.

Jha et al (2013) examined the performance of the Targeted Public Distribution System (TPDS) in three Indian states — Andhra Pradesh, Maharashtra and Rajasthan. In their study they have shown the determinants of real income transfers through subsidised wheat, rice and sugar and showed how income transfers varied with economic status of a household, inequality in the distribution of land in a village, amount of food price subsidy, transaction costs of buying from ‘fair price shops’ (FPS), and shortages of supply. They disapproved the universal food subsidy by fearing that it would aggravate the enormous leakages and wastage under the present TPDS. They stressed on reducing transaction costs which involved long distances to be travelled, long queues and waiting periods, and under-weighing by FPS and suggested that for the TPDS to be more cost-effective, a better network of fair price shops, higher margins and adequate supplies were essential. They concluded that livelihood opportunities should be expanded and food price stabilised in the rural areas.

Drèze and Khera (2015) In this paper discussed that the biggest source of continuing leakages is the APL quota. The APL quota (and most likely "ad hoc quotas") is the main cause of continuing leakage. An essential chance for phasing out this leaky quota and finish the PDS reform process nationwide is the implementation of the National Food Security Act. To identify eligible households Socio-Economic and Caste Census (SECC) data plays an important role in National food security act approximately 75% of rural households in Bihar have a new ration card, or an Antyodaya card. In the years 2004-2005 and 2011-2012 they compared leakages and find that leakages are near about 12 percent reduced. In the 68th round of NSS data it is also possible to differentiate between purchases of PDS grains by APL and BPL households. presents an overview of leakage estimates for all of India based on NSS and IHDS for the

reference years of the two IHDS surveys, 2004–05 and 2011–12. A notable decrease is seen by both series. Although there is a greater drop in the IHDS-based series, from almost 50% to 30%, in PDS leakages between 2004–05 and 2011–12.

Masiero, S. Redesigning (2015) studied in the case of Kerala, the core problem of the PDS is identified with the rice mafia phenomenon, due to which subsidized goods are diverted outside the system: technology is therefore devised as a problem-solving device, to prevent the illegal transactions that lie at the core of the issue. By doing so, technology is configured (not as a neutral instrument, but) as an embodiment of the political objective of preventing illegal networks from infiltrating the PDS.A well-designed technological system alone won't increase the accountability and efficacy of food security initiatives. In order for this to occur, technology must focus on the structural roots of current issues. In this regard, false presumptions result in gaps between ideal design and the real-world ability to use ICTs to achieve better results. In the instance under consideration, the system views the ration dealers as the exclusive agents accountable for corruption, despite the fact that the issue is well recognized to be pervasive throughout the whole supply chain. Moreover, the system identifies illicit transactions at the ration shops but ignores the root cause, which is targeting-induced FPS unviability, which leads ration dealers to engage in such activities. This means that the system avoids the structural nodes of the problem, which limits its ability to address current issues. Kerala is in a unique position to provide an example of the dynamics of digitization through its own experience, having been able to computerize its PDS far sooner than other states. One of the primary reasons PDS is unsuccessful throughout India is leakage, and states dealing with the same issue should be made aware of the political motivations behind the technology's selection, even though the circumstances may have made it easier.

Gulati and Saini (2015) in their paper have estimated the proportion of grain that were diverted/ leaked from the PDS grain-chain in the year 2011-12 by calculating the difference between the grains off-taken by states from the Central pool and the grains consumed by the PDS beneficiaries. They reported that at the all- India level, approximately 46.7 per cent or 25.9 MMTs of the off-taken grain did not reach the intended PDS beneficiaries and the percentage of total leakage increased with states with greater percentage of poor. They prescribed that shifting of the support to poor from highly subsidized price policy to income policy of cash transfers through Jan-Dhan Yojana dovetailing UID of Aadhaar scheme to be the best global practice, which could plug the leakages, increase its access to the vulnerable segments of population, without interfering with the markets of food, and it could save government of India more than Rs. 30,000 crores annually.

Several reports from the Government of India (2016) state that if the poor have easier access to subsidized grains, malnutrition will likely decline and the number of underweight children will decline as well. However, no link was found between the usage of PDS and the decrease in malnutrition using data from national level surveys, such as the National Family Health Survey-3, Annual Health Survey, and District Level Health Survey. It has also been predicted that when incomes improve, households will increasingly purchase higher-quality grains from the market rather than the PDS stores.

For analyzing the functionings of TDPS Khera (2016) conducted qualitative interviews with TPDS beneficiaries across nine states and enquired them about their preferences between foodgrains from TPDS and a hypothetical cash transfer that allowed them to purchase the same quantity of foodgrains from the market. She found that about 67 per cent beneficiaries preferred food over cash. The figures varied from 91.3 per cent in Andhra Pradesh (where TPDS is functioned relatively well) to 20.8 per cent in Bihar (where TPDS's performance was not satisfactory) according to the survey conducted in the summer of 2011. Khera noted the reasons behind respondents' preference for food over cash to be : a) food security (non-food items could be bought with cash), b) poorly developed rural markets (irregular supply of foodgrains), c) limited access to banks (transaction costs involved in accessing far away banks), d) experience with other cash transfers (delays in payment and difficulties in accessing banks) and e) inflation.

Puri (2017) in his report has reviewed the early experiences of various states/UTs that have either implemented or were trying to implement NFSA. He has observed that there has been an increase in coverage of eligible beneficiaries, a decline in exclusion error, a rise in the purchase-entitlement ratio (PER) together with improvements in the transportation of food-grains. Furthermore, food security has been better ensured in the states/UTs that have incorporated reforms such as doorstep delivery of food-grains, end-to-end computerisation of TPDS (procurement, transportation and distribution), simplifying eligibility criteria and improving grievance redress mechanisms. Again, he has remarked that although NFSA has improved the general functioning of TPDS, more focus was required in several areas, as delay in the implementation of NFSA in most states/UTs was a major violation of the Act. He has highlighted that the use of technology to improve the functioning of TPDS in some states/UTs has rather been detrimental than beneficial. He has pointed out that the dependence on biometric authentication for 'weeding out fake ration cards' required basic infrastructure such as high speed internet connectivity, good quality Point of Sales (PoS) machines and ease of use for all the involved stakeholders.

Haldar and Basu (2018) in their paper examined the status of implementation of NFSA in West Bengal focussing on the drought prone district of Bankura. They investigated the role of PDS in improving the food security of the people of Bankura District across different social groups and simultaneously tried to identify the constraints of implementation of NFSA in the backward regions. The scheme has great potentiality to remove hungry people particularly those are living in drought prone areas of West Bengal. They concluded that although the scheme had immense scope in providing the nutritional needs of the people but it also created people's dependency on this highly subsidized scheme and distorted the normal behaviour of both agricultural labour and food grains markets. They suggested that the complexity arising while issuing different types of ration cards in West Bengal could be minimised by the development of computerised PDS supply management. Furthermore, digitally-bar coded ration cards could be used to update the list of beneficiaries on a regular basis, in accordance with inclusion and exclusion criteria.

Gupta, P. (2019) found that, on average, 45% of the kerosene used by state governments did not get to the intended recipients.State-by-state leakage rates for every state in India show that the national kerosene leakage rate is approximately 45%. There are two states that stick out. with the lowest leakage rate of 23.3% and a 5% share in the total PDS kerosene allocation, Tamil Nadu appears to be doing really well. Delhi, which has an unusually high leakage rate (almost 92%) is at the other extreme. The rate of kerosene leakage in W.B. is 36%.Both leakages are found to be between 40% and 45% (for food grains and kerosene) at the all-India level.

Conclusion

Thus the above literature review has provided a number of interesting clues regarding the impact of PDS on meeting the nutritional requirements of poor in India. The studies (Puri, 2012; Sadasivam and Senthamarai, 2012; Dreaze and Khera, 2010; Gundegowda and Nagraj, 2011; Singh et al, 2011) have confirmed the success of PDS in terms of benefitting the poor. Many studies (Swaminathan, 2001; Mooij, 2001; Jha and Srinivasan, 2001; Tritah, 2003; Jha 2010; Gulati and Sahani 2015; Khera, 2016; Kotwal et al., 2011; Singh et al, 2011; Sevedberg, 2012) noted PDS system to be plagued by different problems such as inclusion and exclusion errors, leakage and diversion of PDS items, inadequacy of quantity, irregular supply, poor quality, faulty delivery mechanism, improper weighing procedure, corruption and so on. In his study Puri (2012, 2017) has shown that majority of the respondent preferred in-kind transfer whereas the study by Sevedberg (2012) and Kotwal et al. (2011) have stressed that cash transfer might be better than the prevailing system. Haldar and Basu (2018) have examined the status of implementation of NFSA in West Bengal focusing on the drought prone district of Bankura and have suggested that it created people's dependency on this highly subsidized scheme and distorted the normal behaviour of both agricultural labour and food grains markets. The main weakness of PDS that has been pointed out is that it is not benefitting the vulnerable section of the society to the extent for which it is expected to. From the

above review it can be said that PDS was benefitting the vulnerable section of the society only to a certain extent as it was beset with a number of problems or errors.

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