

**A STUDY ON THE PERFORMANCE OF PUBLIC DISTRIBUTION
SYSTEM IN NAGALAND: WITH SPECIAL REFERENCE TO THREE
DISTRICTS VIZ., WOKHA, PEREN AND KOHIMA**

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Certificate

This is to certify that the thesis entitled “*A Study on the Performance of Public Distribution System in Nagaland: with Special Reference to three Districts viz., Wokha, Peren and Kohima*” submitted by **Mr. Evothung Ezung** for the award of the Degree of Doctor of Philosophy in the department of Commerce under Nagaland University embodies the record of original work carried out by him under my supervision. He has been duly registered and the thesis presented is worthy of being considered for the Ph.D. degree.

This research work has not been submitted for any degree of any other university.

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Declaration

I, **Evothung Ezung**, bearing Registration Number Ph.D./629/2014 hereby declare that the thesis entitled “*A Study on the Performance of Public Distribution System in Nagaland: with Special Reference to three Districts viz., Wokha, Peren and Kohima*” is an original research work carried out by me under the supervision of **Dr. P. K. Deka**, Professor, Department of Commerce, Nagaland University for the award of Degree of Doctor of Philosophy in Commerce on fulfillment of minimum criteria laid by the University.

I, further declare that this thesis has not submitted elsewhere for the award of any degree or diploma. Due acknowledgements have been made wherever anything has been referred to or cited in the proposal.

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LIST OF ABBREVIATIONS

AAY:	Antyodaya Anna Yojana
AAR:	Annual Administrative Report
ABBA:	Aadhaar Based Biometric Authentication
AE:	Advanced Estimate
APMC:	Agricultural Produce Markets Regulation Committee
APMRA:	Agricultural Produce Markets Regulation Act
APL:	Above Poverty Line
BPL:	Below Poverty Line
CACP:	Commission for Agricultural Costs and Prices
CAG:	Comptroller and Auditor General
CAP:	Covered and Plinth
CONCOR:	Container Corporation India Limited
CPI:	Central Issue Price
CPO:	Central Purchased Organisation
CSO:	Central Statistics Office
DBT:	Direct Benefit Transfer
DDP:	Desert Development Programme
DES:	Directorate of Economics & Statistics
DHA:	Designated Hill Areas
DPAP:	Drought Prone Area Programme
DPS:	Decentralized Procurement Scheme
ECA:	Essential Commodities Act
EGS:	Education Guarantee Scheme
ePoS:	Electronic Point of Sale
FAO:	Food and Agriculture Organisation

FCI:	Food Cooperation of India
FCS:	Food and Civil Supplies
FPS:	Fair Price Shop
FSD:	Food Storage Depot
GDP:	Gross Domestic Product
GOI:	Government of India
GSDP:	Gross State Domestic Product
GSVA:	Gross State Value Added
HCR:	Head Count Ratio
HDI:	Human Development Index
HDS:	Human Development Studies
ICT:	Information and Communication Technology
IDP:	Internally Displaced Person
IMR:	Infant Mortality Rate
ITDP:	Integrated Tribal Development Projects
MDG:	Millennium Development Goal
MI:	Monitoring Institution
MT:	Metric Ton
MMT:	Million Metric Tons
MMP:	Mission Mode Project
MPI:	Multidimensional Poverty Index
MSP:	Minimum Support Prices
MSPI:	Ministry of Statistics and Programme Implementation
NE:	North-East
NSDP:	Net State Domestic Product
NFSA:	National Food Security Act

NSS:	National Sample Survey
NSSO:	National Sample Survey Organisation
PDC:	Public Distribution Centre
PDS:	Public Distribution System
PEG:	Private Entrepreneurs Guarantee
PEO:	Programme Evaluation Organization
PGI:	Poverty Gap Index
PHCR:	Poverty Head Count Ratio
PHH:	Priority Households
QE:	Quick Estimate
RPDS:	Revamped Public Distribution System
TECS:	Tata Economic Consultancy Services
TPDS:	Targeted Public Distribution System
UID:	Unique Identification
VC:	Vigilance Committee
VGB:	Village Grain Banks
WFS:	World Food Security
WSHG:	Women Self Help Group

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CHAPTER-I

INTRODUCTION :

The public distribution system (PDS) as a social safety net is essentially a welfare programme to ensure the well-being of citizens. Distribution of subsidised foodgrains to the needy people to ensure that such people are able to get sufficient foodgrains for healthy living is the prime target of PDS. The concept 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. Food production and food reserve do not guarantee availability sufficient food in terms of meeting adequate dietary needs for the individuals. Under an efficient PDS, the government provides food security to all lest citizens should live in hunger, malnutrition or with fear of starvation. The objectives of the Government of India's (GOI) food security policy are to ensure adequacy/sufficiency in supply of food grains and distribute of food grains at an affordable price. A society is said to be food secure when there is access to adequate food by all. The Rome declaration on World Food Security (WFS) 1996, convened by Food and Agriculture Organisation (FAO) of the United Nations, defines food security as, "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." The definition forms a broader perspective of food security frame work that includes policy issues relating to poverty, sustainable agriculture, rural development, food production, stabilization mechanisms, improved access and international trade.

In 2009, world summit on food security agreed on four pillars of food security - availability, access, utilisation, and stability. On the other hand, food security can be attained when there is regular supply of food that ensures physical access to food and adequate purchasing power - economic access to food.

Public distribution history in India began from the incidents of famines and food scarcity in the pre- independence period. Two glaring examples of such

incidents were Bengal famine of 1943 and, prior to which, the outbreak of Second World War 1939; PDS in India was introduced in the form of fair price shop scheme to regulate trade in food grains (Suryanaraya, 1995). In 1943, the first food grains policy committee introduced informal rationing in rural areas as a result of which free or open market in food grains was permitted in food grains producing areas (Dandekar, 1994). According to GOI, Mid Term Appraisal of 11th Five - year plan 2007-12, when green revolution took place and there was upsurge of agricultural production in the country, the outreach of PDS was extended to tribal inhabited areas as well as areas of high incidence of poverty in 1970s and 1980s. The PDS, which had been essential supplies programme and a general entitlement scheme till 1992, became Revamped Public Distribution System (RPDS) with focus on disadvantageous area 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 Targeted Public Distribution System (TPDS) was introduced with effect from June 1, 1997 with a focus on the poor. The TPDS envisaged identification of Below Poverty Line (BPL) to be undertaken by the states and every BPL family would be entitled to specific quantity of food grains at subsidized prices. States were entrusted for identification of the poor as well as to make financial and administrative arrangements for the physical movement of food grains to FPS and hence distribute to the poor. As a policy measure to enhance the functioning of the TPDS, the Antyodaya Anna Yojana (AAY) was launched in December 2000, for focusing and targeting the poorest of the poor of BPL population. Under the scheme, the states/union territories bore the cost of transportation as well as margins to dealers and retailers.

A paradigm Shift in the history of addressing food security problem in India has been witnessed ever since the Government of India enacted the National Food Security Act, 2013. The Bill extended coverage of the TPDS 67% of India's population and converted PDS along with Midday Meal Scheme and Integrated

child development services into legal entitlement; the whole affairs of food security programmes shifted from welfare based approach to right based approach. The hallmark of the act was distribution of subsidised foodgrains to various categories of beneficiaries and granting legal right to receive subsidised foodgrains as an entitlement.

The PDSm in Nagaland too has been crucial for the government in managing food economy of the state. The PDS in the state was evolved from Central Purchased Organisation (CPO) system which existed till March 1984 in the State. Under the CPO system, food grains and other essential commodities were distributed to Government servants posted in various far flung remote and inaccessible places in the state. In April 1984, the state in tandem with the rest of the country introduced PDS. Since then, the system has been an important part of the strategy for poverty eradication and serving poverty and hunger struck people of the state. Unlike in the other states of India, in Nagaland, village Councils have been given the status of Fair Price shop (FPS). 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 Director of FCS (Food and Civil Supplies), four ADS/SOS, 13 PDCs (Public Distribution Centre) and 24 FPSs in four sampled districts of Nagaland. The Report of the Audit was a matter of serious concern. The gist of the report is as follows:

"The state department did not conduct any baseline survey for identification of beneficiaries but relied on the identification of BPL families as provided by the Union Ministry of Rural Development. The department did not carry out periodical revision of beneficiaries' list for addition/deletion of eligible/ineligible beneficiaries. As a result 41% of the households in the state remained outside PDS since 2005. Eligible beneficiaries were deprived of and ineligible beneficiaries continued to enjoy the benefits years together. Possibility of huge chunk of diversion and pilferage was also reported. The Department allocated foodgrains to non- existent institutions, hostels and Village Grain Banks (VGB). Mandatory inspections by district level officers, vigilance committees,

departmental officers and special Area officers were not carried out. The setback in the implementation of PDS in the state reported in the said audit has unleashed a number of pertinent questions such as “why and how there is a serious drawback in the administration and implementation of PDS in the state, what are the ground realities that contribute to mismanagement of PDS in the state, who are at the receiving end of the poor performance of PDS, what is the impact on food security condition of poor people?”

Moreover, as per findings of some research studies serious flaws and problems are indicated in the administrative management for the implementation of PDS in Nagaland state. In a study conducted by Gulati and Saini (2015), estimates of leakages from TPDS offtake in the year 2011-12 for each state of India and national average were worked out based on data from Food Bulletin and National Sample Survey Organisation (NSSO) 68th round. The study revealed that estimate of leakage in Nagaland from TPDS offtake was 94.7 percent when the national average leakage estimate was 46.7 percent. According to World Bank estimates of leakages from TPDS offtake 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. The estimates of leakages for rice and wheat in the state 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 (Bhattacharya et al., 2017). All these studies and reports have shown that there have been serious shortcomings in the performance of PDS in the state.

STATEMENT OF THE PROBLEM :

Most of the available studies and reports pertained to PDS have shown that there have been serious shortcomings in the implementation of PDS in the state. On the other hand, in terms of poverty and income disparity grim situation has been prevailing in the state since the creation of the state. Even at the time of creation of the state, policy makers were cognizant of state as a resource starved

and economically non-viable which would be dependent largely on Central Assistance for implementing various schemes for economic development and poverty alleviation. Nair, et al. (2013) considered the problem of poverty index in north-east India. In their study, the construction of poverty index was done based on five components which were: urban-rural population ratio, per-capita income, number of livestock owned per household, Gini coefficient of income and literacy rate. The study revealed that, of all north-eastern states, Nagaland has the highest disparities in income. Considering the fact of poverty and income disparity condition in the state leading to large segments of population suffering from acute livelihood problems, judicious and effective implementation of PDS - the largest social safety network- is crucial in the state for ensuring free of hunger and lack of nutrition to the vulnerable segments of population. Enhancing the performance of PDS in the state is the critical need of the hour. Hence, there is a profound need to identify and examine the problems and prospects of PDS in Nagaland. Ground level research work comprising interaction with the beneficiaries, collecting information and feedbacks from beneficiaries, understanding the type of problems faced by them, discovering lacunae in implementation, distribution and selection of beneficiaries, etc., is manifestly needed. To establish the truth with the ground realities of PDS performance in the state and suggest measures thereof to deal with the problems may contribute to revamping the system in the state. It is with this background the present piece of research work is conceptualized and undertaken.

SIGNIFICANCE OF THE STUDY :

Hunger and Malnutrition have been the most serious challenges of all potential effects of poverty facing the country. According to reports published by Concern Worldwide and Welthungerhilfe, in Global Hunger Index, India ranks 102 and 94 among 117 and 107 countries respectively in 2019 and 2020. The worst affected states are economically backward states and Nagaland is not an exception as far as its socio-economic indicators are concerned. Poverty and

income disparity are a matter of serious concern in the state. In such situation, PDS in India is the largest government sponsored scheme and also the largest distribution network of its kind in the world to curb the menace of hunger and malnutrition in the country. Although PDS serves as the most effective and vital means to solve the problem of hunger and malnutrition, the system has been replete with corruption and malpractices. That is the reason why the system has not been able to meet its objectives fully. Similar situation is also prevailing in Nagaland as far as audit report and a few research studies are concerned.

This research is aimed at investigating a brief socio-economic condition of PDS beneficiaries and functioning of PDS on the ground level. In the first place, the findings of the research are expected to produce mass awareness about the relevance and indispensability of PDS given the socio-economic condition of PDS beneficiaries. Secondly, information with respect to rightful share of beneficiaries, various types of problems persisting in the system, lacunae, corruption, all sorts of irregularities in the functioning of the system on the ground level etc., may be disseminated to the society, particularly the beneficiaries and stakeholders in the management and operational activities of the system. This may create a useful ground for the concerned state government department for rectifying the system by removing the discovered malpractices from the system and improve its efficacy. At the same time, general public as well as the beneficiaries may live with awareness about their rights and deprivations under the system and raise their voice at right time and platforms. The findings may also help the policy makers to have a summary idea of the performance of PDS on the ground level and revise their policies accordingly to meet the potential challenges.

REVIEW OF LITERATURE :

The concept of PDS had its origin in India during the beginning of Second World War of 1939 as a tool to curve inflation. The system was launched by the

erstwhile British government during the war time to distribute food grains to the entire crisis stricken people for protecting them from food and nutrition insecurity. At the beginning this system was known in India as measures for price control and rationing. During the war times, scarcity of food led to abnormal price rise of food grains. In such situations, idea of rationing was introduced by British in India. During the times of turbulence the government started giving humanitarian aid to people to ensure stability and well-managed distribution of food grains to the needy people Famine (Commission Report on Bengal, 1943).

Nobel Laureate Amartya Sen expressed his view in his book 'Poverty and Famines' (1981) that the famine was not due to shortage of rice in Bengal in 1943: food availability was actually slightly higher than in 1941 when there was no famine. The crisis was mainly due to the sluggish official response to the disaster, there had been no serious crop failures that the famine could be expected (Sen, 1981).

Prior to the incident, the sixth price control conference, held in September 1942, laid down a few prominent measures of PDS to regulate control and supply so as to meet both civilian and defence commitments. Moreover, in December 1942, food department of India designed to formulate an All India Basic Plan for monitoring the various issues of PDS, such as procurements, contracts for purchasing agents, distribution, inspection and storage etc. During the chaotic time of India's partition 1947, the country faced a big challenge of handling a disorganized situation in Indian food distribution system. The time of partition of Pakistan and India had brought about infelicitous effects on food supply and management. It was recorded that the partition caused a net loss of 7 to 8 lakh tonnes in the annual supply of the food grains (Bansil, 1960). A few months after the declaration of independence, i.e., in December 1947, a policy of partial decontrol was introduced because government faced a serious criticism from general public and many prominent Indian leaders including Mahatma Gandhi who became hostile to imposition and continuance of policy of controls. Taking into consideration the worsening situation of starvation, the government reviewed

the policy of control and thus adopted a policy of partial decontrol in December 1947 as it was recommended by the Foodgrains Policy Committee. The effect of this introduction was soon realised that the population covered by rationing came down from 147.9 million just before the introduction of decontrol policy in December 1947 to as low a figure as 71.5 million by the end of September 1948.

There was a definite food policy development from its initial fragile and chaotic condition within a period of three years i.e., from independence to the beginning of first five year plan (1951-1956) during which the PDS mechanism had gone through speedy and drastic changes. In the year 1950, the government constituted Foodgrains Procurement Committee.

In 1952, the foodgrains licensing and procurement order was passed to check price rise that might arise as an effect of introduction of policy of partial decontrol and also to prevent possible malpractices by foodgrains dealers. Under the order, it was mandatory for any foodgrains dealer engaging in purchase, sales and storage of foodgrains to obtain a valid license from the state government. In 1955, the Essential Commodities Act was enacted for control, production and distribution of certain essential commodities, and later on, in 1955-66, at the end of first five year plan, the prices of cereals rose due to crop failure. In order to tackle the situation government enforced credit reduction on foodgrains dealers and re- imposed food zones for the purpose of procurement and distribution through FPS.

Although the progressive reforms in foodgrains policy had resulted in a very low level of food prices and good supply position in large part of the country, food scarcity still existed in many parts of the country. For instance, during the years 1953 to 1955, some parts of Mumbai, Andhra Pradesh, Rajasthan, Madras and Madhya Pradesh were affected by scarcity, parts of Assam, North Bihar, West Bengal and Eastern UP were affected by floods and parts of Orissa and South Bihar were affected by irregular and deficient rainfall. In 1957, the Food Grains Enquiry Committee came up with more pragmatic suggestions. In 1960s, green revolution led to drastic change in agricultural scenario of the country in

terms of enhancing foodgrains production and reducing scarcity, the production of foodgrains mainly wheat increased remarkably. The main motto of the green revolution was to produce high yielding varieties of foodgrains, increase buffer stock, help maintain the storage capacity, achieve the goal of self-sufficiency and self-reliability etc. The revolution motivated the farmers to increase their own production and made them aware that crops production was not only to get self subsistence but also sell their products in markets for earning incomes. A new era of Indian agriculture had set in as sophisticated and scientific methods were used in agriculture that had increased the yield of rice and wheat, and hence reduced the country's dependence on food imports.

The Food Cooperation of India (FCI) was established in 1965 as a public sector agency for implementing government price policy through procurement and public distribution operations. Since its inception, FCI worked for ensuring fair procurement price to the farmers for protecting them from market volatility, operating buffer stock, controlling market prices and managing public distribution of essential commodities. Thus, till date the FCI has been working as an independent organisation on commercial lines in matters of purchase, storage, movement, transport, distribution and sale of foodgrains (Planning Commission, 2005).

In the fourth five year plan (1969-1974), the PDS evolution in India had reached another turning point as Plan Document envisaged, for the first time, that PDS should be made regular so as to reach out to the rural people, exert downward pressure on open market prices, build up buffer stocks and meet the requirements of PDS through internal procurement. The sixth five year plan (1980-85) too envisioned to make development of PDS into a stable and permanent strategy to control price hike, reduce fluctuations and achieve equitable distribution of essential consumer goods (Kumar, 2010).

Gupta (1977) investigated performance of PDS operation in the country in tackling the problem of food insecurity and exerting downward pressure in market prices. With the help of econometric models he examined the price

stability as the result of implementation of PDS in the country and found that the prevailing quantity of foodgrains distributed through PDS seriously fell short of meeting price stability of foodgrains in open market. He was of the opinion that a huge enhancement of PDS foodgrains quantity to meet the requirement would not only solve the problem of food insecurity but also foster price stability in the market. Based on secondary data and some reliable assumptions, he projected foodgrains quantity requirement upto the year 1980 to meet the objective of the scheme.

In 1982, Essential Supplies Programme was introduced as 17th point of the new 20 points Programme, with the aim of incorporating more services and provisions in PDS operation such as mobile FPSs, supply of textbooks and exercise books to students on priority basis, and promotion of consumer protection movement etc. Later, it was seen that there was a significant increase of number of FPSs from 2.30 lakhs in 1980 to 3.02 lakhs in 1984. While the Government of India had itself shouldered the responsibility of supplying essential commodities, viz., wheat, rice, sugar, kerosene, edible oils and soft coke, the state governments had the option to add other items considered essential by them. Effective working of the Programme was predicted on ensuring multi-faceted co-ordination, as the essential commodities were handled by different governmental agencies: foodgrains by the FCI, sugar by the FCI/State Civil Supplies Corporations/Co-operatives, import and distribution of edible oils by the State Trading Corporation, soft coke by Department of Coal and Coal India Limited and kerosene by Indian Oil Corporation/Bharat Petroleum/Hindustan Petroleum (Narayana, 2015).

Bose (1983) stressed on the need for the expansion of PDS through fair price shops including mobile shops in far flung areas and shops to cater to industrial workers, students' hostels, and, over and above, to ensure availability of text books and exercise books to students on a priority basis and encourage promotion of a strong consumer protection movement.

Suryanarayana (1985) studied working and performance of PDS in India with a case study in Andhra Pradesh. Impact of PDS rationing on consumption in terms of net income benefit was examined. By applying the theory of Dual Market Mechanism, the amount of benefits due to PDS was assessed. The magnitude of benefit was assessed by taking into account the difference between open market price and fair market price and also multiplying the difference with the quantum distributed through FPSs. Consumption elasticity was calculated to examine the effect of income changes on consumption of selected commodities. The findings of the study revealed that the economic status of the respondents in urban, rural and tribal areas had not been very encouraging. The purchasing pattern revealed that the FPSs were meeting about 38 percent of the wheat requirement, 35 percent of the rice requirement and 86 percent of sugar requirement. The various suggestions were also put forward for improving the overall working of this system.

Sachidananda (1989) studied about the practice of shifting cultivation in the perspective of culture, custom, environment and economy of five villages of Wancho tribe in Arunachal Pradesh. Government's effort to stop shifting cultivation was the main focus of his study. He justified that shifting cultivation was not uneconomical when adequate alternative was not available. According to him, the correct approach should be to recognise the practice as a way of life and adopt improvements within the approach. The author observed that for stopping shifting cultivation, alternative would not be developing agriculture alone. The hill areas should be developed in various fronts such as road, transport, market, industry etc. He referred to examples of the Khasi villages in Meghalaya where paddy fields under shifting cultivation were converted into horticulture field for cultivating pineapples and bananas.

Bapna (1990) conducted an exhaustive review of the studies relating to role of PDS in the pursuit of food security of in India. The author carried out case studies in four villages of three districts of Andhra Pradesh, Maharashtra and Rajasthan, it was found that backward communities were laggard in becoming

members of the FPSs and the ratio was high. Further per capita monthly purchase of rice from FPSs in Andhra Pradesh was 3.68kg as against the entitlement of 5kg for a small family. The Scheduled Caste and Scheduled Tribes households purchased more than the average, mainly because the scheduled caste and tribal families were usually of bigger sizes. It was concluded that households participated almost fully within the supply constraint irrespective of caste or occupation because of large differences between market prices and FPS prices.

When RPDS was launched, PDS covered both APL and BPL classes which invited criticisms from many quarters. It was felt that the marginal impact of PDS looked like a function of the universality in its coverage, i.e., every household, irrespective of income could have an entitlement card to obtain foodgrains. Under this non-targeted nature of the PDS, foodgrains distribution did not often reach the poorest in the society. From the year 1997, RPDS was replaced by TPDS and thus attempt was made to segment the population into two categories, i.e., APL and BPL, the latter group was entitled to obtain foodgrains and essential items at a lower price. For the first time, the dual price policy was introduced in TPDS in order to benefit the poor more through PDS (Panda, 2010). Government of India constituted Ministry of Food and Civil Supplies in 1984, with the creation two departments namely Department of Food and Department of Civil Supplies; Department of civil supplies was made to take charge of PDS. Even though PDS became a key social welfare and anti-poverty programme for the government of India, till 1992 it had remained a general entitlement scheme for all the consumers without specific target. From 1992, when revamped PDS was launched in place, it had set to work to overcome the inappropriateness. RPDS was introduced with a great vision and mission to strengthen and streamline the PDS to reach out in the far-flung, hilly, remote and inaccessible areas where substantial sections of the poor inhabitants lived. RPDS covered some specific programmes such as Drought Prone Area Programme (DPAP), Integrated Tribal Development Projects (ITDP), Desert Development Programme (DDP), and certain Designated Hill Areas (DHA) to be identified in consultation with state

governments. Special attention and concerted effort for the improvement of PDS infrastructure and formation Vigilance Committee at different levels were some of hallmarks of the proposed RPDS functions (Kumar, 2010).

Challaraj et al., (1992) made an attempt to determine the impact of income and consumer subsidy on rice consumption by the states in India. Both the open market and subsidized market were studied for the purpose. Regression analysis was used for estimating quantity demanded for open market and it was found that urbanization was a more important factor in determining the level of rice distribution. Urbanisation was not significant in Kerala because both the rural and urban were well served by the PDS. The leakages were found over 50% in almost all the studied states, while in Kerala only 6% leakages were accounted under PDS.

Before the Green Revolution in India, PDS was dependent mainly on imports of foodgrains. Enhanced production under Green Revolution brought about a drastic change not only in agriculture but also foodgrains distribution system, farmers started trusting in buffer stock system. Till 1970 the distribution of food items through PDS was mainly confined in urban areas. The welfare focus of the programme assumed importance during the 1980's and coverage expanded in rural areas - first in the south Indian states and later all over India (Deka and Sarmah, 2014).

Maxwell (1996) developed a methodology for distinguishing and measuring short- term food insecurity at household level. He developed a technique to measure the coping strategies of the household vulnerability elements like eating foods that are less preferred, limiting the consumption quantity, maternal buffering, skipping meals etc, when such households were faced with insufficient food.

Dev (1996) identified the crucial need of ensuring food security to all households of country as developing country like India where millions of poor suffered from persistent hunger and malnutrition. He considered that poverty as

the major determinant of chronic and, to some extent, transient food insecurity. It was known that poor did not have adequate means to avail access to food for the quantity needed for a healthy life. The author examined the poverty and food security problem in Maharashtra and West Bengal from the perspective of PDS and Education Guarantee Scheme (EGS). His study concluded that both the programmes had different approaches to help the poor. The EGS was found to be income generating programme and PDS was the welfare programme for distributing foodgrains to the weaker section of the society, the combination of the two programmes resulted in making better progress in the pursuit of food security.

Balakrishna and Ramaswamy (1997) observed that the price formation in foodgrains markets occurred in tandem with consumer's switch over between the open market and the PDS market induced by quality differences. In food economy, state's intervention for welfare purpose must consider not only the welfare of each targeted beneficiaries but also the welfare of households having no access to the PDS for these households would be inevitably affected if the working of the PDS had a bearing on the open market.

Radhakrishna and Subbarao (1997) analysed the impact of PDS on poor households in terms of income gains, reductions in the incidence and severity of poverty as well as nutritional improvement. They also studied about the cost effectiveness of PDS and evaluated the rice subsidy programme in Andhra Pradesh. They found that the welfare gain of PDS in terms of income transfer was very meagre and its impact on poverty and nutritional status was abysmal. Even the meagre transfer benefits were realised at an exorbitant cost. They observed that only in four states, namely Andhra Pradesh, Karnataka, Kerala and Gujarat, the income gains to the poor were substantially higher than the national average, but some of these states had expended additional resources of their own on the PDS programme. Regarding cost efficiency of PDS, they observed that at government costs, an amount of Rs.4.27 was incurred to transfer one rupee of income to the poor. The combined expenditure borne by state and central

government was found in such a way that one rupee of income was transferred at a cost of Rs 6.35 in Andhra Pradesh while the cost could be even higher in administratively weaker states.

Singh (1999) severely criticised PDS and stated that the whole foodgrains distribution system was badly corrupted and mismanaged at the ground level and hence, according to him, PDS could be observed as unsuccessful in all over the country. The measure of inefficiency was very high and the system did not have a good planning policy to rectify its mechanism from the grass-root. The system of PDS and its mechanism of operation were not friendly to poor farmers, and he suggested that food coupons should be introduced with proper documentation and well maintained record instead of creating a space of free trade of foodgrains. Due to misclassification among the cardholders, in terms of off-take of foodgrains, both the APL (Above Poverty Line) and BPL consumers' demand had alarmingly fallen off.

Vyas (2000) opined that food security must be streamlined to meet comprehensive nutritional security. He stressed that in achieving food security and efficient functioning of PDS, the main stakeholders must be state, market and civil society and also their roles must be well coordinated and complementary to one another.

In the year 2000, the Tata Economic Consultancy Service conducted a study to investigate how much diversion of PDS supplies occurred. The study found that the diversion at national level was estimated as 36 percent of wheat, 31 percent of rice and 23 percent of sugar supplies through PDS. In the case of rice, in Bihar and Assam, the extent diversion was as high as 65 percent and in case of wheat the diversion was estimated as 100 percent in Nagaland and 69 percent in Punjab. It was also found that there was no correlation between the frequencies of the use of Enforcement Acts and extent of diversion. In northern region of Uttar Pradesh, more diversion was reported in case of rice and sugar despite the higher number of raids and convictions (Nakkiran, 2004).

Dutta and Ramaswami (2001) conducted an empirical study on targeting and efficiency of the PDS - a comparative study between Andhra Pradesh and Maharashtra based on NSS 50th round of household data on consumption. The authors examined the differences in utilization, extent of targeting, magnitude of income transfers and cost effectiveness of food subsidies. The major findings of the studies were the following: a significantly greater proportion of the population used the PDS in Andhra Pradesh as compared to Maharashtra. The geographical coverage was universal in the case of Andhra Pradesh whereas 30 percent of the poor in Maharashtra were out of coverage. Discrepancies in identification and inclusion of beneficiaries were much lower in Andhra Pradesh especially in rural parts and poor people received a substantially higher subsidy per capita than the poor in Maharashtra. Errors of inclusion were highest in rural Andhra Pradesh as non-poor received sizeable subsidy benefits. In urban Andhra Pradesh, the higher income groups received negligible subsidies as the errors of inclusion were the lowest. In Maharashtra also, the errors of inclusion were lowest in urban areas. The non-poor in urban and rural Maharashtra received subsidies of about the same magnitude as the poor. In terms of targeting, urban Andhra Pradesh was the only state that appeared ideal although that was not because of the targeting schemes but because of the lower utilisation of the PDS by higher income groups, as compared to that of poor.

Jena (2002) also did impact assessment of PDS. He argued that PDS was still indispensable in India as 30 percent of the population was still living under BPL and another 20 percent needed support not to go down to BPL. He indicated the requirement of PDS at the time of disasters and natural calamities was vital. He observed that although the country had huge stocks of foodgrains, the food security had remained a far cry for a large section of people of the country.

Ramaswami and Balkrishnan (2002) studied food prices and impact of public intervention in PDS. They pointed out inefficiency of state institutions in matters of controlling food prices. This paper gave a model of the implications due to quality differences between public and private grain supply when subsidy

in wheat was taken into consideration. The paper empirically proved that a reduction in food subsidies increased food prices and hurt the poor even though they were not major recipients of the subsidy. The paper indicated that many of poor people in India got insignificant amounts of subsidy and depended on the market to get access to supplies. It was argued that a reduction in the subsidy would not decrease the market price or leave it unchanged depending on the strength of income effect.

Mooij (2003) studied on the functioning PDS in Bihar and Jharkhand. Author observed that the bogus cards were created by FPS owners for the purpose of making illicit money through diverting entitlements to open market, and the commission given by the government was too low for distributing of entitlements effectively through FPS; people used backdoor means or paid bribe in getting the dealership for earning money by selling those entitlements to open market.

A vast study on evaluation of TPDS and AAY was done by ORG (2005). This study was based on a large survey of 25004 respondents across 35 states and union territories. The study observed that 27 percent of APL ration cardholders were actually designated as BPL in the village list. The errors were much less in the case of BPL and AAY households as they are found to be 1.3 percent and 1.1 percent respectively. As regards the accessibility, 30 percent APL households, three-fourth of BPL households and more than 90 percent AAY households were found purchasing all commodities from ration shops. Regarding the extent of diversion, the study found that overall diversion of rice and wheat at all India level was 39 and 53 percents respectively. The diversion was high in North-eastern states, viz., Manipur, Mizoram, Nagaland and Meghalaya and low in southern states, viz., Andhra Pradesh, Tamil Nadu, Kerala and Karnataka. The study showed that that less than 50 percent of households' requirement was supplied through PDS, not because of low quota but because, in most cases, full quota was not made available. The study suggested measures should be taken for encouraging community-based storage facilities so that distribution and availability problem could be tackled from the grass-root.

Das (2008) traced the prelude and background of the Bengal famine 1943, the worst economic disaster of 20th century in South Asia. This paper re-examined the circumstances that led to the famine and analysed the role of the land market in fuelling foodgrains price rise. The author observed that in a monetized, already famished agrarian economy, during situations of subsistence crisis, interlinking of food and land markets had the potential to cause an exponentially high degree of disaster. The role of a universal PDS, which carried over food from a surplus to a deficit year and insulated the food market, was crucial.

Naik (2009) studied about the problem of food security in Kashipur block Orissa, a place known for abject poverty and human suffering. The author stated that food security had become not only a new mantra for development planners but also indispensable while dealing with the increasing number of cases of poverty, hunger and starvation. For making a food security plan it was very important to understand about the needs, political and social circumstances of tribal people and Dalits. According to the author's evaluation of PDS, there were a lot of problems in functioning PDS in Kashipur block due to hegemony of upper caste elites that aggravated the chronic poverty in the region. The author also observed that lack of public awareness, the locale balance of power, bureaucracy's unresponsiveness, lack of officially organised vigilant committees to supervise the dealings, the timings of stocks arrival, the quality of goods and possible black marketing, etc., were responsible for the pathetic state of affairs in Kashipur Block.

Rao et al., (2010) discussed about linkages between food security and many important aspects of human development. They observed that there were close linkages between food security with other factors such as socio-economic development, human rights, rural health, PDS etc. It was well documented that most poor families in the world spent nearly 80% of their total income on foodgrains. People were unable to eat adequately because of various reasons such as low purchasing power or inadequate income source.

Singh et al., (2010) conducted a case study in Bihar on PDS as food security and poverty alleviation programme. They observed that a very meager amount was paid to the fair price shop owners and therefore FPS owners tried to make up their losses by adopting corrupt means. They suggested that the government should undertake measures to improve transportation of foodgrains for which the transporters should be paid adequately to enable them to defray the actual expenses of the transport.

Singh (2010) studied the impact of PDS on poverty and food security; the author suggested that there was a need to shift from the existing expensive, inefficient and corruption ridden institutional arrangements to a better mechanism of implementation to ensure economic delivery of requisite quality foodgrains in a transparent manner and with an effective targeting.

Parasuraman and Rajaretnam (2011) conducted an assessment of agriculture practices and livelihood conditions of people in Vidarbha, a region of poverty stricken people. A sample of 6900 households from six districts were covered in the study, investigation was done to assess the relationship between agriculture, food security and nutrition for children, adolescents and married women of reproductive age. The study indicated that (a) overall under nutrition condition amongst children, adolescents and married women in the study area was substantial and it did not differ significantly between different socio-economic groups, the higher the food crops production, the lower were under-nutrition levels was also observed and (c) it was found that the public distribution system contributed significantly to the food security of poor families and hence suggestion was made that it must be extended to include families above the poverty line as well.

Goli (2011) investigated problem in PDS in India by assessing overall performance of PDS in fulfilling some of its objectives viz., card distribution, off take and PDS contributions to total household consumption of cereals. The assessment provided a number of critical insights, though not totally new but evident from an elaborate empirical examination and facts. Moreover,

investigation of reasons for not having ration card and non-lifting rations were also done. The author observed that many of the non-poor households had BPL cards and contrarily a substantial proportion of the poorest did not hold any type of PDS card. It was also found that largest proportion of households, who did not possess any type of PDS card, were mostly from socio-economically backward states.

Khera (2011) discussed about the utilization and impact of PDS in India as a food security intervention. The author used field survey data for Rajasthan. She observed poor degree of utilization and a large number of households purchased wheat from open market at higher prices before exhausting PDS quotas. The puzzle of under-purchase was investigated and analyzed by extending the dual-pricing model to account for supply-side and demand- side constraints. Primary data, secondary data and field observations, altogether, established that under-purchase was mainly due to supply constraints.

Kotwal et al., (2011) analysed viability, feasibility and advantage of cash transfers proposed for replacing the sale of foodgrains through the public distribution system. The study was based on hypothesis that introduction of cash transfer directly to the beneficiaries instead of selling foodgrains through PDS would be better for food security for all. The authors argued that cash transfer had some advantages than food transfer in terms of addressing potential pit-falls pointed out by critics against PDS. Some salient features and merits of the proposal were discussed in the paper and models for implementing cash transfers by using the existing technology and infrastructure were proposed. It was also recommended that centralised PDS should be dismantled; the decision on the means and management of delivery should be left to the states.

Jha and Shekhar (2011) studied significance of the role of PDS in providing food security for Jharkhand, they stressed that Jharkhand should have reliable PDS coverage as hunger and poverty related miseries were the biggest challenges in the State. They identified a number of typical loopholes in the administration of PDS. They suggested that the PDS should be implemented

efficiently by reforming the system up to-date, modernized, poor friendly and corruption free. The authors also asserted that provided PDS was run as suggested by them it would provide full food security to the BPL families of the state.

Sinha and Sinha (2011) studied about cropping pattern and its economic implications. They studied about multiple factors contributing to the poverty of farmers and hence suggested that cropping pattern could be changed appropriately to conform to any change in pattern with economic motive. They observed that the farmers remained custodian of conventional practices and hardly accepted the logic for a change wherever and howsoever they were shown a better cropping pattern. They came up with the suggestion that the recommendations listed in the 10th five years plan for PDS should be implemented in toto so that the system might be made to function more vibrantly and efficiently to pace with the requirements of a liberalized economy.

Basu (2011) studied about the food security and PDS in India, and observed that supply failure was not only the sole cause of food security problem. He identified some other factors such as declining income and employment in unorganised sectors and failure of the TPDS in covering a large segment of the poor. He suggested some improvements in definitions and methods of implementation. He argued that as far as policy of introducing the TPDS was concerned, the policy as such was not unsound, but the real problem lay in the way it was implemented.

Ray and Ray (2011) examined the role and effectiveness of PDS in ensuring food security in India. The paper analysed the food security condition of the country during the last few decades and the working of PDS with some macro measures. Attempt was made to identify the food insecure population of the country. They investigated and analysed the availability, storage, and procurement of foodgrains and also assessed the effectiveness of PDS. They identified some specific discrepancies in the system, found out ways to remove the anomalies and suggested some pragmatic means and ways to make the

delivery mechanism more effective. In conclusion, authors stated that policy making and implementation had failed miserably in terms of tackling the crisis of mass under-nutrition. The policy of narrow targeting introduced as a part of liberalization had failed seriously to address the problem of chronic hunger.

Kumar and Mohanty (2012) studied about the nature of various problems afflicting food safety and consumer protection in the light of public distribution system in rural India. Their study indicated that the public distribution system had failed to protect the poor due to the presence of corruptions in the system. The authors also focused on the magnitude of corruption at micro level and its implication and hence came up with suggestions for revamping. Pertinently, they examined the role of consumer clubs, which were formed in rural schools, in enhancing the performance of PDS in the pursuit of the food security. Their micro level study showed the corruption in rural India was very high as appointments of dealers were done through political favouritism. No provision of reasonable margin to the dealers led the dealers to resort to earn through corruption. Consumer clubs were found to have no financial support and hence could not function effectively. The authors were of the view that consumer club might take effective role in conducting awareness campaign to the rural consumers and enlighten them about the provisions of PDS and consumers' rights of welfare and food security.

Sangeetha et al., (2013) examined the PDS service quality in Tuticorin district–Tamil Nadu. Their study was carried out based on information collected from a selected sample of respondents who were cardholders as well as non-cardholders. They found majority of the respondents were housewives, followed by daily wage earners. The urban area respondents got better quality of services than rural area respondents. Both married and unmarried respondents had the same level of satisfaction with PDS commodities and services. There was no delay in issuing cards and no manipulation affected significantly in PDS services. It was also shown that the satisfaction level of PDS services did not differ much with the incomes of respondents. They suggested government should take steps to

improve the quality of services and to ensure the distribution at right time to the cardholders.

Kumari (2014) studied about the awareness and attitudes of PDS cardholders in Tuticorin district of Tamil Nadu. The study was designed to carry out an analysis of consumption pattern of the respondents in PDS. The questionnaires were framed so as to draw information about awareness level of PDS cardholders and their attitudes. The author found that the FPS outlets did not properly display the information about their working days, opening and closing time, availability and non availability of commodities, dealers' contact numbers and complaint numbers in the notice board. The information was displayed more in the urban outlets than in rural outlets. It was suggested that in addition to displaying the said information on notice board, direct voice announcement could also be made for the illiterate consumers.

Deka and Sarmah (2014) analysed the performance of PDS with some macro indicators. The authors tried to identify the efficacies and the discrepancies of PDS operation and hence found ways to remove the anomalies and make the delivery mechanism more effective. The authors observed that PDS in the region faced poor implementation due to absence of effective mechanism in the identification and revision of beneficiaries. Random issue of ration cards leading to misuse of ration cards by the FPSs, less lifting of foodgrains, delayed distribution of foodgrains, charging of higher rates by FPS, inadequate infrastructure, etc., adversely affected the effective implementation of the PDS in the region.

Hicks and Hanan (2014) investigated that the nexus between officials and sellers in making illicit money through corruption had resulted in poor quality of entitlements. Their finding said that in India about 40 percent of foodgrains channeled through PDS was diverted to the open market.

Gaidhane (2015) examined the nature of linkage between food security programme and poverty alleviation programmes. The author assumed that the

linkage was crucial to eradicate hunger and poverty. The author observed a reformed PDS as social security net was essential in adopting an integrated approach for removal of poverty. Author gave various suggestions to resolve the existing loopholes and lacunas in the administration of PDS. A multipronged approach to food security, effective redistribution policies through PDS, diversifying PDS to other cereals and pulses, etc., were suggested by the author. It was suggested that PDS needed to have scientific storage houses for granary, effective utilization of funds, awareness on the part of beneficiaries, flexibility and provision for learning and adopting best practices from other countries. PDS and other development schemes should be implemented through Panchayati Raj Institutions. With the help of new technological innovation, creative ideas and management principles, new mechanism should be created so that efficiency should be increased. In conclusion, the author stated that India could legitimately take the pride in fact because inspite of a history of famines and fast population growth, it had developed the capacity to ensure that the country again did not face widespread famine, hunger and starvation. The most significant contribution of PDS could be expected only when food security movement through PDS would begin to function as a development input - the contribution of it to the overall development of the nation should aim at wiping out poverty forever from the face of our country.

Tanksale and Jha (2015) studied various aspects, provisions and implications of National Food Security Act in India in tandem with government's efforts to protect the rights of people for food, fight against hunger, work for women empowerment through economic empowerment and ensure consideration of vulnerable sections of society in matters of sound livelihood. The authors reviewed the proposed reforms in PDS and also identified issues and challenges for its implementation.

Hazarika (2016) also investigated efficiency of PDS in India considering a number of factors obtained from wide ranging criticisms available in literature about the PDS. Moreover, the author re-examined viability and effectiveness of a

number of policy initiatives of the government and their implementations. The author came up with a couple of suggestions for improvement and also justified of some earlier specific suggestions given by researchers regarding the reformation of PDS. It was also observed that inspite of high priority given in the constitution, the food security situation in the country remained more or less dismal.

Mahalingam and Raj (2016) attempted to assess the performance and problems of public distribution system in India in which they searched out some potential problems such as corruption, poor quality and quantity of entitlements, wrong demarcation of below and above poverty line households, bogus cards, poor performance of fair price shops, inadequate access to FPSs, rural and urban bias, regional variability, poor economic condition of beneficiaries to buy entitlements, lack of awareness of beneficiaries and FPS owners about PDS schemes, mortgaging of ration cards and logistic problems during transportation entitlements from central pool to FPS etc.

Shekar et al., (2017) studied PDS from the viewpoint of empowering people in which a process of mapping analysis of six Indian states was worked out. In their study, it was lucidly indicated how PDS in India failed in ensuring food security. The authors recommended that every state in India must be enforced to do decentralization of procurement as well administration. Besides, they suggested for handing over the monitoring and vigilance to the local bodies, and also recommended the use scientific methods.

Bohtan et al., (2017) studied about the existing supply chain of the PDS. In their study authors made an attempt to examine the strengths, weaknesses, opportunities and threats in the supply chain of existing PDS in India and hence recommended some unique strategies for making the supply chain of PDS more effective and competent. They also justified that the use of ICT would ensure supply chain of PDS effective and competent.

Nirmala and Seethamma (2018) studied the role of PDS in ensuring the food security with a case study conducted at Indira Canteen, Bangalore city. The paper examined the role of Indira canteen in ensuring food security under PDS for some specified section of people. Indira Canteen was one of the prominent ventures of Karnataka government in providing subsidized food for construction workers, students, auto rickshaw drivers and unskilled labours in ensuring food security. The authors suggested that state government could take up necessary measures that emerged from time to time so as to overcome a few defects which were indicated as the finding of the study. They were also of the opinion that by tackling the technical problems, as was mentioned, the scheme, Indira Canteen, could contribute to the success of the scheme and be extended to other districts of Karnataka.

Chhabra and Chopra (2018) conducted an enquiry about the challenges encountered in adoption of technology in the PDS. The authors observed the increasing use of information and communication technologies in many countries that provided faster and transparent service to their citizens through e-governance initiatives. A large population in developing countries remained deprived of these services due to lack of skills, training and infrastructure. The study aimed at identifying and prioritizing the challenges faced by intermediaries in adopting e-governance technology such as use of sale devices introduced in the PDS of Chhattisgarh. Quality management tools of list reduction and affinity diagram were used to organise the data and categorize the challenges into various areas. Pareto chart was used for depicting the prioritized order of focused areas. Utilization of quality management tools was an unconventional approach to problem solving in public administration sector. The six identified priority areas, in order of their importance, were lack of infrastructure, design of device hardware, process design, salespeople's errors, government support and software design. The authors recommended that their research finding would be helpful to policy makers and government agencies in the employment of technology under e-governance initiatives.

OBJECTIVES OF THE STUDY :

The research has been carried out with the following specific objectives.

1. To study the socio-economic conditions of the population brought under Public Distribution System in Nagaland.
2. To ascertain the existing scenario of Public Distribution System in Nagaland.
3. To study the benefits derived out of Public Distribution System.
4. To examine the role of fair price shop in executing Public Distribution System.
5. To study the problems relating to the implementations of Public Distribution System.
6. To suggest the measures for gainful result of Public Distribution System in the State.

HYPOTHESES:

Taking the scope and objectives of the research into account, two hypotheses have been constructed for testing and drawing conclusion on a few pertinent issues.

The hypotheses are as follows:

1. The overall performance of public distribution system in Nagaland is not satisfactory.
2. The public distribution system beneficiaries are not satisfied with the quality and quantity of foodgrains.

RESEARCH METHODOLOGY:

As stated in the research proposal/synopsis, the method of study is empirical one and analysis is done both in qualitative and quantitative approach. Investigation and analysis are done based on both primary and secondary data. Primary data are collected with the help of questionnaires from samples selected

from respective populations with most appropriate sampling design. The questionnaires are framed conforming to objectives of the studies. The questionnaires for households and beneficiaries are aimed at drawing information on socio-economic and educational status of households, availability and distance problems of fair price shops, monthly requirements of households, satisfaction of beneficiaries about quality, quantity, and price of ration items, rate of items in FPSs and open markets, perceptible impact provided there is restriction in number or reduction in quantity of PDS items, major problems faced by beneficiaries, inclusion problem, general perception of beneficiaries about PDS in supporting livelihood and food security, feedbacks regarding improvement etc.

In making the questionnaire for households, final preparation has been done after conducting pilot study/case study by using the first prepared questionnaire in Longayim Village, Wokha District. In the final draft, only the relevant questions have been included by omitting impertinent ones and incorporating pertinent ones, and thus the questionnaire has been improved as far as possible according to objectives, requirement of the people and applicability to their issues associated with the nature of functioning of PDS.

The questionnaire for fair price shop dealers are aimed at drawing information about duration of dealership, availability and distribution of allotted quota of items and their quality, problems related to number of households assigned to the dealer and commission, co-ordination with local bodies, supply department and PDCs, inspections, major problems faced in the operation of FPSs, feedbacks regarding improvements, etc.

The secondary data collection has been done through Annual Administrative Reports published by published by FCS, Government of Nagaland; Audit report of Comptroller and Auditor General of India; Nagaland Economic Survey by the Directorate of Economics and Statistics, Nagaland; Annual Administrative Reports published by Ministry of Consumer Affairs, Food and Public Distribution, New Delhi; Collection of related research papers; Foodgrains Bulletin published by Ministry of Consumer Affairs, Food and Public

Distribution, Delhi; Food Corporation of India Annual reports; researched based books on PDS in India, etc.

SAMPLING DESIGN:

The research is an assessment study on the performance of Public Distribution System (PDS) in Nagaland with special reference to arbitrarily selected three districts of Nagaland, i. e., Wokha, Peren and Kohima. When most of research works done on PDS in various regions of the country, it is seen that the sampling designs used are less scientific and more operational convenience oriented. A good sampling design will help in obtaining samples which are good (precise) representatives of the population under study. For drawing inference about the characteristics of a population by studying a only part of the population, it can never be precise enough unless the techniques and methods employed in sample selection and estimation are most suitable and scientific. Using the most suitable method of selection, a representative sample is selected from the population and then appropriate procedure for estimation of population parameters of interest are the principal steps to be executed to serve the purpose for maximisation of precision of estimation within the available resource such as time and cost.

Our study based on the three districts; at first, block-wise village lists along with the latest updated villages' population sizes and total number of households of each village is prepared; this has facilitated to construct sampling frame and determine most appropriate sampling design of the survey. Thus selection and estimation procedure can be made appropriate and unambiguous. In our case, two-stage sampling is chosen from the point of view of sampling efficiency and operational convenience.

The most common design in large-scale surveys is stratified multi-stage sampling. Singh and Chaudhary (1995) discussed the sampling design as follows.

The population of first stage units (fsu's) is sub-divided into k strata. Within each stratum, a sample of fsu's is selected and then each of the selected fsu's is further sub-sampled.

Let the h^{th} stratum contain N_h fsu's, each with M_h second stage units (ssu's). The corresponding sample numbers being n_h and m_h . The estimator of the population mean per ssu is given by

$$\bar{y}_{st} = \frac{\sum_h^k N_h M_h \bar{y}_h}{\sum_h^k N_h M_h} = \sum_h^k W_h \bar{y}_h$$

where \bar{y}_h is the sample mean in the h^{th} stratum, and $W_h = \frac{N_h M_h}{\sum_h^k N_h M_h}$ is the weight

of the stratum in terms of the ssu's.

The sampling variance is obtained as

$$V(\bar{y}_{st}) = \sum_h^k W_h^2 \left[\frac{(1-f_{1h})}{n_h} S_{bh}^2 + \frac{(1-f_{2h})}{n_h m_h} S_{wh}^2 \right]$$

where $f_{1h} = \frac{n_h}{N_h}$, $f_{2h} = \frac{m_h}{M_h}$

Similarly, an unbiased estimator of sampling variance is given by

$$v(\bar{y}_{st}) = \sum_h^k W_h^2 \left[\frac{(1-f_{1h})}{n_h} S_{bh}^2 + \frac{f_{1h}(1-f_{2h})}{n_h m_h} S_{wh}^2 \right]$$

All the villages along with their respective total number of households for each village are prepared for each district. Such a preparation is made with the latest updated village lists as well as updated total number of households for each village. The villages in each district are arranged in ascending order with respect to sizes of villages' in terms of number of households. The villages of every district are stratified by using Dalenius's equation (1950) into 4 numbers of strata. The number of strata in this case is arbitrarily chosen as four by seeing the nature of heterogeneity of village sizes.

Dalenius's equation for obtaining optimum points of stratification.

$$\frac{(y_h - \mu_h)^2 + \sigma_h^2}{\sigma_h} = \frac{(y_h - \mu_{h+1})^2 + \sigma_{h+1}^2}{\sigma_{h+1}}$$

where y_h is the point of stratification between h^{th} and $(h+1)^{th}$ strata, for $h=1, 2, 3, 4$, and $\sigma_h^2, \sigma_{h+1}^2$ are the variances and μ_h, μ_{h+1} are means of h^{th} and $(h+1)^{th}$ strata. Thus from each of four strata, sample sizes n_h (number of villages) are determined by using Tschuprow (1923)-Neyman (1934) optimum allocation using $n_h = n \frac{N_h \sigma_h}{\sum_{h=1}^4 N_h \sigma_h}$, where $h=1, 2, 3, 4$ and total sample size n is arbitrarily

chosen to be 20% of total population (total number of villages in the district), $N = \sum_{h=1}^4 N_h$, i.e., total number of villages in the district. The sample n_h from each stratum is selected by simple random sampling without replacement (SRSWOR) method.

Thus in selecting samples from strata, the determination of sample size n_h in each stratum is optimized with respect to village sizes in terms of number of households where $n = \sum_{i=1}^4 n_h$, the total sample size n arbitrarily chosen.

Thus stratified two stage sampling procedure is used. At first for every district, the frame of fsu's, i.e., villages with their sizes (total number of households) is prepared, from which villages are selected with stratified SRSWOR sampling method as explained before. After having selected villages in the first stage, we again collect data of PDS beneficiary households for all the selected villages by taking the help of headmen, church organizations and village councils. Then we prepare second stage sampling frame of beneficiary households of each of the selected villages in the first stage sampling.

At the second stage, from the sampling frame of ssu's (list of beneficiary households) for each selected village, 15% of households are selected by using

SRSWOR method. Thus, we have the following number of selected villages and households shown in Table 1.1

Table 1.1: Total number of selected villages and households district wise

District	Total number of villages	Total number of selected villages	Total number of selected households
Kohima	91	19	813
Peren	80	16	322
Wokha	116	23	468
Total	287	58	1603

Source: Field Survey

Selected numbers of households are again presented in block wise and category wise for each district in Table 1.2.

Table 1.2: Selected numbers of households block wise and category wise

Districts	Blocks	Block-wise Distribution of Households			
		PHH	AAY	Card-less	Total
Kohima	Botsa	4	3	0	7
	Chiephobozou	28	11	12	51
	Jakhama	302	46	19	367
	Chunlikha	80	31	1	112
	Kohima	119	94	2	215
	Sechu/ Zubza	8	1	0	9
	Tseminyu	28	11	13	52
	Total	569	197	47	813
Peren	Athibung	28	0	0	28
	Jaluki	75	31	0	106
	Peren	31	14	0	45
	Tenning	107	36	0	143
	Total	241	81	0	322
Wokha	Bhandri	22	7	0	29
	Changpang	33	12	0	45
	Chukitong	30	0	0	30
	Ralan	34	11	0	45
	Sanis	57	8	43	108
	Wokha	116	34	0	150
	Wozuro	44	17	0	61
	Total	336	89	43	468

Source: Field Survey

PERIODICITY OF THE STUDY:

The reference period of the study is from 2005-2015. However according to the need that may arise the study may cover upto the latest developments of PDS.

CHAPTERISATION OF THE STUDY:

Chapter 1: Introduction, Need and Significance, Objectives, Research Methodology, Review of Literature, Statement of the problem, Hypotheses, Area of Study and Periodicity, and Limitation of the Study.

Chapter 2: Existing Scenario of the Public Distribution System of the country and Nagaland.

Chapter 3: The Operational Activities and Management System of the Public Distribution System during the last one decade and more.

Chapter 4: The Performance Evaluation of Public Distribution System (PDS) in Nagaland: A case study analysis of the three districts viz, Wokha, Peren and Kohima.

Chapter 5: The role of Fair Price Shops under Public Distribution System and the Socio Economic Impact in Nagaland.

Chapter 6: Constraints and Prospects of Public Distribution System in Nagaland.

Chapter 7: Summary of findings, recommendations and conclusions.

LIMITATION OF THE STUDY:

Although our study aims at evaluating the performance of Public Distribution System in Nagaland State, the case study is confined to the three districts viz., Kohima, Peren and Wokha. Therefore, when the results are interpreted for the state of Nagaland, there must be some discrepancy. Moreover,

in the three districts of Nagaland, we take samples by employing stratified two stage sampling method. At first, we select 20% of villages from each district and then from each selected village, we select 15% of households. Therefore, howsoever scientific the sampling technique is used, some amount of sampling error is inevitable. Finally, regarding response error, we try our best to let the respondents reveal true information. However, we find some of the respondents to be very reluctant to give the true information. We make our best effort to convince the respondents that this gathering of information is purely for research purpose, but, some people refuse to give response. In such cases, we take the help of nearby households' member or any person in the locality or village head whoever knows the person for gathering information about the household of the person unwilling to respond.

CHAPTER-II

EXISTING SCENARIO OF THE PUBLIC DISTRIBUTION SYSTEM OF THE COUNTRY AND NAGALAND

The existing scenario of PDS is analysed in three sections. At first, there is an elaborate presentation of existing scenario of PDS in the country along with a brief discussion on its nature of evolution since its inception. Secondly, there is an analytical discussion on the deteriorating performance of PDS and emerging challenges of food security in the North-Eastern (NE) states of India. Finally, the socio-economic condition and performance of PDS in Nagaland is elaborately analysed.

The PDS has been the biggest programme of the GOI for providing food security to people of the country, particularly the poorer section of the society. Although National Food Security Act (NFSA), 2013 was to deliver highly subsidized food grains to 67% of the population, howsoever enhanced coverage and expenditure of the government, the sole objective of reaching the foodgrains to the targeted population and distribution of all the allocated volume of foodgrains to the beneficiaries has never been completely achieved because of leakage and pilferage of large amount of foodgrains. The existing PDS is found to be performing better in economically better-off states rather than in those where there is concentration of poor and prevalence of more challenges of equity.

On the other hand, since the enactment of NFSA, 2013, its implementation has covered about 80 crore persons, against the total expected coverage of about 81.35 crore persons, the food subsidy budget has been enormously rising. States are allocated foodgrains at subsidized rates under NSFA, 2013, and other welfare schemes. Difference between Economic cost at the procurement and Central Issue Price (CPI) at which food grains are issued to states are reimbursed to FCI as subsidy. The states which have adopted Decentralized Procurement Scheme

(DPS), subsidy is released to the states by Government of India for the quantity of foodgrains procured and distributed by these states under NFSA and other Welfare schemes. Food subsidy is given to FCI & DPS states depending on the subsidy claim and amount of food subsidy found admissible. Food subsidy released to FCI and state Government in the last four years and current year are given below:

Table: 2.1 Food Subsidy Released to FCI and State governments

Year	Food subsidized Released in crores of rupees		
	FCI	States	Total
2015-2016	112000.00	22919.00	134919.00
2016-2017	103334.61	27338.35	130672.96
2017-2018	101981.69	38000.00	139981.69
2018-2019	140098	31029.4850	171127.485
2019-2020	119164.02	31499.9999	150664.0199

Source: Annual Report 2019-2020, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, GOI.

Problems hampering the effective functioning of PDS:

Gulati and Saini (2015) found 46.7 percent or 25.9 MMTS of the off-taken grain did not reach the intended beneficiaries in 2011-2012. The percentage share of leakage was found to increase in the states where greater percentage of India's poor resided e.g., the five states - UP, Bihar, MP, Maharashtra and West Bengal - which contain 60% of India's poor bore close to 50% of total grain leakage in the country in the year 2011-2012. The authors suggested for shifting from highly subsidized price policy to income policy of cash transfers through Jan-Dhan Yojana by linking UID of Aadhaar Scheme. It would save Rs. 30000 crores annually and plug leakages and reach vulnerable segment. Himanshu and Sen (2011) argued that universal NFSA is efficient and feasible way to ensure food security for all. It would help plug leakages. The key objective of PDS is to

distribute grains of highly subsidized prices to the identified deserving beneficiaries to protect them from lack of availing themselves of basic food. Under the NFSA, the entitlement coverage has gone upto 75% of rural population and 50% of urban population for receiving subsidized food grains under TDPS. Eligible households are categorized as Priority Households (PHH) and AAY. Every member of PHH is entitled to 5kg of foodgrains per person per month at subsidized prices of Rs 3/2/1 per kg for rice/ wheat/coarse grains. Every AAY household is entitled to receive 35kg of food grains per month @ Rs. 3/2/1 per kg for rice/wheat/coarse grains. Though, the GOI undertook the largest public network in the world to ensure that no one in the country should suffer from hunger and malnutrition, leakage has been a potential hindrance to this objective of the government.

Programme Evaluation Organization (PEO, 2005) of the planning commission conducted a study to evaluate the performance of PDS to assess diversion/leakage in which it was found that 58 percent of subsidized food grain off-taken from the central pool did not reach the targeted beneficiaries. It was also revealed that the government incurred Rs. 3.85 in delivering Rs. 1 of an income transfer to a BPL family. Khera (2011) estimated diversion of foodgrains during the years 1999-2000, 2004-2005 and 2007-2008. The study revealed 24 percent of foodgrains leakage in 1999, and the leakage from TPDS was doubled to 54 percent in 2004-2005. The author referred the results of another study done by Institute for Human Development Studies (HDS) and hence concluded that almost 50 percent of foodgrains leaked away from PDS. The author estimated leakages in 2006-2007 and 2007-2008 to be 46.7 percent and 43.9 percent.

Himanshu and Sen (2011) too estimated the leakage from PDS for the years 2004-2005 and 2007-2008 which were 54.8 percent and 42.8 percent respectively.

Gulati, Gujral & Nandakumar (2012) estimated the leakage for the year 2009-2010 to be 40.4 percent.

On evaluating the performance of PDS, Independent Evaluation Office found out 40 percent leakage of allocated PDS food grain which was reported by its Director General in 2014.

An extensive evaluation conducted had showed that 67% of wheat meant to be delivered to the poor beneficiaries did not reach and on the other hand, leakage or diversion was so high that to reach 1kg of wheat to a beneficiary, 3kg of wheat must be moved (Khera, 2011).

In another comprehensive study, it was evaluated that of the total government expenditure spent on food subsidy by the government, around 43% illegal diversion cost, 28% was excess cost, 19% was income transfer cost and only 10% was the transfer cost to the poor (Jha, and Ramaswami, 2010).

Targeting errors and some other serious problems in PDS:

61st round of the National Sample Survey (NSS) revealed that 15% of the non-poor households in the richest quartile and 23.5% in the next quartile in rural areas possess either an AAY or BPL card. On the other hand, 51.4% household in the poorest quartile and 58.4% in the next quartile did not possess either an AAY or a BPL card (Mahamallik and Sahu, 2011).

On conducting in-depth study, it is learnt that leakage, diversion and corruption are the three major causes that have plagued PDS functioning in the country and hampered fulfilling its objective of ensuring food security in the country.

Moreover, some other factors affecting the PDS functioning are incorrect identification of beneficiaries and non-revision of beneficiaries' lists, lack of awareness by beneficiaries, manipulation in the preparation of beneficiaries' list, non-updation of definition of poverty line, bogus cards holders, low margin of FPS dealers, improper storage, transit losses, etc.

Srinivas et al., (2015) and Singh (2013) found out the presence of huge proportion of bogus ration cards in the system created tremendous challenge to PDS efficient functioning as these bogus cards were issued to fictitious family.

The entitlements of the poor households were taken away by bogus card holders, bogus cards were the main reason for the diversion of foodgrains into open markets. These findings were observed by Mathew (2014), Mohapatra and Mahalik (2015), Sekaran (2014), Saykhedkar et al., (2016) and Chadha (2016).

In the annual report 2014-2015 published by the department of food and public distribution, it is stated that in the action against bogus cards, the department eliminated 493.82 lakhs of bogus cards and ineligible cards in 30 states of the country.

Trend of Progressive Development of PDS in the country and present scenario:

During 2nd World War time, 1939 to 1945, when the inflation rose steeply, PDS was first designed to ensure food sufficiency and price stability by the British government. The government of India kept on intervening in agricultural and food markets by holding several price control conferences. A recommendation for the centralised purchase of foodgrains to cope with the prevailing food emergency was made at the sixth conference held in September 1942 (Knight, 1954).

After India got independence in 1947, though the government struggled to contain inflation and man food crisis, a consistent food policy could not be adopted. On the other hand, inspite of some policy regulation enforced by the Food Grains Policy Committee, all the existing control regulation were lifted under the insistence of Mahatma Gandhi as Gandhi believed that control gave rise to fraud, channelised black market, unmanned the people and acted against the spirit of self help. However, the drastic reform combined with bad monsoon led

to crop losses and steep rise in food prices. The prevailing situation called for the reintroduction of controls on the price, procurement and distribution of food grain in September 1948 (Mooij, 1998).

With the adoption of constitution of India as a socialist republic, the Food Grains Procurement Committee of 1950 launched rationing in all large and small towns and regulated a limited supply of grain in rural areas as an approach to achieving economic development. During the first five year plan (1951-56), the PDS covered rural areas having acute food shortages (Majumder, 2009). In 1955, the Essential Commodities Act (ECA) was enacted for exercising control over production, supply and distribution of commodities like wheat and rice. During the third five year plan (1961-66), for strengthening the PDS network, key role was given to the co-operations and governmental agencies for managing stability of prices with the establishment of the Food Corporation of India in 1965 as a procurement agency for building up buffer stock for PDS. The Agricultural Prices Commission was too created in 1965 for fixing support prices to farmers and some objectives of FCI were defined. The objectives were: to provide effective price support to farmers, to procure and supply grain to PDS for distributing subsidized foodgrains to economically vulnerable sections of society, and to keep a strategic reserve to stabilise markets for basic foodgrains (Kumar, 2015).

A new phase in PDS emerged in the fourth five year plan (1969-74) when most of the states enacted Agricultural Produce Markets Regulation (APMR) act.

The act eradicated several malpractices in agricultural markets, created transparency in marketing, identified loopholes in the then existing system and delivered to farmers a fair deal for their harvests (Acharya, 2004).

The adoption of integration of technology and market regulatory policy ushered in an era, during 1970s, of agricultural growth which was known as the Green Revolution. During that time, production of wheat increased from 12 million to more than 26 MMTs, whereas imports decreased from 6.5 million to 0.5 MMTs (Kumar, 2015). However, the years 1971-72 witnessed rising food

prices, the FCI launched open market sales from January 1972. The PDS machinery was strengthened, the number of fair price shops increased from 1.21 lakhs in December 1971 to 1.86 lakhs in December 1972. The wholesale trade in wheat was taken over by the GOI in April 1973 so as to procure adequate stocks for PDS. The years 1973 and 1974 were bad years for Indian agriculture because of drought and therefore these years again became the worst years for supply of essential commodities. The 20-point economic program was launched by the GOI in May 1975, which acknowledged distribution as critical economic function. The government conducted regular monitoring of prices and revamping of production programmes through the Department of civil supplies and co-operatives.

The milestones of achievement in PDS, as recorded from 1965 to early 1990's, were, inter alia, the number of ration shops tripled, the PDS was extended largely to rural India as 75% of FPSs located in rural areas, 70 percent of PDS rice and 55% of PDS wheat were sold in rural areas and the amount of food subsidy increased to Rs 25 billion (US \$ 371 million).

In spite of series of drastic reforms in PDS as well as accomplishment of its objectives to a certain extent, criticisms were revolving around PDS performance on a few points such as failure to reach the poor effectively, urban bias, substantial leakages, supply of poor quality grain due to deficient inventory management and unspecified norm for procurement, lack of transparent and accountable delivery systems, low off take in the states with high concentration of poor.

In order to get a breakthrough in reaching foodgrains to poorer section, the RPDS was launched from 1st January 1992 at Barmer in Rajasthan, which focused on giving higher subsidies primarily to drought prone, tribal, hilly and remote areas. Soon after its launching, the RPDS covered 1775 blocks of area specific programmes such as Drought Prone Area Programme, Integrated Tribal Development Project, Desert Development Programme and certain Designated

Hill Areas as were identified in consultation with state governments for special focus (Chaudhuri, 2008).

Even after paying huge subsidies on foodgrains and expanding its coverage to a great extent, serious loophole still persisted in the system as leakages at national level during 1997-98 were estimated to be 31 percent for rice and 36 percent for wheat. On the recommendations of some committees, targeting was introduced in the PDS, and RPDS was replaced by TPDS with the main objective of ensuring the supply of necessary commodities to the poor section of society. The TPDS focused on household poverty living under poverty line rather than location (World Bank, 2011). The distinctive feature of TPDS is the introduction of targeting by dividing the entire population into two segments i.e., APL and BPL, based on poverty line defined by planning Commission. Under this system, states were required to formulate mechanism and implement foolproof arrangements for identification of the poor for delivery of foodgrains. The identification of the poor under the system was done by the states as per poverty estimates of the planning Commission for 1993-94 based methodology. The expert group in this estimation was chaired by Prof. Lakdawala (GOI, 2011).

The allocation of foodgrains by the Central Government to the states/Union Territories (UTs) was based on average annual off-take of food grains by the state/UT under PDS during the previous ten years. State governments are entrusted with the job of distributing foodgrains to FPS level with transparency and accountability.

Procurement of foodgrains is done by the central government at a cost known as "economic cost" and then the foodgrains are distributed to different categories of beneficiaries at the laid down cost known as CIP. The difference between economic cost and central issue price is borne by the central government.

When looking back to the trajectory of development of PDS, it is observed that since the mid 1960s, India has been moving toward a consistent PDS policy.

With the establishment of FCI and APMC, regulation of agricultural markets, procurement and distribution were in place. In order to incentivize production, the government defined MSP for wheat and paddy favourable to farmers and disbursed institutional credit to farmers. Apart from the implementation of all these policy measures, high yielding varieties of seeds were implanted. As a result Green revolution took place in India which began to produce sufficient foodgrains to meet the country's own needs as well as exports.

After India adopted a programme of structural adjustment in 1997, the TPDS was introduced to target BPL households. In order to make TPDS more focused to the poorest of the poor, AAY was launched in the year 2000. It covered from 10 million poorest of the poor families in 2000 to 22.5 million of the same in 2005-06. Under this scheme, the states/UTs were to bear the expenses of distribution, margin to dealers and retailers and transportation costs so that entire food subsidy would reach the beneficiaries.

In the late 1990's, bad monsoon caused reduction in Agricultural production in several parts of the country which led to chronic hunger of people in many parts of the country. By that time there was surplus foodgrains stocks. There arose a movement that in 2001, the people's Union for civil liberties filed a writ petition in the Supreme Court seeking legal enforcement of the right to food (Bhattacharya et al., 2017).

The ceaseless questioning of efficiency and effectiveness of PDS, the rising issues of starvation, malnutrition among children and women, altogether, led to a widespread grass roots level mobilisation and civil society campaign that ultimately led to the passage of NFSA in 2013.

Unique features of NFSA with regard to PDS:

The act manifests right to food of the citizens. In the history of administration for food security of the country through PDS, a paradigm shift has taken place as the government converts its welfare based approach to right based approach for the citizens. A landmark decision was taken by the Supreme Court

in expanding the Scope of article 21, right to life, to include right to food as one of the components of article 21.

In the perspective of universalising PDS, the act entitles up to 75% of rural population and 50% of Urban population, i.e., altogether, two third of India's population is entitled to get subsidized foodgrains. For becoming beneficiaries of TPDS, eligible households must come under the categories of PHH and AAY households.

In terms of foodgrains entitlement, 5kg per person per month for PHH and 35kg per household per month for AAY households at the rate of Rs 3/2/1 per kg of rice, wheat and coarse grain have been allocated under NFSA, 2013. It is the duty of the states/UTs to identify and prepare the list such households whereas guidelines for identification are provided by Department of Food and Public Distribution.

The Act has provisions for delivering nutritional support to pregnant women, lactating mothers and children up to fourteen years of age. Pregnant women and lactating mothers are entitled to get free meals and maternity benefits of not less than Rs. 6000. For effective implementation, states/UTs are instructed to set up grievance redressal mechanism at the district and state levels.

The Act contains provision for Central Government's assistance to States/UTs to meet expenditure on intra-state movement of foodgrains and margins for fair price shop dealers.

Although the subsidised prices of rice, wheat and coarse grains are Rs 3/2/1 per kg respectively, states are allowed to further subsidise the food grains if the state governments wish to do so.

The provision of women empowerment consideration is in the act as the eldest woman of the household of age 18 years or above must be the head of the household for issuing of ration cards.

Provision of food security allowance is also there in the act. In the case of non-delivery of foodgrains or meals, there is provision in the Act for providing food security allowance to the entitled beneficiaries.

Along with the progressing implementation of NFSA, 2013, in the States, some more stringent measures have been taken up to strengthen TPDS.

As the measures for eliminating leakages and ensuring delivery of entitlements to the beneficiaries, Government has stepped up activities for the implementation of a plan scheme End-to-End Computerisation of TPDS. The scheme is collaborated with States/UTs on cost sharing basis of 50:50 except for NE states where cost sharing is 90:10. The Central Government has strongly instructed the states for digitisation of ration cards with Aadhaar seeding and uploading the beneficiaries' lists in the transparency portals of States/UTs.

According to Annual Report 2019-20, Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, Government of India, with regard to online allocation of food grains upto FPS levels, so far it has been implemented in all states/UTs except UTs of Chandigarh and Puducherry where there is adoption of Direct Benefit Transfer (DBT) of Cash transfer system. Computerisation of Supply Chain Management of foodgrains has been implemented in 28 states/UTs and progressing in the remaining states/UTs. Online grievance/toll free help lines and transparency portals have been launched. Automation of 4.67 lakh fair price shops of the total 5.34 lakh FPSs has been completed in the country and the automated FPSs are running electronic point of sale (ePoS) devices; 87% of FPSs in the country have run ePoS devices. Integrated Management of PDS scheme was launched from April, 2018. Under this scheme, ration card holders under NFSA can lift their entitled foodgrains from any FPS of their choice in the country by using the same ration card plus biometric/Aadhaar authentication on an ePoS device. Under the scheme, there is provision for interstate/National portability of ration card holders under 'One Nation One Ration Card' plan. 12 states in India have already implemented it.

Provision of intra-state portability of ration card holders has also been incorporated.

As a measure for eliminating leakage, Direct Benefit Transfer Scheme has been started in the UTs of Chandigarh and Puducherry from the month of September, 2015 and part of Dadra Haveli from March, 2016.

NFSA also provides financial assistance from the central government to support expenditure for intra-state movement of foodgrains and margins for fair price shops. For this purpose, the following amounts have been released in the last three/four years.

Table 2.2: Amount Released for intra-state movement and FPS margins

Amount released to states/UTs	Year
Rs 2500 crore	2016-17
Rs 3072.72 crore	2017-18
Rs 3883.94 crore	2018-19
Rs 1433.26 crore	Released on 31.12.2019

Source: Annual Report 2019-20, Department of food and public distribution, Ministry of Consumer Affairs, Food & Public Distribution, GOI.

The Central Government served notification to all the states and UTs on 8th February, 2017, issued under Aadhaar Act, 2016. The individual beneficiary is required to get his/her ration card authenticated to receive subsidies under NFSA and those who do not possess Aadhaar is required to make application for Aadhaar enrolment by giving their details to the UIDAI designated agency or as prescribed by the State/UT Governments.

The notification further states that till Aadhaar is obtained by the beneficiary under NFSA, the entitlements must be given to such individuals on production of ration card and either Aadhaar Enrolment ID slip or copy of his/her request made to the State/UT Government for Aadhaar Enrolment, along with any of the following identification documents namely (i) Voter ID card issued by the Election Commission of India or (ii) PAN card issued by Income Tax

Department, or (iii) Valid passport or (iv) Driving License or (v) Certificate of Identity having photo issued by a Gazetted officer or Tehsildar on an official letter head or (vi) Address card having name and photo issued by Department of posts or (vii) Kishan photo passbook or (viii) any other document as specified by the State Government or Union Territory administration.

Instructions have been issued to all States/UTs not to delete any person/household from the list of eligible beneficiaries on the ground of not possessing Aadhaar number. In the case of failure of biometric authentication due to network/connectivity or linking issue or other technical reasons, the beneficiary must be given entitlement on the basis of physical production of Aadhaar Card.

For evaluating the functioning of TPDS in 27 states/UTs, the government has entrusted/assigned the work to 26 Monitoring Institutions (MIs). MIs share evaluation exercise with respective State/UT governments and have to submit reports quarterly.

Since enormous infusion of ICT based technology in the administration and operation of TPDS, officials/staff are to be trained in data analysis, viability of FPSs, portability of ration cards, dash-boarding of data/reports, social audits, oversight and monitoring mechanism under NFSA. For imparting necessary training, Government has undertaken necessary steps and begun imparting training in some states.

Regarding formation vigilance committees of all levels and institutionalization of social audits in TPDS, although Vigilance Committee existed since the inception of PDS, NFSA has the provision that Vigilance Committees should supervise the implementation of all schemes under the Act and inform the District Grievance Redressal Officer of any violation of the provisions of the Act, or malpractice or misappropriation of funds found by it. Every state/UT Government is required to set up Vigilance Committees at the State, District, Block and FPS levels giving due representation to the local

authorities, the scheduled caste, scheduled tribes, women and destitute persons or persons with disability.

Regarding the conduct of Social Audits, all the States/UTs have been instructed vide letter dated 12.09.2017 to do the needful for facilitating social audit in the functioning of TPDS.

Annavitran Portal (annavitran.nic.in) has been developed for monitoring transaction through ePoS, it provides details of biometric/Aadhaar authentication. Moreover National Food Security Portal (nfsa.gov.in) has also been developed for continuous monitoring of Ration Cards Management Systems, Online Allocation and Supply Chain Management Systems of States/UTs.

Regarding allotment of FPS to institutions and groups, under NFSA, 2013, States/UTs are directed to give preference to public institutions or public bodies such as Panchayats, women self-help groups (WSHG), co-operatives in licensing of FPSs.

The above mentioned are some of the profound and significant measures that have been undertaken for enhancing the functioning of TPDS to meet the objectives of NFSA, 2013.

PDS is replete with problems, it is crucial for this country in which 14.5% (194.4 million people) of population are undernourished and 51.4% of women in reproductive age are anaemic (FAO, 2019). A trend of its progress towards efficient functioning has been seen in many states of India disproving the whole system to be labeled as dysfunctional. We have seen the design and delivery of PDS have evolved, with state governments and civil society are playing key role in the reform process. Now, some states like Himachal Pradesh, Kerala and Tamil Nadu have been adopting exceptional measures to make procurement, transportation, storage and distribution of foodgrain entitlements efficient, free of corruption, and transparent. More recently Andhra Pradesh, Bihar, Chhattisgarh and Odisha have come in the right track with effective reforms and initiatives. Measures undertaken by the department such as decentralising the procurement

and the storage process, using ICT tools to modernise the TPDS delivery chain, engaging common masses and civil society, etc., result in positive changes. Food stamps, food coupons, food credit cards, cash transfers, Aadhaar Based Biometric Authentication (ABBA), Universal PDS, private player participation etc., are effective initiatives undertaken by the government in its pursuit of bringing accountability, curbing corruption, proper coverage of the poorest and most vulnerable individuals. Although the measures are largely successful, there is still so much to improve in the functioning of PDS so as to achieve the targeted objectives of PDS.

Performance of PDS and emerging challenges of food security in North-eastern States of India:

Food security continues to be one of the gravest issues in India even though India is one of leading countries in the world in various fronts. A large number of undernourished people, the majority of whom are BPL and spend a considerable proportion of their total income on food, are still living in India even though India is among the leading countries in the world in terms of foodgrains and dairy production. For the NE states of India, the situation is grimmer as this region lacks development in key areas – industrialization, natural resource mobilization, infrastructure, peculiar landscape etc. Although livestock and agricultural productions in Assam are excellent, other hill states of the region are not self-sufficient in such productions. In this section, we have conducted analytical review of poverty and livelihood conditions of people of NE India to a certain extent by examining a number of relevant economic indicators, poverty indices, malnutrition and lack of access to food security. Moreover, we have investigated and analysed nature, causes and intensity of deteriorating performance of PDS in the region. The study is based on a number relevant research articles, books,

reports of government and nongovernment agencies, annual reports of concerned departments, newspapers and magazines reports etc.

. The economy of NE India is in a lamentable trend when assessed based on various socioeconomic parameters, i.e., low per capita income, inadequate infrastructures, poor communication in remote areas, geographical isolation, mismanagement in storage and distribution of agriculture products, and most disappointingly, the lack of awareness among ethnic and tribal communities of their rights and responsibilities in this regard and benefits they are entitled to get under various poverty alleviation and food security schemes. Approximately, 80 percent of population of this region depends on agriculture product and allied activities for their livelihood; their purchasing power is very low as compared to that of people in the rest of India. The people of these states are susceptible to food insecurity and malnutrition that affect mainly children of early childhood ages and women in their maternity age. The PDS is considered to be the only welfare scheme and social safety net par excellence to ensure food security of the masses as under this scheme people avail themselves of foodgrains and some other essential items at affordable prices. According to the GOI 2012-13 report, among NE states, both allocation and off-take of wheat and rice under the TPDS was recorded highest in Assam for BPL, AAY and APL cardholders and lowest in Sikkim for the three categories of cardholders. In this region, some FPSs under TPDS are run by different groups like WSHG, village panchayats, traditional village bodies, urban local bodies, self help groups, etc. Among India's 18821 WSHGs, Sikkim and Tripura have been recorded to have 340 and 9 FPSs run by WSHG. Nagaland is the only state of north east which has 1165 village panchayats and 260 urban local bodies running FPSs under TPDS (Deka and Sarmah, 2014).

A state wise analysis of deprivation index was done by Maurya and Pandey (2010) considering three major types of deprivation - deprivation from long and healthy life span, and access to knowledge and a decent standard of living. In this

comparative study it was found that Bihar witnessed the highest level of overall deprivations followed by Uttar Pradesh and Assam. On the other hand Kerala, Karnataka, and Maharashtra recorded the lowest level of deprivation. Among the NE states, the deprivation index of decent standard life was recorded highest in Assam with 0.421 and lowest in Arunachal Pradesh with 0.256. In terms of the greater coverage under NFSA, particularly the coverage percentage in NE states, based on population taken from 2011-12 NSSO data, it was recorded that Manipur had the highest coverage of the scheme for both rural and urban areas with 88.56% and 85.75% respectively, and lowest coverage in rural areas of Arunachal Pradesh with 66.31%, lowest in urban coverage was Sikkim with 40.36%. The coverage of NFSA in other NE-states were Assam with 84.17% in rural and 60.35% in urban, Meghalaya with 77.79% in rural and 50.87% urban, Mizoram with 81.88% in rural and 48.60% in urban, Nagaland with 79.83% in rural and 61.98% in urban, Sikkim with 75.74% in rural and Tripura with 74.75% in rural and 49.54% in urban.

Socio-economic and poverty condition of NE states:

Bhagowati (2012) conducted a study by analyzing the various human development indicators in the region. In this study, it is established that NE states are still behind from the rest of country in terms of per capita income, poor condition of dwelling houses (whether pucca and semi-pucca houses), and access to electricity, literacy rate of APL and BPL population, infant mortality rate (IMR), road connectivity, market for agriculture products, access to safe drinking water etc. None of the states of NE scores the human development index (HDI) value equal to or above 0.5. Excluding Sikkim, all the states of NE India are poor in HDI. The HDIs of Arunachal Pradesh, Assam, Meghalaya, Mizoram, Manipur, Nagaland and Tripura are 0.321, 0.243, 0.286, 0.323, 0.262, 0.275, and 0.262.6 respectively. Food security in NE states remains an untamable issue and developmental economic activities remain badly disturbed due to unhealthy

political climate stemmed from ethnic conflict, illegal immigration problems, identity crisis and insurgency. Moreover, there is a fast trend of environmental and ecological degradation in this region as indiscriminate and unscientific exploitation of natural resources is going on unchecked; environmental degradation in the hills, rivers and plain belts is in alarming rate and scale leading to frequent occurrence of natural calamities like flood, drought, cyclone etc. Another serious problem of NE is landlessness; a large number of landless peasants become economically rootless in the rural and urban areas. Central government has taken initiative to form a new group called Internally Displaced Persons (IDPs) for the people who are displaced from their native places in large scale mining, construction and expansion roads, construction of commercial centers and establishments, industries, power projects, water reservoirs, hydro-power projects etc. Rights and life securities for the IDPs are becoming a matter serious concern, because these people have lost their livelihood; rehabilitation of such people is highly crucial else they suffer from abject poverty and relentless deprivation from food security. Assam's economy is ravaged by severe floods which regularly occur not only once but also twice or thrice a year and people regularly lose their crops, properties, household commodities endangering their livelihood. A flood not only destroys standing crops but also stored food-grains, and consequently renders food security of the people into a fragile state. The victims of flood and displaced people due to receding river bank, so to say, environmental refugees do not get the adequate attention that they deserve. Internal displacement in case of ethnic violence is more prominent in Assam and Manipur. Some of the displaced persons remain as residents in relief camps along with their families more than a decade. The government has been providing only rice for the displaced people, which can barely meet their minimum nutritional requirement. It is necessary to ensure effective management of demand and supply chain that must reflect the nutritional requirements of the people who deserve it. The norms fixed by the Planning Commission about minimum daily calorie intake of 2400 per person in rural areas and 2100 cal in urban areas must

be seriously considered as a benchmark while framing policies for poor people (Patgiri, 2013).

Konwar (2015) also studied about the deprivation index based on various socioeconomic indicators such as sanitation facilities, drinking water, electricity, inequality in economic growth rate population, rail density, average years of education, and per capita monthly expenditures of population under BPL. In his study, he found that from the point of view of multidimensional poverty index (MPI), Assam was the highest among the north east states but variation of MPI within the state was highest in Meghalaya. In 2011-12, BPL population was found to be highest in Manipur (46.7%) followed by Assam (40.9%) and Arunachal Pradesh (37.4%) exceeding that of all India level (29.5%). It was observed that economic indicators such as average years of education, per capita monthly expenditure and various components of livelihood of population under BPL confirmed the pace of inequality growth. There is huge gap between urban and rural areas in terms of providing basic services. Among the north east states the maximum average deprivation in basic facilities is in Meghalaya (0.6009) followed by Assam (0.5387).

According to the Millennium Development Goals (MDG) reports, 2015, poverty head count ratio (PHCR), computed by Tendulkar Methodology, was found to be in decreasing trend, as compared to that of preceding decades, in all states of north east India except Mizoram state which recorded as, 10.99 in 1990, 15.30 in 2004-05, 20.40 in 2011-12, and it was also projected to reach 20.40 again in 2015. For another two states of north east, i.e., Nagaland and Arunachal Pradesh, PHCR was recorded in 2004-05 as 9.00 and 31.10 respectively which were increased to 18.88 and 34.67 in the year 2011-12. A comparison on the basis of MDGs report in years 2015 and 2017 indicated increase in number of poverty ratios for these states; it is disappointing to see that the first goal of development remains a far cry. Government created new mechanism and, accordingly,

implemented policy measures to achieve its target in the reduction of poverty but the increasing PHCR shows a gross failure of its programmes and policies.

Latest developments in the performance PDS in NE states:

In June, 2018, FCI recorded the stock of rice in Arunachal Pradesh was 19397.88 MT, whereas utilization was 70.70%, in Assam was 312013 MT whereas utilization was 81.50%, in Nagaland was 37639.35 MT whereas utilization was 90.96%, in Manipur was 17370 MT whereas utilization was 54.13%. Government of India has been constructing more godowns for enhancing the performance of the scheme with special focus on the NE states. The capacity created in 12th Five year plan till 31st March 2016 was 1,13,700 MT. FCS department has launched end-to-end computerisation of TPDS operations on cost sharing basis with states/UTs. Cost is being shared on 90:10 basis with NE states and on 50:50 basis with other state/UTs. The scheme is a Mission Mode Project (MMP) under the National e-governance Programme. Regarding upgrading online allocation of foodgrains implementation system, among the NE states Assam, Sikkim, Tripura and Mizoram have implemented and Arunachal Pradesh, Meghalaya and Nagaland are in progressing stage; automation of supply chain management implementation are in progress in all the seven states and Tripura is the only state that has implemented in full fledge. The Smart e-PDS is set to launch by both the central and state governments and it is considered to be best mechanism for enhancing the performance of PDS and enabling efficient functioning of FCS. Among the NE states, Arunachal Pradesh becomes the first state to introduce Smart e-PDS, a solution developed by Madras Security Printers in 2018. The state has taken initiative to deploy more number of new projects to improve the PDS and make it a people friendly and beneficial service.

According to report given by Standing Committee on food, Consumer affairs and Public distribution, 2012-13, 537140 MT of foodgrains have been allotted to FCI go-down for NE states of India. Assam badly lacks the requisite

infrastructures such as storage facility, civil supplies cooperation, adequate skilled manpower, efficient transportation, adequate fund that has to be shared by the state etc. The Assam state govt. has indentified a gap of 4 lakhs MT of foodgrains storages facilities. FCI Assam has set a plan for developing infrastructure and service for an enhanced operation of 3.40 lakhs MT of foodgrains.

The most potential problems in PDS, inter alia, are pilferage, leakages, gap between allotment and off-take, and non-reaching of foodgrains to the deserving people.

In the case of rice leakage, it was 96% in Manipur, 91% in Nagaland and 27% in Assam. The all India leakage of rice was accounted as 15%, that is a loss of Rs. 5892 crore. Similarly, in case of wheat distribution, the NE leads with 100% of its leakage basically in the rice consuming state Nagaland and Manipur, 99% in Meghalaya, 97% in Sikkim, 96% in Assam, 91% in Arunachal Pradesh and 90% in Mizoram (Article, 'Region Leads in PDS Distribution Leakage' February 28, 2015, the Times of India).

Nongkynrih (2015) discusses about the food security on the working of PDS in East Khasi Hills District of Meghalaya. The PDS functions through three stakeholders namely the Government, Dorbar and Civil Society. The study reveals that the working of PDS in said district is affected by a number of serious problems. Meghalaya is a consumer state and it has to depend on other nearby states like Assam for the supply of foodgrains like rice, wheat and sugar. In the state, proper identification of BPL beneficiaries has still remained as a challenge as a number of ghost card holders have surfaced and moreover many deserving ones are still deprived of from being identified. Tribal household sizes are usually big, distributed food grains through PDS was not sufficient for the beneficiaries to get their monthly necessities for food and healthy life. Moreover, the food quality is detected, in a number of instances, to be too bad for

consumption. Leakages, pilferages and fluctuation of pricing system in FPS outlets are the serious issues which remain unsolved.

It is the indisputable fact that PDS is the largest safety net and most useful, rather indispensable, in providing food security to the masses for a country like India where huge proportion of population live BPL. It is also useful in exerting downward pressure to market price of foodgrains and thus helps in controlling price rise in open markets. In northeastern region of India, PDS is playing crucial role in providing basic economic support so that citizens may be able to live hunger and malnutrition free. The problem of PDS is mainly in its implementation. As discussed in the introduction part, northeast states are mostly not self reliant with the existing condition of agricultural and dairy production. The region is backward in all types of infrastructures of development. Socio-economic indicators have shown grim situation in the region. On the other hand, terrible performance of PDS is observed in the region due to large scale leakages, diversion, non-lifting of huge quantity of allotted foodgrains, insufficient quantity of allotment in many cases, increased number of ghost card holders and irregular pricing in FPSs. The region is predominantly inhabited by tribal people whose household sizes are generally large, so household size allotment of PDS items must be reviewed accordingly. The main reasons of non-lifting are states' inability to bear transportation cost and lackadaisical functioning of concerned departments. The state governments must rectify these malfunctioning by revising functioning mechanism. Governments at centre must strictly monitor performance of state governments and, if required, certain mandatory norms should be specified for the states. With the introduction of Smart e-service, the outcome in ground level such as baseline survey for the identification of beneficiaries list must be strictly monitored and then revised timely. Exclusion of ghost card holders, prevention of leakages and curbing on deprivation of deserving ones in revision of beneficiary list are the areas to be taken care adequately. The states' departments must act to ensure the citizens to be aware of

their rights and shares in PDS. Red tapism in the system must be overhauled and transparency must be set as the prime target and motto of the functioning of PDS.

Public Distribution System In Nagaland:

Nagaland is a North-Eastern (NE) state of India predominantly inhabited by indigenous Naga tribes. Apart from conglomerate of Naga tribes, minority Kuki and Kachari tribes also inhabit in the state and thus there are altogether 16 recognised tribes according to 2011 census. The state comprises 11 districts each of which is headed by a deputy commissioner; the deputy commissioners are assisted by 18 additional deputy commissioners and 19 sub divisional officers. There are altogether 1428 villages headed by Gaonburas (headmen) or traditional headmen who look after administrative functioning of villages. The state occupies 0.5% total geographical area of India and 6.7% of total geographical land of NE region. According to 2011 census, the population of Nagaland is 19,80,602 and the population density in Nagaland is 119 per sq km against the country's average of 362 per sq km.

The MPI is found the highest in NE states as it is measured the highest in Assam with its BPL population percentage 46.7%, and the most socio-economically deprived state is Nagaland from the viewpoint of economic disparity (Konwar, 2015). Like all other NE states, share of services to Gross State Domestic Product (GSDP) is high in Nagaland, i.e., 56.0 (according to the report of Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation (MSPI)). Among all the NE states, per capita monthly expenditure is the highest in Nagaland (1094.88). Per capita monthly expenditure is considered to be a better measure for economic well being of people than per capita monthly income measure for many obvious reasons (Nayak, 2013). Share of Industry in GSDP (at prices 2011-12) in Nagaland is 20.3, and share of agriculture and allied sector in GSDP is 23.8%. Nagaland economy was initially based on traditional agriculture. Agriculture was the main occupation, whereby

89.55% of its working population has been still using primitive and conventional technique in almost all rural areas. However, in the last two decades structural transformation through modernization has taken place in many parts of the state, where transport and communication facility is better, to the extent that growth of tertiary sector becomes the major contributing factor in Net State Domestic Product (NSDP), but contribution of secondary sector remains poorest in the economy of the state (Jamir, 2005).

This section comprises four sub-sections, in the first sub-section, an overview of poverty and employment challenges in the state is presented. In the second sub-section, a brief retrospective study of PDS in regard to its evolution, organizational structure and mode of operation, and finally an assessment of the performance of PDS in the state are presented. The fourth sub-section mainly focuses on findings of Comptroller and Auditor General (CAG) in the audit report. Moreover, this sub-section contains analytical discussion on fabricated claims of the FCS department of conducting baseline survey and implementing transparent mechanism of PDS functioning, and hence findings and concluding remarks are presented.

An Overview of Poverty and Employment Challenges:

The Directorate of Economics & Statistics (DES) estimates the GSDP of the State. In consultation with the MSPI, GOI, the GSDP is prepared by the DES. The estimated figure of the GSDP with 2011-2012 as base year both at current and constant prices in the new series is given in the Table No. 2.3. The real growth of an economy which is measured by the GSDP at constant prices indicated an increasing trend during 2012-2013 to 2013-2014. During 2016-17 (P) in real terms it recorded Rs.1551125 lakhs against Rs.1466049 lakhs in 2015-16 registering a growth rate of 5.80 %. The GSDP at constant price is further estimated to have increased to Rs.1618164 lakh during 2017-18 (Q.E) with a declining growth rate of 4.32 %, which is below the national average annual

growth rate of about 6 percent. But it is pertinent to mention that the latest national GDP is lowered to 5%. However, during 2018-19 (A.E) the GSDP at constant price is anticipated to grow by 5.97 %. The fall in the growth of the GSDP during 2017-18 (Q.E) is on account of slowdown in the growth of primary sector to 2.91 % and also the sub-sectors of “Other Services” in the Tertiary Sector which register a negative growth of -1.69 percent in 2017-18. As per the advance estimates for 2014-15, the PCI (per capita income) reduced from GSDP at current price was Rs 89541. The per capita GSDP at current prices has increased from Rs. 113549 in 2017-18 (Q.E) to Rs. 124240 during 2018-19 (A.E). The annual growth rate of the PCI during 2018-19 (A.E) is estimated at 9.42 per cent shown in Table 2.3(Annual Administrative Report, Directorate of Economics and Statistics, Government of Nagaland, 2018-19).

Table 2.3: GSDP at current and constant Price and Per Capita GSDP at current price, in lakhs

Year	GSDP		Growth Rate		Per Capita GSDP at Current Price	
	Current	Constant	Current	Constant	GSDP	Growth Rate
2011-12	1217676	1217674	-	-	61159	-
2012-13	1412127	1286790	15.97	5.68	70185	14.76
2013-14	1661173	1379259	17.64	7.19	81670	16.36
2014-15	1840067	1439877	10.77	4.39	89541	9.64
2015-16	1952395	1466049	6.10	1.82	94001	4.98
2016-17 (P)	2148754	1551125	10.06	5.80	102370	8.90
2017-18 (QE)	2409504	1618164	12.13	4.32	113549	10.92
2018-19 (AE)	2663719	1714740	10.55	5.97	124240	9.42

Source: Annual Administrative Report, Directorate of Economics and Statistics, Government of Nagaland 2018-19, P= Provisional, QE= Quick Estimate
AE= Advanced Estimate

In case of constant prices that percentage contribution of primary sector to GSDP in the year 2017-18 and 2018-19 were 29.38 percent and 29.39 percent respectively whereas 12.23 percent and 12.25 percent were contributed by the secondary sector, and tertiary sector contributed 58.38 percent and 58.37 percent to GSDP at constant price respectively, given in Table 2.4. The highest

contribution from tertiary sector to GSDP was 60.29 %, in the year 2016-17 as it was recorded, whereas for primary and secondary sectors' contributions in the year 2011-12 were 31.41% and 12.41 % respectively.

Table 2.4.: Percentage of contribution of the sector to GSDP at constant Price

Sector	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Primary	31.41	31.35	32.46	32.17	29.74	28.42	29.38	29.39
Secondary	12.41	12.07	8.98	9.88	10.16	10.27	12.23	12.25
Tertiary	56.17	56.58	58.56	57.94	59.02	60.29	58.38	58.37

Source: Economic Survey, Directorate of Economics and Statistics, Government of Nagaland, 2018-19.

The growth rate of Gross State Value Added (GSVA) by economic activity at current and constant prices of the state from 2012-13 to 2016-17 are presented in Table 2.5.

Table 2.5: Growth rate of GSVA by economic activity at current and constant price

Sector	2012-13		2013-14		2014-15		2015-16		2016-17	
	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant
Primary	21.83	5.60	22.23	10.50	9.49	2.80	- 1.20	- 6.21	6.64	- 0.60
Secondary	11.44	2.83	1.43	- 20.56	22.37	14.14	4.93	4.33	7.25	5.12
Tertiary	13.94	6.57	17.58	10.48	8.19	2.61	8.87	3.33	12.54	6.27
GSDP	15.97	5.68	17.44	7.19	9.97	3.20	5.35	0.72	9.95	4.04
PCI GSDP(Rs.)	14.76	4.57	16.17	6.03	8.85	2.15	4.24	- 0.35	8.76	6.95

Source: Economic Survey, Directorate of Economics and Statistics, Government of Nagaland, 2016-17.

Report of DES, Nagaland, says the state recorded increase of NSDP by 43.29 times during the period of 25 years, i.e., from 1980-81 to 2005-06 and per capita NSDP from Rs 1361 to Rs 18318 which is 13.46 times increase during the same

period. Later on, total NSDP at basic prices was recorded Rs. 1435410 (in lakhs) in the 2013-14 and Rs. 1593863 (in lakhs) in the year 2014-15. Net State Value Added (NSVA) by economic activity at current price of Nagaland is presented in the following Table 2.6.

Table 2.6: NSVA by Economic Activity at Current Price, in lakhs

Sector	2011-12	2012-13	2013-14	2014-15
Primary	332745	408231	500769	544992
Secondary	132564	147713	145649	104548
Tertiary	579122	664989	788991	864323
Total NSVA at basic Price	1044431	1220932	1435410	1593863
NSDP	1021690	1186656	1454521	1609560
Per Capita NSDP	51315	58979	71510	78324

Source: Economic survey, Directorate of Economics and Statistics, Government Of Nagaland, 2016-17.

Agriculture and allied sector is one of the major contributors to the GSDP and is the largest employer of the workforce (WF) in the State with 45.47 % of the working population engaged in agricultural activities (Census 2011). The overall foodgrains production in the State has been steadily increasing over the years. There was an increase of 3.03% during 2017-18 as compared to that of previous year. Although the agriculture sector still remains as one of the largest contributors to the economy of the State, the share of Agriculture and Allied Sector in the GSVA which was 31.05 % in 2012-13 has declined to 27.61 % as per Q.E of 2017-18 and is anticipated to decline further to 27.47 % during 2018-19 (A.E). This portrays shifting of the State's economy from agriculture towards other sectors. Agriculture and Allied Sector registered a growth of 2.41 % during 2017-18 and is estimated to grow at 5.37 % during 2018-19 (A.E). During 2017-18, total net sown area is 384802 ha (hectare) and total cropped area is 530102 ha. In the same year, gross irrigated area and net irrigated area was 122890 ha and 115500 ha respectively. Under land classification, forest land covers major area of 39.54 % followed by gross cropped area of 24.29 %. The cropping intensity pattern in Nagaland has been increasing since 2014-15. From 130.28 % in 2014-15 the cropping intensity has increased to 137.75 % in 2017-18 (Economic

Survey, 2018-19, Directorate of Economics and Statistics, Government of Nagaland).

Poverty and economic inequality are also a big challenge for Nagaland as 36.82 % of rural population and 29.39 % of urban population are living under BPL. In the average, 33.83% of Nagaland population lives BPL. After taking into consideration Head Count Ratio (HCR), Poverty Gap Index (PGI), Sen Index, MPI, it was inferred that poverty level in rural areas is higher than urban poverty level and average poverty level of Nagaland (Jamir and Ezeung 2017). According to the Tendulkar poverty estimation method, it was recorded that 3.76 lakh people among the total population of the state were under the below poverty line, in the year 2011-12.

Poverty and hunger in Nagaland have been an issue of serious concern in the same pace and intensity as in many other parts of the country and world. The lack of effective mechanism for ensuring social safety and security by addressing the problem of economic disparity and poverty has been a chronic problem plaguing the human development of the state. The social security must be attained through doing away shortages of basic necessities of people by guaranteeing every citizen an adequate income at all times. Minimum level of livelihood must be ensured through pervasive intervention of government in economic and social fronts with an aim to stabilising balance between supply side and demand side.

PDS in the state of Nagaland was started and has evolved over time as a part in the evolution of PDS in India. Government of India introduced the TPDS in June 1997 to provide foodgrains mainly to the poor and hunger stricken people. The fourth five year plan of republic India entered into a new phase of PDS as two drastic changes were made in the system, i.e., to make the PDS regular to reach rural poor and to ensure open market price stable; these two measures were undertaken to pave the way for equitable distribution of foodgrains and controlling poverty, whereas translating the measures into action was better realised in the sixth five year plan (1980-85) in which government of India

worked out sustained action plan for making PDS stable and fitting strategy to control price fluctuations and achieve equitable distribution of consumer goods; all these policy measures worked more efficaciously in the aftermath of Green revolution, the outreach of PDS was extended to tribal blocks and places of high incidence of poverty.

All those developments in PDS had a significant impact in Nagaland state too. Earlier CPO existed in Nagaland which was designed to cater to the requirement of foodgrains and other essential commodities of the government servants posted/stationed in various far flung, remote and inaccessible places in the state, and supplies were mostly carried out by means of airdropping due to lack of road communication. Accompanied with the evolution of PDS in the country, the CPO system continued till March 1984 and since then, from the month of April of the same year, along with the rest of the country, the state introduced PDS as a new policy. Under this improvised system too, only urban dwelling beneficiaries could be distributed ration cards but the rural areas could not be covered due to poor network of road communication (Write up on Nagaland Vision Document 2030 in Respect of FCS, Department of FCS, Nagaland, July 2016). When the central government had started Revamped PDS in the year 1992 (in the month of June) with new provisions to improve its reach in the far flung, hilly remote and inaccessible areas, the PDS in the state too worked in tandem with the new provisions to cover the remote and inaccessible areas where substantial section of poor live; it also covered specific programmes such as the Drought Prone Area Programme (DPAP), Integrated Tribal Development Projects (ITDP), Desert Development Programme (DDP) and certain Designated Hill Areas (DHA) in collaboration with state governments.

The FCS department is responsible for implementing and monitoring of the scheme through allocation and identification of families living below poverty line, issuing ration cards, supervising and monitoring the functioning of FPSs in the state. The organisation is a three tier systems in Nagaland - (i) Secretariat (ii)

Directorate (iii) Districts. The Secretary, FCS, is the administrative head of the department. The Secretariat comprises of Secretary, Joint Secretary, under Secretary and Section Officer. The department is assisted by Additional Directors, Joint Directors and two Deputy Directors at the directorate level which is further supported by Assistant Director (12 numbers), Registrar (1 number) Senior Inspectors (12 numbers), Superintendent (3 numbers), Inspector of Supply (15 numbers), Assistant Superintendent (3 numbers), Sub-inspectors of supply (30 numbers), Senior Account Officer (1 number), 102 Storekeepers and Account officer (1 number) (Annual Administrative Report, 2017-18, Government of Nagaland, Department of Food and Civil Supplies).

At present, the department is run by altogether 536 employees. The Central Government makes foodgrains available through Food Cooperation of India (FCI) to the state for the distribution under the PDS since DPS is not adopted in Nagaland. The objectives of FCI are: (a) Ensure foodgrains availability, (b) Fair distribution of essential commodities, (c) Check malpractices, (d) Ensure supply of essential commodities to targeted population, i.e., BPL and APL (PHH), and AAY. There are 77 Public Distribution Centers (PDCs) functioning across 11 districts through 1622 FPSs (1332 in rural, 290 in urban). Although there is Central Government Policy to have one Food Storage Depot (FSD) of the FCI in each district, so far only four FSDs are existent in Nagaland (Annual Administrative Report, 2017-18, FCS dept., Nagaland).

Findings of Comptroller and Auditor General:

The audit report of CAG of India on the performance of PDS in Nagaland approximately covered the period from 2005 to 2011. The report stated that the state government did not conduct any baseline survey to identify the BPL beneficiaries. As a result 41 percent of deserving households in the state had been remaining outside the coverage of PDS. The department did not carry out periodic revisions of beneficiary list for addition/deletion of eligible/ineligible

beneficiaries. The department failed to comply with scheme guidelines, eligible beneficiaries were deprived of benefits whereas ineligible beneficiaries continued to enjoy the benefits for years together.

A large number of deceased persons and government employees were detected by the audit as BPL beneficiaries whereas a large number of genuine people who were in BPL had not been entitled to the benefits. Undue benefits were extended to 670 ineligible beneficiaries. A database of ration card holders was not maintained systematically, audit could not vouchsafe the veracity of the records due to poor maintenance of records by the department. The excess ration cards issued to the district offices without any requisition pointed towards the possibility of misuse of 5069 ration cards. The possibility diversion of essential commodities to unauthorised persons could not be ruled out.

The department failed to ensure allocation of allotted foodgrains to the FPS, the commissions earned by the FPS owners were too meagre for rendering FPS service viable. Many of the approved FPSs were found non-functional. The department also did not monitor the pricing pattern of foodgrains sold at different levels. As such, the department authorized stockists charged higher rate than the government notified rate putting extra burden on the beneficiaries. The department was not sincere in carrying out the surprise inspections as none of their prepared annually published reports revealed any such finding although so many lacunae in the overall functioning were pointed out in the Audit Report of the CAG of India.

There were instances of non-lifting of 30876 MT foodgrains that resulted in the deprivation of beneficiaries. There were serious mismatches between the quantities reported to have been supplied by the department and received by FPSs in the entire district. That shows diversion of foodgrains scandalously to open markets at the cost of beneficiaries. In many cases, not even a small amount foodgrains reached the district although department recorded a huge quantity had been supplied. One such example is during 2010-11, the department released of

5402 MT to four districts, however in audit test check in the said four districts revealed that none of the districts had received foodgrains. Instead foodgrains were diverted to permit holders in violation of scheme guidelines. A number of cases such as pilferage, diversion, arbitrary fixation of price by the FPS owners violating the norms obliged by the GOI, etc., were unearthed.

Out of five food storage depots of the FCI, three remained non-functional and as a result stockists located in the vicinity had to lift the foodgrains from Dimapur leading to delay in distribution. Moreover if foodgrains are not stored in specified godowns as per PDS control order and norms, the foodgrains are diverted to open market. It was also shown that the department provided 826.76 MT foodgrains to 23 non-existent hostels under SC/ST/OBC hostel schemes. Besides, 4334.02 MT of foodgrains were issued to 140 non-existent welfare institutions and hostels. Thus the audit found out the possibility of 5160.78 MT of foodgrains being diverted to open market. The claim of the department that 143 Village Grain Banks (VGBs) were set up during 2006-2011 was fabricated. There were a lot of irregularities and lacunae in transportation too. In regard to quality checking of ration items, the department did not do anything. There did not figure even a single instance of checking the quality of foodgrains in the audit report. Audit finding regarding monitoring mechanism said periodical revision of list of beneficiaries, conducting of regular inspections and meeting of Vigilance Committees (VCs) and devising an effective system of reporting, altogether, completely failed in Nagaland.

The VCs were to be organised for constituting at all levels viz., state level, district level etc., and FPS committees were also to be constituted at FPS levels to review overall functioning of TPDS. Though VCs at all levels were constituted in November 2009, no review meetings were held. FPS committees were not constituted to review the functioning of FPS in the state. There was no tangible system to monitor the overall functioning of the scheme and the position of foodgrains lifted and distributed under TPDS remained un-assessed. Till March

2011, no Area officers were nominated by GOI to oversee the implementation of TPDS in Nagaland. The department, in its reply (December 2011) to a related query, stated that three Area officers had been appointed in August 2011 for regular and effective monitoring of TPDS.

Assessment and evaluation which were supposed to be done by the area officers did not happen at all.

Inspection by District Level officers and VCs as well as Area officers' evaluations did not happen at all. In short, the performance of PDS in the state for the previous six years ahead of the audit had suffered badly due to non-finalisation of beneficiaries. As stated before conducting baseline survey to ascertain actual number of households/beneficiaries, periodic revision of beneficiary list to weed out ineligible beneficiaries, and adding new eligible beneficiaries were the crucial duty assigned to the department, but the duty was never duly discharged. The department also randomly issued ration cards. As a result ration cards were misused. Short allocation and short lifting of foodgrains, delayed distribution of foodgrains, charging higher rates, undue benefits to handling agents and inadequate infrastructure, altogether, affected the implementation of PDS in the state. Mandatory inspections by District Level officers, VCs, Departmental officers and the Special Area officers were not carried out for quality inspection too.

It is quite ironic or rather discouraging to see that even after submission of audit report to the government and subsequent discussion on the report happened in the state assembly, so far nowhere in the later reports published by state government FCS department, in the last few years, indicates that any baseline survey has been conducted. .

The audit report, that covered 1999 to 2011, had exposed dismal performance of the department; a number irregularities and lacunae were identified in the form of pilferage, mismanagement, inefficient and incompetent handling by the department. Besides, a number of crucial

recommendations/inputs provided by the report to the department have remained unimplemented. But, the department of Economic Survey of Nagaland brought out their Annual Administrative Reports (AARs) that evaded to address all the pertinent issues; none of the serious issues were either referred to or taken note of in the AARs 2014-15, 2015-16, 2016-17 brought out by the department. The reports are superficial; the reports contain number of beneficiaries under APL, BPL, AAY which are also reflecting more or less same figures over the years.

Since the year 2012, annually published Administrative Reports or Economic Surveys published by the DES say that the department has stepped up activities for end-to-end computerization of TPDS operation, entire work has been completed for digitization of beneficiaries' list – database of beneficiaries' list and allocations are made available on state PDS portal. Moreover, the reports also talk about setting up transparency portal, generation of online orders, setting up of grievances redressal mechanism etc. But when we open the website, no updated beneficiaries' list/database is available yet. All the claims have not been put into work so far. It is palpable almost same data (beneficiary list) is carried forward from the year 2011-12 till 2018. The distribution pattern of total numbers of beneficiaries in BPL, AAY, PHH and Annapurna for all the districts of Nagaland taken from AARs of Nagaland, department of Economics and Statistics (2011 to 2018) can be observed in the following tables 2.7a, 2.7b and the bar chart representations – figures 2.1, 2.2, 2.3, 2.4 and 2.5.

Table 2.7a: District-wise Number of BPL, AAY and Annapurna Beneficiaries, 2011-12 to 2016

	BPL						AAY						Annapurna					
	2011-12	2012-13	2013-14	2014-15	2015-16	2016	2011-12	2012-13	2013-14	2014-15	2015-16	2016	2011-12	2012-13	2013-14	2014-15	2015-16	2016
Districts																		
Dimapur	11838	11838	NA	12445	12445	12445	6080	6080	NA	6366	6366	6366	1080	1080	NA	1080	1080	1080
Kiphire	6132	6132	NA	6132	6132	6132	3590	3590	NA	3590	3590	3590	273	273	NA	273	273	273
Kohima	8505	8505	NA	8505	8505	8505	4810	4810	NA	4810	4810	4810	769	769	NA	769	769	769
Longleng	2058	2058	NA	2058	2058	2058	2630	2630	NA	2630	2630	2630	186	186	NA	186	186	186
Mokokchung	9995	9995	NA	9995	9995	9995	5500	5500	NA	5500	5500	5500	871	871	NA	871	871	871
Mon	7249	7249	NA	7249	7249	7249	4665	4665	NA	4665	4665	4665	825	825	NA	825	825	825
Peren	2899	2899	NA	2899	2899	2899	2790	2790	NA	2790	2790	2790	358	358	NA	358	358	358
Phek	8174	8174	NA	8174	8174	8174	4505	4505	NA	4505	4505	4505	563	563	NA	563	563	563
Tuensang	3520	3520	NA	3520	3520	3520	4185	4185	NA	4185	4185	4185	807	807	NA	807	807	807
Wokha	7843	7843	NA	7843	7843	7843	4270	4270	NA	4270	4270	4270	460	460	NA	460	460	460
Zunheboto	8287	8287	NA	8287	8287	8287	4475	4475	NA	4475	4475	4475	535	535	NA	535	535	535
Nagaland	76500	76500	NA	77107	77107	77107	47500	47500	NA	47786	47786	47786	6727	6727	NA	6727	6272	6727

Source: Economic Survey of Nagaland, Annual Administrative Reports of Nagaland, 2011 to 2016.

Table 2.7b: District-wise Number of PPH and AAY Beneficiaries

Districts	PHH (BPL+APL)		Total Population under PPH		AAY		Total Population under AAY	
	2016-17	2017-18	2016-17	2017-18	2016-17	2017-18	2016-17	2017-18
Dimapur	54818	54818	265576	265576	6073	6073	30365	30267
Kiphire	7835	7835	42129	42129	3590	3590	17950	13845
Kohima	24070	24070	114470	114470	4817	4817	24085	19850
Longleng	6637	6637	29680	29680	2630	2630	13150	9364
Mokokchung	26160	26160	124439	124439	5500	5500	27500	20992
Mon	27822	27822	168961	168961	4665	4665	23325	23948
Peren	9947	9947	47106	47106	2790	2790	13950	12554
Phek	22463	22463	97274	97274	4505	4505	22525	16746
Tuensang	23896	23896	129513	129513	4170	4170	20850	20121
Wokha	17156	17156	88558	88558	4270	4270	21350	21796
Zunheboto	16630	16630	86216	86216	4490	4490	22450	20174
Nagaland	237434	237434	1193922	1193922	47500	47500	237500	209657

Source: Economic Survey of Nagaland, Annual Administrative Reports of Nagaland, 2011 to 2018.

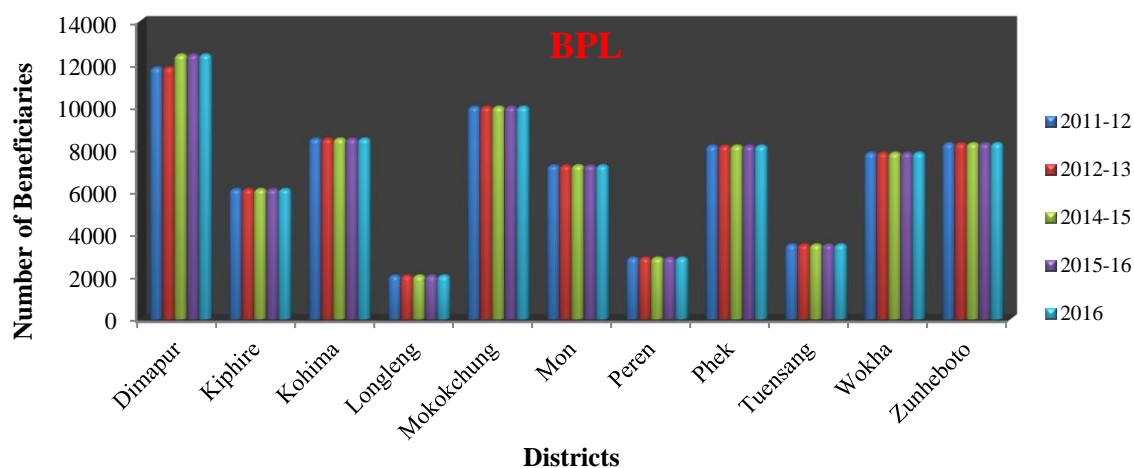


Fig 2.1: District-wise BPL Beneficiaries of Nagaland for the years of 2011-12, 2012-13, 2014-15, 2015-16, 2016.

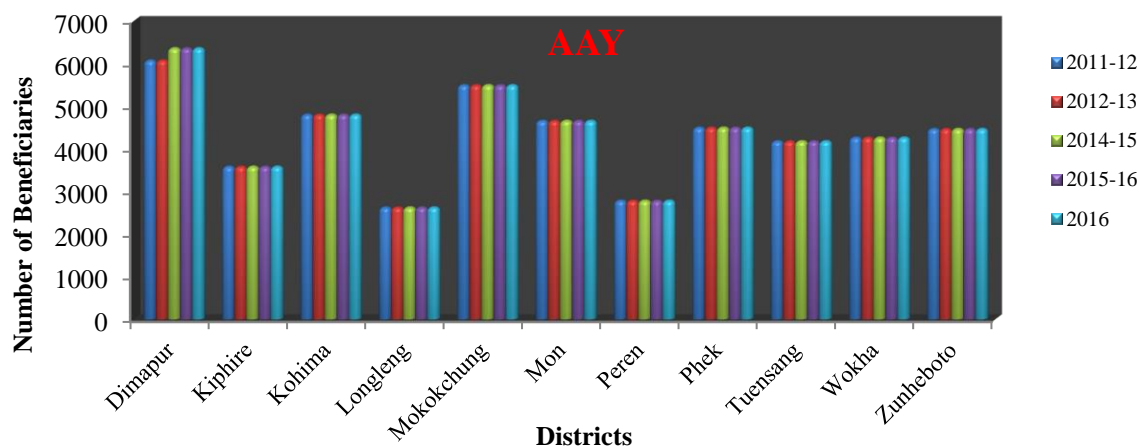


Fig 2.2: District-wise AAY Beneficiaries of Nagaland for the years of 2011-12, 2012-13, 2014-15, 2015-16, 2016.

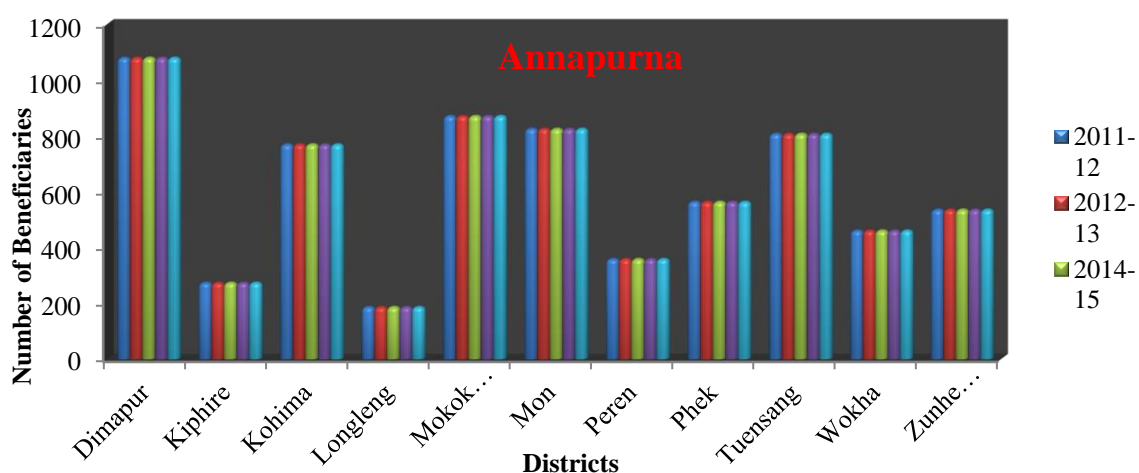


Fig 2.3: District-wise Annapurna Beneficiaries of Nagaland for the years of 2011-12, 2012-13, 2014-15, 2015-16, 2016.

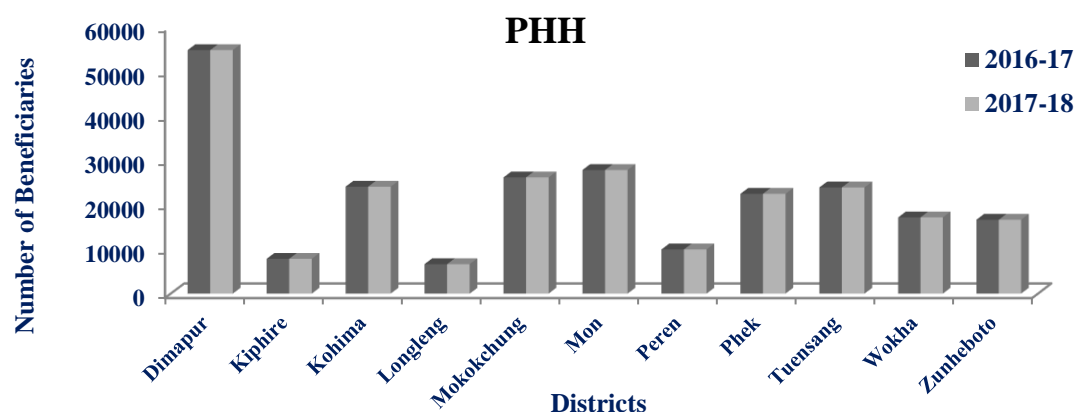


Fig 2.4: PPH for the year 2016-17 and 2017-18

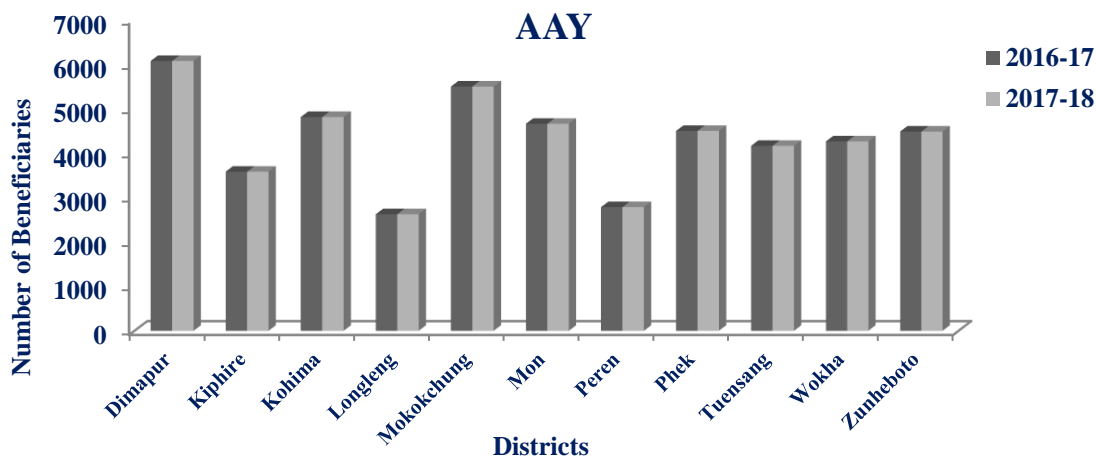


Fig 2.5: PPH for the year 2016-17 and 2017-18

From the above graphical representation, it is clearly seen that in all the AARs published by the FCS and DES Nagaland, yearly, total number of beneficiaries in any category whether BPL or PPH or AAY or Annapurna, remains almost unchanged in all consecutive years, insignificant variations are shown, inter-correlation coefficient is nearly perfect, for over the last nearly one decade or so.

On the other hand, from the secondary data based descriptive study of socio-economic and poverty condition, the economy of Nagaland is found not viable for self sustenance of the state. Primary and tertiary sectors are in distressing state. Either negative overall growth rate or stagnancy in its economy has been being witnessed even after becoming a full-fledged state of India. Economic disparity between rural and urban, male and female has been a matter of serious concern. Failure in effective

operation of poverty alleviation and social safety net schemes will not only worsen the state economy but also inevitably pose threat to food and nutrition security of poor people which constitute a large section of the state's total population.

It is conspicuous that the reports published by FCS or DES are replete with false claims. Pathetic condition of performance of PDS in Nagaland is reflected in the study based on available secondary data.

Therefore, an overhaul of the performance of PDS and effective assessment, in terms of contributions towards livelihood, income, social and economic empowerment, is required. Whether the functioning of FSDs, PDCs, and FPSs are going on, as per the mandatory norms, guidelines, etc., stipulated by scheme guidelines/frameworks of GOI, calls for a thorough and objective enquiry. The poverty conditions of the state observed in the socio-economic profile are an issue of serious concern; freeing people in the margins of society and weaker sections from food security problem has remained a potential challenge ahead. Nagaland is not dearth of civil societies, rather it is considered to be a zone of hyperactive civil societies. The role of civil societies in checking and monitoring the functioning of such social sector schemes is highly called for. Mass awareness must be given to rural masses regarding how their rightful shares have been forfeited and what are the legal tools that individuals as well as society can effectively use to stop this vicious trend. Schools and colleges too must take up initiative for conducting campaigns and awareness programmes to stop such rampant pilferage resulting in not only rendering large section of people unable to get adequate food for survival but also upsurge of market prices of essential commodities. Social activists, academicians and church leaders must take up the issue till the logical end. Leaving the issue at the mercy political class or government departments is as good as utter negligence to the issue and extending tacit support to the ongoing large-scale corruption in PDS.

CHAPTER-III

THE OPERATIONAL ACTIVITIES AND MANAGEMENT SYSTEM OF THE PUBLIC DISTRIBUTION SYSTEM:

The operational activities and management system of PDS in India is concisely and systematically studied. The various components of supply chain management and their structural and functional relationship are investigated from the view point of changes taking place during the last several years and existing scenario. The chapter discusses about past and present lacunae, loopholes and deficiencies in the components and stages of supply chain management and finally presents how steady reform measures undertaken by the government have been progressively addressing the problems of operational activities and management of PDS.

Management culture PDS has been evolving since its inception towards more active, sensitive and responsive course. In this evolution, the centrality is a value that strives for greater professionalism in public distribution and also for development of infrastructure for a dynamic system of organisation capable of doing administration more efficiently and humanely. Effectiveness of the PDS in serving people who are at risk of hunger and nutritional deficiency depends not only on macro aspects of national food policy but also a large number of policy decisions regarding operational and organisational aspects of PDS. Management structure of PDS dwells on policy formulation, identifying objectives, strategy for procurement and distribution of foodgrains and other essential commodities. The operational activities of the PDS differ from state to state. The PDS has an extensive supply chain which is operated under joint responsibility of the Central and State Governments. The Central Government plays prominent role in procurement, storage, transportation and bulk allocation of foodgrains to the State Governments which is done through the FCI. It has the responsibility of determining Minimum Support Price to pay to the farmers. In the states, the FCS

department has the responsibility of allocation within the state, identification of eligible households, issue of ration cards, distribution of food grains through FPS and regulating the functioning of FPS. By taking guidelines from the central government into account, each State frames its own way to make organisational, administrative and operational arrangements for functioning PDS. The State department makes decision on which commodities, i.e., additional items of mass consumption, in addition to the food grains supplied from the Centre, would be brought under PDS outlets. The state department deals with preparation of ration scales, number, location and licensing of FPS, working out of terms and conditions for FPS authorisation and methods of supplying, checking and remunerating FPS dealers etc.

The functions in supply chain management can be classified as follows:

Central government, through FCI, takes the responsibility of (i) procurement from states producing surplus foodgrains by paying effective support price to the farmers for enhancing further production (ii) Transportation and storage from procurement centre to regional depots (iii) Distribution (Allotment) of foodgrains to the States throughout the country (iv) To procure foodgrains to the satisfactory level for operation and buffer stocks of foodgrains. The central government also issue detailed guidelines to the states with regard to taking up all measures for strengthening TPDS in addition to identification of eligible beneficiaries such as priority households and Antyodaya families. Fixation of minimum support prices to pay to farmers from procurement centre is done as per the levels prescribed by the Commission for Agricultural Costs and Prices (CACP).

The State Governments take the responsibility of receiving central allocation of foodgrains, warehousing and allotting to the districts. Activities such as determination of consumer issue price, framing rules for issue of ration cards and FPS licenses, fixing profit margins to FPS and transport arrangement are done by the State Governments. The State Governments, through the district

administration, manage stocks, warehousing, distribution of ration cards to the identified eligible beneficiaries, delivery of licenses to the FPS dealers, regulating lifting by FPS dealers, enforcement of rules and norms of operation, setting up of vigilance committees and conducting inspection.

In PDS, procurement is seasonal i.e., Kharif Marketing season and Rabi Marketing Season, and done from surplus areas and disbursed in the deficient areas. Since the procurement is at specific time, the foodgrains so procured need to be stored first and then transported whenever and wherever is required. The figure 3.1 shows functions in supply chain management of PDS.

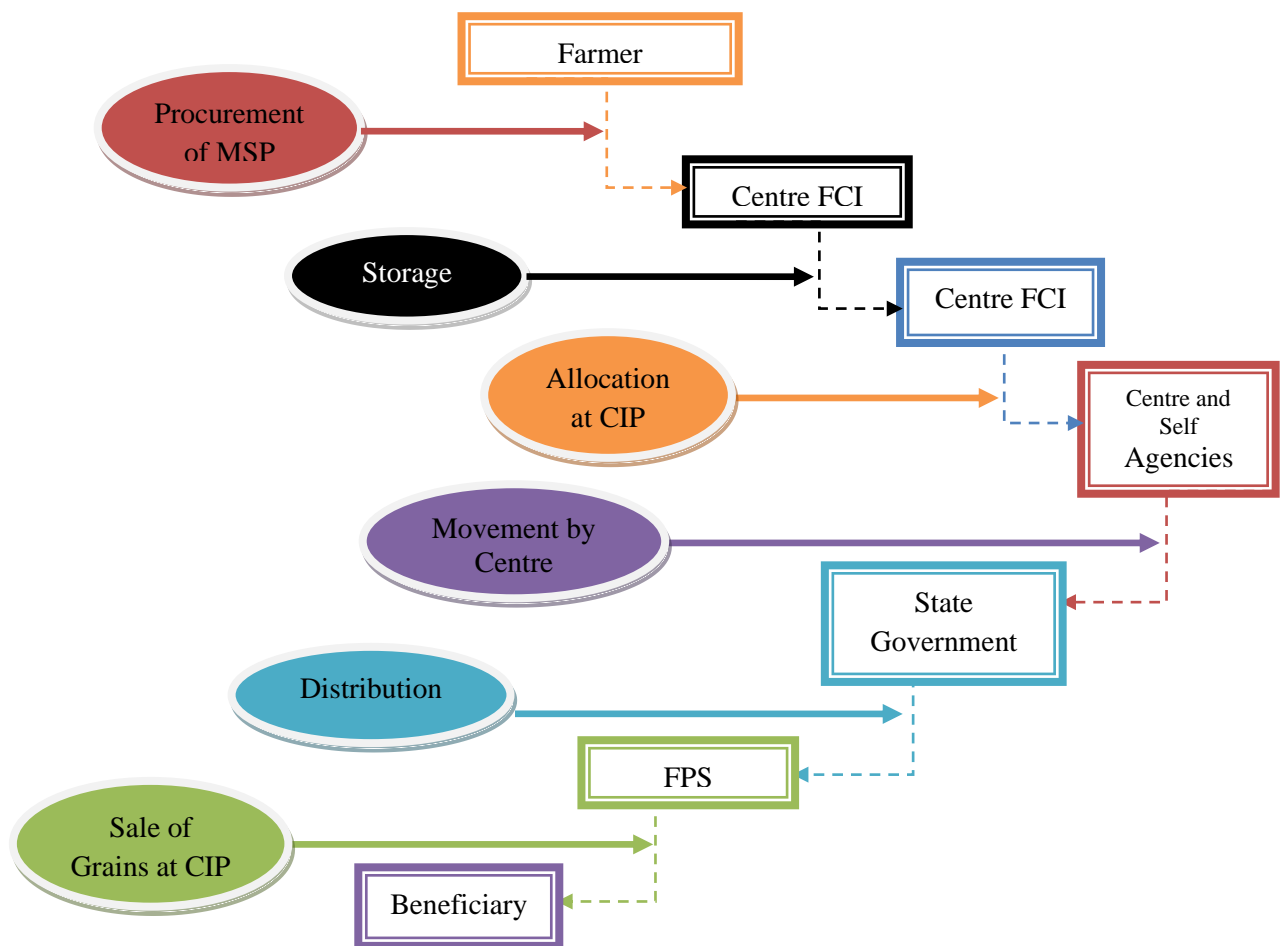


Fig. 3.1: functions in supply chain management of PDS

The whole activities of PDS can be considered into four components: procurement, storage, transportation and distribution. Problems and Challenges in

the exercise of these components and, at the same time, how far measures have been taken up to curb the problems and meet the challenges are discussed elaborately below.

Procurement:

For adequate procurement every year, before the start of each of the two marketing seasons, the department of Food and Public distribution holds a meeting with state Food Secretaries in which Food Secretaries of states provide inputs about the requirement of the states. In most cases, the Government procures more quantity of foodgrains above the prescribed buffer stock norms. The quantity of accumulation of surplus foodgrains depends on two factors. The first is demand level and the second is that Government fixes Minimum Support Prices (MSP) for paddy and wheat above the prescribed level given by the CACP. This practice of paying higher price to the farmers has given the incentive to the farmers to produce more. Thus a large agricultural output is streamlined by the government by fixing MSP relatively higher than average market prices. However it is also argued that in doing so financial burden borne by the Government rises as the Government also spends on subsidies for fertilisers, irrigation and power crossing 2.04% of Gross Domestic Product (GDP) in 2009-10 (Parikh, 2013). On the other hand the impact for paying MSP is the increase of market price and decrease of demand for cereals. Higher incentive is available to farmers for wheat and paddy; there is tendency to increase production of wheat and paddy which give adverse effect in promoting the diversification of cropping patterns.

Earlier, 80% of rice is procured from only five states and 90% of wheat is procured from three to four states. Punjab and Haryana usually account for 80-90% of procurement of wheat. Therefore many states like Uttar Pradesh, Assam, Bihar, Bengal have reported surpluses of several agricultural commodities but faced distressed sale. The landscape of procurement in India has been changing

with better procurement policies. The Government acts in accordance with the recommendation of High level Committee under the chairman of Shri Shanta Kumar that Government focuses more in these states deficit of sales. The Government started large scale procurement from these states. It is reported that procurement is robust in Chhattisgarh & Odisha.

Storage:

Procurement of foodgrains is done to adequately fill operational and buffer stocks. The procured foodgrains are in the first stage stored by FCI in the storages - warehouses, depots, silos and Covered and Plinth (CAP) houses. The storage function provides a vital link in the system of production, procurement and distribution of foodgrains. The FCI does the necessary activities for meeting storage requirements and ensuring scientific storage. Administrative functions of FCI includes mainly development of policies and programmes for acquisition and construction of storage, identifying locations, preparation of budget estimates for construction of storage infrastructure, providing funds to construction agencies, planning and obtaining additional storage capacity by hiring go downs of other public or private agencies, maintaining statistical data in matters related to storage capacity owned and hired by corporations etc. With the increasing of quantity of procurement of foodgrains for operational and buffer stocks, the storage capacity of FCI goes on increasing. But ever since de-centralised procurement by the states had started, the need for rapid augmentation of storage capacity held by FCI is controlled. However, the corporation ventured on construction programme to augment storage capacity by seeing pattern of movement of pipeline stocks from procurement areas to recipient areas and taking into account of regional imbalances and the need of creating adequate capacity in remote, hill and other inaccessible areas. The Government also makes efforts to hire warehouses under the Private Entrepreneurs Guarantee (PEG) scheme. Every time before the commencement of the procurement season, the corporation reviews detail storage

capacity region wise. The storage requirements of each state are reviewed based on factors like inflow from mandis, estimated supply from depots, stocks movement within the state or outside the region. On the other hand, post-harvest losses of foodgrains is constant at 10% in which losses during storage accounts for 6% as scientific and proper storage facilities are not available (Sharon et al., 2014). The post-harvest losses of foodgrains amounts to 12 to 16 million metric tons each year; as per World Bank estimates, it is the amount of foodgrains that could feed one-third of India's poor and its monetary value amounts to more than Rs. 50000 crores per year (Singh, 2010). Because of upgrading storage infrastructure and management, storage losses have been contained to 0.04% against the MOU target of 0.36% for FCI in 2017-2018.

From 2017 to 2019, construction of new go downs of 4.07 lakh MT capacity under PEG scheme were completed. Further, capacities of 4590MT in 2017 and 2500 MT in 2018-19 have been completed. A Capacity of 36240 MT is under construction under Central Sector Scheme by FCI in 2019-20 (Annual Report 2019-20, Department of Food & Public Distribution Ministry of Consumer Affairs, Food and Public Distribution, GOI).

As steel silo storage is highly mechanised and modernised, and ensures better preservation of foodgrains, Government of India made a roadmap for creation of 100 lakh steel silos, FCI is making fast progress in awarding work for construction and as such construction and expansion is taking place at fast pace. Storage Capacity for Central Pool Stocks for the last ten years is given in the following table 3.1.

Table 3.1: **Trend of Storage Capacity, 2011-20 in Lakh MT**

Years	Capacity with FCI	Storage capacity other Agencies	Total
2011	316.10	291.32	607.42
2012	336.04	341.35	677.39
2013	377.35	354.28	731.63
2014	368.90	379.18	748.08
2015	356.63	352.59	709.22
2016	357.89	465.95	814.84
2017	352.71	420.22	772.93
2018	362.50	480.53	843.03
2019	388.65	467.03	855.68
2020	412.03	343.91	755.94

Source: Annual Report 2019-20, Department of Food & Public Distribution Ministry of Consumer Affairs, Food and Public Distribution, Govt. of India

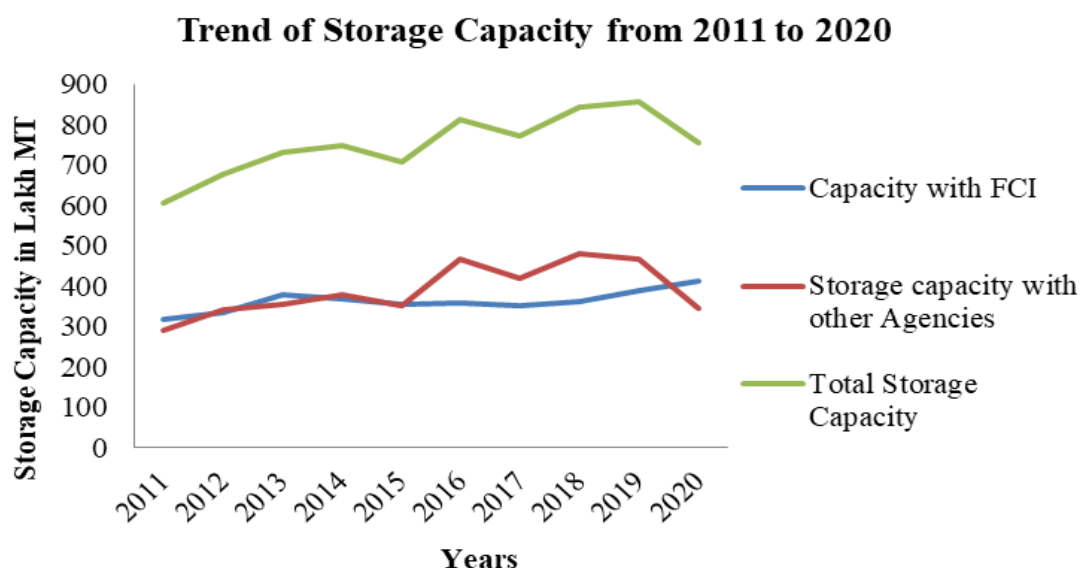


Fig. 3.2: **Trend of growth of Storage Capacity, 2011-2020**

Transportation:

Procurement is done from a few surplus states and then movement of foodgrains is carried out to evacuate stocks from surplus regions for distribution to all over the country. Foodgrains are moved to deficit region to meet TPDS and OWS requirements as well as to create buffer stocks in deficit regions. India has a

vast and diverse transportation from procurement centre to regional depots and then from regional depots to issue centres. Transportation of foodgrains from farmers to the storage go downs of FCI are usually done by road and then by means of rail, road and waterways, movement of foodgrains is undertaken singly or in combination. More than 85% of transportation of stocks is done by rail. Every year, in the average, 40 million tons of foodgrains is transported across the country.

The transportation aspect is highly sensitive function of PDS supply chain management. Studies reveal the incidence of transit losses in the form of theft, diversion, spoilage etc. One such example is in the year 2011-12, the losses during transportation of foodgrains due to pilferage, theft, spoilages etc., was 0.196 million metric tonnes which was equivalent to Rs. 3.33 billion (Tanksale and Jha, 2015).

Transportation from procurement centre to regional depots is done by FCI whereas lifting of grains from regional depots to the issue centre is mainly done by Civil Supply Corporation of state governments. The FPSs lift foodgrains from issue centre and distribute to the beneficiaries. But the case is different in Andhra Pradesh where the state government provides transportations to FPSs.

Distribution:

It is the most vital part of the network and efficiency in distribution manifests accomplishment of the objectives of PDS. Ability to reach goods at right time and right place and meet the needs of beneficiaries at the issue price fixed by the government is the sole objective of the PDS. Moreover regular supply of essential commodities to the beneficiaries helps in keeping the market price of such commodities under control. More than 5 lakhs Fair Price shops are distributing essential commodities to beneficiaries and these FPSs are working under National Production-cum-Distribution Scheme, established in 1979. The FPSs play crucial role in the distribution essential commodities by providing vital

link between civil supplies department and the rural consumers. These FPSs are covering about 80 crore people in the country. There are different types of FPSs depending on the ownership of FPSs.

FPSs run by co-operative societies: These categories of FPSs are controlled and organised by co-operatives societies. The societies formed by Indian Co-operative Societies act become FPSs owners when licenses of FPSs are given to them. All the members of the cooperative society are the owners of FPSs and they collectively manage the functions of FPSs. The profit/commission from the sale is distributed among the members of society on co-operative basis. In India, majority of FPSs are run by co-operative societies. **FPSs run by State Civil Supplies Corporations:** The kind of FPSs is opened by State Civil Supplies corporations and run by the employees of the corporation. Corporation gives the employees' salary and commission. The type of FPSs is run in the remote areas and profit margin is low.

FPSs run by private owners: The private shopkeepers who are given license for FPS run the kind of FPS and sell the essential commodities at the prices fixed by the government. These FPSs owners earn very nominal profit from selling PDS items, but they are at the same time allowed to sell non-PDS items of their own so as to ensure viability of their business.

FPSs run by panchayats: Under this category, FPSs licenses are given to the Gram Panchayats. These are mainly concentrated in rural areas, where no other agencies come forward for running the FPSs. The Pradhan conduct all the functions and activities of the shop. The profit of the shop is considered to be the income for the panchayats. After all, the commissions of FPS owners are too less and as a result, the FPS owners resort to pilferage and diversion of PDS foodgrains to open market. Therefore, to make FPS commercially viable, the commission must be increased or allow them to sell more items along with the PDS supplies (Das, 2014).

A study had revealed that 44% of BPL cards i.e., 27 million of BPL cards were distributed to the non-poor households whereas three-fifths of the poorest are not in possession of card (Ram et al., 2009). However with the digitisation of ration cards, de-duplication due to Aadhaar seeding, a total of 2.75 crore cards have been deleted/cancelled by State/UT Governments during the years 2013 to 2017. Thus, Government achieved rightful targeting of food subsidies of about Rs. 17,500 crore per year (Annual report 2017-18, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution GOI).

Changes in TPDS with the enactment of NFSA, 2013:

Changes in policy and programs incorporated in TPDS with the passage NFSA, 2013 so as to remove deficiencies and ensure food security to intended beneficiaries are discussed below.

- Earlier, TPDS was a welfare programme and hence no legal backing. With the passage of NFSA, 2013, TPDS has legal backing and been designed as to ensure legal right to citizens to right to food.
- Earlier TPDS beneficiaries were of three categories - AAY, BPL and APL. After the passage of NFSA, 2013, the categories of beneficiaries are AAY and PHH to be identified by the States Subject to the guidelines.
- Under TPDS, AAY and BPL were allotted 35kg/family/month and for APL family, allotment is 15-35kg/family/month. The price rates were Rs. 3/kg for rice, Rs. 2/kg for wheat for AAY, but for BPL and APL categories prices differ across the states. After the passage of NFSA, 2013, allotment for AAY is 35kg/family/month and for Priority households, it is 5kg/person/month at the rate of Rs. 3/kg for rice and Rs. 2/kg for wheat and Rs 1/kg for coarse grains.
- In the identification of beneficiaries, earlier in TPDS, centre releases state wise estimates of population to be covered under TPDS whereas states are

entrusted to identify eligible households. After the passage of NFSA, 2013, Centre releases state-wise estimates of population to be covered under NFSA whereas states are entrusted to identify AAY beneficiaries in accordance with AAY scheme guidelines issued by the Centre. States are also responsible for identifying PHH beneficiaries for which the state government may specify mechanism.

- Before the passage of NFSA, under TPDS, the cost of delivery of foodgrains from FCI go downs to state storage depots was borne by the state and the cost of transportation from state storage depots to FPSs was either passed on to the beneficiaries except for AAY beneficiaries borne by the state. With the passage of NFSA, 2013, the cost of transportation from FCI go downs to state storage depots and then from state storage depots to FPS through doorstep delivery is borne by both central and state governments in shared basis of 50:50 in respect of 23 states and 75:25 in respect of 13 states - seven states of NE, Sikkim, Jammu and Kashmir, Uttarakhand, UTs of Lakshadweep, Andaman and Nicobar Islands.
- Before the coming of NFSA, 2013, under TPDS, state governments were entrusted for monitoring through vigilance committees to be set up by the state at district, block and FPS levels. With the passage of NFSA, 2013, states should monitor the functioning of PDS by setting up Vigilance Committee of State, District, block, and FPS levels. Over and above, state should appoint district grievance redressal officers and establish state Food Commission for review and implementation of NFSA.
- With the passage of NFSA, 2013, a provision is made that in case of short supply of foodgrains from the Centre to a state, the Central Government shall provide funds to the extent of short supply to state government. No such provision was there before the enactment of NFSA, 2013. In case of non-supply of entitled quantities of foodgrains or meals to entitled persons, such

persons are entitled to receive food security allowance from the concerned state government.

Corruption, pilferage and diversion:

Since the inception of PDS, corruption has been a potential problem in the implementation of PDS as fraudulent conduct of various stages of the supply chain has been a regular phenomenon. When the systematic corruption is prevalent in the system, the objective of PDS to ensure availability of food to hunger struck people remains unfulfilled and therefore millions of people in India remain hungry. In a nationwide study conducted by Transparency International in 2005, it was revealed that the flaws in PDS were found in the forms: unavailability of ration cards in the country was reported by 59%, diversion to open market by 54%, inferior quality of foodgrains by 51%, less quantity by 49%, faulty weights by 38% and overcharging by 30% of respondents (Dubey et al., 2010). It was also revealed in a study conducted by Tata Economic Consultancy Services (TECS) in 2000 that one third of the TPDS supplies did not reach the intended beneficiaries (Mane, 2006).

Some grave problems persisting in the operation of PDS:

PDS has high administrative cost. At every stage of its operation, problems of wastage, pilferage, diversion and spoilage occur. Over and above, targeting has remained a major issue as identification of beneficiaries involves a lot of shortcomings. All these problems give stumbling block in meeting the objectives of PDS. Agriculture in India is highly unorganised sector in which group of diverse players are pooled together such as inputs suppliers, farmers, traders, commission agents, processors and distributors. Indian agriculture supply chain is complex as agriculture is highly unorganised involving a large number of intermediaries. Large quantity of wastage of produce is because of poor basic

infrastructure. Inadequate basic infrastructure is root cause of price instability and random losses suffered by farming community. India is backward in terms of development of logistic infrastructure such as roads, railways, airports, seaports, information technology, telecommunications and energy production when compared with that of other developed and developing countries (Sahay and Mohan, 2003). Agriculture supply chain suffers from maximum inefficiency. Cumulative wastage in supply chain is estimated to be \$ 11 billion, i.e., 9.8% of agricultural component of the GDP (Ahya, 2006).

Post-harvest losses of agriculture produce goes up to 25-30% due to improper handling, post infestation, poor logistics, poor infrastructure of storage and poor transportation infrastructure (Sachan et al., 2005). In the case of direct cash transfer mechanism, though a number researchers observed it to be effective and free from the problems of distribution and storage of foodgrains, this scheme too suffered from problem of implementation as a number of anomalies occur such as real poor did not get cash and some got double cash transfer in their names. There is still need for expansion of procurement throughout the country as farmers from all the regions must be facilitated to get the remunerative prices and hence encouraged enhancement in production.

Latest improvement in the operational activities and supply chain management:

- ★ Introduction of Depot online system for automatic operations at the Depot level for checking leakage. The system is operational at all 533 functional depots of FCI and 144 depots of CWC hired by FCI (Annual report 2019-20, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution, GOI).
- ★ Implementation of online Procurement Management System in all procuring states.

- ★ Increase in number of states for Decentralised procurement: 17 states in India have been under Decentralised procurement.
- ★ Augmentation of transportation: Containerized Multimodal Coastal movement of foodgrains through Container Corporation India Limited (CONCOR) from identified centres of Punjab to Kerala via Cochin to designated depots of Karnataka and Tamil Nadu has been going on ever since it was launched in 2016.

Multimodal transportation of rice through coastal shipping and road movement from depots of Andhra Pradesh to depots of Kerala has been undertaken. There is increased bulk of transportation by rail, road and riverine system through CONCOR from Chhattisgarh (Raipur) to Maharashtra extended to further containerised movement from Punjab, Haryana, and Andhra Pradesh to recipient states like West Bengal, Jharkhand, Maharashtra, Kerala, Karnataka, Gujarat.

- ★ Enhanced optimisation of movement in association with Railways.
- ★ Opening of new godowns of 1.46 MT capacity under Private Entrepreneurs Guarantee (PEG) scheme. More construction of storages by state Governments - already 2500 MT capacity has been completed by FCI under Central Sector Scheme. Further, a capacity of 36,240 MT is under construction under Central Sector Scheme by FCI. Roadmap for creation of 100 lakh MT steel silos, the most scientific storage for preventing storage spoilage, has been created. A capacity of 0.50 lakh MT has been created by FCI. FCI has signed agreement with a number of private parties in a number of specified locations in the Country for construction of steel silos. (As per Annual report 2019-20, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution Government of India)
- ★ In order to adopt best practices and transparency in TPDS operation, Government has implemented a scheme on end-to-end computerisation. Under the scheme, the main components in progress are:

- a) Digitisation of ration cards/beneficiaries data and uploading of the data on transparency portals of states/UTs.
- b) Aadhaar seeding of ration cards: 88% of beneficiaries are seeded with Aadhaar. Automation of Fair Price Shops has progressed that 60% of FPSs in the country are operating with ePoS devices (Annual report 2019-20, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution, GOI).
- c) Online allocation of foodgrains up to FPS level.
- d) Computerisation of supply chain Management of foodgrains.
- e) Launch of online grievance registration system/toll free help lines.
- f) For ensuring better facilities to migrant ration card holders, GOI launched Integrated Management of PDS under which beneficiaries covered under NFSA can lift entitled foodgrains from any FPS of their choice in the country.
- g) Central assistance to state/UTs in the intra-state movement of food grains.

Before the implementation of NFSA, the states/UTs had to bear expenditure for lifting foodgrains from regional depots to their respective issue centres. Under NFSA, 2013 Central government gives financial assistance to states/UTs for intra-state movement of foodgrains and to provide Fair Price Shop dealers' margins.

- ★ Training Programmes for TPDS/NFSA functionaries: Since more and more infusion of technology in the operation of PDS is taking place in an upward trend, the workers in PDS need to equip themselves with necessary skill. Therefore, adequate training programme has been launched.
- ★ Central Government gives instruction to states for conducting social audits related to the functioning of FPSs. For this purpose, the states are required to create mechanism to suit to the state's specific requirement.

In this chapter, we have analysed elaborately about the operational activities and management System of the PDS in India. Various components of the supply chain management have been studied. Deficiencies, lacunae, flaws, ineffectiveness in the various components and stages of its operation and management have been meticulously reviewed. At the same time, how the system is improving with time towards meeting the objectives of PDS is analysed. It is seen that consistent set of policies had been adopted in terms of production, storage and distribution since mid-1960s to address problem of food insecurity. Although these policies brought about upsurge in the production of foodgrains and ensured a period of low and stable prices, it is also seen that the policy reforms and implementation have been miserably failing to curb the crisis of mass under-nutrition and hunger. The setback was caused by a multiple factors such as corruption, diversion, leakage, poor infrastructure of storage and transportation, error in selecting beneficiaries and above all high rate of inflation due to economic liberalisation. Moreover, the policy of narrow targeting - targeting the poorest of the poor - was introduced which had led to decrease in the size of food subsidy; it was also a potential factor of undermining food policy intervention. Under the policy of narrow targeting, food subsidy size decreased from 0.99% of GDP in 2002-03 to 0.6% in 2006-07. Thus, the large scale exclusion of needy persons affected the economic viability of PDS network and led to failure of delivery system. The objective of PDS for stabilising market price through the transfer of foodgrains from surplus region to deficit region could not be achieved at all. But PDS has undergone drastic changes with time; a number of policy reforms with regard to coverage, procurement, distribution and pricing have been inducted in PDS operation and management from time to time. In a study conducted by Himanshu and Sen (2013), it was observed that during the drought year 2009-10, the TPDS transfers served as a safety net keeping 38 million households out of poverty (Himanshu and Sen, 2013).

It is also presented how operational activities and management of PDS have been strengthened from time to time through reform processes. In the past decade, the number of states which adopted measures to make procurement, transportation, storage, and distribution of foodgrain entitlements efficient, free of corruption, and transparent have significantly increased. Measures including decentralization of procurement, scientific up-gradation of storage process, use of ICT tools for modernising TPDS delivery chain, involvement citizens and civil societies have made operation of PDS largely successful. Ever since National Food Security Act, 2013 was passed and states had implemented the Act, a historic progress in PDS operation and management has been made towards a system of allocations of foodgrains at uniform issue prices with universal coverage. By law, the central government determines size of population to be covered and state governments are entrusted to identify eligible households by establishing their own criteria for the identification.

In spite of the above stated progress in the operation of PDS, the food management system of which FCI is an integral part has not been able to fully deliver objectives of the PDS. The country has surplus grain stocks far above norms and many a times large quantity cereals India exported to other countries, but the rising inflation cannot be controlled, a huge percentage of population still live under nutrition. Still much has to be done for including the poorest and most vulnerable individuals. Expansion of coverage of TPDS in Urban areas and reduction of corruption are still badly required. Differences in terms of needs and problems across the states must be taken into account in designing the delivery system. States must be given greater flexibility in designing the implementation of PDS. More effective measures and prompt actions are required for ensuring transparency and accountability in the supply chain management.

CHAPTER-IV

THE PERFORMANCE EVALUATION OF PUBLIC DISTRIBUTION SYSTEM IN NAGALAND

A Case Study Analysis of the Three Districts viz., Kohima, Peren and Wokha

A case study has been conducted on the performance of Public Distribution System in the three districts of Nagaland, viz., Kohima, Peren and Wokha is done with the help of information collected in the field survey. Altogether 1603 sampled households of 58 selected villages distributed over 18 blocks of the three districts are surveyed by using questionnaire to draw a number of relevant information by dint of which an in-depth study and critical analysis of performance of PDS in the said districts and its impact to the beneficiaries have been conducted.

Educational status of the beneficiaries:

The educational status of the highest educated member of every interviewed beneficiary household is investigated. According to information collected from total 569 respondents from PHH of Kohima district, 23.55 percent of beneficiaries are illiterate, 15.64 percent are educated upto primary, 25.13 percent are under-metric, 22.67 percent are matriculate, 11.59 percent are graduate and 1.40 percent are post-graduate. Of the total PHH in the district, 64.32 percent are below-metric, who cannot be expected to be aware of entitled benefits under PDS. Out the total 197 AAY households of the district, 32.99 percent are illiterate and 68.51 percent are in under-metric, so a huge segment of AAY households cannot be expected to be aware of rights and entitlements under PDS network. Among these AAY households 13.19 percent are primary level educated, 22.33 percent are under metric, 14.21 percent are matriculates, 14.72 percent are graduates and 2.53 percent are post-graduates. Of the total 47 Card-less households in Kohima district, 12.76 percent are from the illiterate category, 21.27 percent are upto primary level educated, 34.04 percent are under-metric,

19.15 percent are matriculate, 6.38 percent are graduates and 6.38 percent are post-graduates. Table 4.1 gives educational qualification wise distribution of beneficiary households of Kohima district.

Table 4.1: Educational qualification wise distribution of beneficiaries in Kohima district

Block	Categories	Illiterate	Primary	Middle (under metric)	Matriculate	Graduate	Post- Graduate	Any other	Total
Botsa	PHH	0	0	3	1	0	0	0	4
	AAY	1	0	1	1	0	0	0	3
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	1	0	4	2	0	0	0	7
Chiephobozou	PHH	2	8	12	6	0	0	0	28
	AAY	3	2	4	2	0	0	0	11
	ANP	0	0	0	0	0	0	0	0
	Card-less	3	4	5	0	0	0	0	12
	Total	8	14	21	8	0	0	0	51
Jakhama	PHH	104	50	85	40	21	2	0	302
	AAY	25	8	11	2	0	0	0	46
	ANP	0	0	0	0	0	0	0	0
	Card-less	1	5	6	5	0	2	0	19
	Total	130	63	102	47	21	4	0	367
Chunlikha	PHH	12	11	20	28	9	0	0	80
	AAY	12	7	9	3	0	0	0	31
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	1	0	0	0	0	1
	Total	24	18	30	31	9	0	0	112
Kohima	PHH	10	15	17	41	30	6	0	119
	AAY	22	7	15	17	29	4	0	94
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	1	0	0	0	1	0	2
	Total	32	23	32	58	59	11	0	215
Sechu/ Zubza	PHH	0	0	4	3	1	0	0	8
	AAY	0	1	0	0	0	0	0	1
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	0	1	4	3	1	0	0	9
Tseminyu	PHH	6	5	2	10	5	0	0	28
	AAY	2	1	4	3	0	1	0	11
	ANP	0	0	0	0	0	0	0	0
	Card-less	2	0	4	4	3	0	0	13
	Total	10	6	12	17	8	1	0	52
Total	PHH	134	89	143	129	66	8	0	569
	AAY	65	26	42	28	29	5	0	197
	ANP	0	0	0	0	0	0	0	0
	Card-less	6	10	16	9	3	3	0	47
	Total	205	125	203	166	98	16	0	813

Source: Field Survey

Of total 241 PHH selected from Peren district, 18.67 percent of beneficiaries are illiterate, 28.63 percent are primary level educated, 28.63 percent are under-metric, 18.26 percent are matriculates, 5.81 percent are graduates and 0 percent post-graduate. Of the total PHH selected from the district, 75.93 percent of are under-metric who cannot be expected to be aware of entitled benefits under PDS. Of the total 81 AAY households selected from the district, 34.56 percent are illiterate, 35.80 percent are primary level educated, 20.98 percent are under metric, 4.93 percent are matriculates and 3.70 percent are graduate level educated. It means 70.37 percent are either illiterate or primary level educated, and 91.36 percent are under-metric, so nine-tenth of total AAY households cannot be expected to be aware of rights, entitlements and other visible dimensions in the PDS.

Table 4.2: Educational qualification wise distribution of beneficiaries in Peren district

Block	Categories	Illiterate	Primary	Middle (under metric)	Matriculate	Graduate	Post-Graduate	Any other	Total
Athibung	PHH	6	15	5	2	0	0	0	28
	AAY	0	0	0	0	0	0	0	0
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	6	15	5	2	0	0	0	28
Jaluki	PHH	18	16	22	15	2	0	0	73
	AAY	7	13	8	3	2	0	0	33
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	25	29	30	18	4	0	0	106
Peren	PHH	4	9	12	4	2	0	0	31
	AAY	10	2	2	0	0	0	0	14
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	14	11	14	4	2	0	0	45
Tenning	PHH	17	29	30	23	10	0	0	109
	AAY	11	14	7	1	1	0	0	34
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	28	43	37	24	11	0	0	143
Total	PHH	45	69	69	44	14	0	0	241
	AAY	28	29	17	4	3	0	0	81
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	73	98	86	48	17	0	0	322

Source: Field Survey

Of total 336 PHH selected beneficiaries from Wokha district, 20.83 percent are illiterate, 18.75 percent are primary level educated, 31.54 percent are under-metric, 19.94 percent are matriculates, 8.33 percent are graduates and 0.595 percent are post-graduates. It means 71.12 percent of PHH households are under metric who cannot be expected to be aware of entitled benefits under PDS. Of the total 89 AAY households in the district, 25.84 percent are illiterates and 77.51 percent are under-metric, so more than three-fourth of total AAY beneficiary households cannot be expected to be aware of rights, entitlements and other useful provisions of the PDS network. 17.97 percent are primary level educated, 33.70 percent are under metric, 15.73 percent are matriculates, and 6.74 percent are graduates. Of the total 43 Card-less beneficiary households in the Wokha district, 2.32 percent are illiterates, 32.55 percent are primary level educated, 39.53 percent are under metric, 13.95 percent are matriculates and 11.63 percent are graduates.

Table 4.3: Educational qualification wise distribution of beneficiaries in Wokha district

Block	Categories	Illiterate	Primary	Middle (under metric)	Matriculate	Graduate	Post-Graduate	Any other	Total
Bhandari	PHH	4	1	13	3	0	1	0	22
	AAY	4	0	3	0	0	0	0	7
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	8	1	16	3	0	1	0	29
Changpang	PHH	7	3	6	14	3	0	0	33
	AAY	3	2	3	3	1	0	0	12
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	10	5	9	17	4	0	0	45
Chukitong	PHH	9	6	9	4	2	0	0	30
	AAY	0	0	0	0	0	0	0	0
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	9	6	9	4	2	0	0	30
Ralan	PHH	3	8	9	9	5	0	0	34
	AAY	4	2	2	2	1	0	0	11
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	7	10	11	11	6	0	0	45

Sanis	PHH	10	11	19	11	5	1	0	57
	AAY	4	0	1	2	1	0	0	8
	ANP	0	0	0	0	0	0	0	0
	Card-less	1	14	17	6	5	0	0	43
	Total	15	25	41	19	11	1	0	108
Wokha	PHH	31	25	31	19	10	0	0	116
	AAY	4	9	14	4	3	0	0	34
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	35	34	49	23	13	0	0	150
Wozuro	PHH	6	9	19	7	3	0	0	44
	AAY	4	3	7	3	0	0	0	17
	ANP	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0
	Total	10	12	26	10	3	0	0	61
Total	PHH	70	63	106	67	28	2	0	336
	AAY	23	16	30	14	6	0	0	89
	ANP	0	0	0	0	0	0	0	0
	Card-less	1	14	17	6	5	0	0	43
	Total	94	93	153	87	39	2	0	468

Source: Field Survey

Occupation wise Classification:

Of the total 569 PHH beneficiaries sampled from Kohima district, 4.04 percent work as Govt. employees, 12.48 percent work in private sectors, 28.99 percent engage in agricultural labour, and 12.82 percent are non-agricultural labourers. Thus, a huge percentage of PHH households are agricultural labourers engaging in various agricultural and allied activities. 22.32 percent of PHH respondents are landless farmers and 11.42 percent are farmers in their own land. Of the 197 AAY selected beneficiary households, 40.60 percent are agricultural labourers, 11.67 percent are non-agricultural labourers, 3.04 percent work as Govt. employees, 9.64 percent work in private sectors, 18.78 percent are farmers in their own field, 13.70 percent are landless labour, 0.508 percent work in business in retail sector/shopkeeper, and 2.03 percent are doing nothing except household work. Of the total 47 Card-less category households, 14.89 percent are Govt. employees, 25.53 percent work in private sector, 34.04 percent work as non-agricultural labourers, 8.51 percent work as agricultural labourers, 12.76 percent are farmers in their own land, and 4.25 percent work in business in retail

sector or as shopkeepers. Table 4.4 gives occupation wise distribution of beneficiary households in Kohima district.

Table 4.4: Occupation wise distribution of beneficiary households in Kohima district

Block	Categories	Govt. employee	Private sector	Agricultural Labour	Non-Agricultural Labour	Farmer in his/her own land	Landless farmer	Business in retail sector/shopkeeper	Doing nothing except households work	Total
Botsa	PHH	0	1	1	1	1	0	0	0	4
	AAY	0	0	1	0	1	0	0	1	3
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	1	2	1	2	0	0	1	7
Chiephobozou	PHH	1	7	8	3	2	4	2	1	28
	AAY	0	2	5	0	4	0	0	0	11
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	2	4	2	3	0	0	1	0	12
	Total	3	13	15	6	6	4	3	1	51
Jakhama	PHH	10	43	93	32	31	60	22	11	302
	AAY	3	4	17	10	2	9	0	1	46
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	5	3	5	6	0	0	0	0	19
	Total	18	50	115	48	33	70	22	12	367
Chunlikha	PHH	7	5	21	8	21	16	1	1	80
	AAY	0	3	9	3	5	8	1	2	31
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	1	0	0	0	0	0	0	1
	Total	7	9	30	11	26	24	2	3	112
Kohima	PHH	13	11	19	21	6	43	4	2	119
	AAY	3	9	43	13	19	7	0	0	94
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	1	0	1	0	2
	Total	16	20	62	35	25	50	5	2	215
Sechu/ Zubza	PHH	0	1	4	2	0	1	0	0	8
	AAY	0	0	0	0	1	0	0	0	1
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	1	4	2	1	1	0	0	9
Tseminyu	PHH	1	5	8	6	4	3	1	0	28
	AAY	0	1	4	3	0	3	0	0	11
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	4	2	7	0	0	0	0	13
	Total	1	10	14	16	4	6	1	0	52
Total	PHH	32	73	154	73	65	127	30	15	569
	AAY	6	19	79	29	32	27	1	4	197
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	7	12	9	16	1	0	2	0	47
	Total	45	104	242	119	97	155	33	19	813

Source: Field Survey

Of the total 241 PHH beneficiary households selected from Peren district, 3.32 percent work as Govt. employee, 15.35 percent work in private sector, 29.87

percent work as agricultural labourers, 10.78 percent work as non-agricultural labourers, 7.46 percent are landless farmers, 29.04 percent are farmers working in their own land, 1.65 percent work in business in retail sector and 2.48 percent respondents are doing nothing except households works. Of the 81 AAY beneficiary households, 43.20 percent are agricultural labourers, 14.81 percent work as non-agricultural labourers, 35.80 percent work as farmers in their own field and 6.17 percent work as landless farmers. Table 4.5 gives the occupation wise distribution of beneficiary households in Peren district.

Table 4.5: Occupation wise distribution of beneficiary households in Peren district

Block	Categories	Govt. Employee	Private sector	Agricultural Labour	Non-Agricultural Labour	Farmer in his/her own land	Landless farmer	Business in retail sector/ shopkeeper	Doing nothing except households work	Total
Athibung	PHH	0	0	3	2	23	0	0	0	28
	AAY	0	0	0	0	0	0	0	0	0
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	0	3	2	23	0	0	0	28
Jaluki	PHH	2	22	30	9	9	1	0	0	73
	AAY	0	0	10	6	13	4	0	0	33
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	2	22	40	15	22	5	0	0	106
Peren	PHH	0	4	14	2	8	3	0	0	31
	AAY	0	0	5	1	7	1	0	0	14
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	4	19	3	15	4	0	0	45
Tenning	PHH	6	11	25	13	30	14	4	6	109
	AAY	0	0	20	5	9	0	0	0	34
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	6	11	45	18	39	14	4	6	143
Total	PHH	8	37	72	26	70	18	4	6	241
	AAY	0	0	35	12	29	5	0	0	81
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	8	37	107	38	99	23	4	6	322

Source: Field Survey

Of the total 336 PHH beneficiary households selected from Wokha district, 3.57 percent work in private sector, 25.59 percent work as agricultural labourers, 17.85 percent work as landless farmers, 30.95 percent work as farmers in their own land, 17.85 percent are non-agricultural labourers, 1.48 percent are doing

business in retail sector and 2.67 percent are doing nothing except household works. Of the 89 AAY beneficiary households, 30.33 percent are in agricultural labourers, 25.84 percent work as farmers in their own land, 21.34 percent work as landless farmers, 19.10 percent work as non-agricultural labourers and 2.24 percent are doing nothing except household work. Of the total 43 beneficiary households of Card-less category 13.95 percent are working as Govt. employees, 46.51 percent work in private sector, 13.95 percent works as non-agricultural labourers, 25.58 percent work in business in retail sector or as shopkeepers. Table 4.6 gives occupation wise distribution of beneficiary household in Wokha district.

Table 4.6: Occupation wise distribution of beneficiary households in Wokha district

Block	Categories	Govt. Employee	Private sector	Agricultural Labour	Non-Agricultural Labour	Farmer in his/her own land	Landless farmer	Business in retail sector/shopkeeper	Doing nothing except households	Total
Bhandari	PHH	0	0	2	3	12	5	0	0	22
	AAY	0	1	3	1	2	0	0	0	7
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	1	5	4	14	5	0	0	29
Changpang	PHH	0	2	6	4	13	7	0	1	33
	AAY	0	1	2	1	5	3	0	0	12
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	3	8	5	18	10	0	1	45
Chukitong	PHH	0	0	6	3	12	8	1	0	30
	AAY	0	0	0	0	0	0	0	0	0
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	0	6	3	12	8	1	0	30
Ralan	PHH	0	0	11	12	4	5	1	1	34
	AAY	0	0	4	1	2	3	0	1	11
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	0	15	13	6	8	1	2	45
Sanis	PHH	0	0	12	7	19	17	2	0	57
	AAY	0	0	3	0	2	3	0	0	8
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	6	20	0	6	0	0	11	0	43
	Total	6	20	15	13	21	20	13	0	108
Wokha	PHH	0	10	36	22	35	10	0	3	116
	AAY	0	5	11	2	7	8	0	1	34
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	15	47	24	42	18	0	4	150

Wozuro	PHH	0	4	11	6	13	8	1	1	44
	AAY	0	0	7	3	5	2	0	0	17
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	0	0	0	0	0	0	0	0	0
	Total	0	4	18	9	18	10	1	1	61
Total	PHH	0	16	84	57	108	60	5	6	336
	AAY	0	7	30	8	23	19	0	2	89
	ANP	0	0	0	0	0	0	0	0	0
	Card-less	6	20	0	6	0	0	11	0	43
	Total	6	43	114	71	131	79	16	8	468

Source: Field Survey

Income wise classification of selected households:

Of the total households of Kohima district, maximum percentage of households, 22.01 percent of households come under the annual income group of Rs. 30 thousands to Rs. 60 thousands, followed by 21.53 percent of households in the annual income group Rs. 60 thousands to Rs. 90 thousands, 16.97 percent of households come under the lowest annual income category, i.e., Rs. 10 thousands to Rs. 30 thousands, 12.71 percent of households come under the highest income category Rs. 3 lakhs and above, 4.42 percent of households are in annual income group of Rs. 120 thousands to Rs. 150 thousands, 3.93 percent of households have responded to be in annual income group of Rs. 180 thousands to Rs. 210 thousands, 3.44 percent of households belong to annual income group Rs. 150 thousands to Rs. 180 thousands, 2.46 percent of households are in annual income group of Rs. 240 thousands to Rs. 270 thousands 0.86 percent of households have responded to be in annual income group of Rs. 210 thousands to Rs. 240 thousands and the remaining 0.73 percent of households have reported to be in annual income group of Rs. 270 thousands to Rs.300 thousands.

Out of total households of PHH, 29.35 percent are in ineligible category with annual income more than Rs. 120000. Among the blocks of Kohima district, highest ineligible beneficiaries' percentages as PHH card-holders are found in Chunlikha block with 46.25 percent out of total 80 sample households of PHH category. Moreover in case of AAY card-holders, highest percentage of ineligible beneficiaries with 45.45 percent out of total 11 sample households are found in

Tseminyu block of Kohima district. Of the total sample AAY households, 28.93 percent are in ineligible category with annual income more than Rs. 1,20,000. Among the card-less households, 38.29 percent of households are in the group of annual income below Rs. 1,20,000. These households have been still deprived of beneficiaries' cards of any category, although they are getting PDS ration as much as of those who are possessing PHH or AAY cards. 61.70 percent of card-less households are in the group of annual income more than Rs. 1,20,000 and these households must not get PDS entitlements, but they are also still getting PDS ration in the same way that PHH or AAY households are getting.

Table 4.7: Annual income wise distribution of households in the blocks of Kohima district

Income in Rs. (Yearly)	Block-wise Annual Income Distribution of Kohima District							Total
	Botsa	Chiephobozou	Chunlikha	Jakhama	Kohima	Sechu/ Zubza	Tseminyu	
10000-30000	1	9	26	78	17	0	7	138
30000-60000	4	14	35	86	30	2	7	179
60000-90000	2	9	28	93	33	5	5	175
90000-120000	0	5	5	60	20	0	3	93
120000-150000	0	3	5	13	14	1	1	36
150000-180000	0	1	3	8	12	0	4	28
180000-210000	0	1	3	7	17	0	4	32
210000-240000	0	1	1	2	1	0	2	7
240000-270000	0	3	1	6	7	0	3	20
270000-300000	0	0	0	1	3	0	2	6
300000 & above	0	5	5	13	61	1	14	99
Total	7	51	112	367	215	9	52	813

Source: Field Survey

Of the total households of Peren district, maximum percentage of households, i.e., 28.88 percent of households come under the income group of Rs. 60 thousands to Rs. 90 thousands, followed by 28.57 percent of households in annual income group Rs. 30 thousands to Rs. 60 thousands, 17.70 percent of households come under the lowest annual income category of Rs. 10 thousands to Rs. 30 thousands, 13.97 percent of households come under the annual income group Rs. 90 thousands to 120 thousands, 5.59 percent of households are in the

highest income category Rs. 3 lakhs and above, 2.17 percent of households have annual income Rs. 120 thousands to Rs. 150 thousands, 1.24 percent of households have reported to be in annual income group of Rs. 150 thousands to Rs. 180 thousands, 0.93 percent of households have reported to be in annual income group of Rs. 180 thousands to Rs. 210 thousands, 0.62 percent of households have responded to be having annual income Rs 270 thousands to Rs 300 thousands, and 0.31 percent households have reported to be in annual income group of Rs. 240 thousands to Rs. 270 thousands.

Of the total sample households of PHH, 33.05 percent of households are ineligible to be in any category of beneficiary as they belong to the group of per household annual income more than Rs. 120000. Among the blocks of Peren districts, the presence of the highest ineligible beneficiaries' percentages is found in Tenning block with 36.45 percent of PHH households and 37.83 percent of AAY households. Out of the total sample AAY households, 40.43 percent are in ineligible households as their per household annual income is more than Rs. 1,20,000.

Table 4.8: Annual income wise distribution of households in the blocks of Peren district

Income in Rs. (Yearly)	Block-wise Annual Income Distribution of Peren District				Total
	Athibung	Jaluki	Peren	Tenning	
10000-30000	27	3	5	22	57
30000-60000	1	23	20	48	92
60000-90000	0	42	12	39	93
90000-120000	0	25	3	17	45
120000-150000	0	3	1	3	7
150000-180000	0	1	0	3	4
180000-210000	0	1	0	2	3
210000-240000	0	0	0	0	0
240000-270000	0	1	0	0	1
270000-300000	0	1	1	0	2
300000 & above	0	6	3	9	18
Total	28	106	45	143	322

Source: Field Survey

Of the total households of Wokha district, maximum percentage of households, 46.03 percent of households come under the income group of Rs. 30 thousands to Rs. 60 thousands, followed by 23.43 percent of households in the

lowest annual income group Rs. 10 thousands to Rs. 30 thousands, 16.10 percent households come under the annual income category as Rs. 60 thousands to Rs. 90 thousands, 3.55 percent of households have reported to be in annual income Rs. 150 thousands to Rs. 180 thousands, 2.71 percent of households come under the annual income group Rs. 90 thousand to Rs. 120 thousands, 2.51 percent of households are in the annual income group Rs. 120 thousands to Rs. 150 thousands, 2.09 percent households have reported to be in annual income group of Rs. 180 thousands to Rs. 210 thousands, 1.88 percent of households come under the highest income category Rs. 3 lakhs and above, 1.26 percent of households are in annual income group of Rs. 240 thousands to Rs. 270 thousands and 0.41 percent of households have reported to be in annual income group of Rs. 210 thousands to Rs. 240 thousands. Table 4.9 gives annual income wise distribution of households in the blocks of Wokha district.

Out of total selected households of PHH, 32.14 percent are ineligible to be beneficiaries of any category as their per household annual income is more than Rs. 1,20,000. Among the blocks of Wokha district, the presence of the highest ineligible percentages of PHH card-holders is found in Ralan block with 41.17 percent and the highest ineligible AAY card-holders is in Changpang block with 34.48 percent. Out of total selected households of AAY, 17.98 percent are ineligible to be AAY beneficiaries as their per household annual income is more than Rs. 1,20,000.

Among the card-less households, 20.93 percent of households are in the group of annual income below Rs. 1,20,000. These households have been still deprived of beneficiaries' cards of any category, although they are getting PDS ration as much as of those who are possessing PHH or AAY cards. 79.07 percent of card-less households are in the group of annual income more than Rs. 1,20,000 and these households must not get PDS entitlements, but they are also still getting PDS ration in the same way that PHH or AAY households are getting.

Table 4.9: Annual income wise distribution of households in the blocks of Wokha district

Income in Rs. (Yearly)	Block-wise Annual Income Distribution of Wokha District							Total
	Bhandari	Changpang	Chukitong	Ralan	Sanis	Wokha	Wozuro	
10000-30000	3	4	7	3	28	49	18	112
30000-60000	16	26	20	32	41	51	33	219
60000-90000	1	7	3	6	19	25	6	67
90000-120000	1	3	0	0	4	4	1	13
120000-150000	0	3	0	2	4	4	0	13
150000-180000	1	1	0	2	7	4	2	17
180000-210000	4	0	0	0	2	4	0	10
210000-240000	0	0	0	0	1	1	0	2
240000-270000	2	0	0	0	1	3	0	6
270000-300000	0	0	0	0	0	0	0	0
300000 & above	1	1	0	0	1	5	1	9
Total	29	45	30	45	108	150	61	468

Source: Field Survey

Classification of sample households according to distance of location of FPSs from the household under its jurisdiction:

Of the total 1603 households surveyed in the three districts viz., Kohima, Peren and Wokha of Nagaland, 64.99 percent have FPSs located within 1 km from the location of the household. 25.89 percent of the households have FPSs located at distances of more than 1 km but less than 2 km. Only 9.11 percent of the households have FPSs located at distances of more than 2 km from the location of households. Of the total 813 sample households of Kohima district, 65.68 percent of households have FPSs within distance of less than 1 km, 27.18 percent of households have FPSs located at distances more than 1 km and 7.13 percent households have FPSs located in more than 2 km. Out of the total 569 sample households in PHH categories of Kohima district, 66.08 percent have FPSs within distances of less than 1 km, 26.88 percent of households have FPSs located at distances more than 1 km and 7.02 percent households have FPSs located at distances more than 2 km. Out of 197 sample AAY households of Kohima district, 65.98 percent have FPSs within a distance of less than 1 km, 26.39 percent of households have FPSs located at distances more than 1 km and 7.61 percent of households have FPSs located at distances more than 2 km. Out of 47 selected card-less households of the district, 59.57 percent have FPSs within a

distance of less than 1 km, 34.04 percent of households have FPSs located at distances more than 1 km and 6.38 percent households have FPSs located at distances of more than 2 km. Table 4.10 gives Distribution of sample households of various categories in terms of distance of location of FPS from the household under its jurisdiction in Kohima district.

Table 4.10: Distance of location of FPS from the location of household under the jurisdiction of the FPS, Kohima District

Block	Categories	Distance of FPS from Households			Total
		In Village or within 1 km.	Between 1 and 2 Km.	Above 2km	
Botsa	PHH	2	1	1	4
	AAY	2	1	0	3
	Card-less	0	0	0	0
	Total	4	2	1	7
Chiephobozou	PHH	19	6	3	28
	AAY	6	4	1	11
	Card-less	5	6	1	12
	Total	30	16	5	51
Jakhama	PHH	197	86	19	302
	AAY	31	12	3	46
	Card-less	13	6	0	19
	Total	241	104	22	367
Chunlikha	PHH	58	17	5	80
	AAY	21	7	3	31
	Card-less	0	1	0	1
	Total	79	25	8	112
Kohima	PHH	76	33	10	119
	AAY	63	24	7	94
	Card-less	2	0	0	2
	Total	141	57	17	215
Sechu/ Zubza	PHH	5	2	1	8
	AAY	1	0	0	1
	Card-less	0	0	0	0
	Total	6	2	1	9
Tseminyu	PHH	19	8	1	28
	AAY	6	4	1	11
	Card-less	8	3	2	13
	Total	33	15	4	52
Total	PHH	376	153	40	569
	AAY	130	52	15	197
	Card-less	28	16	3	47
	Total	534	221	58	813

Source: Field Survey

Of the total 322 sample households in Peren districts, 65.84 percent have FPSs within a distance of less than 1 km, 24.22 percent of households have FPSs located

at distances more than 1 km and 9.94 percent of households have FPSs located at distances more than 2 km. Out of 241 selected PHH households of the district, 64.32 percent have FPSs within a distance of less than 1 km, 25.31 percent of households have FPSs located at distances more than 1 km and 10.37 percent of households have FPSs located in more than 2 km. Out of 81 AAY households selected, 70.37 percent have FPSs within a distance of less than 1 km, 20.99 percent of households have FPSs located at distances more than 1 km and 8.64 percent of households have FPSs located at distances more than 2 km. Table 4.11 gives Distribution of sample households of various categories in terms of distance of location of FPS from the household under its jurisdiction in Peren district.

Table 4.11: **Distance of location of FPS from the location of household under the jurisdiction of the FPS, Peren District**

Block	Categories	Distance of FPS from Households			Total
		In Village or within 1 km.	Between 1 and 2 Km.	Above 2 Km	
Athibung	PHH	18	8	2	28
	AAY	0	0	0	0
	Card-less	0	0	0	0
	Total	18	8	2	28
Jaluki	PHH	41	24	10	75
	AAY	21	8	2	31
	Card-less	0	0	0	0
	Total	62	32	12	106
Peren	PHH	23	5	3	31
	AAY	9	3	2	14
	Card-less	0	0	0	0
	Total	32	8	5	45
Tenning	PHH	73	24	10	107
	AAY	27	6	3	36
	Card-less	0	0	0	0
	Total	100	30	13	143
Total	PHH	155	61	25	241
	AAY	57	17	7	81
	Card-less	0	0	0	0
	Total	212	78	32	322

Source: Field Survey

Of the total 468 sample households in Wokha district, 63.46 percent have FPSs within a distance of less than 1 km, 26.28 percent of households have FPSs located at distances more than 1 km and 10.26 percent of households have FPSs located at distances more than 2 km. Out of total 366 PHH households selected from the district, 65.18 percent have FPSs within a distance of less than 1 km, 24.04 percent of households have FPSs located at distances more than 1 km and 10.12 percent of households have FPSs located at distances more than 2 km. Out of 89 sample AAY households of the district, 59.55 percent have FPSs within a distance of less than 1 km., 31.46 percent of households have FPSs located at distances more than 1 km and 8.99 percent of households have FPSs located at distances more than 2 km. Of the total 43 selected households of card-less category of Wokha district, 58.14 percent have FPSs within a distance of less than 1 km, 30.23 percent of households have FPSs located at distances more than 1 km and 11.63 percent of households have FPSs located at distances more than 2 km. Table 4.12 gives Distribution of sample households of various categories in terms of distance of location of FPS from the household under its jurisdiction in Wokha district.

Table 4.12: Distance of location of FPS from the location of household under the jurisdiction of the FPS, Wokha District

Block	Categories	Distance of FPS from Households			Total
		In Village or within 1 km.	Between 1 and 2 Km.	Above 2 Km	
Bhandri	PHH	13	8	1	22
	AAY	4	2	1	7
	Card-less	0	0	0	0
	Total	17	10	2	29
Changpang	PHH	24	7	2	33
	AAY	7	5	0	12
	Card-less	0	0	0	0
	Total	31	12	2	45
Chukitong	PHH	17	10	3	30
	AAY	0	0	0	0
	Card-less	0	0	0	0
	Total	17	10	3	30
Ralan	PHH	19	10	5	34
	AAY	6	4	1	11
	Card-less	0	0	0	0
	Total	25	14	6	45

Sanis	PHH	32	16	9	57
	AAY	6	2	0	8
	Card-less	25	13	5	43
	Total	63	31	14	108
Wokha	PHH	81	23	12	116
	AAY	19	10	5	34
	Card-less	0	0	0	0
	Total	100	33	17	150
Wozuro	PHH	33	8	3	44
	AAY	11	5	1	17
	Card-less	0	0	0	0
	Total	44	13	4	61
Total	PHH	219	82	35	336
	AAY	53	28	8	89
	Card-less	25	13	5	43
	Total	297	123	48	468

Source: Field Survey

Classification of households of various categories in terms of number FPSs located in their village:

Of the total 1603 sample households surveyed in the three districts, 9.46 percent have reported to have no FPS in their villages, 82.37 percent have reported to have one FPS in each of their villages, and 6.19 percent have reported to have two FPSs in each of their villages. Absence of FPS in a particular village does not mean that the households in that particular village do not have access to PDS as these households are entitled to the foodgrains distributed through the FPSs located in the adjoining village. 1.25 percent of the households have reported to have three FPSs in each of their villages.

In Kohima district, of the total 813 sample households, 8.12% have reported to have no fair price shops in their village, 87.45% have reported to have one FPS in each of their villages, 4.06% have 2 shops and 0.37% has 3 shops in each of their villages. On the other hand, of the total PHH households selected from Kohima district, 8.27% have reported to have no shops in each their villages, 88.03% have reported to have one FPS in each of their villages, 3.35% have reported to have 2 FPSs and 0.35% has reported to have 3 shops in each of their

villages. Of the total selected AAY households of the district, 7.61% have reported to have no FPS in their village, 87.31% have reported to have one FPS in each of their villages, 5.08% have reported to have two FPSs in each of their villages. Of the total Card-less respondents in the district, 8.33% have reported to have no FPS in each of their villages, 81.25% have reported to have one FPS in each of their villages, 8.33% have reported to have two FPSs and 2.08% have reported to have three FPSs in each of their villages. Table 4.13 gives distribution of households of various categories in terms of number FPSs located in their village in Kohima district.

Table 4.13: Distribution of households on the basis of number of FPSs at their villages, Kohima District

Block	Categories	Number of households				Total
		No Shop	One Shop	Two shops	Three shops	
Botsa	PHH	0	3	1	0	4
	AAY	1	2	0	0	3
	Card-less	0	0	0	0	0
	Total	1	5	1	0	7
Chiephobozou	PHH	3	20	5	0	28
	AAY	1	10	0	0	11
	Card-less	2	9	0	1	12
	Total	6	39	5	1	51
Jakhama	PHH	24	273	4	1	302
	AAY	9	34	3	0	46
	Card-less	2	15	2	0	19
	Total	35	322	9	1	367
Chunlikha	PHH	6	71	3	0	80
	AAY	1	29	1	0	31
	Card-less	0	1	0	0	1
	Total	7	101	4	0	112
Kohima	PHH	10	105	4	0	119
	AAY	3	86	5	0	94
	Card-less	0	2	0	0	2
	Total	13	193	9	0	215
Sechu/ Zubza	PHH	1	6	1	0	8
	AAY	0	1	0	0	1
	Card-less	0	0	0	0	0
	Total	1	7	1	0	9
Tseminyu	PHH	3	22	2	1	28
	AAY	0	10	1	0	11
	Card-less	0	12	1	0	13
	Total	3	44	4	1	52
Total	PHH	47	500	20	2	569
	AAY	15	172	10	0	197
	Card-less	4	39	3	1	47
	Total	66	711	33	3	813

Source: Field Survey

Of the total 322 sample households of Peren district, 10.87 percent have reported to have no shops in their villages, 81.68 percent have reported to have one FPS in each of their villages, 6.21 percent have two shops and 1.24 percent have three shops in each of their villages. Of the total selected PHH households of the district, 11.62 percent have reported to have no shops in each of their villages, 81.33 percent have reported to have one FPS in each of their villages, 5.81 percent have two shops and 1.24 percent have three shops in each of their villages. Of the total selected AAY households, 8.64 percent have reported to have no FPS in each of their villages, 82.72 have reported to have one FPS in each of their villages, 7.41 have reported to have two FPSs in each of their villages and 1.23 percent have reported to have three FPSs in each of their villages. Table 4.14 gives distribution of households of various categories in terms of number FPSs located in their village in Peren district.

Table 4.14: **Distribution of households on the basis of number of FPSs at their villages, Peren District**

Block	Categories	Number of households				Total
		No Shop	One Shop	Two Shops	Three Shops	
Athibung	PHH	3	23	1	1	28
	AAY	0	0	0	0	0
	Card-less	0	0	0	0	0
	Total	3	23	1	1	28
Jaluki	PHH	4	68	3	0	75
	AAY	0	30	1	0	31
	Card-less	0	0	0	0	0
	Total	4	98	4	0	106
Peren	PHH	6	24	1	0	31
	AAY	1	10	2	1	14
	Card-less	0	0	0	0	0
	Total	7	34	3	1	45
Tenning	PHH	15	81	9	2	107
	AAY	6	27	3	0	36
	Card-less	0	0	0	0	0
	Total	21	108	12	2	143
Total	PHH	28	196	14	3	241
	AAY	7	67	6	1	81
	Card-less	0	0	0	0	0
	Total	35	263	20	4	322

Source: Field Survey

In Wokha district, of the total 468 sample households, 9.40 percent have reported to have no shops in each of their villages, 77.99 percent have reported to

have one FPS in each of their villages, 10.47 percent have two shops and 2.14 percent have three shops in each of their villages. Among the total selected PHH households of the district, 9.23 percent have reported to have no shops in each of their villages, 76.49 percent have reported to have one FPS in each of their villages, 11.90 percent have reported to have two FPSs and 2.38 percent have reported to have three shops in each of their villages. Of the total selected AAY households of the district, 7.87 percent have reported to have no FPS in each of their villages, 80.90 have reported to have one FPS in each of their villages, 8.90 have reported to have two FPSs in each of their villages and 2.25 percent have reported to have three FPSs in each of their villages. Among the respondents of Card-less households, 13.95 percent have reported to have no FPS in each of their villages, 83.72 have reported to have one FPS in each of their villages, and 2.33 percent have reported to have two FPSs in each of their villages. Table 4.15 gives distribution of households of various categories in terms of number FPSs located in their village in Wokha district.

Table 4.15: Distribution of households on the basis of number of FPSs at their villages, Wokha District

Block	Categories	Number of households				Total
		No Shop	One Shop	Two Shops	Three Shops	
Bhandri	PHH	2	17	3	0	22
	AAY	1	6	0	0	7
	Card-less	0	0	0	0	0
	Total	3	23	3	0	29
Changpang	PHH	2	30	1	0	33
	AAY	1	10	1	0	12
	Card-less	0	0	0	0	0
	Total	3	40	2	0	45
Chukitong	PHH	1	24	4	1	30
	AAY	0	0	0	0	0
	Card-less	0	0	0	0	0
	Total	1	24	4	1	30
Ralan	PHH	6	21	6	1	34
	AAY	2	9	0	0	11
	Card-less	0	0	0	0	0
	Total	8	30	6	1	45

Sanis	PHH	4	45	6	2	57
	AAV	0	7	1	0	8
	Card-less	6	36	1	0	43
	Total	10	88	8	2	108
Wokha	PHH	9	90	14	3	116
	AAV	3	27	3	1	34
	Card-less	0	0	0	0	0
	Total	12	117	17	4	150
Wozuro	PHH	7	30	6	1	44
	AAV	0	13	3	1	17
	Card-less	0	0	0	0	0
	Total	7	43	9	2	61
Total	PHH	31	257	40	8	336
	AAV	7	72	8	2	89
	Card-less	6	36	1	0	43
	Total	44	365	49	10	468

Source: Field Survey

Distribution pattern of ration items as per time interval of distribution, regularity/irregularity of distribution:

In this section, the distribution of numbers of sample villages in all the blocks of the three districts is presented. Moreover, according to the periods of distribution different ration items from FPSs, the villages of all the blocks of the three districts are classified. We make an enquiry on whether the households purchase items from the FPSs regularly or not, and if regularly, in what way they use to collect the ration items, it is monthly or 3 monthly or others. Table 4.16 gives distribution of numbers of villages of all the sample blocks getting ration items and Table 4.17 gives distribution of numbers of the villages in terms of periods of getting different ration items.

Table 4.16: Distribution of villages getting ration Items

Districts	Blocks	Number of Villages Getting Ration Items from FPSs							
		Rice		Sugar		Dal		Kerosene Oil	
		Yes	No	Yes	No	Yes	No	Yes	No
Kohima	Botsa	1	0	1	0	1	0	0	1
	Chiephobozou	4	0	4	0	4	0	3	1
	Jakhama	6	0	5	1	1	5	3	3
	Chunlikha	3	0	2	1	3	0	3	0
	Kohima	1	0	1	0	1	0	1	0
	Sechu/ Zubza	1	0	1	0	1	0	1	0
	Tseminyu	3	0	3	0	2	1	1	2
	Total	19	0	17	2	13	6	12	7
Peren	Athibung	3	0	3	0	3	0	0	3
	Jaluki	4	0	4	0	4	0	4	0
	Peren	2	0	2	0	2	0	0	2
	Tenning	7	0	7	0	7	0	2	5
	Total	16	0	16	0	16	0	6	10
Wokha	Bhandri	2	0	1	1	1	1	0	2
	Changpang	1	0	0	1	0	1	0	1
	Chukitong	2	0	2	0	0	2	0	2
	Ralan	3	0	3	0	0	3	0	3
	Sanis	5	0	4	1	4	1	0	5
	Wokha	6	0	4	2	4	2	0	6
	Wozuro	4	0	4	0	4	0	0	4
	Total	23	0	18	5	13	10	0	23

Source: Field Survey

Table 4.17: Distribution of villages in terms of periods of collection of ration items

Table 7.17: Distribution of Villages in terms of periods of collection of Ration Items													
Districts	Blocks	Number of Villages of Collecting Ration Items in specified periods											
		Rice			Sugar			Dal			Kerosene		
		Monthly	3- Monthly	Others	Monthly	3- Monthly	Others	Monthly	3- Monthly	Others	Monthly	3- Monthly	Others
Kohima	Botsa	1	0	0	1	0	0	1	0	0	0	0	0
	Chiephobozou	4	0	0	4	0	0	4	0	0	4	0	0
	Jakhama	3	0	0	3	0	0	3	0	0	3	0	0
	Chunlikha	5	0	1	5	0	1	5	0	1	5	0	1
	Kohima	1	0	0	1	0	0	1	0	0	1	0	0
	Sechu/ Zubza	1	0	0	1	0	0	1	0	0	1	0	0
	Tseminyu	3	0	0	3	0	0	3	0	0	3	0	0
	Total	18	0	1	18	0	1	18	0	1	17	0	1

Peren	Athibung	1	0	2	1	0	2	1	0	2	0	0	0
	Jaluki	4	0	0	1	1	2	1	1	2	1	1	2
	Peren	2	0	0	0	1	1	0	1	1	0	1	1
	Tenning	2	4	1	0	4	3	0	1	6	0	0	7
	Total	9	4	3	2	6	8	2	3	11	1	2	10
Wokha	Bhandri	1	0	1	0	0	1	0	0	1	0	0	0
	Changpang	1	0	0	0	0	0	0	0	0	0	0	0
	Chukitong	2	0	0	2	0	0	0	0	0	0	0	0
	Ralan	3	0	0	3	0	0	0	0	0	0	0	0
	Sanis	5	0	0	2	0	2	2	0	2	0	0	0
	Wokha	4	1	1	1	1	3	1	1	3	0	0	0
	Wozuro	4	0	0	4	0	0	3	0	1	0	0	0
	Total	20	1	2	12	1	6	6	1	7	0	0	0

Source: Field Survey

Village wise collection of information on market prices of ration items:

Table 4.18: Village-wise Average Market Prices of the four Ration Items in Kohima District

Blocks	Villages	Market Price per kg/litre in Rupees			
		Rice	Sugar	Dal	Kerosene
Botsa	Teichuma	35	50	90	50
Chiephobozou	Nachama	35	50	95	55
	Rusoma	40	50.67	88.5	49.33
	Viphoma	35	50	100	55
	Ziezou	35	50	100	55
Chunlika	Ehunnu	35	50	100	55
	Sishunu	35	55	95	50
	Tesophenyu	30	50	95	60
Jakhama	Khuzama	35	55	100	60
	Phesama	30	55	100	60
	Viswema	35.41	49.08	94.59	60
	Kezoma	35	50	95	55
	Kidima	35	55	95	50
	Kigwema	30	50	100	50
Kohima	Kohima village	38	45	95	60
Sechu/Zubza	Menguzuma	38	50	100	60
Tseminyu	Tseminyu	35	50	100	55
	Ngvuphen	35	55	100	50
	Zisunu	35	55	100	55

Source: Field Survey

Table 4.19: Village-wise Average Market Prices of the four Ration Items in Peren District

Blocks	Villages	Market Price per kg/litre in Rupees			
		Rice	Sugar	Dal	Kerosene
Athibung	Old Soget	40	70	110	60
	Phelhang	40	70	110	60
	Sailhem	40	70	110	60
Jaluki	Baisumpuikam	35	60	100	55
	Jaluki Dungki	30	60	100	60
	Mahai Namtsi	35	55	100	60
	Ngwalwa	35	70	110	60
Peren	Mpainamci	35	75	100	60
	Poliwa	35	75	100	60
Tenning	Azilong	35	80	100	60
	Tenning	40	70	110	60
	NTU	35	75	100	60
	Nzau	35	70	110	60
	Old Tessen	35	80	110	60
	Upper Sinjol	40	80	110	70
	Lalong	38	80	110	60

Source: Field Survey

Table 4.20: Village-wise Average Market Prices of the four Ration Items in Wokha District

Blocks	Villages	Market Price per kg/litre in Rupees			
		Rice	Sugar	Dal	Kerosene
Bhandari	Lishuyo	30	70	100	60
	Merapani	35	70	105	55
Changpang	Mekokla	32	70	100	55
Chukitong	Tsungiki	35	60	90	50
	Seluku	35	60	100	55
Ralan	Ronsuyan	30	50	100	60
	Old Ralan	32	60	100	60
	Liphayan	32	65	110	60
Sanis	Lakhuti	35	55	100	60
	Lontsung	35	65	100	65
	Makharung	35	65	100	60
	Oktso	40	60	110	60
	Aree Old	35	65	100	60
Wokha	Yikhum	30	60	100	60
	Old Chungsu	35	60	100	60
	Old Riphyim	30	55	100	60
	Longsachung	40	65	110	60

Wozuro	Humtso	40	65	110	60
	Niryo	30	60	100	60
	Phiro	35	60	100	60
	Shaki	30	65	100	60
	Sankitong	35	65	100	60
	Khumtsu	35	65	100	60

Source: Field Survey

Gap between required and obtained quantity of ration items calculated for monthly basis at district, block and village level:

In our analysis, we study the gap between monthly required quantity and obtained quantity of each of the four ration items. For each selected household, we draw the information on the required quantity and obtained quantity from FPSs. All the selected 1603 households have reported about the required quantity of ration items and obtained quantity of the same items from the FPS. In Tables 4.21, 4.22, 4.23, we have presented village wise average required quantity, obtained quantity and gap between required and obtained quantity per month for all the villages of all the blocks of the three districts

Table 4.21: Average Required Quantity and Obtained Quantity from Ration Shop and Gap between Them (calculated for monthly basis), Kohima District

Blocks	Villages	Village-wise Average Quantity Obtained from FPS (Monthly)				Village-wise Average Quantity Required from FPS (Monthly)				Gap between Required and Obtained Quantity (Monthly)			
		Rice	Sugar	Dal	K.Oil	Rice	Sugar	Dal	K.oil	Rice	Sugar	Dal	K.oil
Botsa	Teichuma	25	3	3	0	48	4	5.18	3	23	1	2.18	3
Chiephobozou	Nachama	25	3	3	3	42	3.5	6.15	3.75	17	0.5	3.15	0.75
	Rusoma	25	2	2	2	49.4	4.9	7.68	4	24.4	2.9	5.68	2
	Viphoma	20	3	3	5	42.2	5.28	6.63	3.96	22.2	2.28	3.63	-1.04
	Ziezou	16	2	2	0	40	3.5	4.51	5.33	24	1.5	2.51	5.33
Chunlika	Ehunnu	35	4	3	0	51.	6.4	7.07	4.7	16.2	2.4	4.07	4.7
	Sishunu	25	4	3	1	47.6	5.07	5.82	4.46	22.6	1.07	2.82	3.46
	Tesophenyu	25	0	2	2	55.2	4.6	5.64	4.1	30.2	4.6	3.64	2.1
Jakhama	Khuzama	21	3	0	0	47.7	4.72	7	3.76	26.7	1.72	7	3.76
	Phesama	20	1.	0	2.	53.5	4.46	6.79	3.58	33.5	2.96	6.79	1.08

	Viswema	25	2	2	1	49.7	5.01	6.24	3.82	24.7	3.01	4.24	2.82
	Kezoma	20	3	0	0	58.9	5.45	6.99	3.63	38.9	2.45	6.99	3.63
	Kidima	16	1	0	4	43.1	3.66	5.57	3.56	27.1	2.66	5.57	-0.44
	Kigwema	30	1	0	1	56.9	5.82	6.88	3.92	26.9	4.82	6.88	2.92
Kohima	Kohima village	20	3	2	1	51.9	4.32	6.07	3.66	31.9	1.32	4.07	2.66
Sechu/ Zubza	Menguzuma	25	3	3	1.	50.1	4.55	6.21	3.33	25.1	1.55	3.21	1.83
Tseminyu	Tseminyu	25	3	0	0	48.2	4.83	7.39	3.78	23.2	1.83	7.39	3.78
	Ngvuphen	25	3	3	0	53.3	5.34	6.06	3.84	28.3	2.34	3.06	3.84
	Zisunu	24	2	2	2	55.8	5.86	7.32	4.43	31.8	3.86	5.32	2.43

Source: Field Survey

Table 4.22: Average Required Quantity and Obtained Quantity from Ration Shop and Gap between them (calculated for monthly basis), Peren District

Blocks	Villages	Village-wise Average Quantity Obtained from FPS (Monthly)				Village-wise Average Quantity Required from FPS (Monthly)				Gap between Required and Obtained Quantity (Monthly)			
		Rice	Sugar	Dal	K.Oil	Rice	Sugar	Dal	K.Oil	Rice	Sugar	Dal	K.Oil
Athibung	Old Soget	30	3	3	0	53.92	3.83	6.25	5.33	23.92	0.83	3.25	5.33
	Phelhang	18	1.5	1.5	0	51.47	3.67	7.76	4.93	33.47	2.17	6.26	4.93
	Sailhem	25	1.5	1.5	0	50.29	4.29	6.43	5.14	25.29	2.79	4.93	5.14
Jaluki	Baisumpuikam	25	3	3	5	55.89	4.65	6.58	3.68	30.89	1.65	3.58	-1.32
	Jaluki Dungki	48	4	4	3	51.18	5.12	6.5	3.82	3.18	1.12	2.5	0.82
	Mahai Namtsi	6	1	1	1	51.46	5.55	7.1	4.06	45.46	4.55	6.1	3.06
	Ngwalwa	25	3	3	3	54.18	6.5	7.28	4.25	29.18	3.5	4.28	1.25
Peren	Mpainamci	34	3	3	0	43.2	3.6	5.21	3.34	9.2	0.6	2.21	3.34
	Poliwa	16	4	4	0	41.37	4.14	4.56	3.44	25.37	0.14	0.56	3.44
Tenning	Azilong	35	3	3	0	48	5.03	6.02	4.73	13	2.03	3.02	4.73
	Tenning	8	1	1	1	51.38	6.72	6.95	4.23	43.38	5.72	5.95	3.23
	NTU	30	3	3	0	50	5.49	7.19	4.4	20	2.49	4.19	4.4
	Nzau	25	3	3	0	53.48	6.47	7.66	4	28.48	3.47	4.66	4
	Old Tessen	30	3	3	4	48.08	4.83	7	3.77	18.08	1.83	4	-0.23
	Upper Sinjol	25	1.5	1.5	0	52.29	5.57	7.22	5.22	27.29	4.07	5.72	5.22
	Lalong	34	3	3	0	48.89	5.12	7.06	3.85	14.89	2.12	4.06	3.85

Source: Field Survey

Table 4.23: Average Required Quantity and Obtained Quantity from Ration Shop and Gap between Them (calculated for monthly basis), Wokha District

Blocks	Villages	Village-wise Average Quantity Obtained from FPS (Monthly)				Village-wise Average Quantity Required from FPS (Monthly)				Gap between Required and Obtained Quantity (Monthly)			
		Rice	Sugar	Dal	Kerosene	Rice	Sugar	Dal	Kerosene	Rice	Sugar	Dal	Kerosene
Bhandari	Lishuyo	24	0	0	0	54	5.25	6.61	4	30	5.25	6.61	4
	Merapani	18	0	0	0	51.21	5.64	6.49	4.04	33.21	5.64	6.49	4.04
Changpang	Mekokla	15	0	0	0	43.7	3.02	5.44	3.09	28.7	3.02	5.44	3.09
Chukitong	Tsungiki	25	8	0	0	52.63	5.43	7.19	3.94	27.63	-2.57	7.19	3.94
	Seluku	18	5	0	0	45.45	4.57	5.67	3.55	27.45	-0.43	5.67	3.55
Ralan	Ronsuyan	12	1	0	0	40.25	3.38	5.39	4	28.25	2.38	5.39	4
	Old Ralan	25	1	0	0	52.56	4.06	7.06	4.28	27.56	3.06	7.06	4.28
	Liphayan	13	2	0	0	39.38	4.26	5.63	3.89	26.38	2.26	5.63	3.89
Sanis	Lakhuti	15	0	0	0	54.67	4.56	6.53	3.74	39.67	4.56	6.53	3.74
	Lontsung	20	2	2	0	47	3.92	7.01	3.42	27	1.92	5.01	3.42
	Makharung	10	5	5	0	52.41	4.67	7.37	3.5	42.41	-0.33	2.37	3.5
	Oktso	12.5	0.5	0.5	0	55.3	4.61	6.25	3.61	42.8	4.11	5.75	3.61
	Aree Old	13	2	2	0	44	3.67	7.22	3.56	31	1.67	5.22	3.56
Wokha	Yikhum	36	1	1	0	55.75	4.86	7.32	4.23	19.75	3.86	6.32	4.23
	Old Chungsu	8	0.5	0	0	45.54	4.01	5.86	3.93	37.54	3.51	5.86	3.93
	Old Riphym	24	0.5	0	0	55.2	4.94	6.19	4.05	31.2	4.44	6.19	4.05
	Longsachung	26	0	0	0	53.57	5.09	7.45	4.04	27.57	5.09	7.45	4.04
	Humtso	8	2	0.5	0	54.55	4.59	7.06	3.77	46.55	2.59	6.56	3.77
	Niryo	8	0	0	0	49.26	4.34	5.69	3.95	41.26	4.34	5.69	3.95
Wozuro	Phiro	48	2	0.5	0	50.54	5.54	5.92	4.27	2.54	3.54	5.42	4.27
	Shaki	24	3	3	0	54.31	4.12	6.78	4.18	30.31	1.12	3.78	4.18
	Sankitong	47	1	1	0	52.57	4.25	5.63	3.25	5.57	3.25	4.63	3.25
	Khumtsu	25	3	2	0	46.29	4.32	5.53	3.86	21.29	1.32	3.53	3.86

Source: Field Survey

Subsidy Transfer of PDS to the Beneficiaries:

In this section, we examine how much subsidy transfer is received by a beneficiary/household due to subsidized supply of the ration items by PDS. The subsidy transfer or income gain due to PDS is the estimated additional expenditure that the household would have incurred in the absence of PDS. It is calculated as the sum of products of quantities of items purchased from PDS and

the differences between their market prices and PDS prices. In our case, there are four items - rice, sugar, dal and kerosene taken into consideration for consumption of a household.

Monthly subsidy transfer or income gain due to PDS per beneficiary/household

$$= \sum_{r=1}^4 (M_r - P_r) Q_r$$

where M_r is the market price per unit of item r , P_r is the PDS price per unit of the item r , and Q_r is the quantity of the item r in terms of number of units purchased from PDS. Table 4.24 gives subsidy transfer or income gain due to PDS per beneficiary (household) per month block-wise, district-wise and average of that of the three districts.

Table 4.24: Subsidy Transfer of the PDS, (per household)

Districts	Blocks	Block-wise Contribution due to PDS Consumption Expenditure (%)	District-wise Contribution due to PDS in Consumption Expenditure (%)	Average of the Contributions due to PDS in Consumption Expenditure of the three districts (%)
Kohima	Botsa	40.34	28.21	27.57
	Chiephobozou	32.37		
	Chunlika	30.74		
	Jakhama	25.85		
	Kohima	28.51		
	Sechu/Zubza	47.42		
	Tseminyu	29.15		
Peren	Athibung	26.50	32.78	
	Jaluki	28.68		
	Peren	44.03		
	Tenning	33.51		
Wokha	Bhandri	18.94	22.89	
	Changpang	16.78		
	Chukitong	31.08		
	Ralan	20.76		
	Sanis	17.74		
	Wokha	20.05		
	Wozuro	42.91		

Source: Field Survey

It is seen from the table that contribution of PDS in the consumption of rice, sugar, dal and kerosene in terms of subsidy transfer is varying from block to block and district to district. Among all the blocks of the three districts, the highest subsidy transfer is observed in Sechu/Zubza block of Kohima district with 47.42% of expenditure is borne by the PDS and the lowest transfer is observed in Changpang block of Wokha district with 17.74% of the expenditure is borne by the PDS. When we compare the performance of PDS in terms of sizes of subsidy transfers in the three districts, it is found best in Peren district with 32.78% and least in Wokha district with 22.89%. The average subsidy transfer of all the three districts per month per beneficiary/household due to PDS is found to be 27.57% which may be seen as significant contribution.

Although the average amount of subsidy transfer due to PDS per month per household in Kohima district is 28.21%, when we look at the data in Table 4.25, i.e., village-wise amount of monthly subsidy transfer per household, we have seen large variation among the villages. Some villages are getting relatively very high and some are getting relatively very low amount of subsidy due to PDS supply. In order to test the variation we apply Chi-square test by making the following assumptions.

Null hypothesis - H_0 : amount of subsidy transfer due to PDS per month per household is equal to all the villages in Kohima district.

Alternative hypothesis - H_1 : amount of subsidy transfer due to PDS per month per household is varying among the villages in Kohima district.

Table 4.25: Test of Uniformity of PDS Contribution among the Villages of Kohima district, (in Rs.)

Sl. No.	Villages	Monthly Subsidy Transfer due to PDS per Household	Calculated Chi-Square Value
1	Teichuma	1007	$\chi^2 = 918.395$
2	Nachama	1070	
3	Rusoma	957	
4	Viphoma	905	
5	Ziezou	512	
6	Ehunnu	1300	
7	Sishunu	1020	
8	Tesophenyu	760	
9	Khuzama	720	
10	Phesama	547.5	
11	Viswema	907.59	
12	Kezoma	660	
13	Kidima	547	
14	Kigwema	745	
15	Kohima village	845	
16	Menguzuma	1130	
17	Tseminyu	835	
18	Ngvuphen	990	
19	Zisunu	908	

Source: Field Survey

The tabulated $\chi^2_{0.01}$ for degrees of freedom 18 is 34.805. The null hypothesis is rejected at 1% level of significance. Therefore it is concluded that contribution of PDS among the villages is varying. There is no uniform benefit derived from PDS among the villages. In short PDS is performing better in some villages and worse in some other villages in the district of Kohima.

Similarly, average amount of subsidy transfer per month per household in Peren district is 32.78% of household total consumption expenditure in purchasing the four items taken into consideration. However when we look at the data in Table 4.26, village-wise subsidy transfer per household per month in all

the sample villages of Peren, we have seen there is huge variation among the villages.

We apply Chi-Square test as before for which the following assumptions are made.

Null hypothesis - H_0 : amount of subsidy transfer due to PDS per month per household is equal to all the villages in Peren district.

Alternative hypothesis - H_1 : amount of subsidy transfer due to PDS per month per household is varying among the villages in Peren district.

Table 4.26: Test of Uniformity of PDS Contribution among the Villages of Peren district

Sl no	Villages	Monthly Subsidy Transfer due to PDS per Household (in Rs.)	Calculated Chi-Square Value
1	Old Soget	1245	$\chi^2 = 1761.64$
2	Phelhang	735	
3	Sailhem	980	
4	Baisumpuikam	1095	
5	Jaluki Dungki	1437	
6	Mahai Namtsi	263	
7	Ngwalwa	1050	
8	Mpainamci	1313	
9	Poliwa	964	
10	Azilong	1355	
11	Tenning	380	
12	NTU	1140	
13	Nzau	1005	
14	Old Tessen	1425	
15	Upper Sinjol	980	
16	Lalong	1456	

Source: Field Survey

The tabulated $\chi^2_{0.01}$ for degrees of freedom 15 is 30.578. The null hypothesis is rejected at 1% level of significance. Therefore it is concluded that contribution of PDS among the villages of Peren is varying. There is no uniform benefit

derived from PDS among the villages. In short PDS is performing better in some villages and worse in some other villages in the district of Peren.

Finally, average amount of subsidy transfer per month per household in Wokha district is 22.89% of household total consumption expenditure in purchasing the four items taken into consideration. However when we look at the data in Table 4.27, village-wise subsidy transfer per household per month in all the sample villages of Wokha, we have seen there is huge variation among the villages.

We apply Chi-Square test as before for which the following assumptions are made.

Null hypothesis - H_0 : amount of subsidy transfer due to PDS per month per household is equal to all the villages in Wokha district.

Alternative hypothesis - H_1 : amount of subsidy transfer due to PDS per month per household is varying among the villages in Wokha district.

Table 4.27: Test of Uniformity of PDS Contribution among the Villages of Wokha district

Sl no.	Villages	Monthly Subsidy Transfer due to PDS per Household (in Rs.)	Calculated Chi-Square Value
1	Lishuyo	624	$\chi^2 = 3683.63$
2	Merapani	576	
3	Mekokla	390	
4	Tsungiki	1030	
5	Seluku	675	
6	Ronsuyan	349	
7	Old Ralan	730	
8	Liphayan	437	
9	Lakhuti	465	
10	Lontsung	804	
11	Makharung	760	
12	Oktso	520	
13	Aree Old	549	
14	Yikhum	980	

15	Old Chungsu	250	
16	Old Riphyim	572.18	
17	Longsachung	962	
18	Humtso	385	
19	Niryo	200	
20	Phiro	1472	
21	Shaki	771	
22	Sankitong	1488	
23	Khumtsu	975	

Source: Field Survey

The tabulated $\chi^2_{0.01}$ for degrees of freedom 22 is 40.289. The null hypothesis is rejected at 1% level of significance. Therefore it is concluded that contribution of PDS among the villages of Wokha district is varying. There are no uniform benefits derived from PDS among the villages. In short PDS is performing better in some villages and worse in some other villages in the district of Wokha.

Again, we make the comparison of the three districts in terms of contribution of PDS, i.e., the amount of subsidy transfer per beneficiary per month. For this comparison, we use the data of subsidy transfer per household per month of all the sample villages of each district. The data given in Tables 4.25, 4.26 and 4.27 are used. Student's *t*-test is used for comparing that of (i) Kohima district and Peren district, (ii) Kohima district and Wokha district, (iii) Peren district and Wokha district.

Comparison between Kohima district and Peren district:

We assume null hypothesis $H_o: \mu_k = \mu_p$, there is no significance difference in terms of amount of subsidy transfer due to PDS between Kohima district and Peren district. Alternative hypothesis, $H_1: \mu_k \neq \mu_p$, there is significance difference in terms of amount of subsidy transfer due to PDS between Kohima district and Peren district.

Calculated t value = -1.979, P-value = 0.056, degrees of freedom ($d.f$) = 33, tabulated $t_{0.05}$ value = 2.035 at $d.f$ 33.

Since calculated $|t|$ is less than tabulated t at 5% level of significance, null hypothesis is accepted, there is no significance difference between Kohima district and Peren district in terms of amount of subsidy transfer per household per month due to PDS.

Comparison between Kohima district and Wokha district:

We assume null hypothesis $H_o: \mu_k = \mu_p$, there is no significance difference in terms of amount of subsidy transfer due to PDS between Kohima district and Wokha district. Alternative hypothesis, $H_1: \mu_k \neq \mu_p$, there is significance difference in terms of amount of subsidy transfer due to PDS between Kohima district and Wokha district.

Calculated t value = 1.87, P-value = 0.070, degrees of freedom ($d.f$) = 40, tabulated $t_{0.05}$ value = 2.021 at $d.f$ 40.

Since calculated $|t|$ is less than tabulated t at 5% level of significance, null hypothesis is accepted, there is no significance difference between Kohima district and Wokha district in terms of amount of subsidy transfer per household per month due to PDS.

Comparison between Peren district and Wokha district:

We assume null hypothesis, $H_o: \mu_k = \mu_p$, there is no significance difference in terms of amount of subsidy transfer due to PDS between Peren district and Wokha district. Alternative hypothesis, $H_1: \mu_k \neq \mu_p$, there is significance difference in terms of amount of subsidy transfer due to PDS between Peren district and Wokha district.

Calculated t value = 3.18, P-value = 0.003, degrees of freedom ($d.f$) = 37, tabulated $t_{0.05}$ value = 2.026 at $d.f$ 37.

Since calculated $|t|$ is greater than tabulated t at 5% level of significance, null hypothesis is rejected, therefore, Peren district is better than Wokha district in terms of amount of subsidy transfer per household per month due to PDS.

Annual amount Spent on PDS, Annual Expenditure in the absence of and above PDS, Annual Expenditure Gain and Annual total Expenditure:

In Tables 4.28, 4.29 and 4.30, we have presented village wise annual amounts spent on PDS by the beneficiaries, annual expenditures to be incurred in the absence of PDS, annual expenditure above PDS, annual expenditure gain due to PDS and total annual expenditure including PDS per household for all the three districts.

Table 4.28: **Annual amounts spent on PDS by the beneficiaries for Kohima district**

Blocks	Villages	Annual amount Spent on PDS	Annual Expenditure in the absence of PDS	Annual expenditure above PDS	Annual Expenditure Gain	Annual Total Expenditure
Botsa	Teichuma	3456	29954.4	14414.4	12084	17870.4
Chiephobozou	Nachama	4860	29226	11526	12840	16386
	Rusoma	5040	37229.796	20705.796	11484	25745.796
	Viphoma	6240	31495.2	14395.2	10860	20635.2
	Ziezou	4176	27829.8	17509.8	6144	21685.8
Chunlika	Ehunnu	5100	36930	16230	15600	21330
	Sishunu	4920	32686.8	15526.8	12240	20446.8
	Tesophenyu	3600	32042.4	19322.4	9120	22922.4
Jakhama	Khuzama	2160	34277.4	23477.4	8640	25637.4
	Phesama	3420	32936.4	22946.4	6570	26366.4
	Viswema	3900	33928.008	19136.928	10891.08	23036.928
	Kezoma	2280	38380.8	28180.8	7920	30460.8
	Kidima	3216	29011.8	19231.8	6564	22447.8
	Kigwema	3060	34605.6	22605.6	8940	25665.6
Kohima	Kohima village	3600	35563.32	21823.32	10140	25423.32
Sechu/Zubza	Menguzuma	4320	35429.76	17549.76	13560	21869.76
Tseminyu	Tseminyu	2280	34530	22230	10020	24510
	Ngvuphen	4200	35499	19419	11880	23619
	Zisunu	4224	39019.8	23899.8	10896	28123.8

Source: Field Survey

Table 4.29: Annual amounts spent on PDS by the beneficiaries for Peren District

Blocks	Villages	Annual amount Spent on PDS	Annual Expenditure in the absence of PDS	Annual expenditure above PDS	Annual Expenditure Gain	Annual Total Expenditure
Athibung	Old Soget	5940	41186.4	20306.4	14940	26246.4
	Phelhang	3060	41581.2	29701.2	8820	32761.2
	Sailhem	3480	39931.2	24691.2	11760	28171.2
Jaluki	Baisumpuikam	6420	37146.6	17586.6	13140	24006.6
	Jaluki Dungki	9876	32661.6	5541.6	17244	15417.6
	Mahai Namtsi	1944	36719.4	31619.4	3156	33563.4
	Ngwalwa	6540	40885.2	21745.2	12600	28285.2
Peren	Mpainamci	4824	30040.8	9460.8	15756	14284.8
	Poliwa	3552	29050.2	13930.2	11568	17482.2
Tenning	Azilong	4920	35618.4	14438.4	16260	19358.4
	Tenning	2160	42526.8	35806.8	4560	37966.8
	NTU	5220	37737	18837	13680	24057
	Nzau	4920	40887.6	23907.6	12060	28827.6
	Old Tessen	5220	36784.8	14464.8	17100	19684.8
	Upper Sinjol	3660	44361.6	28941.6	11760	32601.6
	Lalong	4872	39300.24	16956.24	17472	21828.24

Source: field Survey

Table 4.30: Annual amounts spent on PDS by the beneficiaries for Wokha District

Blocks	Villages	Annual amount Spent on PDS	Annual Expenditure in the absence of PDS	Annual expenditure above PDS	Annual Expenditure Gain	Annual Total Expenditure
Bhandari	Lishuyo	1152	34662	26022	7488	27174
	Merapani	648	37089.6	29529.6	6912	30177.6
Changpang	Mekokla	1080	27885	22125	4680	23205
Chukitong	Tsungiki	3900	36143.4	19883.4	12360	23783.4
	Seluku	3060	31526.4	20366.4	8100	23426.4
Ralan	Ronsuyan	732	25866	20946	4188	21678
	Old Ralan	1560	34659.84	24339.84	8760	25899.84
	Liphayan	1308	28677.12	22125.12	5244	23433.12
Sanis	Lakhuti	720	36499.8	30199.8	5580	30919.8
	Lontsung	2712	33877.2	21517.2	9648	24229.2
	Makharung	4980	37018.8	22918.8	9120	27898.8
	Okto	780	40712.4	33692.4	6240	34472.4
	Aree Old	2832	32569.8	23149.8	6588	25981.8

Wokha	Yikhum	3120	35398.8	20518.8	11760	23638.8
	Old Chungsu	720	31875.6	28155.6	3000	28875.6
	Old Riphyim	2103.84	33476.4	24506.4	6866.16	26610.24
	Longsachung	936	42426.6	29946.6	11544	30882.6
	Humtso	1440	41797.8	35737.8	4620	37177.8
	Niryo	480	30530.4	27650.4	2400	28130.4
Wozuro	Phiro	4536	35394	13194	17664	17730
	Shaki	5328	33910.8	19330.8	9252	24658.8
	Sankitong	3864	34490.4	12770.4	17856	16634.4
	Khumtsu	3540	32226.6	16986.6	11700	20526.6

Source: Field Survey

From the above table, it is seen that in those villages where expenditure gain is higher due to PDS, less total annual expenditure is spent by the household in most cases. The examples are Teichuma and Nachama villages of Botsa and Chiephobozou blocks of Kohima district, Menguzuma village of Sechu/Zubza block of Kohima, Old Soget village of Athibung block and Jaluki Dungki village of Jaluki block of Peren district, and Phiro village of Wokha block and Sankitong village of Wozuro block of Wokha district. The tables give the picture that the more contribution comes from PDS, the less expenditure is incurred by the household in consuming the four essential items.

Consumption of Sugar by Households and its Fulfillment by Purchase from FPS:

Of the 1603 households surveyed in all the three districts, 93.45 percent have reported to consume sugar regularly. This regular consumption does not necessarily imply regular purchases from the FPSs, it only implies sugar is regularly consumed item, whether bought from the FPSs or not.

In case of Kohima district, 95.08 percent of beneficiary households have reported to consume sugar regularly; 89.05 percent of beneficiary households are consuming sugar from FPSs in more or less quantity whereas 10.94 percent of households do not get sugar from FPSs at all, none of the households get all the required quantity from FPSs, but 19.06 percent of households get 50 percent or more of their sugar quantity requirement from FPSs, 53.13 percent of households

are getting 30% to 50% of their requirement from FPSs and 16.85 percent of households get below 30% of their requirement from FPSs. There are inter-block variations in the Kohima district, in terms of getting percentage of sugar requirement from FPSs, as in Chunlika block, only 20.56 percent of households have reported to get sugar from FPSs and in Tseminyu block, 100 percent of households get Sugar from FPSs of which 44.23 percent get 50% or above of their quantity requirement from FPSs and 55.77 percent get 30% to 50% of requirement from FPSs.

In the case of Peren district, 93.48 percent of beneficiaries have reported to consume sugar regularly. None of the households get cent percent sugar quantity requirement from FPSs. In this district, 100 percent of sample households get sugar more or less quantity out of which 57.45 percent of households get 50% and above of their sugar quantity requirement from FPSs, 20.49 percent of households get 30% to 50% of sugar requirement from FPSs, 22.05 percent of households get below 30% of their sugar requirement from FPSs. There are inter block variation in terms of getting sugar from FPSs; the highest availability is reported in Peren block of Peren district with 100 percent of households consuming 50% and above of their quantity of requirement of sugar from FPSs whereas the least availability is reported in Athibung block of the district with 21.42 percent of households getting 50% and above quantity of their requirement from FPSs and 78.57 percent of households getting 30% to 50% of requirement from FPSs.

In the case of Wokha district, 90.60 percent of beneficiaries have reported to consume sugar regularly. 7.69 percent of the households get cent percent sugar quantity requirement from FPSs as all the sample households in Chukitong block and 5.56 percent of households of Sanis block have reported that they are getting 100% requirement of sugar from FPSs, i.e., the beneficiaries don't need to buy sugar from open market at all. In this district, 63.67 percent of sample households get sugar more or less quantity and 36.32 percent of households do not get sugar

from FPSs at all. Only 9.40 percent get 50% and above of their sugar quantity requirement from FPSs, 15.38 percent of households get 30% to 50% of sugar requirement from FPSs, 31.19 percent of households get below 30% of their sugar requirement from FPSs. There are inter block variation in terms of getting sugar from FPSs; the highest availability is reported in Chukitong block of Wokha district with 100 percent of households consuming cent percent of their quantity of requirement of sugar from FPSs whereas Bhandri and Changpang blocks have reported none of the beneficiaries in these blocks get sugar from FPSs.

When we take the average of the three districts, it is found that 24.40 percent of households obtain 50% and above requirement, 35.55 percent of households obtain 30% to 50% of requirement, and 22.08 percent of households obtain below 30% of requirement of sugar from FPSs. Table 4.31 gives sugar consumption pattern from FPSs by the households block wise for all the three districts.

Table 4.31: Sugar Consumption by households from FPSs in all the blocks of the three districts

Districts	Blocks	Pattern of Sugar Consumption from FPS					Total No. of Households
		No of households that no Sugar obtained from FPS	No of households that all requirement obtained from FPS	No of households that 50% of requirement and above obtained from FPSs	No of households that 30% to 50% of requirement obtained from FPS	No of households that Below 30% of requirement obtained from FPS	
Kohima	Botsa	0	0	7	0	0	7
	Chiephobozou	0	0	21	30	0	51
	Chunlikha	89	0	23	0	0	112
	Jakhama	0	0	81	149	137	367
	Kohima	0	0	0	215	0	215
	Sechu/ Zubza	0	0	0	9	0	9
	Tseminyu	0	0	23	29	0	52
	Total	89	0	155	432	137	813
Peren	Athibung	0	0	6	22	0	28
	Jaluki	0	0	51	21	34	106
	Peren	0	0	45	0	0	45
	Tenning	0	0	83	23	37	143
	Total	0	0	185	66	71	322

Wokha	Bhandri	29	0	0	0	0	29
	Changpang	45	0	0	0	0	45
	Chukitong	0	30	0	0	0	30
	Ralan	0	0	0	20	25	45
	Sanis	55	6	22	0	25	108
	Wokha	41	0	0	22	87	150
	Wozuro	0	0	22	30	9	61
	Total	170	36	44	72	146	468

Source: Field survey

Pattern of purchase of rice from FPSs:

Rice is the main food on which people of Nagaland live. People usually eat rice at least twice a day and thus major intake of calories is obtained from rice. Hundred percent of population consume rice.

In Kohima district, none of the households do not get hundred percent quantity of requirement of rice from FPSs. 33.45 percent of sample households purchase 50% and above of the requirement of rice from FPSs and 66.54 percent of the households purchase 30% to 50% of the requirement from FPSs. None of the households get below 30% of requirement from FPSs. There are inter block variations in terms of quantity of getting rice from FPSs. In Botsa block, hundred percent of the households purchase 50% and above requirement of rice from FPSs. In Sechu/Zuba and Kohima blocks hundred percent of sample households purchase 30% to 50% of requirement of rice from FPSs.

In Peren district, none of the households get cent percent requirement of rice from FPSs. 37.57 percent of the beneficiaries are getting 50% and above requirement of rice from FPSs. 41.92 percent of households are getting 30% to 50% of requirement of rice from FPSs and 20.49 percent of households are getting below 30% of their requirement from FPSs. Regarding inter block variation, highest quantity availability is reported from Tenning block with 58.04 percent of households getting 50% and above the requirement, 19.58 percent of households getting 30% to 50% of requirement and 22.37 percent of households getting below 30% of requirement from FPSs. The least quantity availability is

reported in Jaluki block in which 16.03% of households purchase 50% and above requirement, 51.88 percent of households purchase 30% to 50% of requirement and 32.07 percent of households purchase below 30% of requirement from FPSs.

In Wokha district, 18.37 percent of sampled beneficiaries are getting 50% and above quantity of requirement from FPSs, 45.3 percent of beneficiaries are getting 30% to 50% of requirement from FPSs and 36.32 percent of beneficiaries are getting below 30% of requirement of rice from FPSs. Regarding inter block variation, availability of highest quantity is reported in Bhandri, Changpang and Chukitong blocks in which cent percent of households get 50% and above the requirement of rice from FPSs. Availability of least quantity is reported in Sanis block in which no household purchase 50% and above the requirement from FPSs, 11.11 percent of households are getting 30% to 50% of requirement and 88.88 percent of households are getting below 30% of requirement of rice from FPSs. When we take the average of the three districts, it is found that 29.87 percent of households obtain 50% and above requirement, 55.39 percent of households obtain 30% to 50% of requirement, and 14.7 percent of households obtain below 30% of requirement of rice from FPSs. Table 4.32 gives pattern of purchase of rice by the households block wise for all the three districts.

Table 4.32: Pattern of Rice purchase from FPS

Districts	Blocks	Pattern of Rice Consumption from FPS					Total No. of Households
		No Rice Obtained from FPS	All Requirement Obtained from FPS	50% and above Obtained	30% to 50% Obtained from FPS	Below 30% Obtained from FPS	
Kohima	Botsa	0	0	7	0	0	7
	Chiephobozou	0	0	38	13	0	51
	Chunlikha	0	0	23	89	0	112
	Jakhama	0	0	181	186	0	367
	Kohima	0	0	0	215	0	215
	Sechu/ Zubza	0	0	0	9	0	9
	Tseminyu	0	0	23	29	0	52
	Total	0	0	272	541	0	813
Peren	Athibung	0	0	6	22	0	28
	Jaluki	0	0	17	55	34	106
	Peren	0	0	15	30	0	45
	Tenning	0	0	83	28	32	143
	Total	0	0	121	135	66	322
Wokha	Bhandri	0	0	0	29	0	29
	Changpang	0	0	0	45	0	45
	Chukitong	0	0	0	30	0	30
	Ralan	0	0	0	38	7	45
	Sanis	0	0	0	12	96	108
	Wokha	0	0	41	42	67	150
	Wozuro	0	0	45	16	0	61
	Total	0	0	86	212	170	468

Source: Field Survey

Pattern of Dal Consumption from FPS in the three districts:

In Kohima district, 35.54 percent of sample beneficiaries do not get dal from FPSs at all, i.e., 64.46 percent of beneficiaries are purchasing dal from FPSs in more or less quantity. Only 2.46 percent of beneficiaries purchase 50% and above quantity of requirement from FPSs. 55.56 percent of beneficiaries purchase 30% to 50% requirement and 6.4 percent of the beneficiaries purchase below 30% of requirement of dal from FPSs. Regarding inter block variation in the district in terms of quantity of purchase of dal from FPSs, the highest quantity availability is reported in Botsa block in which hundred percent of beneficiaries are getting 50%

and above quantity of requirement from FPSs and the least quantity availability is reported in Jakhama block in which 72.48 percent of households do not get dal at all from FPSs, only 27.52 percent of households get 30% to 50% of dal requirement from FPSs.

In Peren district, hundred percent of the sample beneficiaries purchase dal from FPSs in more or less quantity, 19.25 percent of beneficiaries get 50% and above quantity of requirement, 51.56 percent of beneficiaries get 30% to 50% of requirement and 28.88 percent of beneficiaries get below 30% requirement of dal from FPSs. Regarding inter block variation, the highest quantity availability of dal from FPSs is reported in Peren block of the district as hundred percent of sample beneficiaries purchase 50% and above quantity of requirement of dal from FPSs. The least quantity availability is reported in Tenning block in which 74.12 percent of the beneficiaries purchase 30% to 50% of requirement and 25.87 percent of beneficiaries purchase below 30% requirement of dal from FPSs.

In Wokha district, 62.12 percent of sample beneficiaries do not get dal from FPSs at all, i.e., only 37.83 percent of sample beneficiaries in the district get more or less quantity of dal from FPSs. Only 1.28 percent of sample beneficiaries are getting 50% and above requirement, 4.70 percent of the beneficiaries are getting 30% to 50% of their requirement and 31.83 percent of beneficiaries are getting below 30% of requirement of dal from FPSs. Among the blocks, the highest quantity of dal availability is reported in Wozuro block in which 36.06 percent of households purchase 30% to 50% of dal requirement and 63.93 percent of households purchase below 30% of dal requirement from FPSs. The worst condition of dal distribution from FPSs is reported in Bhandari block in which none of the beneficiaries get dal from FPSs. When we take the average of the three districts, it is found that 5.48 percent of households obtain 50% and above requirement, 39.90 percent of households obtain 30% to 50% of requirement, and 18.33 percent of households obtain below 30% of requirement of dal from FPSs.

Table 4.33 gives pattern of consumption of dal by the households block wise for all the three districts.

Table 4.33: Pattern of Dal Consumption from FPS

Districts	Blocks	Pattern of Dal Consumption from FPS					Total No. of Households
		No Dal Obtained from FPS	All Requirement Obtained from FPS	50% and above Obtained	30% to 50% Obtained from FPS	Below 30% Obtained from FPS	
Kohima	Botsa	0	0	7	0	0	7
	Chiephobozou	0	0	0	21	30	51
	Chunlikha	0	0	13	99	0	112
	Jakhama	266	0	0	101	0	367
	Kohima	0	0	0	215	0	215
	Sechu/ Zubza	0	0	0	9	0	9
	Tseminyu	23	0	0	7	22	52
	Total	289	0	20	452	52	813
Peren	Athibung	0	0	0	6	22	28
	Jaluki	0	0	17	55	34	106
	Peren	0	0	45	0	0	45
	Tenning	0	0	0	106	37	143
	Total	0	0	62	167	93	322
Wokha	Bhandari	29	0	0	0	0	29
	Changpang	45	0	0	0	0	45
	Chukitong	30	0	0	0	0	30
	Ralan	45	0	0	0	0	45
	Sanis	55	0	6	0	47	108
	Wokha	87	0	0	0	63	150
	Wozuro	0	0	0	22	39	61
	Total	291	0	6	22	149	468

Source: Field Survey

Satisfaction/dissatisfaction of beneficiaries on Rice, Sugar, Dal and Kerosene obtained from FPS:

Regarding rice, of the total selected households of the three districts of Nagaland, 19.69 percent of households responded to be satisfied with the rice which they are getting from FPS, 16.26 percent of households are satisfied with sugar, 13.49 percent of households are satisfied with dal and 13.32 percent of households are satisfied with the kerosene which they are getting from FPSs. The unsatisfied percentages households are 80.31 percent, 83.74 percent, and 86.50 and 86.68 percent with commodities rice, sugar, dal and kerosene respectively.

For analyzing the reasons of un-satisfactions, we have given seven options to the respondents, which are insufficient quantity, poor quality, irregularity, insufficient quantity and poor quality, insufficient quantity and irregularity, poor quality and irregularity, poor quality and insufficient quantity and irregularity.

In Kohima district, it has been reported that only 19.80 percent of households are satisfied with the rice obtained from FPSs whereas 80.20 percent of households are not satisfied. The maximum percentage of respondents has been found to give the reason insufficient quantity, which is responded by 53.99 percent of beneficiaries, followed by 15.49 percent of beneficiaries stating the reason combination of insufficient quantity and irregularity, 9.97 percent of households stating the reason irregularity, 6.90 percent of households stating the reason combination of insufficient quantity and poor quality, 5.52 percent of households stating the reason combination of poor quality and irregularity, 4.29 percent of households stating the reason combination of the three factors insufficient quantity, poor quality and irregularity and 3.83 percent of households stating the reason poor quality.

In Peren district, it has been found that 25.16 percent of households are satisfied with the quantity of rice whereas 74.84 percent of households are not satisfied with the rice. The biggest reason of dissatisfaction has been found as insufficient quantity as responded by 44.81 percent of households, followed by 19.92 percent of households stating the reason combination of insufficient quantity and irregularity, 10.79 percent of households stating the reason irregularity, 10.37 percent of households stating the reason combination of insufficient quantity and poor quality, 5.81 percent of households stating the reason poor quality, 4.56 per percent of households stating the reason combination of poor quality and irregularity, 3.73 percent of households stating all the three reasons, i.e., combination of insufficient quantity, poor quality and irregularity.

In Wokha district, it has been found that 14.10 percent of households are satisfied with the rice whereas 85.90 percent of households are not satisfied with the rice obtained from FPSs. The biggest reason of dissatisfaction has also been found in the district is insufficient quantity as 55.97 percent of households have responded so, followed by 13.68 percent of households stating the reason irregularity, 13.18 percent of households stating the reason combination of insufficient quantity and irregularity, 6.72 percent of households stating the reason combination of insufficient and poor quality, 4.73 percent of households stating the reason combination of poor quality and irregularity, 3.98 percent of households stating the reason poor quality, 1.74 per percent of households stating reason as the combination of all three factors, i.e., insufficient quantity, poor quality and irregularity.

In the case of ration item sugar, in Kohima district, it has been found that only 14.64 percent of households are satisfied with the sugar whereas 85.36 percent of households are not satisfied with the sugar received from FPS. The maximum percentage of households has been found stating the reason insufficient quantity, which is responded by 42.36 percent of households, followed by 17.58 percent of households stating the reason combination insufficient quantity and irregularity, 12.82 percent of households stating the reason unavailability of sugar at all, 7.20 percent of households stating the reason combination of insufficient quantity and poor quality, 1.59 percent of households stating the reason poor quality, 1.01 percent of households stating the reason combination of poor quality and irregularity, 0.29 percent of households stating the reason the combination of three factors, i.e., insufficient quantity, poor quality and irregularity.

In Peren district, it has been found that 21.12 percent of households are satisfied with the sugar obtained whereas 78.88 percent of households are not satisfied with the sugar obtained from FPS. The biggest reason of dissatisfaction has been found due to insufficient quantity with 48.82 percent of households, followed by 20.87 percent of households stating the reason combination of

insufficient quantity and irregularity, 18.11 percent of households stating the reason irregularity, 5.51 percent of households stating the reason combination of insufficient quantity and poor quality, 3.94 percent of households stating the reason poor quality, 1.57 per percent of households stating the reason combination of poor quality and irregularity, 1.18 percent of households stating reason the combination of three factors, i.e., insufficient quantity, poor quality and irregularity.

In Wokha district, it has been found that 13.03 percent of households are satisfied with sugar obtained from FPSs whereas 86.97 percent of households are not satisfied. The biggest reason of dissatisfaction has been stated as non-availability of sugar as 41.77 percent of households have responded so, followed by 37.10 percent of households stating the reason insufficient quantity, 14.25 percent of households stating the reason combination of insufficient quantity and irregularity, 2.46 percent of households stating the reason irregularity, 1.47 percent of households stating the reason combination of poor quality and irregularity.

In case of ration item dal, in Kohima district, it has been found that only 14.51 percent of households are satisfied with dal obtained from FPS whereas 85.49 percent of households are not satisfied. The maximum percentage of beneficiaries has been found stating the reason non-availability as 41.52 percent of households have responded so, followed by 18.68 percent of households stating the reason combination of insufficient quantity and irregularity, 10.92 percent of households stating the reason irregularity, 9.05 percent of households stating the reason combination of insufficient quantity and poor quality, 6.99 percent of households stating the reason combination of all the three factors, i.e., insufficient quantity, poor quality and irregularity, 3.83 percent of households stating the reason poor quality, 5.60 percent of households stating the reason insufficient quantity, and 3.59 percent of households stating the reason combination of poor quality and irregularity.

In Peren district, it has been found that 16.14 percent of households are satisfied with dal obtained from FPSs whereas 83.85 percent of households are not satisfied. The biggest reason of dissatisfaction has been found as combination of insufficient quantity and irregularity as 32.59 percent of households have responded so, followed by 16.30 percent of households stating the reason combination of poor quality and irregularity, 15.19 percent of households stating the reason combination of insufficient quantity and poor quality, 6.67 percent of households stating the reason insufficient quantity, 12.96 percent of households stating the reason irregularity and another 12.96 percent of households combination of all the three reasons, i.e., insufficient quantity, poor quality and irregularity and 3.33 percent of households stating the reason poor quality.

In Wokha district, it has been found that only 9.83 percent of households are satisfied with dal obtained from FPSs whereas 90.17 percent of households are not satisfied. The biggest reason of dissatisfaction has been found as non-availability with 41.06 percent of households responding so, followed by 19.32 percent of households stating the reason in combination of insufficient quantity and irregularity, 10.63 percent of households stating the reason irregularity, 8.70 percent of households stating the reason combination of poor quality and irregularity, 7.97 percent of households stating the reason combination of insufficient quantity and poor quality, 5.80 percent of households stating the reason the combination of all the three factors, i.e., insufficient quantity, poor quality and irregularity, 5.31 percent of households stating the reason insufficient quantity and 3.14 percent of households stating the reason poor quality.

In the case of ration item kerosene, in Kohima district, it has been found that only 24.11 percent of households are satisfied with the quantity of kerosene obtained from FPS whereas 75.89 percent of households are not satisfied with quantity of kerosene obtained. For identifying the reasons of dissatisfaction of the beneficiaries, we have given four options which are insufficient quantity, irregularity, combination of insufficient quantity and irregularity and not

availability. The maximum percentage of beneficiaries are stating the reason of dissatisfaction as combination of insufficient quantity and irregularity as 57.37 percent of households have responded so, followed by 21.72 percent of households stating the reason unavailability of kerosene, 12.15 percent of households stating the reason insufficient quantity, 8.75 percent of households stating the reason irregularity.

In Peren district, it has been found that 15.84 percent of households are satisfied with kerosene obtained from FPSs whereas 84.16 percent of households are not satisfied with kerosene. The biggest reason of dissatisfaction has been found as non-availability as 58.30 percent of households have responded so, followed by 31.37 percent of households stating the reason combination of insufficient quantity and irregularity.

In the case of Wokha district, there is no supply of kerosene in the district, so non-availability is the only reason of dissatisfaction for all the households.

Awareness of the beneficiaries:

In order to examine the awareness of the households, we consider in the survey some indicators viz., visibility of price list at FPSs, issue of cash memo to beneficiaries from FPSs and beneficiaries' awareness about price and allocation fixed by the Government of India (GOI) for specified cardholders.

Of the total households surveyed in the three districts, all the selected households have reported that there are no price lists hung in FPSs. It has also been reported by all the surveyed households that they have never received any kind of cash memos or receipts from the FPS.

Regarding beneficiaries' awareness about prices and allocations of the items fixed by the Government of India (GOI) for specified cardholders, 10.21 percent of households of Kohima district have responded they are aware about it and 89.79 percent of households have responded that they are unaware. In Peren district, 40.37 percent of households have responded that they are aware of the

information of GOI about the price and allocation for specified card-holders whereas 59.63 percent of households have responded not to be aware of it. In Wokha district, it has been found that 16.67 percent of households are aware about the GOI information on price and allocation for specified card-holders whereas 83.33 percent of households are not aware about any kind of GOI information relating to the price and allocation for specified card-holders. Table 4.34 gives the distribution of households block wise for all the three districts regarding awareness/unawareness of the price and allocation of ration items fixed by GOI.

Table 4.34: Distribution of households on awareness/unawareness

Districts	Blocks	Awareness of Price and Allocation fixed by the GOI for Specified Cardholders		Total
		Aware	Unaware	
Kohima	Botsa	0	7	7
	Chiephobozou	0	51	51
	Jakhama	16	351	367
	Chunlikha	23	89	112
	Kohima	32	183	215
	Sechu/ Zubza	0	9	9
	Tseminyu	12	40	52
	Total	83	730	813
Peren	Athibung	11	17	28
	Jaluki	28	78	106
	Peren	22	23	45
	Tenning	69	74	143
	Total	130	192	322
Wokha	Bhandri	0	29	29
	Changpang	12	33	45
	Chukitong	10	20	30
	Ralan	15	30	45
	Sanis	12	96	108
	Wokha	21	129	150
	Wozuro	8	53	61
	Total	78	390	468

Source: Field Survey

Response of the Households to the supposition of Confinement of PDS to Rice and Dal only:

If the PDS is confined to distribution of only rice and dal, 93.16 percent of surveyed households in Wokha district have reported that their requirement of commodities will be not fulfilled, 91.30 percent household of Peren district have reported that their requirement will be not be fulfilled and 85.12 percent of households of Kohima district have reported that their requirement of essential commodities will not be fulfilled. Whereas 14.18 percent of households in Kohima district, 8.69 percent of households of Peren district and 6.84 percent of households of Wokha district have responded confinement to rice and dal will be okay for them. Table 4.35 gives distribution of households with their responses on the supposed confinement of PDS to rice and dal.

Table 4.35: Responses of households on the supposed confinement of PDS to rice and dal

Districts	Blocks	Number of Households with their Response		Total
		Fulfilled	Not Fulfilled	
Kohima	Botsa	2	5	7
	Chiephobozou	7	44	51
	Jakhama	40	327	367
	Chunlikha	3	109	112
	Kohima	58	157	215
	Sechu/ Zubza	0	9	9
	Tseminyu	11	41	52
	Total	121	692	813
Peren	Athibung	0	28	28
	Jaluki	3	103	106
	Peren	0	45	45
	Tenning	25	118	143
	Total	28	294	322
Wokha	Bhandri	0	29	29
	Changpang	0	45	45
	Chukitong	0	30	30
	Ralan	3	42	45
	Sanis	16	92	108
	Wokha	7	143	150
	Wozuro	6	55	61
	Total	32	436	468

Source: Field Survey

Perception of the households about Fair Price Shop Owner:

In our survey, 76.26 percent of sample households in Kohima district, 64.59 percent of sample households in Peren district and 57.48 percent of sample households in Wokha district have expressed their satisfaction with the fair price shop owners. 23.74 percent of households in Kohima, 35.40 percent of households in Peren and 42.52 percent of households in Wokha district have expressed their dissatisfaction with the fair price shop owners. Among all the 18 blocks of three districts, Chiepobozou blocks of Kohima district have the least number of households, i.e., 21.56 percent, which have expressed satisfaction, whereas the highest numbers of households, i.e., 100 percent have expressed satisfaction with fair price shop owners in Sechu/ Zubza block.

The responses cited by 506 households out of total 1603 are dissatisfactions with the fair price owners. To identify the reasons of dissatisfaction, we have considered some causes which are presented as options to be chosen by the respondents expressing dissatisfaction, according to which table 4.36 is constructed to show distribution households stating different reasons of dissatisfactions. In Kohima district, the reason of dissatisfaction which is stated by the highest number of households, i.e., 20.20 percent of unsatisfied households, is supply of poor quality materials. In Peren and Wokha districts, the reason cited by highest number of unsatisfied households is adulteration in foodgrains, as 32.45 percent and 26.63 percent of unsatisfied households of districts respectively have stated the reason adulteration.

Table 4.36: **Distribution of households stating different reasons for Dissatisfaction with FPS owners**

Districts	Blocks	Reasons of dissatisfaction with FPS Owner							Total
		Shop Timing	Poor Food Quality	Faulty Weighing Procedure	Irregular Entry of Ration Card	Poor Quality	Adulteration in Foodgrains	Too much time Spent in the Queue Because of Less Number of FPS	
Kohima	Botsa	1	1	1	0	0	0	0	3
	Chiephobozou	10	8	5	4	2	3	8	40
	Jakhama	13	10	6	5	22	12	7	75
	Chunlikha	3	2	1	5	5	12	9	37
	Kohima	1	2	6	0	7	3	8	27
	Sechu/ Zubza	0	0	0	0	0	0	0	0
	Tseminyu	2	1	3	0	3	0	2	11
	Total	30	24	22	14	39	30	34	193
Peren	Athibung	1	1	0	0	0	5	1	8
	Jaluki	3	6	1	3	7	14	8	42
	Peren	3	0	1	3	3	0	2	12
	Tenning	1	4	3	8	7	18	11	52
	Total	8	11	5	14	17	37	22	114
Wokha	Bhandri	0	2	3	0	1	6	0	12
	Changpang	3	0	6	1	3	0	3	16
	Chukitong	1	3	4	1	0	0	1	10
	Ralan	0	3	2	0	0	13	2	20
	Sanis	16	5	9	3	7	17	6	63
	Wokha	11	4	6	5	8	12	9	55
	Wozuro	3	6	0	2	4	5	3	23
	Total	34	23	30	12	23	53	24	199

Source: Field Survey

Of all the households expressing dissatisfaction with FPS owners, 78.89 percent in Wokha district, 72.80 percent in Peren district and 51.29 percent in Kohima district made complaints against the FPS owner to the village councils.

Responses of beneficiaries about the availability of Ration Commodities in Time at FPS:

74.90 percent of sample households in Kohima district have responded that the availability of ration commodities at FPS is in time; followed by 65.38

percent of households in Wokha district and 55.90 percent of households in Peren district have reported the availability of ration commodities at FPS is in time. Table 4.37 gives the distribution of households according to availability of ration items in time or not.

Table 4.37: **Distribution of households based on availability of ration items in time or not**

Districts	Blocks	Number of Households with their Response		Total
		Available at Time	Not Available in Time	
Kohima	Botsa	7	0	7
	Chiephobozou	16	35	51
	Jakhama	300	67	367
	Chunlikha	74	38	112
	Kohima	164	51	215
	Sechu/ Zubza	9	0	9
	Tseminyu	39	13	52
	Total	609	204	813
Peren	Athibung	24	4	28
	Jaluki	86	20	106
	Peren	21	24	45
	Tenning	49	94	143
	Total	180	142	322
Wokha	Bhandri	23	6	29
	Changpang	13	32	45
	Chukitong	27	3	30
	Ralan	12	33	45
	Sanis	83	25	108
	Wokha	111	39	150
	Wozuro	37	24	61
	Total	306	162	468

Source: Field Survey

In the above table, it has been found that out of total surveyed 1603 households of the three districts, 508 households have reported the unavailability of ration commodities at FPS in time. Five reasons of unavailability in time are given as options for these respondents in the enquiry. From the analysis based on

their responses, it has been found that 43.14 percent, 32.53 percent and 24.69 percent of all households, expressing unavailability in time, in Kohima, Peren and Wokha districts respectively have reported that due to irregular supply from the Government ration commodities are not available at FPS in time. 20.37 percent of households in Wokha district, 19.67 percent of households of Kohima district and 14.45 percent of households of Peren district, expressing unavailability in time, have reported that transportation problem is the reason of delay of arrival of the ration commodities at FPS in time. Storage problem is stated as the reason of unavailability in time by 19.75 percent of households in Wokha district, 17.05 percent of households in Kohima district and 9.63 percent of households in Peren district. Carelessness of the dealers is the reason for delaying the arrival of ration commodities at FPS as 22.89 percent, 22.84 percent and 12.55 percent of households in Peren, Wokha and Kohima districts respectively have revealed in their responses. Also, 20.48 percent households of Peren district, 12.34 percent households of Wokha districts and 7.84 percent households of Kohima districts have reported that black marketing by the dealers is the only reason of delay in arriving the ration commodities in time at FPS. Table 4.38 gives distribution of households on the basis of stated reasons of unavailability of ration items in time at FPSs.

Table 4.38: **Distributions of households based on stated reasons of unavailability of ration items at FPSs in time**

District	Blocks	Number of Households with their Responses					Total
		Irregular Supply from Gov.t	Transportation Problem	Storage Problem	Carelessness of Dealers	Black Marketing by Dealers	
Kohima	Botsa	0	0	0	0	0	0
	Chiephobozou	28	3	1	2	1	35
	Jakhama	31	11	6	10	9	67
	Chunlikha	10	16	6	6	0	38
	Kohima	13	8	19	5	6	51
	Sechu/ Zubza	0	0	0	0	0	0
	Tseminyu	6	2	3	2	0	13
	Total	88	40	35	25	16	204
Peren	Athibung	4	0	0	0	0	4
	Jaluki	5	3	1	8	3	20
	Peren	9	2	4	3	6	24
	Tenning	9	7	3	8	8	35
	Total	27	12	8	19	17	83
Wokha	Bhandri	1	5	0	0	0	6
	Changpang	6	8	10	7	1	32
	Chukitong	3	0	0	0	0	3
	Ralan	10	6	4	9	4	33
	Sanis	3	8	7	4	3	25
	Wokha	11	2	10	8	8	39
	Wozuro	6	4	1	9	4	24
	Total	40	33	32	37	20	162

Source: Field Survey

Perception of the Households about the location of FPSs:

An investigation has been carried out regarding the satisfaction/dissatisfaction of households on the locations of FPSs. It is found that of the total 1603 sample households in the three districts, 38 percent are satisfied with the locations of FPSs. When it is examined district wise, 44.43 percent of households from Peren district, 37.88 percent from Kohima district and 33.97 percent from Wokha district have expressed satisfaction with the locations of FPSs. 66.02 percent from Wokha district, 62.12 percent from Kohima district and

55.90 percent Peren district have reported dissatisfaction with the locations of FPSs. Table 4.39 gives distribution of households on the basis of responses on satisfaction/dissatisfaction with the location of FPSs.

Table 4.39: Distribution of households based on their response satisfaction/ dissatisfaction with the locations of FPSs

Districts	Blocks	Number of Households with their Response		Total
		Satisfied	Unsatisfied	
Kohima	Botsa	4	3	7
	Chiephobozou	14	37	51
	Jakhama	143	224	367
	Chunlikha	49	63	112
	Kohima	70	145	215
	Sechu/ Zubza	0	9	9
	Tseminyu	28	24	52
	Total	308	505	813
Peren	Athibung	21	7	28
	Jaluki	43	63	106
	Peren	17	28	45
	Tenning	61	82	143
	Total	142	180	322
Wokha	Bhandri	8	21	29
	Changpang	11	34	45
	Chukitong	7	23	30
	Ralan	18	27	45
	Sanis	42	66	108
	Wokha	53	97	150
	Wozuro	20	41	61
	Total	159	309	468

Source: Field Survey

Of the total household surveyed 1603 households of the three districts, 994 households have responded dissatisfaction. In this section, the reasons of dissatisfaction with the location of FPS are studied. For this analysis, three specific reasons are considered which are i) distance of location, ii) transportation problem, and iii) distance plus transportation problem. In case of distance problem, maximum percentage of households, i.e., 46.93 percent of 505 unsatisfied households of Kohima district have reported as the reason of dissatisfaction, followed by 38.33 percent of households in Peren district and

27.18 percent of households in Wokha district have reported the same reason. In case of transportation problem, 52.77 percent households of Peren district have responded to have this problem, followed by 43.96 percent of households of Kohima district and 35.28 percent households of Wokha district have reported to face this problem. While considering the distance plus transportation problem together, 37.54 percent of households in Wokha district, 9.08 percent of households in Kohima district and 8.88 percent of households in Peren district have reported to be facing both the distance and transportation problem. Table 4.40 gives distribution of households based on revealed reasons of dissatisfaction of location of FPSs.

Table 4.40: Distribution of households on the basis revealed reasons of dissatisfaction with the locations of FPSs

Districts	Blocks	Number of Households with their Response			Total
		Distance of the location	Transportation Problem	Distance plus Transportation Problem	
Kohima	Botsa	1	2	0	3
	Chiephobozou	20	17	0	37
	Jakhama	111	87	26	224
	Chunlikha	33	21	9	63
	Kohima	61	73	11	145
	Sechu/ Zubza	0	9	0	9
	Tseminyu	11	13	0	24
	Total	237	222	46	505
Peren	Athibung	3	4	0	7
	Jaluki	22	32	9	63
	Peren	8	17	3	28
	Tenning	36	42	4	82
	Total	69	95	16	180
Wokha	Bhandri	3	4	14	21
	Changpang	8	6	20	34
	Chukitong	6	12	5	23
	Ralan	11	6	10	27
	Sanis	18	34	14	66
	Wokha	31	25	41	97
	Wozuro	7	22	12	41
	Total	84	109	116	309

Source: Field Survey

Investigation whether the FPSs owners timely inform the beneficiaries or not about the arrival of foodgrains at FPSs:

In this section, we have studied whether the FPSs owners inform the beneficiaries about the arrival of ration items. On this query, 53.99 percent households of Kohima district have reported that FPS owners inform about the arrival of foodgrains, 49.15 percent households of Wokha district and 36.65 percent households of Peren districts have expressed that they are informed by the FPS owners about the arrival of foodgrains. The remaining percentages of households of all the district have expressed that they do not get any information from FPS owners whether ration items have arrived or not.

Report of the beneficiaries about their various experiences while they are purchasing the ration items from FPS:

In this section six relevant indicators are taken into consideration to identify the experiences of the beneficiaries while they are purchasing the foodgrains from FPS. Of the total 813 sample households of Kohima district, it has been found that 45.38 percent of households have had the experience of irregular supply, 7.74 percent households have had experience of pushing and quarrelling while purchasing the food items from ration shop, 6.76 percent of households have had experience of heavy rush and standing in long queue, 18.20 percent of households have had experience of repeated visits to the ration shops to check whether ration items have arrived or not, 13.65 percent have had experience of facing rude behaviours of the dealers and 8.24 percent household have had reported of facing other reasons which are not specified.

Of the total 322 sample households of Peren district, it has been found that 38.19 percent of households have had experience of irregular supply, 4.34 percent of households have had experience of pushing and quarrelling while purchasing

the food items from ration shop, 19.87 percent of households have had experience of heavy rush and standing in long queue, 20.49 percent of households have had experience of repeated visits to the ration shops to check whether ration items have arrived or not, 10.55 percent have had experience of facing rude behaviours of the dealers and 6.52 percent household have reported of facing other reasons which are not specified.

Of the total 468 sample households of Wokha district, it has been found that 34.16 percent of households have had experience of irregular supply, 6.84 percent households have had experience of pushing and quarrelling while purchasing the food items from ration shop, 16.02 percent of households have had the experience of heavy rush and standing in long queue, 23.71 percent of households have had experience of repeated visits to the ration shops to check whether ration items have arrived or not, 11.32 percent have had experience of facing rude behaviours of the dealers and 7.90 percent of household have had the experience of facing other reasons which are not specified. Table 4.41 gives the distribution of households according to their experiences at the time of buying ration items from FPS

Table 4.41: Distribution of households on the basis of experiences of beneficiaries at the time of buying from FPSs.

Districts	Blocks	Number of Households with their Response						Total
		Irregular Supply	Pushing and Quarrelling	Heavy Rush & Long Queue	Involves Repeated Visits	Rude Behaviours of the Dealers	Any other	
Kohima	Botsa	6	0	0	1	0	0	7
	Chiephobozou	21	4	2	10	5	9	51
	Jakhama	172	24	30	43	61	37	367
	Chunlikha	48	9	3	33	11	8	112
	Kohima	88	24	17	48	26	12	215
	Sechu/ Zubza	3	1	1	2	1	1	9
	Tseminyu	31	1	2	11	7	0	52
	Total	369	63	55	148	111	67	813
Peren	Athibung	9	3	4	8	2	2	28
	Jaluki	43	2	29	17	9	6	106
	Peren	16	3	12	8	3	3	45
	Tenning	55	6	19	33	20	10	143
	Total	123	14	64	66	34	21	322
Wokha	Bhandri	10	3	2	7	6	1	29
	Changpang	13	2	6	10	9	5	45
	Chukitong	14	3	1	8	2	2	30
	Ralan	23	2	8	7	5	0	45
	Sanis	45	13	17	13	13	7	108
	Wokha	42	7	33	49	10	9	150
	Wozuro	13	2	8	17	8	13	61
	Total	160	32	75	111	53	37	468

Source: Field Survey

Perception of Beneficiaries about availing better opportunities and facilities from PDS if the MLA who they cast votes in the last election wins the election:

Of the total 1603 sample households surveyed in three districts, only 27.31 percent households have the perception of availing better opportunities and facilities that if the MLA who they cast vote in the last election wins, the rest

72.69 percent of households do not have the perception. Among the three districts, 29.52 percent households of Kohima district, followed by 27.56 percent of households of Wokha district and 24.84 percent of households of Peren district have the perception of availing better opportunities and facilities that if the MLA who they cast vote in the last election wins. The remaining percentages of households of the three districts do not have such perception.

Thus, we have elaborately analysed how PDS is functioning in these three districts of Nagaland. From the study it is observed that although there are a lot of loopholes and shortcomings, PDS is still contributing 27.57% in the average consumption expenditure of beneficiaries on essential commodities rice, sugar, dal and kerosene. This study has brought to light a number of acute problems in PDS functioning some of which are: inequality in distribution of ration items among the villages, blocks and districts, in some villages beneficiaries are getting more quantity and more number of items, and in some other villages beneficiaries are getting less quantity and less number of items, big gap between quantity requirement and obtained, irregular supply of ration items from FPSs, no uniform prices and allocation of quantities of commodities is followed by the FPSs, every FPS has its own price and allocation, prices and allocation fixed by GOI is at all ignored, in some villages some commodities are distributed once in three to four months, some items are available once in a year or not available at all in some villages, a number of ineligible beneficiaries are still getting commodities whereas a number of eligible households are still deprived of beneficiary cards, etc. With a view to socio-economic and poverty condition manifested in educational qualification, types of occupation and income of beneficiaries under the survey, the role of PDS is found crucial in ensuring food security of people in need of nutritional support. On the other hand, there are a lot to rectify, revamp and improve in the functioning of PDS in the state which will be discussed substantially in Chapters VI and VII. The findings in this chapter will again be summarily discussed, reorganized and reinterpreted in Chapters VI and VII to

present the constraints, prospects, and recommend measures for improvement of PDS functioning in Nagaland in the particular context of the three districts. All the allied problems hampering efficient functioning of PDS, problems faced by the beneficiaries in terms of locations of FPSs, potential factors of dissatisfaction of beneficiaries, transportation problems, etc., are discovered through the survey. Comparing and contrasting the performance of PDS in various counts among the villages, blocks and districts are carried out in this chapter.

CHAPTER-V

THE ROLE OF FAIR PRICE SHOPS UNDER PUBLIC DISTRIBUTION SYSTEM IN IMPROVING SOCIO-ECONOMIC CONDITION AND FOOD SECURITY IN NAGALAND:

At first, we have discussion on the collected general information through field survey about FPSs such as location, population covered and variety of commodities sold. In Kohima district, survey has been done on 24 FPSs and information is collected from owners of FPSs which are located in the 19 selected villages of the district. It has been reported that each of all the selected villages has one FPS in the village itself except Viswema village in Jakhama block and Kohima village in Kohima block each of which have four FPSs in the village. One FPS which is located at Tesminyu village of Tesminyu block refuses to give any information. In the case of Peren district, survey has been done on 16 FPSs and information is collected from the FPSs owners of all the 16 selected villages. All the selected villages have one FPS each located inside the village. In the case of Wokha district, of all FPSs of 23 selected villages of Wokha district, three FPSs each of which belongs to Tsungiki village of Chukitong block, Lakhuti village of Sanis block and Khumtsu village Wozuro block refuses to give information and there is one village called Seluku of Chukitong block could not be contacted, therefore, survey has been done on 19 FPSs and information is collected from the surveyed FPSs owners of the selected villages.

On investigating the location of FPSs in Kohima district, it is found that all the FPSs of the selected villages are located in rural areas. Regarding population coverage under the jurisdiction of FPSs, we first divide four population groups, i.e., 100-500, 500-1000, 1000-1500, and 1500-4500. We have found each FPS of the five villages, viz., Menguzuma, Nachama, Teichuma, Vipphoma, and Ziezou villages, covers population 100-500. Each of three FPSs of three villages, viz., Ehunnu, Rusoma, Ngvuphen and two FPSs from Viswema village covers population 500-1000. It is reported that Viswema village has four FPSs, out of the

remaining two FPSs, one covers population 100-500 and the other covers 1000-1500. Tesophenyu village has one FPS which covers population 1000-1500. Eleven FPSs each of which is located in eight villages, viz., Kezoma, Khuzama, Kidima, Kigwema, Kohima, Phesama, Sishunu and Zisunyu, covers population 1500-4500.

In Table 5.1, we have shown the disparity between the report given by FPS owners on ration items sold and report collected from households in the jurisdiction of the FPS on the availability of ration items in Kohima district.

Table 5.1: Comparison between commodities sold in FPSs as reported by owners and availability of commodities by households as responded by the households, Kohima District

Blocks	Name of Village in which FPS is Located	Claim of FPS owner on the kinds of Commodities Sold (1-Availability, 0-Non-availability)				Reports of households in the FPS's jurisdiction (1-Availability, 0-Non-availability)			
		Rice	Sugar	Dal	K.Oil	Rice	Sugar	Dal	K.Oil
Botsa	Teichuma	1	1	1	1	1	1	1	0
Chiephobozou	Ziezou	1	1	1	1	1	1	1	0
	Rusoma	1	1	1	1	1	1	1	1
	Nachama	1	1	1	1	1	1	1	1
	Viphoma	1	1	1	1	1	1	1	1
Chunlikha	Ehunnu	1	1	1	1	1	1	1	0
	Sishunu	1	1	1	1	1	1	1	1
	Tesophenyu	1	1	1	1	1	0	1	1
Jakhama	Kezoma	1	1	1	1	1	1	1	0
	Khuzama	1	1	1	1	1	1	0	0
	Phesama	1	1	1	1	1	1	1	1
	Kidima	1	1	1	1	1	1	1	1
	Kigwema	1	1	1	1	1	1	1	1
	Viswema	1	1	1	1	1	1	1	1
	Viswema	1	1	1	1	1	1	1	1
	Viswema	1	1	1	1	1	1	1	1
Kohima	D Khel	1	1	0	1	1	1	0	1
	L Khel	1	1	1	1	1	1	1	1
	P Khel	1	1	0	1	1	1	0	1
	T Khel	1	1	0	1	1	1	0	1
Zubza/Sechu	Menguzuma	1	1	1	1	1	1	1	1
Tseminyu	Zisunyu	1	1	1	1	1	1	1	1
	Ngvuphen	1	1	1	1	1	1	1	0

Source: Field Survey

In the above table, it is shown that 4.17% of villages do not get sugar and dal although there is claim of FPSs owners that the two items are sold in those villages. Households of 25% of the selected villages have responded that no

kerosene is available although there is the claim by the FPSs owners that kerosene is sold in those villages. Such a lacuna is investigated in the survey.

On investigating the location of FPSs in Peren district, it has been reported that all the FPSs of the selected villages are located in rural areas, except the FPS in Ngwalwa village which is located in semi-urban area. In terms of population covered by the FPSs, we have found each of the FPSs in three villages, viz., Azilong, Old Soget and Phelhang covers population 100-500. Each of three FPSs of three villages, viz., Jaluki Dungki, Mpainamci and Upper Sinjol, covers population 500-1000. Five FPSs, each of which covers population 1000-1500, belong to Lalong, Old Tessen, NTU, Nzau and Sailhem. There is a one FPS located in Poilwa village which covers population 1500-2000. Four FPSs belonging to Baisumpuikam, Mahainamtsi, Ngwalwa and Tenning, cover population 2000-2500. In Table 5.2, we have shown the disparity between the report given by FPS owners on the kinds of ration items sold and report collected from households in the jurisdiction of the FPS on the availability of kinds of ration items in Peren district.

Table 5.2: Comparison between commodities sold in FPSs as reported by owners and availability of commodities by households as responded by the households, Peren district

Blocks	Name of Village in which FPS is Located	Claim of FPS owner on the kinds of Commodities Sold (1-Availability, 0-Non-availability)				Reports of households in the FPS's jurisdiction (1-Availability, 0-Non-availability)			
		Rice	Sugar	Dal	K.Oil	Rice	Sugar	Dal	K.Oil
Athibung	Old Soget	1	1	1	1	1	1	1	0
	Sailhem	1	1	1	1	1	1	1	0
	Phelhang	1	1	1	1	1	1	1	0
Jaluki	Baisumpuikam	1	1	1	1	1	1	1	1
	Jaluki Dungki	1	1	1	1	1	1	1	1
	Mahainamtsi	1	1	1	1	1	1	1	1
	Ngwalwa	1	1	1	1	1	1	1	1
Peren	Poilwa	1	1	1	1	1	1	1	0
	Mpainamci	1	1	1	1	1	1	1	0
Tenning	Upper Sinjol	1	1	1	1	1	1	1	0
	Old Tessen	1	1	1	1	1	1	1	1
	Lalong	1	1	1	1	1	1	1	0
	Azilong	1	1	1	1	1	1	1	0
	Nzau	1	1	1	1	1	1	1	0
	NTU	1	1	1	1	1	1	1	0
	Tenning	1	1	1	1	1	1	1	1

Source: Field Survey

In the above table, it is shown that households of 62.5% of villages have responded kerosene is not available whereas the information collected from FPSs has indicated kerosene is distributed in the said villages. Such a discrepancy is investigated in the survey.

In Wokha district, all the surveyed FPSs of the sampled villages are located in rural area. Regarding variation in population coverage, we have found each FPS belonging to six villages, viz., Lishuyo, Liphayan, Markharung, Old Riphyim, Ronsuyan and Sankitong covers population 100-500, each of three FPSs located in the villages, viz., Lontsung, Niryo and Old Ralan, covers population 500-1000, and six FPSs each of which belonging to Aree old, Longsachung, Mekokla, Phiro, Oktso and Shaki village covers population 1000-1500. The four FPSs each of which covers population 1500-2000 are Humtso, Merapani, Old Chungsu and Yikhum village. Regarding the disparity between claim of FPS owners about the kinds of commodities sold and response of households about the availability, Table 5.3 has shown the details.

Table 5.3: Comparison between commodities sold in FPSs as reported by owners and availability of commodities by households as responded by the households, Wokha district

Blocks	Name of Village in which FPS is Located	Claim of FPS owner on the kinds of Commodities Sold (1-Availability, 0-Non-availability)				Reports of households in the FPS's jurisdiction (1-Availability, 0-Non-availability)			
		Rice	Sugar	Dal	K.oil	Rice	Sugar	Dal	K.oil
Bhandri	Lishuyo	1	0	0	0	1	0	0	0
	Merapani	1	1	1	0	1	0	0	0
Changpang	Mekokla	1	1	0	0	1	0	0	0
Ralan	Liphayan	1	1	1	0	1	1	0	0
	Old Ralan	1	1	1	0	1	1	0	0
	Ronsuyan	1	1	1	0	1	1	0	0
Sanis	Aree Old	1	1	1	0	1	1	1	0
	Oktso	1	1	1	0	1	1	1	0
	Makharung	1	1	1	0	1	1	1	0
	Lontsung	1	1	1	0	1	1	1	0
Wokha	Old-Chungsu	1	1	1	0	1	1	0	0
	Yikhum	1	1	1	0	1	1	1	0
	Old Riphyim	1	1	1	0	1	1	0	0
	Longsachung	1	1	1	0	1	0	0	0
	Niryo	1	1	1	0	1	0	0	0
	Humtso	1	1	1	0	1	1	1	0
Wozuro	Sankitong	1	1	1	0	1	1	1	0
	Shaki	1	1	1	0	1	1	1	0
	Phiro	1	1	1	0	1	1	1	0

Source: Field Survey

In the table, it is seen that sampled households of 26.23% of villages have responded non-availability of sugar and sampled households of 57.14% of villages have responded non-availability of dal contradicting the claims of FPSs owners that these commodities are sold to all the households under their jurisdiction. Such a huge mismatch is unearthed in this survey in Wokha district.

Problems in running of FPSs:

Problems related to demand and supply, the perception of FPSs' owners about the reason of beneficiaries' preference of buying ration items from FPSs are investigated. We examine whether any of the above two problems is encountered by the dealers in running FPSs with the help of queries. For studying perception of FPSs owners on the beneficiaries' preference of buying from FPSs, we consider three probable reasons: a) easy availability of ration items, b) lower price of the ration items in FPSs, c) good quality of ration items, and also ask the dealers to give ranks as 1, 2 and 3 against the three reasons given as options according to their observations.

54.17% of FPSs owners have stated that they face problem in running FPSs in Kohima district as demand outmatches supply whereas 45.83% of FPS owners have stated they do not face any problem in terms of gap between demand and supply. None of the FPSs have responded to be facing transportation problem. Regarding perception of FPSs owners about the beneficiaries' preference of purchasing ration items from FPSs, as per ranks given to the presumed reasons by the dealers, 66.67% of owners think due lower price beneficiaries purchase from FPSs, whereas 12.5% think due to easy availability, and 20.83% think due to good quality.

Table 5.4: Problems encountered in running of FPSs related to demand and supply, and transportation, the perception of FPSs' owners about beneficiaries' preference to buy rations from FPSs, Kohima District

Blocks	FPS Located Villages	Problems are faced in running FPSs (1-Yes, 0-No)	Availability of ration items as per the demand (1- Available, 0 – not Available)	Transportation problem Yes -1 No- 0	Perception of FPSs owners about beneficiaries' preference to buy rations items from FPSs : reasons, (Give ranks 1, 2, 3)		
					A*	B*	C*
Botsa	Teichuma	1	0	0	1	1	3
Chiephobozou	Ziezou	1	0	0	3	1	2
	Rusoma	1	0	0	3	2	1
	Nachama	0	1	0	3	2	1
	Viphoma	1	0	0	3	1	2
Chunlikha	Ehunnu	0	1	0	3	1	2
	Sishunu	1	0	0	2	3	1
	Tesophenyu	1	0	0	2	3	1
Jakhamia	Kezoma	1	0	0	2	1	3
	Khuzama	0	1	0	3	1	2
	Phesama	0	1	0	2	3	1
	Kidima	0	1	0	3	1	2
	Kigwema	0	1	0	2	1	3
	Viswema	1	0	0	3	1	2
	Viswema	0	1	0	3	3	3
	Viswema	0	1	0	3	2	2
Kohima	Viswema	0	1	0	3	2	2
	D Khel	1	0	0	2	1	3
	L Khel	1	0	0	3	1	2
	P Khel	1	0	0	3	1	2
Zubza/Sechu	T Khel	1	0	0	3	1	2
	Menguzuma	1	0	0	1	1	3
Tseminyu	Zisunyu	0	1	0	3	1	2
	Ngvuphen	0	1	0	1	1	2

Source: Field Survey, A* = Easy availability of ration items,
B* = Lower price of the ration items in the FPS,
C* = Good quality of the ration items

2.5% of FPSs owners have stated that they face problem in running of FPSs in Peren district, 37.5% of FPS owners have stated that they do not face any such problem. All these FPSs reported to be having problems have problem in getting supply of ration items as per demand and among these FPSs 60% of them have transportation problem. Regarding perception of FPSs owners about the beneficiaries' preference of purchasing ration items from FPSs, as per ranks given to the presumed reasons by the dealers, 68.75% of owners think it is due to lower price in FPSs, 6.25% think due to easy availability, and 25% think due to good quality.

Table 5.5: Problems encountered in running of FPSs related to demand and supply, and transportation, the perception of FPSs' owners about beneficiaries' preference to buy rations from FPSs, Peren District

Blocks	FPS Located Villages	Problems are faced in running FPSs (1-Yes, 0-No)	Availability of ration items as per the demand (1- Available, 0 - not Available)	Transportation problem Yes -1 No- 0	Perception of FPSs owners about beneficiaries' preference to buy rations items from FPSs : reasons, (Give ranks 1, 2, 3)		
					A*	B*	C*
Athibung	Old Soget	1	0	1	3	1	2
	Sailhem	1	0	1	1	1	3
	Phelhang	0	1	0	3	1	1
Jaluki	Baisumpuikam	0	1	0	3	1	2
	Jaluki Dungki	1	0	1	3	1	2
	Mahainamtsi	1	0	1	3	1	2
	Ngwalwa	1	0	1	3	2	1
Peren	Poilwa	1	0	0	2	1	3
	Mpainamci	1	0	0	2	1	3
Tenning	Upper Sinjol	1	0	1	3	1	2
	Old Tessen	0	1	0	3	1	2
	Lalong	1	0	0	2	1	3
	Azilong	0	1	0	2	2	1
	Nzau	1	0	0	2	2	1
	NTU	0	1	0	3	2	3
	Tenning	0	1	0	3	3	2

Source: Field Survey, A* = Easy availability of ration items,
B* = Lower price of the ration items in the FPS,
C* = Good quality of the ration items

68.42% of FPS owners have stated that they face problem in running FPS in Wokha district, 31.58% of FPS owners have stated that they do not face any such problem. All these FPSs reported to be having problems have problem in getting supply of ration items according to demand and among these FPSs 46.15% have reported to be facing transportation problem. Regarding perception of FPSs owners about the beneficiaries' preference of purchasing ration items from FPSs, as per ranks given to the presumed reasons by the dealers, 68.42% of owners think it is due lower price in FPSs, 5.26% think due to easy availability, and 26.32% think due to good quality.

Table 5.6: Problems encountered in running of FPSs related to demand and supply, and transportation, the perception of FPSs' owners about beneficiaries' preference to buy rations from FPSs, Wokha District

Blocks	FPS Located Villages	Problems are faced in running FPSs (1-Yes, 0-No)	Availability of ration items as per the demand (1- Available, 0 - not Available)	Transportation problem Yes -1 No- 0	Perception of FPSs owners about beneficiaries' preference to buy rations items from FPSs : reasons, (Give ranks 1, 2, 3)		
					A*	B*	C*
Bhandri	Lishuyo	1	0	1	2	1	3
	Merapani	0	1	0	1	1	3
Changpang	Mekokla	1	0	0	3	1	2
Ralan	Liphayan	1	0	0	2	3	1
	Old Ralan	1	0	1	3	1	2
	Ronsuyan	0	0	0	3	2	1
Sanis	Aree Old	1	0	1	3	2	1
	Okto	1	0	0	2	2	3
	Makharung	1	0	0	3	1	2
	Lontsung	1	0	1	2	2	1
Wokha	Old-Chungsu	1	0	0	3	2	2
	Yikhum	0	1	0	2	1	3
	Old Riphyim	0	1	0	3	1	2
	Longsachung	0	0	0	3	1	2
	Niryo	1	0	0	3	1	3
	Humtso	0	1	0	3	1	1
Wozuro	Sankitong	1	0	1	3	1	2
	Shaki	1	0	0	3	1	2
	Phiro	1	0	1	3	1	2

Source: Field Survey, A* = Easy availability of ration items,
B* = Lower price of the ration items in the FPS,
C* = Good quality the ration items

Record of receiving leaked or damaged bags, satisfaction with the present system of distribution of FPSs owners and receipt of customers' complaints:

We have investigated record of receiving leaked or damaged bags from the public distribution centres, perception of FPSs' owners on the present system of distribution, whether they are satisfied or not, and receipt of complaints from beneficiaries regarding the PDS distribution. Reasons of complaints are given as options: poor quality, insufficient quota, under-weighting and heavy rush.

From the response of surveyed FPSs owners of Kohima district, it has been found that 79.17 percent of FPSs owners claim that they use to receive leaked or damaged bags whereas, 20.83 percent of FPSs owners state that they do not receive any leaked or damaged bags from supply centres. While inspecting the

perception of FPSs owners about the present system of distribution, 54.17 percent of FPSs owners state that they are satisfied with the present system of distribution whereas 45.83 percent of FPSs owners state they are not satisfied. In the investigation of receiving complaints from customers, 91.67 percent of FPSs owners have reported that they receive complaints from the beneficiaries. Among the FPSs receiving complaints, 8.33, 45.83, 33.33, and 4.17 percent have reported complaints are against poor quality of ration items, insufficient quota, under-weighting and heavy rush during the collection of ration items from FPSs respectively.

From the response of surveyed FPSs owners of Peren district, it has been found that 75 percent of FPSs owners claim that they use to receive leaked or damaged bags. While inspecting the perception of FPSs owners regarding the present system of distribution, 18.75 percent of FPS owners have stated that they are satisfied with the present system of distribution whereas 81.25 percent of FPSs owners have stated they are not satisfied. On investigating into the receipt of complaints from the customers, 87.50 percent of FPSs owners have reported that they have received complaints from the beneficiaries whereas 12.50 percent of FPSs owners have stated they have not received any complaint from customers. Also in the study of reasons of complaints, 6.25, 62.50, 12.5 and 6.25 percent of FPSs owners receiving complaints have stated the reasons of complaints are poor quality of ration items, insufficient quota, under-weighting and heavy rush during the collection of ration items from the FPS respectively.

From the response of surveyed FPSs owners of Wokha district, it has been found that 73.68 percent of FPSs owners claim that they use to receive leaked or damaged bags. While investigating the perception of FPSs owners regarding the present system of distribution, 21.05 percent of FPSs owners have stated that they are satisfied with the present system of distribution whereas 78.95 percent of FPSs owners have stated they are not satisfied. On investigating into complaints received from the customers, 94.74 percent of FPSs owners have reported that they receive complaints from the beneficiaries whereas 5.26 percent of FPSs

owners have stated they have not received any such complaint. Also in the study of reasons of complaints, 27.78, 38.89, 22.22 and 11.11 percent of FPSs owners receiving complaints have stated the reasons of complaints are poor quality of ration items, insufficient quota, under-weighting and heavy rush during the collection of ration items from the FPS respectively.

Disparity between the quantity of ration item distributed per beneficiary as per FPSs owners' report and the quantity of same item obtained from FPSs by beneficiaries per head as per response of beneficiaries:

We have shown monthly allotted quantity in quintals of the ration items rice, sugar and dal supplied to the surveyed FPSs from government Public Distribution Centres in the three districts of Nagaland as per data provided by FPSs owners. Moreover, according to information collected from FPSs owners regarding quantity of ration items obtained (monthly quota) and total population to which the ration items (quota) are distributed, we have calculated quantity of ration items - rice, sugar and dal - distributed per beneficiary per month. On the other hand, by using data collected directly from beneficiaries in the household survey, we have presented quantity of ration items - rice, sugar and dal - obtained by beneficiaries per head per month from FPSs. The disparity between the two set of data, one is indicating quantity of ration items distributed per head and the other is indicating quantity of ration items obtained per head, is studied to investigate credibility of service of FPSs.

For 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 FPSs owners' claim on the quantity of rice distributed and response of beneficiaries on quantity received is significant at 5% level of significance. It has shown that there is disparity between data provided by FPSs owners regarding quantity distributed

per head and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Similarly, for sugar distribution in Kohima 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 FPSs owners' claim on the quantity of sugar distributed and response of beneficiaries on the quantity received is significant at 5% level of significance. It has shown that there is disparity between data provided by FPSs owners regarding quantity distributed per head and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Finally, 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 FPSs owners' claim on the quantity of dal distributed and response of beneficiaries on quantity received is significant at 5% level of significance. It has shown that there is disparity between data provided by FPSs owners regarding quantity of dal distributed per head and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Hence, in the distribution of all the three items – rice, sugar and dal - the fairness in distribution or credibility of service of FPSs is questionable. Table 5.7, 5.8 and 5.9 show the details of the said findings in the case of Kohima district.

Table 5.7: **Kohima district, rice**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Rice Alloted in kg (per month)	Population covered by FPS	FPS - Rice per beneficiary (per month)	Customer-Rice per beneficiary (per month)	
Botsa	Teichuma	2320	432	5.37	5.00	0.37
Chiphobozou	Ziezou	840	350	2.40	2.00	0.40
	Rusoma	7250	900	8.06	2.50	5.56
	Nachama	1600	500	3.20	2.50	0.70
	Viphoma	2400	380	6.32	3.57	2.75
Chunlikha	Ehunnu	800	712	1.12	1.00	0.12
	Sishunu	2280	2350	0.97	0.50	0.47
	Tesophenyu	14040	1050	13.37	2.27	11.10

Jakhama	Kezoma	6360	2117	3.00	1.81	1.19
	Khuzama	12000	3300	3.64	1.90	1.74
	Phesama	11050	3000	3.68	2.22	1.46
	Kidima	14000	4748	2.95	2.28	0.67
	Kigwema	10000	4000	2.50	2.00	0.50
	Viswema	4000	770	5.19	2.27	2.92
	Viswema	2000	479	4.17	2.27	1.90
	Viswema	3000	1320	2.27	2.00	0.27
	Viswema	3000	875	3.43	2.27	1.16
Kohima	D Khel	8050	3500	2.30	1.15	1.15
	L Khel	11280	2820	4.00	1.43	2.57
	P Khel	9700	2600	3.73	1.55	2.18
	T Khel	15700	4500	3.49	0.90	2.59
Zubza/ Sechu	Menguzuma	960	380	2.53	2.00	0.53
Tseminyu	Zisunyu	8480	3223	2.63	2.16	0.47
	Tseminyu	1600	897	1.87	1.50	0.37
	Ngvuphen	960	432	1.07	1.00	0.07

Source: Field Survey

Table 5.8: Kohima district, sugar

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Sugar Alloted in kg (per month)	Population covered by FPS	FPS - Sugar per beneficiary (per month)	Customer- Sugar per Person (per month)	
Botsa	Teichuma	360	432	0.83	0.60	0.23
Chiphobozou	Ziezou	80	350	0.23	0.22	0.01
	Rusoma	400	900	0.44	0.20	0.24
	Nachama	600	500	1.20	0.60	0.60
	Viphoma	400	380	1.05	0.43	0.62
	Ehunnu	360	712	0.51	0.44	0.07
Chunlikha	Sishunu	900	2350	0.38	0.36	0.02
	Tesophenyu	2000	1050	1.90	0.00	1.90
	Kezoma	560	2117	0.26	0.25	0.01
Jakhama	Khuzama	1600	3300	0.48	0.27	0.21
	Phesama	760	3000	0.25	0.18	0.07
	Kidima	720	4748	0.15	0.14	0.01
	Kigwema	600	4000	0.15	0.13	0.02
	Viswema	400	770	0.52	0.17	0.35
	Viswema	400	479	0.84	0.18	0.66
	Viswema	300	1320	0.23	0.19	0.04
	Viswema	400	875	0.46	0.20	0.26
	D Khel	950	3500	0.27	0.17	0.10
Kohima	L Khel	1520	2820	0.54	0.21	0.33
	P Khel	1250	2600	0.48	0.23	0.25
	T Khel	1250	4500	0.28	0.13	0.15
Zubza/ Sechu	Menguzuma	400	380	1.05	0.51	0.54
Tseminyu	Zisunyu	540	3223	0.17	0.16	0.01
	Tseminyu	400	897	0.45	0.38	0.07
	Ngvuphen	240	432	0.56	0.33	0.23

Source: Field Survey

Table 5.9: **Kohima district, dal**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Dal Alloted in kg (per month)	Population covered by FPS	FPS - Dal per beneficiary (per month)	Customer- Dal per person (per month)	
Botsa	Teichuma	360	432	0.83	0.60	0.23
Chiphobozou	Ziezou	80	350	0.23	0.22	0.01
	Rusoma	200	900	0.22	0.20	0.02
	Nachama	600	500	1.20	0.60	0.60
	Viphoma	400	380	1.05	0.43	0.62
Chunlikha	Ehunnu	200	712	0.28	0.27	0.01
	Sishunu	400	2350	0.17	0.15	0.02
	Tesophenyu	300	1050	0.29	0.18	0.11
Jakhama	Kezoma	200	2117	0.09	0.00	0.09
	Khuzama	200	3300	0.06	0.00	0.06
	Phesama	200	3000	0.07	0.00	0.07
	Kidima	300	4748	0.06	0.00	0.06
	Kigwema	200	4000	0.05	0.00	0.05
	Viswema	466	770	0.61	0.16	0.45
	Viswema	400	479	0.84	0.18	0.66
	Viswema	400	1320	0.30	0.18	0.12
Kohima	Viswema	300	875	0.34	0.20	0.14
	D Khel	0	3500	0.00	0.00	0.00
	L Khel	300	2820	0.11	0.10	0.01
	P Khel	0	2600	0.00	0.00	0.00
Zubza/Sechu	T Khel	0	4500	0.00	0.00	0.00
	Menguzuma	400	380	1.05	0.50	0.55
Tseminyu	Zisunyu	240	3223	0.07	0.02	0.05
	Tseminyu	240	897	0.27	0.00	0.27
	Ngvuphen	240	432	0.56	0.33	0.23

Source: Field Survey

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. It has shown that there is disparity between data provided by FPSs owners regarding quantity of rice distributed per head distribution and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs in this district too is questionable.

Similarly, for sugar distribution in Peren 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 FPSs owners'

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. It has shown that there is disparity between data provided by FPSs owners regarding per head quantity distribution and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Finally, for dal distribution too, 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 FPSs owners' 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. It has shown that there is disparity between data provided by FPSs' owners regarding per head quantity distribution of dal and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Hence, in the distribution of all the three items – rice, sugar and dal – in Peren district too, the fairness in distribution or the credibility of service of FPSs is questionable. Table 5.10, 5.11 and 5.12 show the details of the said findings in the case of Peren district.

Table 5.10: Peren district, rice

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Rice Alloted in kg (per month)	Population covered by FPS	FPS - Rice per beneficiary (per month)	Customer- Rice per beneficiary (per month)	
Athibung	Old Soget	900	300	3.00	2.72	0.28
	Sailhem	1250	320	3.91	2.25	1.66
	Phelhang	1650	1300	1.27	1.25	0.02
Jaluki	Baisumpuikam	7500	2000	3.75	2.27	1.48
	Jaluki Dungki	5300	950	5.58	4.80	0.78
	Mahainamtsi	1333	2500	0.53	0.50	0.03
	Ngwalwa	6000	2000	3.00	2.08	0.92
Peren	Poilwa	1300	965	1.35	1.25	0.10
	Mpainamci	4250	1550	2.74	1.78	0.96
Tenning	Upper Sinjol	450	200	2.25	1.70	0.55
	Old Tessen	4500	2340	1.92	1.14	0.78
	Lalong	1433	1200	1.19	1.01	0.18
	Azilong	5000	1350	3.70	3.12	0.58
	Nzau	5500	1320	4.17	3.33	0.84
	NTU	2350	680	3.46	2.78	0.68
	Tenning	2950	1250	2.36	1.89	0.47

Source: Filed Survey

Table 5.11: **Peren district, sugar**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Sugar Alloted in kg (per month)	Population covered by FPS	FPS - Sugar per beneficiary (per month)	Customer-Sugar per beneficiary (per month)	
Athibung	Old Soget	150	300	0.50	0.33	0.17
	Sailhem	200	320	0.63	0.19	0.44
	Phelhang	175	1300	0.13	0.09	0.04
Jaluki	Baisumpuikam	1100	2000	0.55	0.33	0.22
	Jaluki Dungki	850	950	0.89	0.44	0.45
	Mahainamtsi	233	2500	0.09	0.08	0.01
	Ngwalwa	800	2000	0.40	0.25	0.15
Peren	Poilwa	250	965	0.26	0.22	0.04
	Mpainamci	500	1550	0.32	0.25	0.07
Tenning	Upper Sinjol	135	200	0.68	0.12	0.56
	Old Tessen	400	2340	0.17	0.13	0.04
	Lalong	183	1200	0.15	0.14	0.01
	Azilong	600	1350	0.44	0.37	0.07
	Nzau	750	1320	0.57	0.43	0.14
	NTU	300	680	0.44	0.43	0.01
	Tenning	333	1250	0.27	0.08	0.19

Source: Field Survey

Table 5.12: **Peren district, dal**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Dal Alloted in kg (per month)	Population covered by FPS	FPS - Dal per beneficiary (per month)	Customer-Dal per beneficiary (per month)	
Athibung	Old Soget	150	300	0.50	0.33	0.17
	Sailhem	200	320	0.63	0.19	0.44
	Phelhang	175	1300	0.13	0.09	0.04
Jaluki	Baisumpuikam	1100	2000	0.55	0.33	0.22
	Jaluki Dungki	900	950	0.95	0.44	0.51
	Mahainamtsi	233	2500	0.09	0.08	0.01
	Ngwalwa	800	2000	0.40	0.25	0.15
Peren	Poilwa	250	965	0.26	0.22	0.04
	Mpainamci	550	1550	0.35	0.15	0.20
Tenning	Upper Sinjol	100	200	0.50	0.12	0.38
	Old Tessen	400	2340	0.17	0.13	0.04
	Lalong	183	1200	0.15	0.14	0.01
	Azilong	600	1350	0.44	0.37	0.07
	Nzau	750	1320	0.57	0.43	0.14
	NTU	300	680	0.44	0.43	0.01
	Tenning	250	1250	0.20	0.08	0.12

Source: Field Survey

For 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 $t_{0.05, 18} > \text{tabulated } t_{0.05, 18}$, 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. It has shown that there is disparity between data provided by FPSs owners regarding per head quantity distribution of rice and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

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 $t_{0.05, 18} > \text{tabulated } t_{0.05, 18}$, the difference between FPSs owners' 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. It has shown that there is disparity between data provided by FPSs owners regarding per head quantity distribution and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Finally, for dal distribution too, 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 $t_{0.05, 18} > \text{tabulated } t_{0.05, 18}$, the difference between FPSs owners' 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. It has shown that there is disparity between data provided by FPSs owners regarding per head distribution of dal and actual quantity obtained by beneficiaries per head and hence the credibility of FPSs is questionable.

Hence, in the distribution of all the three items – rice, sugar and dal - the fairness in distribution or credibility of service of FPSs is questionable. Table 5.13, 5.14 and 5.15 show the details of the said findings in the case of Peren district.

Table 5.13: **Wokha district, rice**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Rice Alloted in kg (per month)	Population covered by FPS	FPS - Rice per beneficiary (per month)	Customer-Rice per beneficiary (per month)	
Bhandri	Lishuyo	535	174	3.07	2.67	0.41
	Merapani	4500	1600	2.81	1.64	1.18
Changpang	Mekokla	1050	1256	0.84	0.75	0.09
Ralan	Liphayan	2000	350	5.71	2.60	3.11
	Old Ralan	2250	560	4.02	2.78	1.24
	Ronsuyan	1000	150	6.67	3.00	3.67
Sanis	Aree Old	3800	1300	2.92	1.63	1.30
	Oktso	1500	1000	1.50	1.39	0.11
	Makharung	750	186	4.03	1.43	2.60
	Lontsung	2000	600	3.33	2.22	1.11
Wokha	Old-Chungsu	1167	2511	0.46	0.42	0.04
	Yikhum	7500	3600	2.08	1.89	0.19
	Old Riphyim	1350	247	5.47	2.67	2.80
	Longsachung	3600	1450	2.48	1.44	1.04
	Niryo	250	750	0.33	0.31	0.03
	Humtso	5000	1500	3.33	1.33	2.00
Wozuro	Sankitong	850	300	2.83	1.34	1.49
	Shaki	1620	1150	1.41	0.92	0.49
	Phiro	7150	1200	5.96	2.09	3.87

Source: Field Survey

Table 5.14: **Wokha district, sugar**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Sugar Alloted in kg (per month)	Population covered by FPS	FPS - Sugar per beneficiary (per month)	Customer-Sugar per beneficiary (per month)	
Bhandri	Lishuyo	260	174	1.49	0.00	1.49
	Merapani	550	1600	0.34	0.00	0.34
Changpang	Mekokla	550	1256	0.44	0.00	0.44
Ralan	Liphayan	400	350	1.14	0.40	0.74
	Old Ralan	100	560	0.18	0.11	0.07
	Ronsuyan	50	150	0.33	0.25	0.08
Sanis	Aree Old	125	1300	0.10	0.05	0.05
	Oktso	100	1000	0.10	0.06	0.04
	Makharung	250	186	1.34	0.71	0.63
	Lontsung	150	600	0.25	0.22	0.03
Wokha	Old-Chungsu	150	2511	0.06	0.03	0.03
	Yikhum	100	3600	0.03	0.02	0.01
	OldRiphyim	150	247	0.61	0.06	0.55
	Longsachung	160	1450	0.11	0.00	0.11
	Niryo	167	750	0.22	0.00	0.22
	Humtso	30	1500	0.02	0.00	0.02
Wozuro	Sankitong	500	300	1.67	0.03	1.64
	Shaki	350	1150	0.30	0.12	0.19
	Phiro	2000	1200	1.67	0.09	1.58

Source: Field Survey

Table 5.15: **Wokha district, dal**

Blocks	FPS Located Villages	As per response of FPSs owners			As per response of beneficiaries	Difference
		Dal Alloted in kg (per month)	Population covered by FPS	FPS - Dal per beneficiary (per month)	Customer-Dal per beneficiary (per month)	
Bhandri	Lishuyo	362	174	2.08	0.00	2.08
	Merapani	700	1600	0.44	0.00	0.44
Changpang	Mekokla	550	1256	0.44	0.00	0.44
Ralan	Liphayan	300	350	0.86	0.00	0.86
	Old Ralan	250	560	0.45	0.00	0.45
	Ronsuyan	150	150	1.00	0.00	1.00
Sanis	Aree Old	100	1300	0.08	0.05	0.03
	Oktso	100	1000	0.10	0.06	0.04
	Makharung	250	186	1.34	0.71	0.63
	Lontsung	100	600	0.17	0.12	0.04
Wokha	Old-Chungsu	200	2511	0.08	0.00	0.08
	Yikhum	25	3600	0.01	0.00	0.01
	Old Riphyim	250	247	1.01	0.00	1.01
	Longsachung	150	1450	0.10	0.00	0.10
	Niryo	150	750	0.20	0.00	0.20
	Humtso	200	1500	0.13	0.08	0.05
Wozuro	Sankitong	33	300	0.11	0.03	0.08
	Shaki	250	1150	0.22	0.12	0.10
	Phiro	150	1200	0.13	0.02	0.10

Source: Field Survey

Perception of FPSs owners about adequacy of services rendered by them to beneficiaries and investigation into duration of keeping shops open:

It is found that 87.50 percent of FPSs owners of Kohima district think that the service rendered by the FPSs is adequate whereas the remaining 12.50 percent of FPSs owners think not adequate. Regarding the duration of shops kept open, 95.83 percent of FPSs owners have stated that they keep their shops open for less than 10 days in a month, 4.17 percent have stated 15 days in a month. Regarding the timing of opening and closing of the fair price shop, 37.5 percent of FPSs owners have stated that their opening and closing time is forenoon, 8.33 percent of FPSs owners have stated that their opening and closing time is evening and 54.17 percent have stated that their time of opening and closing is whole day.

It is also found that 75 percent of surveyed FPSs owners of Peren district think that service rendered by FPSs is adequate whereas the remaining 25 percent

are of the opinion not adequate. Regarding the duration of shops kept open, 87.50 percent of FPSs owners have stated that they keep their shops open for less than 10 days in a month and the remaining 12.50 percent have stated 15 days in a month. Regarding the timing of opening and closing of fair price shops, 18.75 percent of FPS owners have stated that their opening and closing time is forenoon and the remaining 81.25 percent have stated that their opening and closing time is whole day.

Finally, it is found that 36.84 percent of FPSs owners of Wokha district think that the service rendered by FPS is adequate whereas the other 63.16 percent are of the opinion not adequate. Regarding the duration of shops kept open, 94.74 percent of FPSs owners have stated that they keep their shops open for less than 10 days in a month, whereas the remaining 5.26 percent of FPSs owners have stated 15 days in a month. In the study of timing of opening and closing of fair price shops, 15.79 percent of FPSs' owners have stated that their opening and closing time is forenoon, 15.79 percent of FPS owner have stated that their opening and closing time is evening, and the rest 68.42 percent have stated that their time of opening and closing is whole day.

Stock, storage and transportation of ration items of FPS:

In this section, discussion on the results of investigation into how long stocks in FPSs last in every month, condition of storages in FPSs and arrangement of cost of transportation of ration items from PDC to FPSs is done. The study also includes whether stock of ration items is delivered timely to FPSs from PDC so as to enable FPSs follow regular routine in distributing foodgrains to beneficiaries or not. We enquire about the condition of storage in FPS and arrangement of transportation cost too.

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 stock last till fourth week of a month. 70.83 percent of FPSs have responded that the stock of ration items are delivered timely to FPS from PDC enabling the FPSs follow regular routine to distribute foodgrains to the beneficiaries whereas 29.17 percent of FPSs have stated the otherwise. While inspecting the condition of storages, 37.50 percent of FPSs are found to store foodgrains in kutchha houses, 62.50 percent of FPSs are found to store foodgrains in pucca houses and no scientific houses of storage are found in the district. On the investigation into mobilisation of transportation cost of lifting commodities from PDCs to FPSs, 45.83 percent of FPSs have stated that the cost is arranged by FPSs themselves, 8.33 percent of FPSs have stated the cost is borne 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.

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 PDC enabling FPSs follow regular routine in distributing foodgrains to beneficiaries whereas 23.81 percent of FPSs have reported otherwise. While inspecting the types of storages of foodgrains in FPSs, 81.25 percent of FPSs are found to store foodgrains in kutchha houses, 18.75 percent are found to store foodgrains in pucca houses and no scientific houses for storage are found in the district. In the investigation of bearing 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 at which

stocks last till 2nd week or 3rd week or 4th week of a month. 73.68 percent of FPSs have reported that the stock of ration items are delivered timely to FPSs from PDCs enabling the FPSs follow regular routine in distributing foodgrains to beneficiaries whereas 26.32 percent of FPSs have stated the otherwise. While inspecting the types of storages of foodgrains, 68.42 percent of FPSs are found to store foodgrains in kutcha houses, 31.58 percent of FPSs are found to store foodgrains in pucca houses and no scientific houses for storage are found in the district. In the investigation of arrangement of 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.

FPSs dealers' maintenance of records:

While investigating how records are maintained by FPSs, we consider five important indicators: a) price stock details, b) display of stock, c) lifting details (commodity wise), d) distribution details (commodity wise) and e) ration cards' register. Table 5.16 presents details of record maintenance by FPSs in all the three districts. Among the three districts of Nagaland, the highest percentage of FPSs that maintains price stocks details is found in Kohima district. Peren district is found to have highest percentage of FPSs maintaining records of lifting details and distribution details, and Wokha district has the highest percentage of FPSs maintaining records of ration cards' register.

Table 5.16: District wise percentage of FPSs maintaining various types of records

Types of records	Kohima		Peren		Wokha	
	Maintained	Not Maintained	Maintained	Not Maintained	Maintained	Not Maintained
Price stock Details	87.50	12.50	43.75	56.25	47.3	52.64
Display of Stock	58.33	41.67	25	75	31.58	68.42
Lifting Details	79.17	20.83	93.75	6.25	78.95	21.05
Distribution Details	95.84	4.17	100	0	89.47	5.26
Ration card Register	87.50	12.50	0	100	89.47	5.26

Source: Field Survey

Investigation into whether commodities in stocks left undistributed, the impact of PDS on food security in the area of jurisdiction of FPS according to observation of dealers, whether price list hung in shop or not, awareness of beneficiaries about allocation and price per cardholder:

Results of investigation into whether some quantity of commodities has been left out in stocks undistributed, the impact of PDS on food security in the area of jurisdiction of FPS, whether price list hung in or around the shop or not, and awareness of beneficiaries about allocation and price according to category of card are discussed. In the enquiry of impact of PDS on food security in the area under jurisdiction of FPS, four different observations - good, bad, satisfactory and not satisfactory- of FPSs dealers are taken into consideration. Table 5.17 presents information about stocks and perceived impact of PDS on food security.

Table 5.17: Information on whether stocks remain undistributed or not, and perceived impact of PDS (percentage of FPSs)

Districts	Whether stocks remain undistributed		Impact of PDS on food security			
	Distributed	Undistributed	Good	Bad	Satisfactory	Not satisfactory
Kohima	83.33	16.67	19.05	14.29	9.52	57.14
Peren	81.25	18.75	-	-	-	-
Wokha	100	-	5.26	21.05	10.53	63.16

Source: Field Survey

Table 5.18: Information on whether price list hung or not, and awareness of customers about allocation and price

Districts	Price list		Customers awareness of allocation per cardholders and price	
	Hung	Not Hung	Aware	Not Aware
Kohima	45.83	54.17	70.83	29.17
Peren	12.50	87.50	31.25	68.75
Wokha	5.26	94.74	52.63	47.37

Source: Field Survey

For Kohima district, 16.67 percent of FPSs have responded sometimes a little quantity is left in the stocks undistributed whereas 83.33 percent of FPSs claim that there is nothing left in the stocks, rather every time shortage of stock happens. Regarding impact of PDS on food security, 57.14 percent of surveyed FPSs in Kohima district claim that the impact on food security is not satisfactory, rather they observe that PDS has failed to provide basic needs of beneficiaries. In

Peren district, the FPSs dealers have not responded to the query regarding impact. In Wokha district, 63.16 percent of FPSs dealers observe that the impact is not satisfactory. Table 5.18 presents data of FPSs which have price list hung or not and customers' awareness of allocation per cardholder and price. In the inspection whether price list is hung at the shop or not in Kohima district, 45.83 percent of FPSs claim that they hang price list around the shop whereas 54.17 percent of FPSs have stated that they do not hang the price list. Some of the FPSs at which price list are not hung around the shop have stated since they use to inform verbally to beneficiaries price lists are not hung; some others have stated that in the general meetings they use to decide about prices of ration items openly. Some FPSs dealers have stated the prices of ration items are written in the cards of beneficiaries at the time of collection of foodgrains and as the prices remain unchanged for couples of years, the beneficiaries are aware of prices.

At this juncture, it is pertinent to mention that all the surveyed beneficiaries in the three districts have reported that no price list is hung in any of the FPSs. However, the response of the dealers is the otherwise. This discrepancy is found in the investigation.

The FPS dealers of Jaluki Dungki village of Peren district have reported that kerosene stocks have remained undistributed because most of the time beneficiaries do not purchase kerosene, so the dealers sell it to open market to cope with transportation cost.

Another different report from FPSs dealers of Old-Chungsie village of Wokha district is that rice stock gets exhausted very soon, but sugar and dal remain in stock even for 5-6 months. In Wokha district, 94.74 percent of FPSs have stated that they do not hang the price list. A few reasons are stated by the dealers such as villages do not have proper distribution centre and prices of the commodities are mostly constant throughout the year, so the beneficiaries are verbally informed through announcement when ration items reach the village; some FPSs dealers say that they do not have proper house for storing and selling;

the prices of rations are fixed by the village council in the general meetings taking into consideration labour charges and transportation cost.

Investigation on if any undue interference from any quarter while selling ration items, regularity of cardholders in purchasing from the FPS, any instance of investigation done by any agency, commission earned from ration items and participation in any awareness programme by FPS dealers:

In Kohima district, responses come as follows: 20.83 percent of FPSs have responded to have faced undue interference from some quarter such as politician or other influential person when FPS owners sell ration items as per the norms provided by the concerned department whereas 79.17 percent of FPSs have responded that they have not face any such type of interference. In case of regularity of purchase from FPSs by cardholders, 91.67 percent of FPSs have stated that they are regular in buying foodgrains from FPSs, whereas 8.33 percent of FPSs have stated that they are not regular in buying foodgrains from FPSs. Regarding instance of any investigation done by any agency, 12.50 percent of FPSs have stated they have experienced of investigation done by persons authorized by village council and local bodies whereas 87.50 percent of FPSs have stated that they have not experienced any kind of such investigation in running FPSs.

In the enquiry of commission earned by FPSs dealers, it has been observed that FPSs located in different villages have different ways of earning commission. Of the 24 FPSs in the district, 47.62 percent of FPSs have stated that they earn commission while selling ration items to beneficiaries whereas the rest 52.38 percent have responded they don't earn any commission from selling the ration items. To the query whether FPSs owners attend any awareness programme arranged for them, 20.83 percent of FPSs have stated that they attend such programme whereas 79.17 percent of FPSs have stated that they are not aware any kind of such awareness programme held.

In Peren district, responses come as follows: 12.50 percent of FPSs have reported they have faced undue interference from some quarter such as politician or other influential person when FPSs owners sell ration items as per the norms provided by the concerned department whereas 87.50 percent of FPSs have reported they do not face any such type of interference. Regarding regularity of purchase by cardholders 93.75 percent of FPSs have stated that the cardholders are regular in buying foodgrains from FPSs, whereas 6.25 percent of FPSs have stated the otherwise. In response to the query whether FPSs have experienced any instance of investigation done by any agency, 18.75 percent of FPSs have reported that they have experienced investigation done by persons authorised by village council and local bodies whereas 81.25 percent of FPSs have stated that they have not experienced any instance of such investigation. Regarding commission earned by FPS owners, only two FPSs which are located in Lalong and Azilong villages have reported that each of FPSs earns monthly commission only in kerosene @ Rs. 3 in per litre, the rest 87.50 percent of FPSs have stated that they do not earn any commission in selling ration items. In response to the query whether FPSs dealers attend awareness programme, 6.25 percent of FPSs have stated that they have attended such awareness programme whereas 93.75 percent of FPSs have stated that they are not aware of any kind of such awareness programme held in the district.

In Wokha district, responses come as follows: 15.79 percent of FPSs have reported to have faced undue interference from some quarter such as politician or other influential person when FPSs owners sell the ration items as per the norms provided by the concerned department whereas 84.21 percent of FPSs have reported not facing any such interference so far. Regarding regularity of purchase by cardholders, 94.74 percent of FPSs have stated that the cardholders are regular in buying foodgrains from FPSs, whereas 5.26 percent of FPSs have stated that the cardholders are not regular in buying foodgrains from FPSs. In response to the query whether FPSs have experienced any instance of investigation done by any agency, 10.53 percent of FPSs have stated they have experienced investigation

done by persons authorized by village council and local bodies whereas 89.47 percent of FPSs have stated that they have not experienced any kind of such investigation. Regarding investigation into commission earned by FPS owners of the district, only three FPSs located in Oktso, Old Riphyim and Niryo villages have reported to be earning commission from selling ration items @ Rs. 2, Rs. 3 and Rs. 0.50 respectively per kg of rice. Each of FPSs of Old Riphyim and Niryo earns monthly Rs. 5 and Rs. 4 per kg of sugar. The other 84.21 percent FPSs have stated that they do not earn any commission in selling ration items. In response to query whether FPS owners attend any awareness programme arranged for them, 26.32 percent of FPSs have stated that they have attended such awareness programme whereas 73.68 percent of FPSs have stated that they are not aware any kind of such awareness programme held in the district.

Suggestions sought from FPSs dealers for improving the functioning of PDS at district level:

In this survey, we seek suggestion from FPSs dealers for improving functioning of PDS for which some options are provided to the respondents. These options are probable measures for improving the functioning of PDS. They are: (i) adequate and efficient staff for effective working of PDS (ii) Sufficient arrangements for transportation and warehousing to ensure adequate and timely delivering of ration items (iii) increase in commission on sales of ration dealers (iv) more funds to cover more areas under PDS (v) Fair Price Shops licenses to the unemployed educated youths (vi) some proposals to earmark few PDS outlets exclusively to women in the process of PDS (vii) actions and legal measures to prevent corruption and malpractices prevailing in the PDS.

Highest percentage of FPSs dealers give the suggestion no. 3 i.e., increase in commission on sales of ration dealers as the most important of all options of suggestion given; 44.64% of FPSs dealers in all the three districts are of the same opinion that increase in commission of the sales of ration items is the first and

foremost important measure to be expedited in improving the functioning of PDS. Secondly, sufficient arrangements for transportation and warehousing to ensure adequate and timely delivering of ration items is the next most important measure for improving functioning of PDS, 26.78% of FPS dealers are of this opinion. Altogether 71.42% of FPS dealers have pointed out these two suggestions as the first and second most important measures to be taken care. From this study, we know that FPS dealers are finding difficulty in managing the business because of financial constraint and lack of support from government. Moreover, transportation and warehousing is still a major problem in PDS in Nagaland.

Quality rating of ration items as perceived by FPS dealers:

During the survey, we also enquire about the quality of ration items of PDS and, through pertinent queries, we ensure the FPSs dealers to do quality rating of ration items as per their observation. In the queries, five options are given to them which are: bad, normal, good, very good and others. From Kohima district, 37.50 percent of FPSs have stated that quality of rice is normal, 54.17 percent of FPSs have stated its quality is good, 8.33 percent of FPSs have stated that the quality of rice is very good. Altogether, Cent percent of FPSs dealers in the district have rated the quality of rice good or normal or very good, hence it can be presumed that PDS rice in the district is reasonably good. Even for sugar, 33.33 percent, 50.00 percent and 16.67 percent of FPSs have stated that the quality of sugar is normal, good and very good respectively, i.e., altogether cent percent of FPSs agree that quality of sugar too is reasonably good. For dal, 19.79 percent of FPSs have stated its quality is good and 80.21 percent of FPS have stated that its quality is normal. For kerosene, 29.16 percent, 50.00 percent and 20.83 percent of FPS have stated that the quality of kerosene is normal, good and very good respectively.

In the Peren district, for both rice and sugar, 62.50 percent and 37.50 percent of FPSs have stated that the quality is good and very good respectively. In case of

dal, 100 percent of FPSs stated that the quality of dal is good and for kerosene too, 75 percent and 25 percent of FPSs have stated that the quality is good and very good respectively.

In Wokha district, 10.53 percent of FPSs have stated that the quality of rice is bad, 21.05 percent, 36.84 percent and 31.58 percent of FPSs have stated that the quality of rice is normal, good and very good respectively. For sugar, 62.50 percent of FPSs have stated that the quality is normal, 42.11 percent of FPS have stated that its quality is good and 5.26 percent of FPSs have rated the quality is very good. In case of dal only nine villages are receiving it from FPSs, among them 11.11 percent, 77.78 percent and 11.11 percent of FPSs have rated the quality normal, good and very good respectively.

From the above study, we have understood that with regard to quality of PDS ration items in Nagaland, there is no compromise. The quality of all items is good or normal or very good as per observation of FPSs dealers.

Impact of PDS on a few social factors:

In this section, impact of PDS on a few social factors is investigated. Responses of the sampled beneficiaries to a few pertinent queries for investigating the possible impact of PDS on some social indicators of the community of beneficiaries are analysed. The questions are related to health, nutrition and education which are shown in the Tables 5.19, 5.20, 5.21, 5.22, 5.23, 5.24, 5.25, and 5.26.

Table 5.19: Response of beneficiaries to the queries of nutritional requirement, Kohima District

Blocks	Name of Villages	With the support of PDS, do you think your daily food and nutritional requirement is satisfied (no of households)			If PDS is withdrawn, will it affect your daily nutrition requirement (no of households)		Total No. of sampled Households
		Fully Satisfied	Partially satisfied	Not satisfied	Yes	No	
Botsa	Teichuma	4	2	1	5	2	7
Chiephobozou	Nachama	5	2	1	7	1	8
	Rusoma	11	10	9	22	8	30
	Viphoma	3	2	2	6	1	7
	Ziezou	3	1	2	6	0	6
Chunlika	Ehunnu	4	2	4	7	3	10
	Sishunu	6	4	3	8	5	13
	Tesophenyu	55	22	12	63	26	89
Jakhama	Khuzama	29	15	13	39	18	57
	Phesama	29	16	3	32	16	48
	Viswema	53	26	22	64	37	101
	Kezoma	14	7	3	20	4	24
	Kidima	10	43	4	39	18	57
	Kigwema	21	48	11	66	14	80
Kohima	Kohima village	69	90	56	155	60	215
Sechu/Zubza	Menguzuma	2	5	2	7	2	9
Tseminyu	Tseminyu	7	13	3	16	7	23
	Ngvuphen	4	3	0	5	2	7
	Zisunu	17	3	2	17	5	22
Totals		346	314	153	584	229	813

Source: Field Survey

Table 5.20: Response of beneficiaries to the queries of health and education, Kohima District

Blocks	Name of Villages	What impact may be given to the health of your household members if PDS is withdrawn?			Does the support PDS in your consumption expenditure help in sending your children to school?		If PDS is withdrawn, will it affect you to afford to send your children to school		Total No. of sampled Households
		Health problem due to malnutrition	Other health problem	No change at all	Yes	No	Yes	No	
Botsa	Teichuma	3	2	2	4	3	3	4	7
Chiephobozou	Nachama	2	3	3	6	2	5	3	8
	Rusoma	8	7	15	19	11	17	13	30
	Viphoma	1	2	4	6	1	4	3	7
	Ziezou	0	1	5	4	2	4	2	6

Chunlika	Ehunnu	3	4	3	5	5	6	4	10
	Sishunu	5	2	6	7	6	9	4	13
	Tesophenyu	31	20	38	63	26	53	36	89
Jakhama	Khuzama	12	18	27	35	22	30	27	57
	Phesama	16	11	21	28	20	26	22	48
	Viswema	40	17	44	66	35	60	41	101
	Kezoma	7	6	11	10	14	17	7	24
	Kidima	25	10	22	30	27	26	31	57
	Kigwema	30	16	34	53	27	39	41	80
Kohima	Kohima village	68	38	109	120	95	100	115	215
Sechu/Zubza	Menguzuma	7	2	0	3	6	3	6	9
Tseminyu	Tseminyu	12	8	3	14	9	10	13	23
	Ngvuphen	6	1	0	4	3	2	5	7
	Zisunu	13	4	5	10	12	10	12	22
	Totals	289	172	352	487	326	424	389	813

Source: Field Survey

Table 5.21: **Response of beneficiaries to the queries of nutritional requirement, Peren District**

Blocks	Villages	With the support of PDS, do you think your daily food and nutritional requirement is satisfied (no of households)			If PDS is withdrawn, will it affect your daily nutrition requirement (no of households)		Total No. of sampled Households
		Fully Satisfied	Partially satisfied	Not satisfied	Yes	No	
Athibung	Old Soget	3	2	1	5	1	6
	Phelhang	10	3	2	9	6	15
	Sailhem	4	2	1	6	1	7
Jaluki	Baisumpuikam	16	8	10	26	8	34
	Jaluki Dungki	9	4	4	10	7	17
	Mahai Namtsi	15	7	12	29	5	34
	Ngwalwa	10	6	5	14	7	21
Peren	Mpainamci	6	3	6	11	4	15
	Poliwa	11	10	9	23	7	30
Tenning	Azilong	4	6	5	12	3	15
	Tenning	16	10	6	22	10	32
	NTU	4	7	4	6	9	15
	Nzau	15	6	2	16	7	23
	Old Tessen	16	7	3	10	16	26
	Upper Sinjol	1	2	2	3	2	5
	Lalong	10	9	8	10	17	27
Totals		150	92	80	212	110	322

Source: Field Survey

Table 5.22: **Response of beneficiaries to the queries of health and education, Peren District**

Blocks	Villages	What impact may be given to the health of your household members if PDS is withdrawn?			Does the support PDS in your consumption expenditure help in sending your children to school?		If PDS is withdrawn, will it affect you to afford to send your children to school		Total No. of sampled Households
		Health problem due to malnutrition	Other health problem	No change at all	Yes	No	Yes	No	
Athibung	Old Soget	3	1	2	4	2	3	3	6
	Phelhang	4	0	11	7	8	9	6	15
	Sailhem	1	2	4	3	4	5	2	7
Jaluki	Baisumpuikam	9	3	22	23	11	24	10	34
	Jaluki Dungki	11	5	1	9	8	7	10	17
	Mahai Namtsi	13	3	18	24	10	22	12	34
	Ngwalwa	9	6	6	13	8	12	9	21
Peren	Mpainamci	8	4	3	11	4	10	5	15
	Poliwa	12	6	12	25	5	22	8	30
Tenning	Azilong	9	1	5	9	6	8	7	15
	Tenning	13	8	11	26	6	18	14	32
	NTU	7	0	8	10	5	7	8	15
	Nzau	6	7	10	20	3	16	7	23
	Old Tessen	7	6	13	21	5	23	3	26
	Upper Sinjol	3	0	2	3	2	2	3	5
	Lalong	6	2	19	19	8	24	3	27
Totals		121	54	147	227	95	212	110	322

Source: Field Survey

Table 5.23: **Response of beneficiaries to the queries of nutritional requirement, Wokha District**

Blocks	Villages	With the support of PDS, do you think your daily food and nutritional requirement is satisfied (no of households)			If PDS is withdrawn, will it affect your daily nutrition requirement (no of households)		Total No. of sampled Households
		Fully Satisfied	Partially satisfied	Not satisfied	Yes	No	
Bhandari	Lishuyo	1	1	1	1	2	3
	Merapani	6	11	9	16	10	26
Changpang	Mekokla	13	21	11	19	26	45
Chukitong	Tsungiki	4	7	8	13	6	19
	Seluku	2	6	3	6	5	11
Ralan	Ronsuyan	1	3	3	5	2	7
	Old Ralan	3	7	8	12	6	18
	Liphayan	2	12	6	12	8	20
Sanis	Lakhuti	12	26	17	32	23	55

	Lontsung	2	5	5	7	5	12
	Makharung	1	3	2	4	2	6
	Oktso	5	11	9	15	10	25
	Aree Old	2	3	5	6	4	10
Wokha	Yikhum	10	15	16	25	16	41
	Old Chungsu	9	6	11	10	16	26
	Old Riphyim	6	12	2	13	7	20
	Longsachung	5	8	9	13	9	22
	Humtso	3	12	7	10	12	22
	Niryo	3	10	6	11	8	19
Wozuro	Phiro	11	10	9	13	17	30
	Shaki	2	6	8	9	7	16
	Sankitong	1	5	3	6	3	9
	Khumtsu	1	2	3	3	3	6
Totals		105	202	161	261	207	468

Source: Field Survey

Table 5.24: **Response of beneficiaries to the queries of health and education, Wokha District**

Blocks	Villages	What impact may be given to the health of your household members if PDS is withdrawn?			Does the support PDS in your consumption expenditure help in sending your children to school?		If PDS is withdrawn, will it affect you to afford to send your children to school		Total No. of sampled Households
		Health problem due to malnutrition	Other health problem	No change at all	Yes	No	Yes	No	
Bhandari	Lishuyo	1	0	2	2	1	2	1	3
	Merapani	8	5	13	16	10	13	13	26
Changpang	Mekokla	16	13	16	29	16	28	17	45
Chukitong	Tsungiki	8	5	6	11	8	11	8	19
	Seluku	3	4	4	6	5	9	2	11
Ralan	Ronsuyan	1	3	3	6	1	3	4	7
	Old Ralan	9	3	6	10	8	10	8	18
	Liphayan	3	2	15	9	11	13	7	20
Sanis	Lakhuti	21	9	25	30	25	38	17	55
	Lontsung	3	2	7	3	9	7	5	12
	Makharung	2	1	3	4	2	3	3	6
	Oktso	7	3	15	10	15	9	16	25
	Aree Old	3	1	6	7	3	4	6	10
Wokha	Yikhum	11	5	25	26	15	30	11	41
	Old Chungsu	6	1	19	14	12	17	9	26
	Old Riphyim	9	2	9	17	3	10	10	20
	Longsachung	7	3	12	17	5	13	9	22
	Humtso	9	3	10	13	9	15	7	22
	Niryo	5	2	12	9	10	16	3	19

Wozuro	Phiro	10	6	14	20	10	19	11	30
	Shaki	6	3	7	11	5	9	7	16
	Sankitong	3	1	5	5	4	6	3	9
	Khumtsu	2	1	3	3	3	2	4	6
Totals		153	78	237	278	190	287	181	468

Source: Field Survey

Table 5.25: Percentages of households under different response based categories (nutrition), district level

Districts	With the support of PDS, do you think your daily food and nutritional requirement is satisfied (percentage of households)			If PDS is withdrawn, will it affect your daily nutrition requirement		What impact may be given to the health of your household members if PDS is withdrawn?		
	Fully Satisfied	Partially satisfied	Not satisfied	Yes	No	Health problem due to malnutrition	Other health problem	No change at all
Kohima	42.56	38.62	18.82	71.83	28.04	35.42	22.00	42.80
Peren	46.58	28.57	24.84	65.84	34.16	37.58	16.77	45.65
Wokha	22.44	43.16	34.40	55.77	44.23	32.67	16.16	50.75

Source: Field Survey

Table 5.26: Percentages of households under different response based Categories (health and education), district level

Districts	Does the support PDS in your consumption expenditure help in sending your children to school?		If PDS is withdrawn, will it affect you to afford to send your children to school (percentage of households)	
	Yes	No	Yes	No
Kohima	60.00	40.10	52.00	47.63
Peren	70.50	29.50	65.84	34.16
Wokha	59.24	40.76	61.24	38.76

Source: Field Survey

Socio- economic impact of PDS is analysed based on the above data in Tables 5.19-5.26. In Chapter IV, contribution of PDS in the consumption expenditure of beneficiaries in four items – rice, dal, sugar and kerosene – have been investigated. The average percentages of contribution in the form of subsidy transfer per household are 28.21, 32.78 and 22.89 in Kohima, Peren and Wokha district respectively. The average income transfer of all the three districts is 27.57 percent. 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/-. Although calculated average income transfer is 27.57, on applying t test, when we assume 30 percent contribution due to PDS as null hypothesis, calculated $t = -0.118$, tabulated $t_{0.05, 17} = 1.740$. Therefore calculated $|t| < \text{tabulated } t$, and we can assume that 30% of income gain is obtained by the beneficiaries.

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, inspite of availing support of PDS, 24.57% are still living with abject deficiency of food and nutritional requirement. 65.93% of the beneficiaries have responded that if PDS is withdrawn, their daily nutritional requirement will be badly affected. 35.05% of the beneficiaries in the three districts have asserted they would suffer from health problem due to malnutrition without support of PDS and 19.24% are doubtful of other allied sicknesses if PDS is withdrawn. 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, altogether 61.88% percent in the average 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 they will it difficult to send their children to school. Subsidy transfer from PDS helps the parents afford to send their children for primary school. Although PDS is not satisfactorily functioning in Nagaland, it is still giving a definite 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.

Thus, the FPSs in the three districts are found to be functioning in organized and transparent way to a considerable extent as village councils are running the shops. On the other hand, it is observed that in most cases the management of FPSs is done socially with the involvement village representatives and youths.

Therefore, whatever amount in the quota and kinds of commodities delivered to FPSs are fairly distributed to the beneficiaries. However, we have investigated significant disparity between the reports provided FPSs dealers and reports collected from beneficiaries regarding quantity ration items distributed to per beneficiary per month and this significant disparity is found out with the help of statistical t-test for all the ration items distributed in all the three districts. Moreover, on the kinds of ration items reported to have been distributed, there is disparity between what FPSs have claimed to have distributed and the report given by beneficiaries. For examples, beneficiaries of 28.57% of surveyed FPSs in Kohima districts have reported no kerosene is available to them contradicting the claim of FPSs that kerosene is distributed to these beneficiaries. This is not only the case but also many more such cases are discovered during the investigation.

The main problems faced by FPSs dealers are:

- (i) Insufficient quota:** The quantity of stocks available to FPSs is not sufficient to distribute to all the beneficiaries. Demand always outmatches supply. There is a crying need that concerned department should look into the matter seriously for which revision of beneficiaries' list authentically and allocation sufficient quota for every FPS according to well defined number of beneficiaries under the jurisdiction of concerned FPS are the crucial role to be accomplished and exigency to be expedited by the state government through the concerned department.
- (ii) Transportation cost, handling charges and profit margin of FPSs:** Due to non-payment transportation cost and handling charges as well as not ensuring minimum profit margin for FPSs dealers by the government, it is found in the investigation that most of FPSs are incurring loss. In order to recover the losses, the dealers earn commission while selling ration items to beneficiaries. For mobilizing fund to bear transportation cost, the dealers collect money from beneficiaries in advance and deposit it in the village development bank. In most cases, the FPSs dealers or village development bank bear the cost of

transportation. Ultimately, it leads to increase extra burden to beneficiaries and, at the same time, affects the viability of business of FPSs owners. This flaw is also due to government's failure to discharge its due obligation. As a result, FPSs are unable to distribute ration items at the prescribed prices under NFSA, 2013.

Although the investigation results say that there is no compromise on the quality of ration items supplied under PDS, reports of receiving leaked and damaged bags by FPSs from PDC is also another matter of serious concern. Regarding service rendered to beneficiaries by the FPSs, in most cases, the service is found satisfactory in all counts - it may be in terms of number of days in a month the shops are kept open or time for opening such as forenoon, afternoon and whole day or giving notice to beneficiaries about price, quantity and arrival of stocks. The FPSs are doing their best inspite of limitations they have due to failure of government's department to do its part. There is also lack of awareness of the dealers about the norms and guidelines of scheme as no proper awareness programmes are arranged by the concerned department. The 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 as may be prescribed the state government giving due representation to local authorities, women and destitute persons. In the entire enquiry, any instance of inspection at FPSs done by vigilance committee of any level is not found at all. Moreover, for effective implementation and monitoring, NFSA, 2013 provides for setting up of grievance redressal mechanism at district and state level, however, in the interaction with FPSs owners, no any clue of functioning of such redressal mechanism at any level is noticed. Inspite of many shortcomings, PDS is still giving impact in socio-economic condition of people.

After all, in this investigative study, it is observed that provided the state government and the concerned government department discharge their duty to fulfill their part and obligation for meeting the objectives of PDS, the functioning of FPSs will be more brilliant and free from any flaws.

CHAPTER-VI

CONSTRAINTS AND PROSPECTS OF PUBLIC DISTRIBUTION SYSTEM IN NAGALAND

The potential problems persisting in the functioning of PDS in the state are manifold as a result of which the target of PDS cannot be achieved fully so far. On the other hand, apart from the problems that keep on hampering the effective functioning of PDS, there are prospects of PDS in the state, which are found in this empirical study. In this chapter, we deal with the two hypotheses: (1) The overall performance of PDS in Nagaland is not satisfactory. (2) The PDS beneficiaries are not satisfied with the quality and quantity of foodgrains.

Problems/constraints:

Audit report (CAG, 2011) indicated that state government department of Food and Civil Supply did not conduct any baseline survey for periodic revision of beneficiaries list to add/delete the eligible/ineligible beneficiaries. Because of the non-revision of the list, the following problems were detected:

1. 41 percent of deserving households remained outside the coverage of PDS.
2. A large number of ineligible beneficiaries, deceased persons and government employees were detected to be beneficiaries.
3. Foodgrains distributed to a large number of non-existent hostels under SC/ST/OBC hostel schemes were detected.

The audit conducted by the CAG of India covered the years 2005-2011 and report was submitted in 2011.

After the submission of audit report too, no such exercise for the revision of beneficiaries' list has been done so far. We have studied data of beneficiaries' list under categories in BPL, AAY and Annapurna from 2011-12 to 2016, and in PHH and AAY from 2016-17 to 2017-18 in Chapter-II. These data are available from AARs of Nagaland, Economic Survey of Nagaland. It is seen that almost

same data (beneficiaries list) is carried forward from the year 2011-12 till 2018 instead of conducting baseline revision of beneficiaries' list.

In our field survey too, none of the beneficiaries or FPS dealers have responded that any such exercise for the revision of beneficiaries' list has ever been conducted. In this empirical study too, 20% of the existing beneficiaries in three districts are found to be ineligible beneficiaries. Therefore, one of the most potential problems in PDS in Nagaland is non-revision/non-rectification of beneficiaries' list.

Non-functioning/non-existence of online grievance registration system and vigilance committees:

The audit report indicated the complete absence of mandatory inspections by District Level officers, Vigilance Committees, Departmental officers and special Area officers. In our field survey too, none of the respondents from among the beneficiaries or FPS dealers have reported any such inspection done by vigilance committees at FPS level, block level, district level and state level. Rather, they do not know the existence of any such committee for inspection.

As per NFSA, 2013, guidelines, every state is required to set up vigilance committees at state, district, block and FPS levels consisting of such persons as may be prescribed by the state government giving due representation to the local authorities, the scheduled casts, the scheduled tribes, women and destitute persons or persons with disabilities. Vigilance Committees have to supervise the implementation of all the schemes under the Act, inform the district grievance redressal officer of any violation of the act, any malpractice or misappropriation of funds found by it.

But in our investigation by collecting information from beneficiaries as well as Fair Price Shops' dealers, any such activity of inspection or intervention is not found.

Irregularity in distribution of ration items:

So far 81% of the villages are getting rice monthly from FPS, 8% of villages are getting 3 monthly, 10% of villages are getting rice very irregularly. 55.1% of villages are getting sugar monthly, 12% of villages are getting 3 monthly and 25.8% of villages are getting very irregularly and 12% of villages are not getting sugar at all.

72.41% villages are getting dal regularly or irregularly, 36.27% of villages are getting dal monthly, 5% are getting 3 monthly and 31% are getting irregularly at all not following any period of time. Regarding kerosene, only 31.03% of villages are regularly or irregularly getting from FPS. When we see the above irregular supply, we understand that functioning of PDS is not good at all. Particularly, items like rice and dal are crucially important for the beneficiaries to get timely to ensure food security. But when they get once in 3 months or randomly, it seriously contradicts the ethos of PDS. The average gaps between required quantity of rice and obtained quantity from FPS is 53.96% ~ 54%, which says that 46% of requirement is obtained from FPS, which is not bad. But in some of villages, the condition is extremely bad, whereas in some other villages condition is good and thus village-wise variation is very high. The coefficient of variation is 0.4.

Average gap between requirement of dal and obtained in percentage is 74.9%. Variation of available quantity is very high, the coefficient of variation is 0.3. Approximately in the average is 35% of dal requirement is obtained from FPS. Average gap between requirement of sugar and obtained is 53.18%, i.e., in the average 46.22% of requirement is sugar is obtained from FPS. Quantity variation is very high among the villages, coefficient of variation is 0.58.

Regarding the gap between the kerosene requirement and obtained from FPS is in the average 80.72%, i.e., approximately 19.3% of kerosene requirement is obtained FPS. However, in one of the district, i.e., Wokha kerosene is not supplied at all. The wide gap between requirement and obtained is mainly due to extremely poor functioning of PDS. It has shown PDS distribution in terms of

quantity and regularity has serious drawback. Unavailability of some items in many villages as well as high quantity variation of available quantities among the villages/households are indications of bad functioning of PDS.

Subsidy Transfer or Income Gain:

Income support to the beneficiaries is calculated in terms of subsidy transfer due to PDS. It is the estimated additional expenditure that the household would have incurred in the absence of PDS. In Chapter IV, we have calculated percentage of subsidy transfer per household in average of all the blocks of the three districts is calculated as 27.57%. But in t-test, when we assume 30% contribution due to PDS as null hypothesis, calculated $t = -0.118$, tabulated, $t_{0.05,17} = 1.740$. Calculated $|t| < \text{tabulated } t$, therefore we can assume that 30% of income gain is obtained by the beneficiaries. In spite of a lot of shortcomings in the functioning of PDS, 30% income gain is ensured. If proper functioning of PDS is ensured, there is scope of enhancing income.

Un-uniform service of PDS:

In Chapter IV, statistical test, i.e., χ^2 –test has confirmed serious un-uniform benefits are delivered among the villages. For example, in Jaluki Dungki village of Peren district, beneficiaries get 93.7% of requirement of rice from FPS, whereas in the same district, in Mahai Namsti village, beneficiaries get only 11.66% of requirement of rice. Similarly, among the villages, PDS service is unequal in a high degree. Both intra and inter district villages have wide variation in receiving PDS benefits.

Quantity Variation of Items in Purchase:

29.87% ~ 30% of beneficiaries are getting 50% and above requirement of rice from FPS, 55.4% are getting 30% to 50% requirement from FPS and 15.1% of beneficiaries are getting below 30% of their requirement of rice from FPS.

For sugar, 23.95% are getting 50% and above requirement of sugar, 35.55% are getting 30% to 50% of requirement of sugar and 22.08% of beneficiaries/households are getting below 30% requirement of sugar. 10.94% of beneficiary households in Kohima district do not get sugar at all from FPS, whereas 7.69% of beneficiary households in Wokha district get hundred percent sugar requirements from FPS. 36.86% of beneficiary households in the three districts do not get dal from FPS at all. Only 5.48% of beneficiary households get 50% and above requirement, 39.90% of beneficiary households 30% to 50% of their requirement, 28.44% of beneficiary households get below 30% of requirement of dal from FPS.

Regarding kerosene, 47.41% of households in the three districts do never get kerosene from FPS. In the entire Wokha district, kerosene is not supplied at all. However 28.54% of households in Kohima district and 22.36% of households in Peren are getting hundred percent requirement of kerosene from FPS. From the above study, unevenness in the supply of quantities of ration items is a matter of serious concern. High degree unevenness in quantity supplied reflects inconsistent service of PDS. The unsatisfied average percentages of households with rice, sugar, dal and kerosene are 80.31%, 83.74%, 86.50% and 86.68% in the three districts - Kohima, Peren and Wokha respectively.

Lack of awareness of beneficiaries:

Regarding the awareness about prices and allocation of the ration items fixed by government of India, only 18.15% of all the beneficiaries in the three districts are aware of it. Poor awareness/lack of awareness of beneficiaries is also another matter of serious concern. That is why complaints against the unevenness of price and quantity scarcely come up. If they raise complaint too, their complaints reach upto village councils. They are not aware how to channelise their complaints to produce impact. Rather 68.43% of beneficiary households have naively responded they are satisfied with the service of FPSs, although 70% of the dissatisfied households with quantity have expressed that they raise complaint

against the FPS owners to the village councils. Moreover, channels of grievance redressal/registration are not functional in the state.

Untimely availability of ration items:

In the villages, where rations are available monthly, we again examine whether the availability is in time or not. 31.69% of the villages in the three districts have reported untimely availability of foodgrains mainly due to irregular supply of government.

On the query that whether FPSs owners inform the beneficiaries about the arrival of foodgrains timely, only 47.95% of beneficiaries in the three districts have responded yes, the remaining percentages have responded the otherwise.

Disparity between claim of FPS dealers and response of beneficiaries about the kinds and quantity ration items sold:

The disparity between the claim of FPS dealers about the ration items sold and response of beneficiaries on the availability of the items has been found out.

18.79% of villages have responded dal is not available from FPSs contradicting the claim of FPS dealers that the items are being distributed to these villages. 25.23% of villages do not get any kerosene supply as per the response of beneficiaries contradicting the claim of FPSs dealers that the items are distributed to the said villages. This disparity needs serious attention of the concerned state department. This shows the possibility of diversion of some of items by the FPS dealers too.

It is not only about the ration items but also about the quantity of distribution that there exists disparity between the claim of FPSs dealers and response of beneficiaries.

In chapter V, statistical tests employed have confirmed that, in all the three districts of Nagaland, there is significant disparity on quantity of rice, dal and sugar each between the response of beneficiaries and claim of FPSs dealers. This lacuna is also a matter of serious concern.

Problems of transportation cost:

Regarding running of FPSs, on the query that whether FPS owners incur losses in running the shops, only 18.19% of dealers have responded that they incur losses. On the other hand, on 26 November 2019 All Nagaland Fair Price Shops Association launched an agitation against state Government's non-release for two years the transportation and handling charge to the dealers. It is obvious that if transportation and handling charge is not given, the FPS dealer would incur loss. But, approximately 81.9% of FPS dealers have responded they incur no losses. It may be presumed that they recover the transportation charge from beneficiaries by deducting allocation or increasing price of items etc. In the investigation, 64.97 Percent of FPS dealers have responded they recover transportation money in the stated way. In Kohima district, 63.16 Percent of FPS dealers, in Peren 87.50 percent and in Wokha district 52.63 percent have responded that for meeting transportation cost, they resort to collecting money in advance from beneficiaries and also use Village Development Bank fund. Two FPSs' dealers in Peren district have reported that they sell out kerosene in open market for bearing transportation cost. As far as FPS dealers' response is concerned, two most potential problems facing FPS dealers are: (1) Profit margin issue of FPSs dealers (2) Cost of transportation and handling charges. Because of these two problems, they need to resort to charge commission from beneficiaries while selling commodities rendering additional burden to the beneficiaries.

Insufficient quota:

It may be due non-revision of beneficiaries' list or under allocation by the state department that many FPSs are getting insufficient quota of foodgrains to distribute to identified number of beneficiaries under the jurisdiction of the FPSs. Quantity of foodgrains allotted to FPS is less as number of beneficiaries in the government's list is less than number of beneficiaries in the village councils' list as per the report of FPSs' dealer. 45.83%, 62.50% and 38.89% villages in Kohima, Peren and Wokha have reported that their respective FPSs do not get

sufficient quota from the public distribution centres. Altogether, in the average, 47.15% of villages in the three districts are not getting sufficient quota of foodgrains.

Examination of Hypotheses:

Hypothesis-1: the overall performance of public distribution system in Nagaland is not satisfactory.

Keeping all the stated problems in the background, we have again taken fifteen indicators which are pertinent to describing the state of overall functioning of PDS in the state. With these indicators, we have constructed a model of symmetric matrix which exhibits the condition of overall functioning of PDS concisely with a view to examining the hypothesis – the overall performance of public distribution system in Nagaland is not satisfactory.

Indicators:

A= No. of villages following NFSA norms in distribution of ration items of price, quantity and kinds of items according to categories (PHH/AAY).

B= No of villages getting 50% and above requirement of rice, dal and sugar from FPS.

C= No. of villages getting 30% to 50% requirement of rice, dal and sugar from FPS.

D= No. of villages getting below 30% requirement of rice, dal and sugar from FPS.

E= No. of villages getting sufficient kerosene.

F= No. of villages getting no kerosene/insufficient kerosene.

G= No. of villages getting 30% and above subsidy transfer.

H= No. of villages getting 20% to 30% subsidy transfer.

I= No. of villages getting below 20% subsidy transfer.

J= No. of villages in which proper revision of beneficiaries' list through baseline survey.

K= No. of villages having FPS.

L= No. of villages that have reported good quality of ration items.

M= No. of villages that have reported satisfaction in rice quantity.

N= No. of villages that have reported satisfaction in dal quantity.

O= No. of villages that have reported satisfaction in sugar quantity.

The elements of the matrix are formed by the set intersection of the corresponding indicators in terms of number of villages. For example,

$A \cap A = \{x | x \in A \text{ and } x \in A\}$, $A \cap B = \{x | x \in A \text{ and } x \in B\}$

Number of villages

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	0														
B	0	5													
C	0	4	5												
D	0	0	0	4											
E	0	1	2	0	12										
F	0	4	3	2	0	46									
G	0	5	5	0	8	15	24								
H	0	1	1	1	2	18	0	23							
I	0	0	0	3	1	11	0	0	12						
J	0	0	0	0	0	0	0	0	0	0					
K	0	5	5	4	11	41	22	21	11	0	53				
L	0	5	5	3	12	30	20	17	8	0	45	46			
M	0	0	0	0	0	0	0	0	0	0	0	0	0		
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O	0	0	1	0	2	5	5	1	0	0	5	4	0	0	7

Matrix in terms of percentage:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	0.00														
B	0.00	8.62													
C	0.00	6.90	8.62												
D	0.00	0.00	0.00	6.90											
E	0.00	1.72	3.45	0.00	20.69										
F	0.00	6.90	5.17	3.45	0.00	79.31									
G	0.00	8.62	8.62	0.00	13.79	25.86	41.38								
H	0.00	1.72	1.72	1.72	3.45	31.03	0.00	39.66							
I	0.00	0.00	0.00	5.17	1.72	18.97	0.00	0.00	20.69						
J	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
K	0.00	8.62	8.62	6.90	18.97	70.69	37.93	36.21	18.97	0.00	91.38				
L	0.00	8.62	8.62	5.17	20.69	51.72	34.48	29.31	13.79	0.00	77.59	79.31			
M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O	0.00	0.00	1.72	0.00	3.45	8.62	8.62	1.72	0.00	0.00	8.62	6.90	0.00	0.00	12.07

From the above matrix, the following results are observed:

1. None of the villages are getting benefits as per NFSA norms.
2. Only 8.6% of the villages are getting 50% and above requirements of rice, dal and sugar from FPSs.
3. 6.90% of the villages are getting exactly 50% requirement of rice, dal and sugar from FPSs.
4. 8.62% of the villages are getting 30% to 50% requirement of rice, dal and sugar from FPSs.
5. 6.90% of the villages are getting 30% and below requirement of rice, dal and sugar from FPSs.
6. 1.72% of the villages are sufficient kerosene as well as 50% and above requirement of rice, dal and sugar from FPSs.
7. 3.45% of the villages are getting sufficient kerosene as well as 30% to 50% of requirement of rice, dal and sugar from FPSs.
8. 20.69% of the villages are getting sufficient quantity of kerosene from FPSs.
9. 6.90% of the villages are getting no kerosene or insufficient kerosene but getting 50% and above requirements of rice, dal and sugar from FPSs.
10. 5.17% of the villages are getting no kerosene or insufficient kerosene but getting 30% to 50% requirements of rice, dal and sugar from FPSs.
11. 3.45% of the villages are getting no kerosene or insufficient kerosene but getting 30% and below requirements of rice, dal and sugar from FPSs.
12. 79.31% of the villages are getting no kerosene or insufficient kerosene.
13. 8.62% of the villages are getting 30% and above subsidy transfer as well as 50% and above requirements of rice, dal and sugar from FPSs.
14. 8.62% of the villages are getting 30% and above subsidy transfer as well as 30% to 50% requirements of rice, dal and sugar from FPSs.
15. 13.79% of the villages are getting 30% and above subsidy transfer as well as sufficient kerosene.
16. 25.86% of the villages are getting 30% and above subsidy transfer but insufficient kerosene or no kerosene.
17. 41.38% of the villages are getting 30% and above subsidy transfer.
18. 1.72% of the villages are getting 20% to 30% of subsidy transfer as well as 50% and above requirements of rice, dal and sugar from FPSs.
19. 1.72% of the villages are getting 20% to 30% of subsidy transfer as well as 30% to 50% of requirements of rice, dal and sugar from FPSs.

20. 1.72% of the villages are getting 20% to 30% of subsidy transfer as well as 30% and below requirements of rice, dal and sugar from FPSs.
21. 3.45% of the villages are getting 20% to 30% of subsidy transfer as well as sufficient kerosene quantity.
22. 31.03% of the villages are getting 20% to 30% of subsidy transfer but insufficient kerosene quantity or no kerosene at all.
23. 39.66% of the villages are getting 20% to 30% of subsidy transfer.
24. 5.17% of the villages are getting below 20% subsidy transfer and 30% and below requirement of rice, dal and sugar from FPSs.
25. 1.72% of the villages are getting below 20% subsidy transfer as well as sufficient kerosene.
26. 18.97% of the villages are getting below 20% subsidy transfer but insufficient or no kerosene.
27. 20.69% of the villages are getting below 20% subsidy transfer.
28. 0% of the villages in all the districts have reported proper revision of beneficiaries' list.
29. 8.62% of the villages having FPSs in each village are getting 50% and above requirements of rice, dal and sugar from FPSs.
30. 8.62% of the villages having FPSs in each village are getting 30% to 50% requirements of rice, dal and sugar from FPSs.
31. 6.90% of the villages having FPSs in each village are getting 30% and below requirements of rice, dal and sugar from FPSs.
32. 18.97% of the villages having FPSs in each village are getting sufficient kerosene.
33. 70.69% of the villages having FPSs in each village are getting insufficient kerosene or no kerosene.
34. 37.93% of the villages having FPSs in each village are getting 30% and above subsidy transfer.
35. 36.21% of the villages having FPSs in each village are getting 20% to 30% subsidy transfer.
36. 18.97% of the villages having FPSs in each village are getting below 20% subsidy transfer.
37. 91.38% of the villages are having FPSs in each village.
38. 8.62% of the villages which have reported good quality of ration items are getting 50% and above requirements of rice, dal and sugar from FPSs.

39. 8.62% of the villages which have reported good quality of ration items are getting 30% to 50% requirements of rice, dal and sugar from FPSs.
40. 5.17% of the villages which have reported good quality of ration items are getting 30% and below requirements of rice, dal and sugar from FPSs.
41. 20.69% of the villages which have reported good quality of ration items are getting sufficient kerosene.
42. 51.72% of the villages which have reported good quality of ration items are getting insufficient quantity of kerosene or no kerosene.
43. 34.48% of the villages which have reported good quality of ration items are getting 30% and above subsidy transfer.
44. 29.31% of the villages which have reported good quality of ration items are getting 20% to 30% subsidy transfer.
45. 13.79% of the villages which have reported good quality of ration items are getting below 20% of subsidy transfer.
46. 77.59% of the villages which have reported good quality of ration items have FPSs in each village.
47. 79.31% of the villages have reported quality of ration items distributed is good.
48. None of the villages have reported satisfaction with rice quantity.
49. None of the villages have reported satisfaction with dal quantity.
50. 1.72% of the villages getting sufficient sugar quantity are getting 30% to 50% requirements of rice, dal and sugar from FPSs.
51. 3.45% of the villages getting sufficient sugar quantity are also getting sufficient quantity of kerosene.
52. 8.62% of the villages getting sufficient sugar quantity but insufficient quantity of kerosene or no kerosene.
53. 1.72% of the villages getting sufficient sugar quantity are getting 20% to 30% subsidy transfer.
54. 8.62% of the villages getting sufficient sugar quantity are having FPS in each village.
55. 6.90% of the villages getting sufficient sugar quantity are among those which have reported quality of ration items is good.
56. 12.07% of the villages getting sufficient sugar quantity.

From the study of the information provided by the matrix as well as stated problems of PDS in Nagaland, the functioning of PDS in Nagaland is in grim

condition. Hence, the hypothesis that the overall performance of PDS in Nagaland is not satisfactory is accepted.

Hypothesis-2: the public distribution system beneficiaries are not satisfied with the quality and quantity of foodgrains.

In order to examine the above hypothesis, we are giving the comprehensive data collected from the respondents/beneficiaries below. To the query whether the beneficiaries are satisfied with quality and quantity of ration items they get, the responses of sampled households' beneficiaries are shown village wise of the three districts in Tables 6.1, 6.2, 6.3, and 6.4.

Table 6.1: Beneficiaries' response data about satisfaction in Kohima District

Blocks	Villages	Number of Households of Kohima District														No. of Selected Households
		Quality of Rice		Quantity of Rice		Quality of Sugar		Quantity of Sugar		Quality of Dal		Quantity of Dal		Quantity of Kerosene		
		Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	
Botsa	Teichuma	5	2	0	7	7	0	1	6	5	2	1	6	0	0	7
Chiephobozou	Nachama	7	1	1	7	7	1	3	5	6	2	3	5	6	2	8
	Rusoma	26	4	4	26	28	2	5	25	24	6	1	29	15	15	30
	Viphoma	7	0	0	7	7	0	0	7	6	1	2	5	7	0	7
	Ziezou	5	1	1	5	4	2	1	5	4	2	0	6	0	0	6
Chunlika	Ehunnu	7	3	0	10	8	2	1	9	7	3	1	9	6	4	10
	Sishunu	10	3	3	10	11	2	3	10	11	2	3	10	9	4	13
	Tesophenyu	80	9	5	84	0	0	0	89	80	9	2	87	65	24	89
Jakhama	Khuzama	52	5	10	47	55	2	2	55	0	0	0	0	0	0	57
	Phesama	43	5	6	42	45	3	4	44	0	0	0	0	42	6	48
	Viswema	96	5	10	91	97	4	6	95	94	7	10	91	46	55	101
	Kezoma	20	4	3	21	20	4	3	21	0	0	0	0	0	0	24
	Kidima	51	6	6	51	49	8	1	56	0	0	0	0	53	4	57
	Kigwema	73	7	6	74	77	3	5	75	0	0	0	0	8	72	80
Kohima	Kohima village	190	25	10	205	189	26	15	200	185	30	10	205	20	195	215
Zubza	Menguzuma	8	1	2	7	6	3	0	9	8	1	5	4	5	4	9
Tseminyu	Tseminyu	19	4	3	20	22	1	3	20	0	0	0	0	0	0	23
	Ngvuphen	5	2	0	7	6	1	1	6	5	2	4	3	0	0	7
	Zisunu	17	5	2	20	18	4	2	20	20	2	2	20	12	10	22

Source: Field Survey

Table 6.2: **Beneficiaries' response data about satisfaction in Peren District**

Blocks	Villages	Number of Households of Peren District														No. of Selected Households
		Quality of Rice		Quantity of Rice		Quality of Sugar		Quantity of Sugar		Quality of Dal		Quantity of Dal		Quantity of Kerosene		
		Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	
Athibung	Old Soget	5	1	2	4	6	0	3	3	2	4	3	3	0	0	6
	Phelhang	12	3	3	12	14	1	1	14	10	5	0	15	0	0	15
	Sailhem	7	0	2	5	7	0	2	5	4	3	2	5	0	0	7
Jaluki	Baisumpuikam	30	4	7	27	31	3	10	24	29	5	1	33	23	11	34
	Jaluki Dungki	16	1	3	14	15	2	5	12	16	1	3	14	10	7	17
	MahaiNamtsi	32	2	5	29	32	2	10	24	29	5	1	33	3	31	34
	Ngwalwa	19	2	2	20	18	3	5	16	18	3	4	17	19	2	21
Peren	Mpainamci	12	3	1	14	11	4	2	13	8	7	2	13	0	0	15
	Poliwa	26	4	1	29	29	1	5	25	26	4	1	29	0	0	30
Tenning	Azilong	10	5	2	13	11	4	3	12	11	4	3	12	0	0	15
	Tenning	30	2	6	26	30	2	7	25	27	5	5	27	22	10	32
	NTU	11	4	3	12	14	1	6	9	9	6	3	12	0	0	15
	Nzau	20	3	5	17	22	1	5	18	16	7	2	21	0	0	23
	Old Tessen	20	6	4	22	25	1	7	19	25	1	1	25	11	15	26
	Upper Sinjol	5	0	1	4	5	0	2	3	4	1	0	5	0	0	5
	Lalong	23	4	6	20	24	3	9	18	22	5	2	25	0	0	27

Source: Field Survey

Table 6.3: **Beneficiaries' response data about satisfaction in Wokha District**

Blocks	Villages	Number of Households of Wokha District												No. of Selected Households
		Quality of Rice		Quantity of Rice		Quality of Sugar		Quantity of Sugar		Quality of Dal		Quantity of Dal		
		Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	
Bhandari	Lishuyo	2	1	0	3	0	0	0	0	0	0	0	0	3
	Merapani	24	2	1	25	24	2	8	18	24	2	1	25	26
Changpang	Mekokla	43	2	2	43	0	0	0	0	0	0	0	0	45
Chukitong	Tsungiki	15	4	3	16	18	1	3	16	0	0	0	0	19
	Seluku	6	5	1	10	9	2	2	9	0	0	0	0	11
Ralan	Ronsuyan	5	2	1	6	6	1	1	6	0	0	0	0	7
	Old Ralan	15	3	1	17	17	1	3	15	0	0	0	0	18
	Liphayan	12	8	1	19	19	1	5	15	0	0	0	0	20
Sanis	Lakhuti	50	5	5	50	0	0	0	0	0	0	0	0	55
	Longsung	7	5	1	11	0	0	0	0	0	0	0	0	12
	Makharung	5	1	1	5	5	1	3	3	5	1	1	5	6
	Okto	20	5	0	25	20	5	3	22	23	2	2	23	25
	Aree Old	7	3	2	8	7	3	5	5	6	4	3	7	10

Wokha	Yikhum	33	8	10	31	0	0	0	0	0	0	0	0	41
	Old - Chungsu	20	6	3	23	21	5	14	12	24	2	3	23	26
	Old - Riphyim	14	6	3	17	17	3	3	17	17	3	3	17	20
	Longsachung	15	7	2	20	0	0	0	0	0	0	0	0	22
	Humtso	17	5	3	19	20	2	3	19	0	0	0	0	22
	Niryo	13	6	1	18	18	1	3	16	16	3	3	16	19
Wozuro	Phiro	21	9	5	25	28	2	5	25	26	4	1	29	30
	Shaki	12	4	2	14	13	3	1	15	12	4	1	15	16
	Sankitong	6	3	2	7	8	1	2	7	0	0	0	0	9
	Khumtsu	4	2	1	5	5	1	2	4	0	0	0	0	6

Source: Field Survey

Table: 6.4: percentages of households according to responses (satisfied/unsatisfied in each ration item)

Ration Items	Quality & Quantity	Satisfied & Unsatisfied	Number of Households (in terms of percentages)		
			Kohima	Peren	Wokha
Rice	Quality	Satisfied	88.68	86.34	78.21
		Unsatisfied	11.32	13.66	21.79
	Quantity	Satisfied	8.86	16.46	10.90
		Unsatisfied	91.14	83.23	89.10
Sugar	Quality	Satisfied	90.61	91.30	87.93
		Unsatisfied	9.39	8.70	12.07
	Quantity	Satisfied	7.73	25.47	22.76
		Unsatisfied	92.27	74.53	77.24
Dal	Quality	Satisfied	86.83	79.50	85.96
		Unsatisfied	13.17	20.50	14.04
	Quantity	Satisfied	8.40	10.25	10.11
		Unsatisfied	91.60	89.75	89.89
Kerosene	Quantity	Satisfied	42.67	27.33	0
		Unsatisfied	57.33	72.67	100

Source: Field Survey

Quality satisfaction:

It is found that 86.74% of the beneficiaries taken in the average of the three districts have reported the quality of ration items is satisfactory. On applying statistical one sample t-test, when test value is taken as 89%, calculated $|t|$ -value = 1.889, and tabulated $t_{0.05, 8} = 2.31$. Therefore, calculated $|t| < \text{tabulated } t_{0.05, 8}$ and percentage of beneficiaries in the three districts who are satisfied with the quality of ration items can be taken as 89%. On other hand, only 11% of the

beneficiaries have complaints about quality of ration items. Therefore, the hypothesis that the PDS beneficiaries are not satisfied with the quality and quantity of foodgrains is not wholly acceptable. Quality of ration items delivered to the beneficiaries is good and satisfactory to the beneficiaries.

Quantity satisfaction:

It is found that 16.83% of the beneficiaries taken in the average of the three districts have reported the quantity of ration items availed themselves of is satisfactory. On applying statistical one sample t-test, when test value is taken as 10%, calculated $|t|$ -value =1.752, and tabulated $t_{0.05, 11} = 2.18$. Therefore, calculated $|t| < \text{tabulated } t_{0.05, 11}$ and percentage of beneficiaries in the three districts who are satisfied with the quantity of ration items they get can be taken as 10%. On the other hand, 90% of the beneficiaries' population is not satisfied with the quantity of ration items they get. Therefore, the hypothesis that the PDS beneficiaries are not satisfied with the quality and quantity of foodgrains is partially true. Quantity of ration items delivered to the beneficiaries is not satisfactory to the beneficiaries. Hence, the hypothesis that the PDS beneficiaries are not satisfied with the quality and quantity of foodgrains is acceptable for quantity of foodgrains and not acceptable for quality of foodgrains.

On the other hand, the hypothesis is tested as follows by using Chi-square test:

In the following Table 6.5, we use Table 6.4 and some data on satisfaction on the quality and quantity of kerosene and have entered total percentage of households in the three districts which have responded not satisfied with the quality and quantity of the items - rice, sugar, dal and kerosene.

Table 6.5: Percentage of not satisfied households for the three Districts

Ration Items	Quality	Quantity	Calculated χ^2
Rice	14.84	88.95	7.402
Sugar	10.03	84.31	
Dal	14.89	90.73	
Kerosene	2.05	72.87	

Source: Field Survey

Null hypothesis H_0 : the PDS beneficiaries are not satisfied with the quality and quantity of foodgrains.

Alternative hypothesis H_1 : the PDS beneficiaries are not satisfied with the quality and quantity of foodgrains is not true.

The null hypothesis can be interpreted as the percentages (number of households) of unsatisfied beneficiaries is independent of quality and quantity.

The calculated value of χ^2 is 7.402 and the tabulated value $\chi^2_{0.1}$ is for degrees of freedom $(2-1) \times (4-1)=3$ is 6.25. Calculated $\chi^2 >$ tabulated $\chi^2_{0.1}$ value at 10% level of significance. Therefore, null hypothesis is rejected at 10% level of significance. That is why the hypothesis is not wholly acceptable.

Therefore, unsatisfied proportion of population depends on quality and quantity. When quality is considered, unsatisfied proportion of population is less and when quantity is considered, unsatisfied proportion of population is high. Thus, the hypothesis is tested and analysed.

Prospects of PDS in Nagaland:

1. Village councils are given the job of FPS is a meritorious policy of Nagaland as it involves community as a whole. The scope of social accountability and socialization of the functioning of PDS is fairly wide.
2. In spite of poor performance of PDS, 30% of beneficiaries are getting 50% and above requirement of rice from FPS and 5.48% of beneficiary households get 50% and above requirement of dal from FPS. If the functioning of PDS is made to improve sufficiently, there is the possibility that every beneficiary household may get 50% and above requirement of rice and dal from PDS and it may result in the decrease of shifting cultivation for paddy farming. Experts say that 20,000 hectares of land is felled every year in the state due to slash- and –burn farming practice of shifting cultivation. Rapid large scale deforestation in paddy farming has given tremendous

pressure on environment and exposed the state to soil hazards. If the support of PDS is good enough in providing sufficient rice and dal for consumption, the farmers may be encouraged to shift to alternative farming of many other cash crops such as cocoa, rubber, other useful medicinal plants and diverse horticultural crops such as fruits and vegetables which do not require yearly burning down large swathes of land. Moreover, farmers may make more income in such alternative farming provided markets are available. At the same time, environmental degradation can be controlled. In this context, efficacious role of PDS is very important.

3. Nationwide drive for end to end computerisation of PDS operation is also slowly progressing in Nagaland. Under this programme, digitisation of ration cards, Aadhaar seeding with ration cards, computerisation of supply chain management, online allocation of foodgrains, transparency portal, online grievance redressal, toll free helpline numbers should altogether work simultaneously. When all these components of the system are fully implemented, PDS performance in Nagaland will obviously enhance. At present many beneficiaries do not have Aadhaar card, therefore deprivation goes on. Annual Report 2019-2020, published by the Department of Food and Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution, GOI, reports that so far 70% of Aadhaar seeding with ration cards have been completed. If all these components become functional realistically, lacunae in the functioning of PDS will automatically diminish and performance will increase.

Thus, we have summarily studied the problems persisting in the functioning of PDS. It is also analysed that these problems are not irremediable provided the state government take the issues with strong will and awareness of masses increase. Since, village councils are running FPSs, social accountability and socialization of functioning of PDS are inevitable if all the stakeholders work sincerely and competently. Since, there is tremendous national drive to computerize the system, i.e., end to end computerisation of PDS operation, Nagaland state department much identify what are hindrances in computerisation

and make concerted effort to remove the hindrances. PDCs should have high speed internet connectivity and officials dealing with the system should have good knowledge of computer to handle data efficiently. State food department must prioritise their effort in fulfilling norms and guidelines laid down by the GOI in toto. State level, district level, block level and FPS level vigilance committees should be created and made to work literally. Short allocation and short lifting of foodgrains, delayed distribution of foodgrains, charging of higher rates, and inadequate infrastructure affected the implementation of PDS in the State. Mandatory inspections by district level officers, departmental officers and special area officers should be regulated and monitored by the state food department. After all, Nagaland state has got its own space and advantages to improve the performance of PDS in the state.

CHAPTER-VII

SUMMARY OF FINDINGS, RECOMMENDATION AND CONCLUSION:

In this Chapter, the findings of the entire study in the thesis are summarily presented. According to the findings, multiple measures required for improving the system are again presented in the form of recommendations. The recommendations are framed so as to give a broad guidelines and mass awareness to the policy makers, state government and state department of FCS, bureaucrats and high level officials serving in the department, dealers and general public.

Findings of the study:

The study conducted in this thesis can be broadly divided into two parts. One is a brief investigative study based on secondary data available in AARs, Audit report and some relevant research articles so as to approximately assess and overview the existing scenario of PDS in Nagaland, and this study is covered in Chapter II and III. The other is purely empirical investigation in which information is collected from sampled beneficiaries and FPS dealers through field survey. The investigation is conducted to understand and analyse the ground reality of functioning of PDS in the state. Therefore findings are presented here in two parts.

Socio-economic condition:

The main findings on socio-economic condition of people of Nagaland are as follows:

1. From the viewpoint of economic disparity, Nagaland is in the worst condition of all NE states of India, although in terms of per capita monthly expenditure state records the highest of all NE states. Agricultural dependent households' percentage is 63.5%,

whereas 89.55% of the state's working population has been still using primitive and conventional techniques in agriculture. However, at present with the improvement of transport and communication facility, tertiary sector has become major contributing factor in the state's NSDP. Poverty and economic inequality are still a big challenge for Nagaland as 36.85% of rural population and 29.39% of urban population are living under BPL. Poverty Head Count Ratio (PHCR), Poverty Gap Index (PGI), Sen Index (SI), and Multidimensional Poverty Index (MPI) indicate that poverty level in rural is higher than urban poverty level as well as average poverty level of the state.

Condition of PDS in the state (based on secondary sources):

1. Following the reports of two independent sources, one was revealed during question-answer hour in Lok Sabha and the other was a data portal, Indistate.com (2013, 2014) analysis of kerosene leakage data revealed that percentage kerosene leakage is the highest in Nagaland of all NE states with 96.6%. In terms of rice leakage, 91% of rice leakage in Nagaland was reported on February 28, 2015, in the Times of India.

At present there are 77 public distribution centres, 1622 FPSs (1332 in rural, 290 in urban) and four FSDs.

2. The audit report of the CAG of India which covered the period 2005 to 2011 divulged a large number of irregularities, flaws and defects in the functioning of PDS in Nagaland. The audit was conducted to assess the performance of PDS in Nagaland. Some of main findings of the audit were:

- The state FCS Department did not carry out periodical revision of beneficiary list for addition/deletion of eligible/ineligible beneficiaries. As a result, 41% of households in the state were deprived of PDS benefit.

- Excess ration cards were randomly issued by the Department of the FCS to the district offices without any requisition as a result of which 5069 ration cards were misused.
- The department did not monitor and regulate the pricing pattern of foodgrains sold by the department authorised stockists and FPSs. As a result higher price than government notified price was charged from beneficiaries.
- Short allocation, short lifting of foodgrains, delayed distribution of foodgrains, non-conducting of mandatory inspections by district level officers, vigilance committees and special area officers were indicated in the report.
- Inability of department to utilize entire fund released by GOI on regular basis resulting in the deprivation of beneficiaries of the indented benefits was also indicated.
- The State Government did not release the transportation cost and handling charge of FPS.
- The State Government did not conduct survey to identify PHH and AAY.
- The department failed to release regularly the allotted foodgrains to the FPS.
- A large number of instances of non-lifting of foodgrains were unearthed, these non-lifting led to the deprivation of scheme beneficiaries. Disparity between departmental report about the quantity foodgrains distributed to FPSs and report of FPSs about the quantity received were found in several cases. That showed the possible diversion of foodgrains to open market.

2. When we analyse the data of beneficiaries under different categories from 2011 to 2018 (Data provided in AARs of Nagaland, Economic Survey, Nagaland), by using some statistical technique, it is confirmed that no baseline survey for revision of beneficiary list has been conducted, shown in chapter II.

Findings from field survey:

In this empirical study, the functioning of PDS on the ground level according to the responses of beneficiaries and FPSs dealers, collected through personal enquiry to the beneficiaries and FPS dealers, have been investigated.

The summary of the findings are as follows.

➤ On the socio-economic condition of beneficiaries by examining the following a few parameters:

- Educational status of beneficiaries: Among beneficiaries, 25.21% in Kohima district are illiterates and 65.56% are of educational status from illiteracy to below matric. In Peren district 22.67% of beneficiaries are illiterates and 79.81% are of educational status from illiteracy to under matric. In Wokha district, 20.08% of beneficiaries are illiterates and 72.65% are of educational status from illiteracy to under matric. Therefore, when we examine overall educational status of beneficiaries in the three districts, 23.20% and 70.49% of them are illiterates and of educational status from illiteracy to under matric respectively.
- Occupational status beneficiaries: In Kohima district, 63.46% of the beneficiaries are labourers in agricultural and non-agricultural sector or landless farmers. In Peren and Wokha, the percentages of beneficiaries of the said population are 52.17% and 56.41%. In the overall, 59.13% of beneficiaries are labourers in agricultural and non-agricultural sector or landless farmers.
- Income status of beneficiaries: In Kohima district, 60.51% of beneficiary households earn Rs. 833.33 to Rs. 7500 per month whereas in Peren and Wokha districts, 89.12% and 88.27% of beneficiary households earn Rs. 833.33 to Rs. 10000 per month per household. While observing the socio-economic condition of the beneficiary households in the light of above a few socio-economic indicators, it is found that a large percentage of the community of PDS beneficiaries belongs to socio-economically weaker section and is prone to food insecurity.

- Regarding distances of FPS from households, 64.99% of sampled beneficiary households have FPSs located with 1 km, 25.89% have within 2 km and 9.11% have more than 2 km.
- Regarding irregularity of getting ration items, even in the case of most important item rice, 8% of sampled villages are getting once in three months and 10% of the sampled villages are getting so irregularly that no specific or approximate period of time can be stated.

But in the case of other three items, dal, sugar and kerosene, the degree of irregularity or non-availability is higher. 27.59% of sampled villages do not get dal at all. 36.27% are getting monthly, 5% are getting 3 monthly and 31% are getting irregularly without following any specific or approximate period of time.

Regarding sugar 12.07% of the villages are not getting at all. 48.8% and 12.06% of the sampled villages are respectively getting monthly and 3 monthly, whereas 27.58% are getting so irregularly that no specific or approximate period of time can be stated.

Regarding kerosene, only 27.58% of villages are getting among which 24.1% of villages are getting monthly, 3.4% are getting 3 monthly and 3.4% are getting very irregularly.

- Gap between required quantity and obtained quantity from FPS: In the average, the percentage of gap between required quantity of rice and obtained quantity of the same from FPS is 54% approximately, i.e., 46% of requirement of rice is obtained from PDS in the average by a beneficiary household. This contribution of PDS is not bad, however wide variation among the villages in terms of this contribution exist. For example, in Phiro and Sankitong villages of Wozuro block in Wokha district and Jaluki Dungki village of Jaluki block in Peren district, beneficiaries are getting 95%, 89.04% and 93.7% of requirement of rice from FPSs respectively, whereas in Old Chungsu, Humtso, Niryo villages of Wokha block in Wokha district, Mahai Namtsi village in Jaluki block in Peren district, Tenning village of Tenning block in Peren

district, beneficiaries are getting only 17.5%, 14.6%, 16.24%, 11.56% and 15.57% of requirement of rice from FPSs respectively.

Similarly, average gap between requirement of dal and obtained in percentage is 74.9% with high variation among villages. Average gap between requirement of sugar and obtained is 53.18% with the prevalence of high variation among the villages. Average gap between the requirement of kerosene and obtained is 80.72% whereas in Wokha district kerosene is not supplied at all.

➤ Subsidy transfer/Income gain due to PDS: Income gain/subsidy transfer due to PDS to the beneficiaries is 27.57% of a household's consumption expenditure in the average. But *t*-test has confirmed that average subsidy transfer per household can be taken as 30%. However there exists wide variation among the blocks in this case too. For example, in Sechu/Zubza block of Kohima district, beneficiaries get average subsidy transfer 47.42% in the average whereas in Changpang block of Wokha district, this average figure is 16.78%.

➤ Regarding non-uniformity of PDS contribution, χ^2 -test has confirmed uneven contribution of PDS among all villages of each district. Statistical *t*-test has confirmed that Kohima and Peren, Kohima and Wokha districts are of almost same condition in terms of subsidy transfer, whereas Peren district is better than Wokha district.

➤ Pattern and features of consumption of rice, dal, sugar and kerosene from FPS: An average of 29.87% ~ 30% of beneficiaries in the three districts are getting 50% and above requirement of rice from FPS, 55.4% are getting 30% to 50% of requirement of rice from FPSs, and 15.1% are getting below 30% requirement of rice from FPSs.

➤ For sugar, 23.95% are getting 50% and above requirement, 35.55% are getting 30% to 50% of requirement and 22.08% are getting below 30% requirement of sugar. Whereas 10.94% of households do not get sugar at all from FPSs, 7.69% of

beneficiary households in Wokha district are getting hundred percent requirement of sugar from FPSs.

- Only 63.14% of the beneficiary households are getting dal from FPSs among which 5.48% are getting 50% and above requirement, 39.90% are getting 30% to 50% of requirement and 28.44% are getting below 30% of requirement.
- Regarding kerosene consumption from FPSs, only 52.59% of beneficiaries are getting kerosene supply from FPSs, whereas 28.54% of households in Kohima and 22.36% of households in Peren are getting hundred percent requirement from FPS, but in Wokha district, there is no supply of kerosene.
- Reasons of satisfaction/dissatisfaction of beneficiaries: While seeking the opinion of beneficiaries, 80.31% of beneficiaries in three districts have expressed not satisfied with rice from PDS. While enquiring the reasons for dissatisfaction, 52.72% have responded insufficient quantity and 15.19% have responded both insufficient quantity and irregularity, whereas the remaining have responded various reasons such as poor quality, poor quality and insufficient quantity, poor quality and irregularity, poor quality, insufficient quantity and irregularity etc.
- Average of 83.47% beneficiaries has responded they are not satisfied with sugar. Among the reasons of dissatisfaction, they have stated, the most prominent ones are insufficient quantity responded by 42.12% of beneficiaries, and insufficient quantity as well as irregularity responded by 17.26% of the beneficiaries. An average of 86.50% of the beneficiaries has responded they are not satisfied with dal. Among the reasons of dissatisfaction they have stated, the most prominent ones are non-availability and insufficient quantity as well as irregularity responded by 33.04% and 21.61% of the beneficiaries respectively.
- On kerosene, only 15.40% of beneficiaries have expressed satisfaction. As there is no supply in Kerosene in Wokha, all the beneficiaries in Wokha have expressed dissatisfaction due to unavailability.

➤ Awareness of beneficiaries: On investigating into the awareness of beneficiaries about the price and allocation fixed by the department as well as mandatory norms to be fulfilled by the FPS dealers in their functioning, the findings are as follows:

- 18.15% of beneficiaries have responded that they are aware of price and allocation fixed by government according to the categories of cards.
- Regarding the mandatory norms to be fulfilled by FPS dealers such as issuance of cash memo to the buyers and hanging of price list which should be visible to all beneficiaries, none of the beneficiaries are aware about nor do they bother.

➤ If sugar is withdrawn, what is the probable impact according to the response of beneficiaries?

- 30.29% of the beneficiaries have responded the supposed withdrawal will not make any difference. 60.19% of the beneficiaries have responded the withdrawal will affect them negatively. 9.52% of the beneficiaries have responded they are not aware of any possible effect.

➤ If kerosene is withdrawn from PDS, what is the probable impact according to the response of beneficiaries?

- Since, there is no kerosene supply in Wokha district, there is no say on it by the beneficiaries. But 23.87% in the other two districts have responded the withdrawal will not make much difference, but 57.16% are worried about it and the remaining 18.97% have no say on it.

➤ Perception of beneficiaries about FPSs' owners:

- 68.43% of the beneficiaries have expressed satisfaction with the functioning of FPS. In Kohima district, the reason of dissatisfaction stated by the highest number of beneficiaries (20.20 percent of households whose response is dissatisfaction) is supply of poor quality materials. In Peren and Wokha districts, the reason cited by highest number of dissatisfied beneficiaries is adulteration in foodgrains, as 32.45

percent and 26.63 percent of dissatisfied households of districts respectively have stated the reason as adulteration.

➤ Timely availability of commodities:

- 68.30% of all the beneficiaries have reported that ration commodities are delivered timely.

- Among the beneficiaries who have responded commodities are not delivered timely, 35.62% have stated the reason of untimely delivery is untimely supply from the government, i.e, delay of supply from government side. Carelessness of the dealers is stated as the reason for delaying the arrival of ration commodities at FPS as 22.89 percent, 22.84 percent and 12.55 percent of households in Peren, Wokha and Kohima districts respectively have revealed in their responses. Also, 20.48 percent households of Peren district, 12.34 percent households of Wokha district and 7.84 percent households of Kohima districts have reported that black marketing by the dealers is the only reason of delay in the arrival of the ration commodities in time at FPS.

➤ While investigating if there is any disparity between statement of FPS dealers and beneficiaries on the kinds of commodities distributed, findings are different from district to district as follows:

- In Kohima district, 4.17% of the villages have reported they do not get sugar and dal although the FPSs in these villages have reported the two items are distributed. Moreover, 25% of the villages have reported no kerosene is available although FPSs of these villages have reported the item is distributed.

- In Peren districts, 62.5% of villages have reported kerosene is not distributed from FPSs, however, the FPSs in these villages have reported kerosene is distributed.

- In Wokha district, 26.23% of the villages have reported non-availability of sugar in FPSs and 57.14% of the villages have reported non-availability of dal in the FPSs, however concerned FPSs have reported the otherwise.

- On investigating problems faced by the dealers in running FPSs related to demand and supply, the findings are as follows:
 - 60% of FPSs have reported that they face problem because demand outmatches supply.
 - 16.75% of FPSs have reported to be facing transportation problem.
- Report of receiving leaked or damaged bags:
 - 76.72% of FPSs have reported that they use to receive leaked or damaged bags.
 - Regarding complaints of beneficiaries on various reasons such as poor quality, insufficient quota, underweighting, heavy rush during collection etc., 91.72% of FPSs receive complaints from them on one or other of the reasons.
- Disparity between the statements of FPSs dealers and beneficiaries on the quantity of ration items distributed and received per head.
- In the distribution of the three items of foodgrains, quantity distributed per household/head as per the claim of dealers and quantity received per head as per the response of beneficiaries is significantly different. Quantity received by beneficiaries per head/ household is in most cases less than quantity distributed per head/ household as per dealers' claim. It shows the credibility of dealers is questionable. Statistical *t*-test has confirmed this significant disparity.
- Response of FPS dealers whether they incur losses:
 - 18.16% of FPSs have reported that they incur losses in running the shops.
 - Whether the FPS dealers feel that service rendered by them is adequate:
 - 29.8% of the FPSs have reported that the dealers feel that the service rendered by them is not adequate.
 - Number of days and time the FPSs offer service to the beneficiaries:
 - 93.83% of FPSs have reported the shops remain open less than 10 days in a month.

- 6.16% of FPSs have reported the shops remain open for 15 days in a month.
- 27.39% of FPSs have reported the opening and closing time is forenoon.
- 63.76% of FPSs have reported the FPSs remain open whole day.
- 8.83% of FPSs have reported the FPSs remain open only in the evening.
- Information on transportation cost, condition of storages and time of delivery of stocks of ration items from PDCs to FPSs.
- While transporting stock of foodgrain from PDCs to FPSs, 38.03% of FPSs have reported that the cost of transportation is borne by themselves, 9.53% have reported the cost is borne by state food department and 50.30% have reported that the cost is borne by VDB.
- The fund of VDB is raised by collecting money in advance from beneficiaries.
- 85.66% of FPSs have reported stocks in FPSs last for first week of a month and 7.59% have reported stocks last till the second week of a month.
- 71.24% of FPSs have reported the delivery of stocks from PDCs to FPSs is timely and the rest have responded the otherwise.
- 55.31% of FPSs store foodgrains in kutchha houses which are mostly unhygienic, 44.68% of FPSs store foodgrains in pucca houses which are relatively better.
- FPSs' dealers maintenance of records.
- With regard to maintenance of various records, the maintenance is the best in Kohima district and the worst in Peren district. But, in the average the following data are observed.
- Price stocks details: 66.97% of FPSs maintain it.
- Display of stocks: 43.65% of FPSs maintain it.
- Lifting Details: 82.03% of FPSs maintain it.
- Distribution details: 94.81% of FPSs maintain it.

- Ration card register: 70.49% of FPSs maintain it.
- Information on Stocks left undistributed, perception of FPS dealers about the impact of PDS on food security of beneficiaries, report of FPS dealers about the awareness of beneficiaries with regard to price and allocation of ration items, percentages of shops at which price list is hung.
 - 87.77% of FPSs have reported nothing is left undistributed in the stocks.
 - In Wokha district, FPSs have reported cent percent of the stocks are distributed.
 - According to FPSs' dealers, 57.56% of the beneficiaries are aware of prices and allocations although report of beneficiaries says only 18.15% of them are aware of it.
 - Regarding the dealers' perceived impact of PDS on food security, dealers of FPSs in Peren district refuse to comment. But, in Kohima and Wokha district, 23.89% of FPSs dealers perceive that impact is from good to satisfactory, the rest feel that PDS do not give any positive impact in food security of have-nots.
 - Only in 27.29% of FPSs price lists are displayed to beneficiaries as per their claim, however, hundred percent of the beneficiaries in the three districts have reported no price lists are hung.
- Most popular suggestions from dealers for improving the functioning of PDS
 - The most cited suggestion, i.e., the suggestion of 71.42% of FPSs dealers, is increase in commission to make the business viable, sufficient arrangement of transportation and proper warehousing.
- Impact of PDS on a few social factors of the beneficiaries
 - The average income transfer of all the three districts is 27.57 percent. This monthly income transfer has benefited the population of beneficiaries among whom 74.36 percent are of monthly income group ranging from Rs. 833/- to Rs. 10000/-. Although calculated average income transfer is 27.57, on applying t-test, when we assume 30 percent contribution due to PDS as null hypothesis, calculated $t = -0.118$,

tabulated $t_{0.05, 17} = 1.740$. Therefore calculated $|t| < \text{tabulated } t$, and we can assume that 30% of income gain is obtained by the beneficiaries.

- 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, inspite of availing support of PDS, 24.57% are still living with abject deficiency of food and nutritional requirement.

- 65.93% of the beneficiaries have responded that if PDS is withdrawn, their daily nutritional requirement will be badly affected.

- 35.05% of the beneficiaries in the three districts have asserted they would suffer from health problem due to malnutrition without support of PDS and 19.24% are doubtful of under nutrition caused sicknesses if PDS is withdrawn.

- 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, altogether 61.88% percent in the average 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 they will find it difficult to send their children to school. Subsidy transfer from PDS helps the parents afford to send their children for primary school. Although PDS is not satisfactorily functioning in Nagaland, it is still giving a considerable 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.

➤ Hypotheses

- Taking fifteen indicators which are pertinent to describing the state of overall functioning of PDS in the state, we have constructed a model of symmetric matrix

which exhibits the condition of overall functioning of PDS concisely with a view to examining the hypothesis – the overall performance of public distribution system in Nagaland is not satisfactory.

- From the study, it is found the functioning of PDS in Nagaland is in bad condition. Hence, the hypothesis that the overall performance of PDS in Nagaland is not satisfactory is accepted.

- On applying t-test, 89% of the beneficiaries are satisfied with quality of PDS items and 90% of the beneficiaries' population is not satisfied with the quantity of ration items they get. The null hypothesis that the public distribution system beneficiaries are not satisfied with the quality and quantity of foodgrains is acceptable for quantity of foodgrains and not acceptable for quality of foodgrains on applying χ^2 -test, the null hypothesis is rejected at 10% level of significance.

Recommendations:

- ❖ From the perspective of socio-economic condition of economically weaker sections and existing economic disparity in the state, food security is a matter of serious concern. PDS is the biggest social scheme especially for the poverty stricken people who have challenges in food security. The state government should immediately look into functioning of PDS, revamp it whatever necessary and make it function by fulfilling all the norms and guidelines of GOI.

- ❖ Leakage and pilferage in PDS should be immediately stopped by taking up suitable measures and allowing social audit.

- ❖ Short allocation, short lifting of foodgrains, non-conducting of mandatory inspections by district level officers and vigilance committees have been prolonged issues which remain unresolved. It is the time that the state government and bureaucrats dealing with state food department to take the matter seriously. Since the onus of problem is on them, they need to take up concrete step and effective

mechanism to solve this problem. The village councils all over Nagaland should raise voice consistently over this issue.

- ❖ The non-release of transportation cost and handling charge regularly by the government badly affects the viability of business in FPSs. Government must have a separate transaction system under an account to receive fund that comes from Centre and release it automatically to the dealers.

- ❖ Non-conducting of baseline survey is also a prolonged and pernicious issue. It is the time that the state government to take up un-daunted decision to conduct baseline survey. The government must create a separate committee, comprising members of legislative assembly, bureaucrats and other officials of the department, which can work in co-ordination with village councils to conduct baseline survey in which the deserving ones should be enlisted and non-deserving ones must be omitted. The government must accomplish it by agreeing to the fact that feeding the poor is the first and foremost important moral and constitutional responsibility for them. An effective system should be put in place to conduct periodical revision of beneficiaries' list.

- ❖ Taking into account several factors such as educational status, nature of occupation, income status, etc. of beneficiaries, all poverty alleviation schemes, most importantly the PDS must be implemented in the state ethically in letter and spirit.

- ❖ All the beneficiaries must have their concerned FPSs within a maximum distance of 2 km. The beneficiaries whose distances from FPSs are more than 2 km must be given another FPS within the said distance. In the remote hilly terrain, transportation is a big issue.

- ❖ A large number of villages are getting ration items so irregularly, sometimes once in three months or so, although GOI strongly instructs the states to deliver PDS service regularly. This matter should be seriously taken care.

- ❖ Non-uniformity in the distribution of kinds of ration items is another big issue. The government and village councils should look into the matter. Steps should be

taken up to ensure uniform distribution of kinds of ration items to all villages/beneficiaries.

- ❖ Gap between requirement and obtained quantity should be reviewed in the light of norms and allocation specified by the government of India. It should be reviewed as per NFSA, 2013 act. If unreasonable gap exists, the matter should be resolved immediately.

- ❖ In terms of quantity of commodities distributed too, a huge variation is observed among the villages. Such anomalies must be investigated to identify the root causes. Uniformity in the distribution of commodities must be ensured through appropriate measures.

- ❖ Income gain/subsidy transfer due to PDS is not bad in Nagaland as far as the finding of this study is concerned. However, there exists huge variation among the villages in receiving amount of subsidy transfer due to PDS. Some villages are getting 46.42% income gain per households whereas some villages are getting 16.78% income gain per household. It is indication of big flaw in functioning of PDS. Therefore, the state food department must look into this issue with serious concern and ensure uniform income transfer through PDS.

- ❖ It is quite impressive that if the beneficiaries are getting 50% and above requirement of rice from FPSs. However, in our finding 30% of the beneficiaries are getting 50% and above requirement of rice, 55.4% of beneficiaries are getting 30% to 50% of requirement and 15.1% are getting below 30% of their requirement. Since 30% of beneficiaries are getting 50% and above requirement, there is prospect that the remaining 70% of beneficiaries may also get 50% and above requirement of the item. An appropriate measure may materialise it. If it is so, there will be huge impact of PDS to the socio-economic condition of people/beneficiaries. In the same way, for other PDS items too, benefits may be enhanced.

- ❖ Poor awareness of beneficiaries: Since most of the beneficiaries are unaware about price, allocation and other relevant norms of PDS, state food department may work out with formation clusters of villages in which nearby and better transport

road connected villages may be put in a cluster and then conduct awareness seminar on price, allocations and number of items in every cluster once in a year in co-ordination with village councils.

- ❖ Sugar, kerosene and dal should remain as PDS items because these items are extremely required for the villages particularly in remote areas.

- ❖ Most of the untimely distribution of commodities from FPS is due to delay in delivery of stocks from PDCs to FPSs and transportation problem. These two problems must be addressed seriously by the state food department. Irregularity and untimely distribution of commodities to the beneficiaries is against the motto of PDS to ensure food security of have-nots.

- ❖ As stated above, irregularity is one of the worst shortcomings in PDS. The state Food and Civil Supplies department must prioritise to solve this issue.

- ❖ One of the most unacceptable practices is that 40% of FPSs demand money in advance from beneficiaries to get it deposited in VDB and transportation cost of FPS is charged upon such funds in VDB. The FPSs dealers are compelled to do such act since their transportation costs and handling charges are not released by the state government. Such practice gives burden to beneficiaries rather than helping in providing food security to them.

- ❖ Under NFSA, 2013, act, every year, financial assistance from the Central government is provided to the states to support intra state movement of foodgrains and margins for FPSs. Therefore, there arises a big question why this money is not released timely.

- ❖ Even if the money is not sufficient for bearing the transportation cost and FPSs' margins, it is the duty of state government to allocate some amount from its own exchequer to run such a crucial scheme. In many states, separate fund is allocated and added to all subsidies of PDS that comes from central government, and thus enhanced benefits, in addition to price and allocation of items as GOI, is made available to beneficiaries.

- ❖ Therefore the mess around transportation cost and handling charges of FPS must be settled immediately by the state government and the civil societies must raise this issue in all possible platforms.
- ❖ District PDCs must be ensured to release commodities to FPSs timely.
- ❖ Maintenance of records in the FPSs about the entire transaction is not upto the mark as per our finding. The state food department must take up concrete action to ensure FPSs maintain proper records. Non-formation or non-functioning of vigilance committees at FPS level, block level, district level and state level is also another reason for this flaw.
- ❖ The state food department must conduct sample survey for assessing the problem of food security and how far PDS helps in ensuring food security of have-nots. The state government must undertake this mission on the ethical ground and principle that the government exists for the sake of welfare of people.
- ❖ The state food department should not only address the grievance of FPS dealers with regard to dealers' margin and transportation cost but also enforce the FPSs to strictly adhere to guidelines in rendering service to beneficiaries. Very few FPSs display price list in their shops to make it visible to the beneficiaries.
- ❖ The state department must review business viability of FPSs with the existing given profit margin and handling charge. In our investigation, this issue is raised by most of FPS dealers. It is the duty of the state government to do their part to make FPSs run effectively or else its implication goes to beneficiaries in the form of forfeiting their rightful share under the scheme.
- ❖ Since PDS is indirectly contributing to socio-economic factors such as health, nutrition and affording education of children. A well-managed PDS is crucial for the state. The state government and civil societies must strongly feel this moral imperative and take up an action plan accordingly.
- ❖ When a number of parameters pertinent to assess the performance of PDS in the state are examined, it is found that PDS is not functioning well in the state although it is contributing significantly to ensure food security and socio-economic condition

of people. It is high time for the state government to overhaul the system, address the key issues and implement it with strong will and commitment. The civil societies, church organizations and women organizations must play due role to make the masses aware and pressurize the government to revamp the system.

- ❖ Warehousing is not good in Nagaland. Most of the PDCs do not have proper godowns which lead to short lifting from depots. State government must address this issue.

- ❖ PDCs should have high speed internet facilities to help in effective implementation of end-to-end computerization. All the officers-in-charge should have good knowledge of handling data in computer.

- ❖ It is also learnt that while using e-PoS, many of the beneficiaries who do not have Aadhaar card cannot withdraw. Therefore their share is leaked out and pilfered. State government and civil societies must mobilise campaign for Aadhaar enrolment of the masses and at the same check such pilferages.

- ❖ There must some suitable arrangement for old people who can't come and collect by punching EPOS.

- ❖ The director post of the department should be given to the experienced officers in the department. Inexperienced director bring more chaos to the system.

- ❖ For operating PDCs in the district level, more manpower with sufficient skill in handling data in computer is required. Sufficient training must be imparted to these officials.

Scope of further of research:

The present research is confined to three districts of Nagaland in which information is collected only from sampled beneficiaries and FPSs' dealers. Apart from conducting some study related to PDS in the country and state based on secondary sources such as research articles, reports of concerned departments and agencies, the empirical study is mainly focused on assessing the functioning of PDS

on the ground. However, the more pragmatic and effective evaluation of the functioning of PDS in the state will be possible if similar research covers all the districts of Nagaland by using the same technique of sampling method employed here. Moreover, in addition to collecting information from sampled beneficiaries as done in this study, we need to collect information from PDCs and Depots on how much quantity of foodgrains are released in a particular duration and then check the flow of items and quantities from Depots to PDCs, PDCs to FPSs, and FPSs to beneficiaries through appropriate comparing and contrasting. If the scope of research is extended in this manner, leakages, diversions, non-lifting, mismanagement, etc., can be investigated. A comprehensive and in-depth evaluation of the performance of PDS in the state can be done in such a broader scope of research.

Conclusion:

In this study of the performance of Public Distribution System in Nagaland with special reference to three districts, a broad overview of PDS in Nagaland with regard to history of evolution of PDS in the state, the present issues and prospects, overall aspects of its functioning lacunas, leakage, pilferage, etc. is provided in the thesis by studying secondary data sources such as research articles, annual administrative reports, related newspapers' report, audit report etc. However, the empirical study on the research topic is done through field survey in which sampled beneficiaries and their concerned FPS dealers are interviewed with the help of questionnaires. Secondary sources have revealed a lot of serious drawbacks and shortcomings in the performance of PDS. On the other hand, primary information collected from the field survey have revealed, inspite of a lot of hiccups in the functioning, PDS is still giving a minimum of 30% subsidy transfer in the consumption expenditures a beneficiary in buying some basic commodities. Of course, there are a lot of irregularities in the functioning, unevenness in the delivery of benefits among the villages, blocks and districts, dissatisfaction of beneficiaries and grievance of dealers

etc., PDS is still contributing indirectly but significantly in improving some socio-economic indicators such as health, nutrition and education. In the entire study, findings have revealed the loopholes and recommendations have indicated what is to be done to improve the system. The study has shown a lot of scope for the improvement. The onus of rectifying the system lies on the state government although the role of civil societies and general public is inevitable. With the enactment of NFSA, 2013, end-to-end computerization of TPDS operations is being implemented in which costs are shared with states in 90:10 in the case of north-eastern states. The Nagaland state should step up activities to make full use of this opportunity. It is time to update data regularly in the national transparency portal and make state portal fully functional. The most protracted issue that has been hampering the progress in implementation of PDS is non-conducting baseline survey to enlist deserving people and delete non-deserving people as it is indicated in the audit report of Comptroller and Auditor General of India which covers from 2005 to 2011. The state government must take up a challenge to conduct the baseline survey and create mechanism for routine revision of beneficiaries list.

Since village councils are running the FPSs, there is more space for social intervention and transparency. However, leakages in the PDCs' level must be strictly monitored. The variation in ration items and quantities from village to village is the indication of serious flaw in the functioning of PDS. In the list of important findings given in this chapter, two key things are to be noted. Firstly, there is high degree of non-uniformity in delivering benefits to the beneficiaries and the second is if PDS is run by following the specified norms, there is scope of enhancing income transfer in the form supporting the beneficiaries in buying some basic livelihood requirements as a result of which socio-economic condition of beneficiaries can be improved. Therefore state government as well as civil societies of Nagaland must not ignore this scheme. If the poorer sections of society have food security, the members of society can think and do something productive for themselves as well as for society as a whole. The development of a society reflected from the mirror of progress of

human dignity and soul. The real development must be seen in the ground realities when funds and benefits reach deserving beneficiaries. The development must take place at micro and grass root level in the far flung, remote, hilly and isolated areas. It is moral imperative for the state government to launch a ground-breaking work to revamp PDS and remove all the lapses and leakages in the larger interest of people. When the government is reluctant to deliver for public causes, it is the duty of masses to ring alarm bells to remind the government what it ought to do.

APPENDIX – I

Questionnaire I

***Questionnaire for Households/Beneficiaries Surveyed in the District of
..... of Nagaland***

Title: ‘A Study on the Performance of Public Distribution System in Nagaland: with Special Reference to three Districts viz., Wokha, Peren and Kohima’

Tick the appropriate items.

➤ Write NA in the relevant box if not applicable.

1. Name of the Block:
2. Name of the Village/Town:
3. Name of respondent:
4. (a) Father’s name/Mother’s name/Spouse’s name:
(b) Relation (Father-1, Mother-2, Husband-3, Wife-4):
(c) Community (SC-01, ST-02, General-03, Others-04):
5. Age:
6. Gender (Male-01, Female-02, Others-03):
7. Educational qualification:
(Respondent’s qualification if he/she is having the highest educational qualification in the family or else the qualification of a member of family having the highest educational qualification in the family)
[Illiterate-01, Primary-02, Middle (under Matric)-03, Matriculate-04, Graduate-05, Post Graduate-06, Any other-07]
8. Occupation:

[Government Employee-01, Private Sector Employee-02, Agricultural Labour-03, Non-Agricultural Labour-04, Farmer in his/her own land-05, Landless Farmer-06, Business in retail Sector/Shopkeeper-07, Doing nothing except household work-08]

9. Total Family members:

Male: Female: Others:

10. If you are involving in small scale or medium scale businesses mention which is your main business:

(i) Income from the business (monthly): Rs.

(ii) Investment of time (monthly): Rs.

11. What is the main source of income in your family?

(Agriculture-1, Government Employee-2, Industry/small scale industry-3, Others-4)

12. Do you have income from the asset/object? Yes-1. No-2.

If yes, what kind of asset is it? Specify.

13. What is yearly income of your family? Rs

14. Does your family belong to below poverty line (BPL)? Yes-1. No-2.

15. In which year, did your family come under BPL?

16. Who gave cognizance to you as BPL? How far is your house from FPS?

17. In your village, how many ration shops are there?

18. Do you have ration cards? Yes-01, No-02:

If yes, what is the type of card (BPL-01, APL-02, AAY-03, ANP-03)

	Number of cards	Unit numbers		Number of cards	Unit number
BPL			AAY		
APL			ANP		

Total	
-------	--

19. How many ration cards are there in your family?

20. How much do you need to consume the main food items in your family and how much do you get from the fair price shop (monthly)?

Items	Quantity required	Obtained from ration shop	Quality
Rice in kgs			
Dal in kgs			
Sugar in kgs			
Kerosene oil in litres			
Others, please specify a) b)			

21. From when have you been taking food items from FPS/ration shop?

22. In your name, how many years have you been using ration card?

Type of the ration card: a) PHH-01, b) AAY-02, c) ANP-03, d) APL-04.

23. When did/have you get your ration card physically verified?

24. Whether you took foodgrains from fair price shops regularly or irregularly:
yes-1; no-2

If regularly mention: monthly-1, 3-monthly-2, others-3.

If not, why?

25. (i) Do you consume sugar regularly? Yes-1 & No-2

(ii) If yes, do you buy, your entire requirement from open market?

(Whole requirement-1, half requirement-2, others-3)

26. Do you buy kerosene from fair price shop regularly? Yes-1. No-2.

If yes, according to your card how much quantity of oil is purchased?

27. Whether the quantity of oil you get from fair price shop is sufficient:

Yes-1. No-2.

If no, from where do you get your want? _____

28. Are you satisfied with rice, dal, sugar and kerosene from fair price shops?

(Yes-1 No-2)

a) Dal

b) Rice

c) Sugar

d) Kerosene oil

If no, explain why?

29. Do you collect receipt/cash memo from fair price shop? (Yes-1, No-2)

If no, explain why?

30. Do you see price list of food items hung anywhere in and around the fair price shop? (Yes-1, No-2)

31. (i) At the time of buying, do you pay as per the price list hung there?

(Yes-1, No-2)

What are the prices?

Ration Items	Price list	Paid price list	Market price
Rice per kg			
Dal per kg			
Sugar per kg			
Kerosene oil per litres			
Others, please specify			
a)			
b)			

(ii) Are you aware of the prescribed allocation started by the government of India for the specified card you are holding? (Yes-1, No-2)

32. How much amount of your family budget, do you spend in buying foodgrains from fair price shop? Rs.

33. If Sugar supply is stopped from fair price shop how it will affect you, mention as indicated: (No effect-1, Negative effect-2, others-3)

34. If Kerosene oil supply in fair price shop is stopped, how it will affect you, mention as indicated:

(No significant effect-1, Negative effect-2, Others-3)

35. If your village or city is electrified, will you still need Kerosene?

(Yes-1, No-2)

If yes, why;

36. Are you satisfied with fair price shop owner? Yes-1. No-2.

(i) If you are not satisfied, what are the reasons? Mention as indicated:

(Shop timing-1, Poor Food quality-2, Faulty weighting procedure-3, Irregular entry of ration card-4, Poor quality materials-5, Adulteration in foodgrains-6, Too much time spent in the queue because of less number of FPS-7)

(ii) Did you ever complain in this regard? (Yes-1, No-2)

(iii) What is the result of your complaint?

37. (i) In your opinion, how can PDS be improved? Explain,

(ii) Whether the ration commodities are available in time at FPS?

(Yes-1, No-2)

38. Are you satisfied with the location of FPS? (Yes-1, No-2)

If no, what are the reasons of dissatisfactions with the location, give mark:

a) Distance of the location

b) Transportation problem

c) Distance plus transportation problem

39. Do the FPS dealers inform you about the arrival of foodgrains?

(Yes-1, No-2)

40. Is the quantity issued by FPS under PDS sufficient for your family?

Items	Sufficient	Insufficient
Rice		
Dal		
Sugar		
Kerosene		
Others		

41. What are the experiences you have had while purchasing foodgrains from FPS?

(Irregular supply-1, Pushing and quaralling-2, Heavy rush and long queue-3, Involves repeated visits-4, Rude behaviours of dealers-5, Any other-6)

42. Have you ever attended a seminar/awareness programme on PDS?

(Yes-1, No-2)

(i) If yes, give mark, it is

(Village level-1, Block level-2, District level-3), if any other, please specify;

(ii) Who organised the programme?

(FCS Department-1, Voluntary organisation-2, Any other-3)

43. With the support of PDS, do you think your daily food requirement is satisfied?

(a) Fully Satisfied

(b) Partially satisfied

(c) Not satisfied

44. If PDS is withdrawn, will it affect your daily nutritional requirement?

Yes-1. No-2.

45. What impact may be given to the health of your household members if PDS is withdrawn? (Health problem due to malnutrition-1, No change at all-2)

46. Does the support PDS in your consumption expenditure help in sending your children to school? Yes-1. No-2.

47. If PDS is withdrawn, will it affect you to afford to send your children to school? Yes-1. No-2.

48. Do you think better opportunity for availing facilities from PDS if the MLA who you cast your vote wins in the last election? (Yes-1, No-2)

(i) If yes, specify the nature of favour:

(ii) If no, specify the nature of adversity:

49. Investigator's comment/or any additional information:

Date:

Name of the Investigator:

Place:

Signature:

Appendix – II

Questionnaire II

*Questionnaire for FPS owner/Ration Dealers in the District
of of Nagaland*

**Title: ‘A Study on the Performance of Public Distribution System in Nagaland:
with Special Reference to three Districts viz., Wokha, Peren and Kohima’**

- Tick the appropriate items.
- Write NA in the relevant box if not applicable.

1. Name of the block:

2. Name of the FPS dealer:

3. Location:

a) Name of the city/village:

b) Urban/Rural:

c) Name of the revenue district:

d) State:

4. Population covered in your area (approximate numbers):

5. Major commodities sold: (Specify names)

Rationed Items	Non-Rationed Items
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

6. Which are the customers of the FPS?

i) APL ii) PHH iii) AAY v) ANP

v) Others, please specify:

7. Has there been any problem in the proper running of FPS in recent years?

(Yes-1, No-2)

If yes, what is the reason?

i) Demand: ii) Supply:

iii) Any other, please specify:

8. In your view, why do people purchase the ration items from the Fair Price Shop?
(Give ranks)

Reasons	Ranks
Easy availability of ration items	
Lower price of the ration items in the FPS	
Good quality of the ration items	
Any other (please specify) a) b)	

9. What are the other commodities which highly demanded by the consumer?

i) ii) ii)

10. Do you get sufficient supply of ration items from government regularly?

(Yes-1, No-2)

(i) If no, why? Specify,

11. From your fair price shop, how many families ration are supplied with ration items?

a) PHH b) APL c) ANP

d) AAY e) Any others

12. Did you have any record of finding a leakage or damage bag of commodities at the time of receiving? (Yes-1, No-2)

13. Are you fully satisfied with the present system of distribution? (Yes-1, No-2)
If no, specify:

14. Do you receive any customer complaint? (Yes-1, No-2)

If yes, what are the various complaints?

a) Poor quality b) Insufficient quota Underweighting

d) Heavy rush e) Any other (specify):

15. Allocated release of monthly quota supplied to your FPS?

Items	Quantity (in Qtls)
Rice	
Dal	
Sugar	
Kerosene	

16. Do you think FPS owners incur losses in running the shop?

(Yes-1, No-2)

17. What is the total number of households which buy ration items from your FPS?

a) PHH

b) APL

c) ANP

d) AAY

e) Any others

18. From your shop, do the BPL/AAY families buy sugar: (Yes-1, No-2)

If no, why? Specify:

19. From your shop, do the BPL/AAY families buy kerosene? (Yes-1, No-2)

If no, why? Specify:

20. Do you think that the services rendered by the FPS's are adequate?

(Yes-1, No-2)

21. How many days' shops remain open in a month?

i) Less than 10 days

ii) 15 days

iii) 25 days

iv) More than 25 days

22. What is the timing of opening and closing of shop?

i) Forenoon

ii) Evening

iii) Whole day

23. Upto what time of the week does the stock last?

i) 1st week

ii) 2nd week

iii) 3rd week

iv) 4th week

24. Is the stock of ration items delivered timely to FPS from PDC to enable FPS to follow regular routine to distribute food grains to the beneficiaries? (Yes-1, No-2)

25. In what type of place do you store your foodgrains?

i) Kutcha ii) Pucca iii) Scientific house

26. Transportation arrangement in lifting commodities are made by

i) FPS ii) FCI

iii) Food Department iv) Jointly

27. Various types of records maintained by FPS

Types	Yes	No
Price stock details		
Display of stock		
Lifting details (commodity wise)		
Distribution details (commodity wise)		
Ration card register		

28. Is there any case where your stocks have remained undistributed?

(Yes-1, No-2)

If yes, give reasons:

29. In your opinion, the Impact of PDS on food security at your area:

Particulars	Remark
Good	
Bad	
Satisfaction	
Not Satisfaction	
Total	

30. Do you put price list chart hung in or around your shop? (Yes-1, No-2)

If no, why?

31. Do you let the customers aware of allocation and price of ration items according to card? (Yes-1, No-2)

If no, why?

32. What are the main problems in PDS as per your view? Give ranks below:

Causes	Ranks
Leakages	
Poor Quality and measuring	
Noon availability of goods	
Non availability of non-controlled goods	
Non availability of ration cards	

33. At what level would you rate the problems in PDS for fair price shops?

Causes	No problem at all	Some problem	Significant problem
Availability of food grains			
Location of the FPS outlets			
Awareness among beneficiaries about the availability of the stocks			
Regular supplies of the stock to the FPS outlets			
Price information to the consumers			
Quality of food grains (complaints from consumers)			
Profit margin of the shop owners			
Cost of transportation & handling of food grains			
Storage & quality control facilities with FPS/ State Government godowns for storing the foodgrains for at least 3 months			
Delivery of food grains to consumer in bulk (loose grain)			
Availability of funds with consumers & effect of the same on the arrangement of funds for lifting the stocks from government godowns for FPS outlets			

34. When you sell ration items from your shops as per norms provided by the concerned department, do you get any undue interference from any quarter such as politicians or any other influential person: (Yes-1, No-2)

If yes, what kind of interference is it? Specify:

35. Do the cardholders buy regularly from your shop? (Yes-1, No-2)

If no, specify the reasons:

36. Do you experience any investigation done into your business of running FPS by any personal/agency? (Yes-1, No-2),

If yes, name the agency or group or the person. Specify who has authorised the investigator (either by government or by local bodies):

37. When you sell ration items, how much commission you earned per kg or per litres?

a) Rice b) dal c) Sugar d) Kerosene

38. Did you ever attend any awareness programme for FPS dealers?

(Yes-1, No-2)

If yes, (i) When (ii) Organised by

(Department-1, Voluntary organisation/ Local bodies-2)

39. As per your knowledge what are suggestions for improving the management structure at district level to handle the operation of the PDS? (if no, a suggestion, give rank-wise number)

Suggestions	Ranks
Adequate and efficient staff for the effective working of the PDS	
Sufficient arrangements for the transportation and warehousing to ensure adequate and timely availability of ration items	
Increase in the Commission on sales of the ration dealers	
More funds to cover more areas under PDS	
Fair Price Shop licences to the unemployed educated youths	
Some proposals to earmark few PDS outlets exclusively to women in the process of PDS	
Actions and legal measures to prevent corruption and malpractices prevailing in the PDS	
Any other (Please Specify)	
a)	
b)	

40. Give ranks, if you receive any complaints from the beneficiaries about the management structure of PDS.

Reasons	Ranks
Poor quality of ration items	
Under-weighting	
Insufficient quotas	
Heavy rush	
Misbehaviour with the ladies	
Any other (Please specify) a) b)	

41. What do you think PDS can be a success in the present socio-economic scenario of Nagaland? (Yes-1, No-2)

42. Investigator comment/additional information:

Date:

Name of the investigator:

Place:

Signature:

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