

**ROLE OF PUBLIC DISTRIBUTION SYSTEM IN
ENSURING FOOD SECURITY IN RURAL AREA OF
RAIPUR DISTRICT OF CHHATTISGARH**

M.Sc. (Ag.) THESIS

by

ARUNDHATI RAJ

**DEPARTMENT OF AGRICULTURAL ECONOMICS
COLLEGE OF AGRICULTURE
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**ROLE OF PUBLIC DISTRIBUTION SYSTEM IN
ENSURING FOOD SECURITY IN RURAL AREA OF
RAIPUR DISTRICT OF CHHATTISGARH**

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ARUNDHATI RAJ

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CERTIFICATE - I

This is to certify that the thesis entitled “**ROLE OF PUBLIC DISTRIBUTION SYSTEM IN ENSURING FOOD SECURITY IN RURAL AREA OF RAIPUR DISTRICT OF CHHATTISGARH**” submitted in partial fulfillment of the requirements for the degree of “**MASTER OF SCIENCE IN AGRICULTURE**” the Indira Gandhi Krishi Vishwavidyalaya, Raipur, is a record of the bonafide research work carried out by **ARUNDHATI RAJ** under my guidance and supervision. The subject of the thesis has been approved by student’s Advisory Committee and the Director of Instructions.

No part of the thesis has been submitted for any other degree or diploma (certificate awarded etc.) or has been published/published part has been fully acknowledged. All the assistance and help received during the course of the investigations have been duly acknowledged by her.

Date: 22/7/2013

Dr. A. K. Gauraha

Chairman Advisory Committee

THESIS APPROVED BY STUDENT’S ADVISORY COMMITTEE

Chairman Dr. A. K. Gauraha

Member Dr. K.N.S. Banafar

Member Dr. K.K. Agarwal

.....

Member Dr. (Smt.) S. Shukla


CERTIFICATE - II

This is to certify that the thesis entitled **“ROLE OF PUBLIC DISTRIBUTION SYSTEM IN ENSURING FOOD SECURITY IN RURAL AREA OF RAIPUR DISTRICT OF CHHATTISGARH”** submitted by **ARUNDHATI RAJ** to the Indira Gandhi Krishi Vishwavidyalaya, Raipur in partial fulfillment of the requirements for the degree of **M.Sc. (Ag.)** in the **DEPARTMENT OF AGRICULTURAL ECONOMICS** has been approved by the external examiner and student's Advisory Committee after oral examination.

Date: 3.9.2013

3.9.13
EXTERNAL EXAMINER
(Dr. M. A. A. Dasgupta)
Professor, Dept. Economics
C. A. Bhubaneswar

MAJOR ADVISOR


.....

HEAD OF THE DEPARTMENT / SECTION

.....

DEAN FACULTY

.....

DIRECTOR OF INSTRUCTIONS

.....

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*Department of Agricultural Economics,
College of Agriculture, Raipur (C.G.)*


Arundhati Raj

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Introduction

CHAPTER – I

INTRODUCTION

1.1 Problem Justification:

The Public Distribution System (PDS) is one of the important elements of the Government's 'Food Security' system. PDS involves management of supplies of essential commodities and maintenance of their uninterrupted flow at affordable prices to the identified beneficiaries. It also works as an instrument for moderating the open market prices of food. The system help to maintain the real value of purchasing power in the poor, its impact can be effective as any conventional poverty alleviation measure. The PDS is a rationing mechanism that entitles households to specified quantities of selected commodities at subsidized prices. The PDS was universal and all household, rural and urban, with a registered residential address were entitled to ration. Eligible households were given a ration card that entitled them to buy fixed rations of selected commodities. The commodities are made available through a network of fair price shops.

1.1.1 What is food security?

Food security means availability, accessibility and affordability of food to all people at all times. The poor households are more vulnerable to food insecurity whenever there is a problem of production or distribution of food crops. Food security depends on the Public Distribution System (PDS) and government vigilance and action at times, when this security is threatened.

Food is something that gives you the energy to function and keeps you alive. But food security means something more than getting two square meals. In this context it is useful to start by looking at the definition of food security given by the Rome Declaration on World Food Security at the World Food Summit, held in 1996. As per the Declaration "*food security exists 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.”

Food security has following dimensions:

- (a) *Availability of food* means food production within the country, food imports and the previous year's stock stored in government granaries.
- (b) *Accessibility* means food is within reach of every person.
- (c) *Affordability* implies that an individual has enough money to buy sufficient, safe and nutritious food to meet one's dietary needs. Thus, food security is ensured in a country only if (1) enough food is available for all the persons (2) all persons have the capacity to buy food of acceptable quality and (3) there is no barrier on access to food.

1.1.2 Who are food-insecure?

Although a large section of people suffer from food and nutrition insecurity in India, the worst affected groups are landless people with little or no land to depend upon, traditional artisans, providers of traditional services, petty self-employed workers and destitutes including beggars. In the urban areas, the food insecure families are those whose working members are generally employed in ill-paid occupations and casual labour market. These workers are largely engaged in seasonal activities and are paid very low wages that just ensure bare survival. (Ray, 2011, P.n, 239)

1.1.3 Food Security Fund:

The State Government shall create a Food Security Fund. The primary purpose of this fund is to strengthen food security for vulnerable populations and fund may be used for the following:

- To ensure food security in areas where malnutrition levels are very high and possibilities of starvation exist.
- To try out innovative delivery mechanisms in remote areas where the normal delivery system is unable to meet the needs for timely supply of food grains and other essential commodities covered under the PDS.
- To try out innovations to reach un-reached populations of very poor, marginalized and vulnerable people both in urban and rural areas like urban homeless, disabled, tribal people facing displacement/ or who are already displaced.
- To strengthen the monitoring system for the Public Distribution System across the state.
- To take all steps that may be necessary to ensure compliance with the orders of the Honorable Supreme Court this may be issued from time to time with regard to the Public Distribution System.
- To meet our any other exigencies as may be required from time to time to strengthen the food security requirements of the state.

The Food Security Fund will be managed by a body chaired by the Secretary, Department of Food, Civil supplies and Consumer Protection, Government of Chhattisgarh. (By Order and in the name of the Governor of Chhattisgarh)

In Chhattisgarh State the PDS focused on extending coverage, improving delivery and increasing transparency leading to its remarkable revival. Under PDS reform first step taken by the Chhattisgarh government was passing the Chhattisgarh PDS (control) order, 2004 which shifted the management of ration shop from private dealers to community based organizations. The second step was addressing the problem of diversion of food grains while they were being transported from Government godown to PDS outlets in private transport. Third, a significant reform

initiated by the state government was the launch of the Mukhyamantri Khadyan Sahayata Yojana (MKSY) in April, 2007. Under the MKSY, the government provides ration cards to all households identified as living below the poverty line. Keeping in view the above fact present study was conducted in Raipur district of Chhattisgarh to know the impact of reforms introduced by Chhattisgarh government with the following specific objectives:

1.2 Objectives:

1. To study the Structural and Functional Reforms in Public Distribution System in Chhattisgarh State.
2. To find out the role of Public Distribution System in Food basket of selected households.
3. To find out the Food consumption pattern of selected households.
4. To examine the constraints in Public Distribution System and suggest suitable measure to overcome them.

1.3 Set up:

Apart from the first introductory chapter, the study is organized into four chapters. Chapter- II presents a brief resume of the important work done by previous researchers on the theme for the fulfillment of the different objectives of the study. Selection and description of the study area, the sampled farmers, and material and method details have been presented in chapter- III. Finally the results and discussion is presented in chapter- IV, chapter- V deals with the Summary, conclusions and suggestions for the future research work.

Review of Literature

CHAPTER-II

REVIEW OF LITERATURE

The review of literature on work done in the past is essential to understand the problem in depth and provides necessary guidelines as well as feedback for the fulfillment of objectives of the study so, this chapter deals with the review of studies or research work relevant to the study. A brief account of the works reported by the past researchers have been discussed under the following heads:

2.1Reforms in Public Distribution System.

2.2 Constraints in Public Distribution System.

2.3 Food consumption pattern

2.1 Reforms in Public Distribution System.

Zhou at. el. (2006)found that the Public Distribution Systems of food grains in India and China is expected to reveal lessons and experiences that are valuable to policymakers. This is particularly important for developing countries in their endeavor to ensure food security. This paper undertakes such an exercise. The main features and developments of the two public distribution systems are first highlighted. This is followed by a comparative analysis of their similarities and differences. The role of public foodgrain distribution systems in ensuring food security is then evaluated. Finally, policy implications are drawn.

Suryanarayana (2008) reviewed several studies of the current public policy focus on rising food prices and their implications for food security; this paper examines two major issues raised: (i) Universalization of the public distribution system; and (ii) its implications for procurement and buffer-stocks. This paper is based on the recent evidence on the profile of public distribution system; its targeted version in particular, household's reliance on the public distribution system and the

open market, and its policy implications. The paper concludes that the need of the hour is not universalization of the PDS but a revision of the food security norm, a BPL-friendly PDS and its efficient functioning.

Mishra (2010) resulted that the efficient monitoring mechanism for examining effectiveness of important food based interventions coupled with revamped public distribution system should be in vogue. There is a need to create a universal public distribution system (PDS) with uniform prices affordable to the poor and the allocation should be based on the number of consumption unit of household. Global trends simply don't support the idea that more food translate into less hunger. Thus improving food distribution becomes critical for food security. There is need to improve the efficiency of various schemes initiated by the government and make available to the beneficiaries. Needless to mention that good governance and transparency will make difference in their success.

Ray (2011) found that the most important medium through which government ensures food security at micro level is the Public Distribution System (PDS). But, in India, the working of public distribution system and other government policies have not been successful in achieving food security at the desired level. In this backdrop, this paper tries to analyses the food security condition of the country during the last few decades and the working of PDS with some macro measures. More specifically, this paper tries to identify food insecure population of the country, analyses the availability, storage, procurement of food grain , assess the effectiveness of PDS, identify the discrepancies in the system, find ways to remove the anomalies and to make the delivery mechanism more effective.

Sreenivas (2011) resulted that the story of ICT adoption in PDS is not yet complete. It has gained more attention and the Union Budget for 2012-13 ear marked

Rs.40.00 crore for the purpose⁷. The Department of Food and PDS, Govt. of India is unveiling a national level plan for supply chain computerization of PDS. Many state governments are trying to take the issue seriously with using biometric devices at FPS level("Biometric system at fair price shops," 2012).The money spent on the Chhattisgarh project is worth only 5 crores, whereas another state plans to spend more than 50 crores on its own("Uttarakhand earmarks Rs. 51 cr for PDS,")

Khera (2012) proposed version of the National Food Security Bill does seem to be a case of one-step-forward, one-step-back with respect to PDS-related provisions: while many state governments are moving towards more a inclusive PDS, the Bill restricts coverage (at the national level), based on the Tendulkar Committee's poverty estimates. The Bill also creates a three-way division of the population (into "excluded", "general" and "priority" households) without a proper plan as to how households for each category are to be identified. There are ways to improve the current framework - e.g., by removing the distinction between general and priority households and giving them the same entitlements, or by allowing states to do so.

Sahoo et.al (2012) found that the PDS was a general entitlement scheme for all consumers without any specific target till 1992.In June 1997; the Government of India launched the Targeted Public Distribution System (TPDS) with focus on the poor. Under the TPDS, States are formulating and implementing full proof arrangements for identification of the poor for delivery of food grains and for its distribution in a transparent and accountable manner. As per Planning Commission estimate (2004-05), the BPL household is mostly concentrated in the States of Orissa (46.8% of persons), Bihar (42.1%), Jharkhand (46.3%), Madhya Pradesh (36.9%) and Uttarakhand (40.8%) .The total number of persons below the poverty line in the country was 301.72 million (27.5%) as per Planning Commission estimates in 2004-

05. The scale of issue to BPL families was increased from 10 kg. to 20 kg. per family per month with effect from 1.4.2000. The allocation of food grains for the BPL families was further increased from 20 kg to 25 kg. per family per month with effect from July 2001.

2.2 Constraints in Public Distribution System

Swaminathan (2006) found that the Targeted PDS has not been effective in ensuring food security to the needy. According to a Performance Evaluation by the Planning commission (PEO 2005), 'the transition from universal PDS to TPDS has neither benefited the poor, nor helped reduce budgetary food subsidies. There are many problems with the Targeted PDS; the most relevant among them are the following. First, targeting has led to the large-scale exclusion of genuinely needy persons from the PDS. Secondly, targeting has affected the functioning and economic viability of the PDS network adversely and led to a collapse of the delivery system. Thirdly, TPDS has failed to achieve the objective of price stabilization through transfer of cereals from surplus to deficit regions of the country. Lastly, there are reports of large-scale leakages from the PDS, that is, of grain being diverted and not reaching the final consumer.

Chowdhury (2011) found that the Card distribution is poor in Chhattisgarh so there are many poor people who should have a card, but who have never received one. In our study many people complain about the fact that they have never received a card, or that the food grains never arrived or that the dealer made false entries in their cards. On the other hand, we also found villages in which many people were satisfied. The main problem is that PDS commodities arrive late and irregular, if at all. The villagers are poorly informed, and certainly not in advance. This means that the poorest among them may not have sufficient cash ready available when the food

grains arrive in the shop. The PDS dealer will only transport so much as he expects to sell within one or two days. In short there is a physical access problem in the sense that the commodities may come with irregular intervals or not at all. There is also a problem of economic access, in the sense that the poorest people do not have cash ready at the moment when the stock arrives. Yet on the positive side, all villagers we interviewed knew about the PDS and knew what a Blue, Red and yellow (a card meant for BPL, AAY, AY) which is very different from some 10-20 years back.

Goli (2011) assessed some of the key components of PDS scheme and evaluates that how far the PDS is fulfilling its stated objectives. The assessment of PDS card distribution, off take and PDS contributions to total household consumption of cereals by states and socioeconomic groups provides number of critical insights, though, totally not new but evident from a comprehensive empirical examination and facts. Moreover, the assessment of reasons for not having ration card and not lifting ration are also important for PDS policy.

Kattumuri (2011) found that the Targeted Public Distribution System (TPDS) and the mid-day meal scheme (approximately 120 million children are signed up) are two large government food distribution schemes in India. Problems of misappropriation of resources and mismanagement of these programmed continue and the government is unable to achieve its goals. As a result of the inefficiencies of operations and entrepreneurial abilities of implementer to siphon funds, majority of beneficiaries of the resources invested by the government are not the target population.

Khera (2011) analysed the "leakages" of wheat and rice through the PDS in India. Discuss several methodological issues which make the precise estimation of such leakages difficult. In particular, I discuss the possibility of measurement errors in

the NSS data on PDS purchase by households, the unreliability of population projections made by the Census of India and the effect of decentralized procurement by state food and civil supplies corporations. The discussion on methodological issues, including the fact that all leakages (storage and transport losses included) have to be attributed to corrupt practices, indicates that estimates of diversion estimated in this manner, must be treated as the upper bound on illegal diversion of PDS grain.

Suryanarayana (2011) assesses the National Sample Survey (NSS) finding on substantial errors of inclusion of the non-poor in the targeted Public Distribution System (PDS) and its extenuation that all the targeted beneficiaries are genuinely poor, we examine how valid is the explanation and hence, the recommendation for a universal PDS. Contrary to the general perception, the targeted PDS is universal and the need of the hour is to address the error of excluding the genuinely poor rather than provide a universal PDS/cash transfer stem (PDS) and its extenuation that all the targeted beneficiaries are genuinely poor, we examine how valid is the explanation and hence, the recommendation for a universal PDS. Contrary to the general perception, the targeted PDS is universal and the need of the hour is to address the error of excluding the genuinely poor rather than provide a universal PDS/cash transfer.

2.3 Food consumption pattern

Marothia and Agarwal (1988) analysed food consumption pattern of rural population in Arang and Dharsiwa block of Raipur district of M.P. author resulted that majority of rural population living above the required norms of calories. Lathyrus consumption was insignificant of total food intake and not near to lathyrismrang .per capita food expenditure and calories intake increase as income increase. Author suggested that the purchasing capacity of rural population should be increased to buy

the needed quantity and quality foods. This is possible to increase their income by new farm technology and supplementary source of income.

Mierzejewski (1989) worked out the share of food products in households pattern for different socio-professional groups that food took the first place as regards household expenditure, clothing and food wear, accommodation and furniture and health needs ranked second, third and fourth respectively. Author found that younger generation showed more of an interest in the nutritive value of food products.

Kumar et.al. (1994) found that majority of respondents were secured with regard to consumption of cereals, milk, sugar, and jaggery. However, insecurity was noticed in consumption of pulses, vegetables, fruits and fats. Authors revealed that protein, calcium and iron intake was in excess of the recommended allowances and deficient with respect to calories and carbohydrate in Haryana state.

Rao and Reddy (1995) studied consumption pattern in three regions in Andhra Pradesh, India. They have used the unpublished data to 43rd round of NSS (state samples). They resulted that cereal, pulses, vegetables, fuel and light under necessities and egg, sugar, milk and its products, clothing and non-food items are luxuries for both SC/ST rural population. Expenditure elasticity for cereals, edible oil was estimated lower than milk products, pulses, meat, fish, egg and sugar.

Kumar (1996) found that the per capita consumption of cereals has declined despite rising income and declining relative cereals prices in India. It was largely attributed to a shift in taste and preference resulting from the increasing availability of a greater variety of food items other than food grains, non-food goods and services. The food basket was more diversified in urban areas with significantly higher per capita expenditures on milk and milk products, fruits, vegetables and other high value food and lower per capita expenditure on cereals compared to rural areas.

Upender and Babu (1999) examined food expenditure and per capita consumption expenditure in rural tribal households in Andhra Pradesh. Authors resulted that expenditure on rice , groundnut oil and meat was highest among foods and the most important item of non-food expenditure was clothing for rural tribal households.

Ishida et.al. (2000) asses the changes in food consumption expenditure in Malasia, in particular after the 1970s when food consumption diversified under rapid economic growth and urbanization. Authors indicated that while the expenditure elasticity of food away from home, meat, fruits and vegetables, milk and dairy products were relatively higher, those of rice and sugar were low. Their results suggested that the food expenditure structure had diversified, adding meat, fruits and vegetables, milk and dairy products to the most dominant food item, rice. It was likely that the share of food away from home will increase with income enhancement and urbanization mainly due to economic growth.

Gauraha (2011) examined the food consumption pattern in rural areas of Chhattisgarh state. The study was confined to Arang and Abhanpur blocks of Raipur district of Chhattisgarh. A total of 120 farm households and 80 non-farm households were randomly selected for the present study. The study was conducted in the year 2011-12. Study revealed that the average family size was found to be 5 and 6 in farm and non-farm households respectively. Farm and non-farm sectors were observed to be the main source of income and employment. Farm households were mainly dependent on farm income however non-farm households on non-farm sector. It was observed that the public distribution system played vital role in the food security of non-farm households as well as farm households (marginal farmers) to meet out their portion of cereal requirement at a very low price. Food basket was mainly cereals

based, deficient to Recommended Dietary Allowance (RDA) in all food items except cereal. Large proportion of per capita expenditure was spent by farm households on cereals, alcohol and pulses, milk and milk products. However, in case of non-farm households pulses, alcohol, cereals, vegetables and milk and milk products were the main expenditures items. Food expenditure as proportion to income were 67.64 and 59.23 per-cent and in case of non-food items it was 31.50 and 33.30 per-cent in farm and non-farm households respectively.

Rehman et. al.(2012) resulted that the India's food grain production has risen over 250 million tons in 2011-2012 from a mere 120 million tons in 1980. Rice and wheat accounts for over 75% of all food grain output, these staples are vital for household food security and constitute a major source of calories especially for over 300 million poor in the country.

Materials and Methods

CHAPTER-III

MATERIALS AND METHODS

This chapter deals with the materials and research methodology adopted for the present study with respect to the selection of study area, selection of respondents, collection of data and analytical techniques. The details of the method and technique adopted for the present study is described as below:

3.1 Sampling design:

The selection of district, block and villages are presented under the following sub- sections:

3.1.1 Selection of study area:

Chhattisgarh, that became a separate state in 2000, has 27 districts with an area of 135, 190 sq.km.(10 th largest state) It is the poorest state in India with a Human Development Index of 0.358 in 2011("Chhattisgarh,"). PDS has become the instrument to ensure food security to millions of BPL families with 37 lakh card holding families, PDS in 70 percent of Chhattisgarh state population. Out of 27 districts of Chhattisgarh, Raipur district was selected purposively for the present study.

3.1.2 Selection of block:

Raipur district having 4 blocks namely – Arang, Abhanpur, Dharsiwa and Tilda. Out of 4 blocks of Raipur district Dharsiwa block was selected randomly for the present study. Total Number of BPL cardholderfamily in Raipur district was 66927. In the financial year 2012-13, total 34.62 lakh BPL and 11.39 lakh APL ration cards are in use under Public Distribution System.(Table 3.1)

Table –3.1 BPL cardholding Family in Raipur district

S.No.	Raipur District	No. of BPL Cardholder	Percent
1	Dharsiwa block	8637	12.90
2	Arang block	25338	37.86
3	Tilda block	18644	27.86
4	Abhanpur block	14308	21.38
	Total	66927	100.00

Source : BPL (2002-03 census)

Source: Districts of Chhattisgarh (<http://www.raipur.gov.in>)

3.1.3 Selection of villages:

Dharsiwa block have 132 number of villages, From the Dharsiwa block, Six villages were taken randomly for fulfillment of the objectives of the study.

3.1.4 Selection of respondents and categorization of farmers:

Total, 60 respondents were selected randomly from six villages (Appendix-II). Ten respondents were selected randomly from each of the selected villages. The respondent was farmer having Below Poverty Line (BPL) card. The respondents were categorized on the basis of different income groups for the study. Total 30 households had under taken in income group between Rs. 20,000- 40,000, 21 households in the income group between Rs. 40,000-60,000 and 9 in the income group between Rs. 60,000-80,000 respectively.

3.1.5 Method of enquiry and data collection:

The method of enquiry was conducted by survey method. The study required primary as well as secondary data. Primary data will be collected through personal interview method from selected households by pretested schedule (Appendix-I). Secondary data will be collected from different Government publication, Bulletin, journal and from various government sources including the Directorate of Agriculture, Block development offices etc.

3.1.5 Period of enquiry:

The detail enquiry was done for the agricultural year 2011- 2013.

3.1.6 Analytical tools:

The primary data was compiled and tabulated in order to achieve the desired objectives and analyzed by applying suitable statistical methods/tools for proper presentation of results.

3.1.7 Basic Concepts of the Terminologies used:

Family Income: The family income was taken as the sum of the income earned by the members of the family during of one year preceding the study. Annual income was estimated in terms of rupees. It included income from different sources i.e. farm, off-farm and non- farm sectors. While reporting the income, gross income from all activities was taken into account as family income.

Farm income: Annual farm income included total value of crop products (Main and by product) cultivated by farm households in a year.

Off- farm income: Income generated by family members of household as agriculture labour to other farmer's field have been considered as off farm income.

Non- farm income: Income generated by family members of household from non-agriculture sector like service, business, labour, livestock enterprises, carpenter and painter etc.

Employment: Working hours or days engaged in different economic activities was converted into man-days to estimate the employment in the year. One man-days was equivalent to 8 hours of working. Total employment days included employment from farm, off- farm and non-farm sectors.

Farm employment: Total working hours or days of households engaged in different activities on own farm was converted into man-days to estimate farm employment in the year.

Off farm employment: Total working hours or days of household engaged in different activities to other farmer field was converted into man-days to estimate off farm employment of household in the year.

Non-farm employment: Total working hours or days engaged in non-agriculture economic activities was converted into man-days to estimate the non –farm employment in the year.

Below Poverty line households: The household of non-farm category, earning annual income Rs. 15,000/- from all sources come under below poverty line households.

Above poverty line households: The household of all farm category and non - farm, only those earning annual income more than Rs. 15,000/- from all sources, comes under above poverty line households.

Per family income / expenditure: Per family income /expenditure was calculated total income /expenditure divided by number of families under particular category.

Per person income / expenditure: Per person income income/ expenditure was calculated average family income/ expenditure divided by average family size under particular category.

3. 2 PROFILE OF THE STUDY AREA

A research programme requires knowledge of the region in which the investigation is to be carried out understanding of the general characteristics of the study area is essential for carried out the study. This study was confined to the Dharsiwa block of Raipur district of Chhattisgarh state. The selected villages represent fairly well the agro-climatic and socio- economic situation of the Chhattisgarh state. To understand the general characteristics of the study area, this chapter divided into ten sections, namely, location and area, administrative units, soil type, Population Distribution, land utilization pattern, cropping pattern, Irrigation resources, distribution of land holdings, Transportation & communication and



Map – 1: Map of Chhattisgarh state

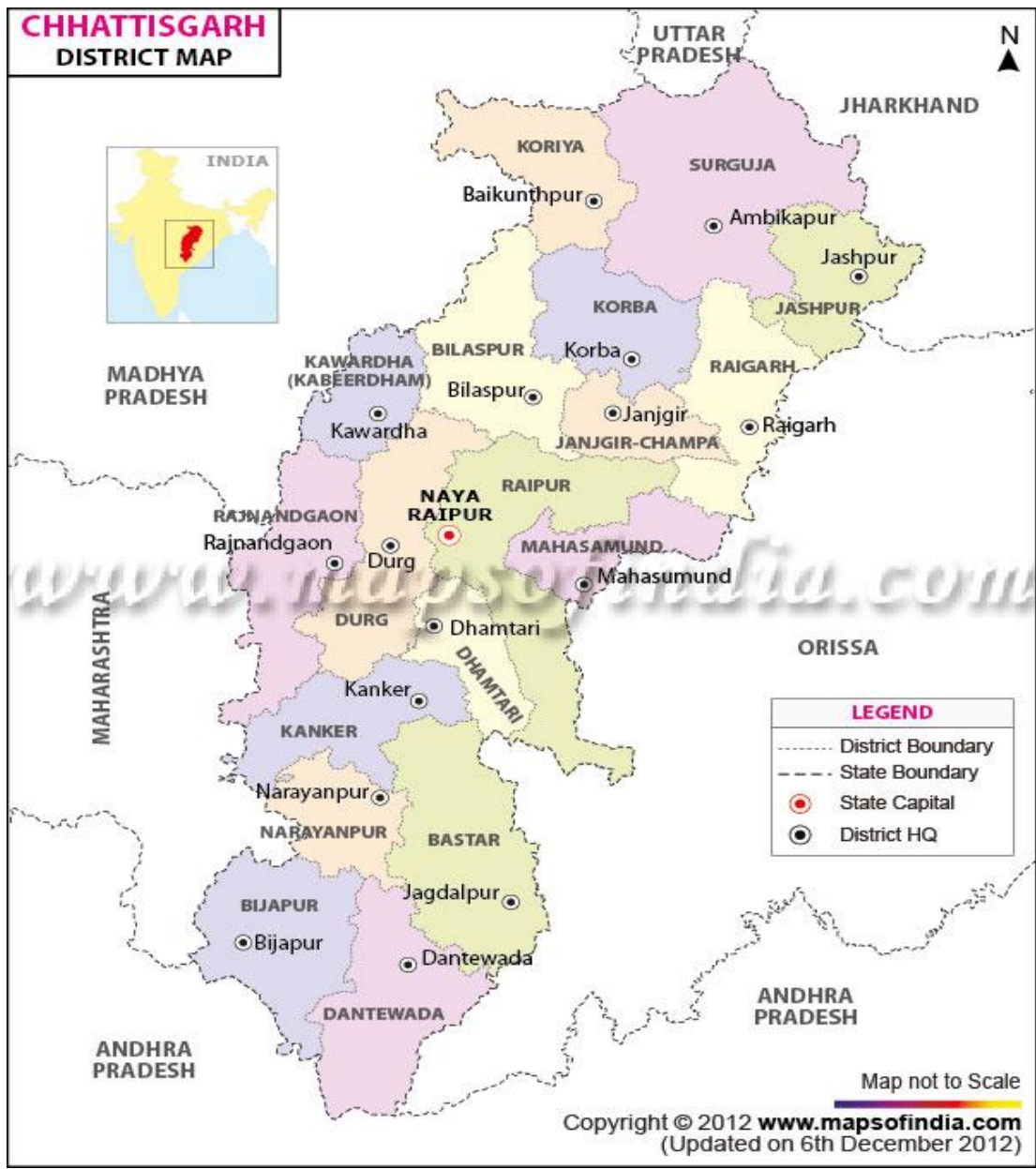
Infrastructural facilities in the district.

3.2.1 Location and area

The study was conducted in Raipur district of Chhattisgarh state during the year 2011-12. Raipur is situated on the fertile plains of Chhattisgarh region (Map- I Map- II and Map- III). The district is surrounded by Bilaspur in north, Bastar and part of Orissa state in the south, Raigarh and part of Orissa state in the east and Durg in the West. The district occupies the south eastern part of the upper Mahanadi valley and the bordering hills in the south and the east. Thus, the district is divided into two major physical divisions, namely the Chhattisgarh plain and the hilly areas. Raipur district is situated in the fertile plains of Chhattisgarh region. This district is situated between 22°33' and 21°14' North latitude and 82°6' and 81°38' East longitude. Mahanadi is the principal river of this district.

Chhattisgarh is rich in forest resources about 44 per cent of the total area of the state is under forest cover. Detailed information about the geographical Area of Raipur is given in (Table- 3.2). District Chhattisgarh is famous in the entire country for its Sal forests. In addition, teak, bamboo, saja, sarai, haldi etc. are also found in large numbers. Tendu leaf, which is used in beedi-making, is the principal forest of the state. Chhattisgarh produces a large number of minor forest products as well.

The climate of Chhattisgarh is mainly tropical, humid and sub-humid. The climate is hot because of its positioning on the tropic of cancer. May is the hottest month and the December- January is the coldest ones. The state is completely dependent on monsoon for rains. The average annual rainfall of Raipur district is 1370 mm. Raipur district has 4 blocks. The study was confined to the Dharsiwa block of Raipur district of Chhattisgarh (Map-III). As Dharsiwa block is very close to Raipur city, it fairly represents the agro-climatic socio-economic situations of the Chhattisgarh state.



Map – 2: Map of the Raipur district (C.G.)



Map – 3: Map of Dharsiwa block in Raipur District (Study area)

3.2.2 Administrative units:

Raipur district is divided into 4 block , namely Dharsiwa, Arang, Abhanpur, and Tilda. The district consists 545villages. Raipur district are administratively divided into 4 tehsils and 10 Revenue Inspector Circle.

Table 3.2.2 Administrative units of Raipur :

Name of Tehsils	Raipur, Arang, Abhanpur ,Tilda
Name of Blocks	Dharsiwa ,Arang , Abhanpur ,Tilda
Town	01 Nagar Nigm+03 Nagar Palika Parishad+05 Nagar Panchayt
Number of Vllages	545
Populated	541
Revenue Villages	545
Revenue Inspector Circle	10
Patwari Circle	215
Police Stations	29
Police Posts	5
Muncicipal Corporation	1
Muncicipalties	3
Other Town	5
Name of janpad Panchayats	Dharsiwa, Arang ,Abhanpur, Tilda
Number of Gram Panchyat	390
Name of Krishi Upaj Mandi	Raipur, Arang, Abhanpur, Newera, Navapara
Population 2001	1636301
Urban Population	823276
Rural Population	813025
Rural (Male)	410943
Rural (Female)	402082
Head Post Offices	1
Telegrph Offices	1
Literates as per 2001	997597
Total Male Literates as per 2001	590582
Total Female Literates as per 2001	407015
Total Rural Literates as per 2001	436381
Total Urban Literates as per 2001	561216

Source: Districts of Chhattisgarh (<http://www.raipur.gov.in>)

3.2.3 Soil type

Basically four general classes of soil are found in Chhattisgarh namely, Entisol (Bhata), Inseptisol (Matasi), Alfisol (Dorsa) and Vertisol (Kanhhar). Percentage distribution of soil in Raipur district is shown in (Table 3.3).

Table: 3.3 Distribution of Soils

S.No.	Particulars	Raipur	Dharsiwa
1.	Kanhhar (%)	30.94	29.36
2.	Bhata (%)	8.84	8.07
3.	Matasi (%)	33.94	34.79
4.	Dorsa (%)	22.48	24.31
5.	Kachhar(%)	3.80	3.47

Source: Districts of Chhattisgarh (<http://www.raipur.gov.in>)

3.2.4 Population Distribution

The total population of the Raipur district (Table 3.4) is 813025 and Dharsiwa block is 260066 (2001 census) of which 50 percent is rural and 50 percent is urban in Raipur and 75 percent is rural and 25 percent is urban in Dharsiwa block. The density of population for Raipur district and Dharsiwa block is 287 and 399 per sq. km respectively. The population for Raipur is schedule caste and schedule tribe is constitute 15.83 and 4.19 percent respectively of the total population. . The population for Dharsiwa block is schedule caste and schedule tribe is constitute 13.44 and 4.21 percent respectively of the total population.

Table: 3.4 Population of Dharsiwa block and Raipur District

S.No.	Particulars	Raipur	Dharsiwa
1	Population	1636301 (100.00)	1014213 (100.00)
2	Urban Male	428328 (26.17)	393399 (38.78)
3	Urban Female	394948 (24.13)	360748 (35.56)
4	Sex Ratio(Female/1000 male)	922	917
5	Rural Male	410943 (25.11)	133312 (13.14)
6	Rural Female	402082 (24.57)	126754 (12.49)
7	Sex Ratio(Female/1000 male)	978	951
11	Population density per sq. km.	287	399
12	Schedule Caste Population	259008 (15.83)	136297 (13.44)
13	Schedule Tribes Population	68557 (4.19)	42691 (4.21)
14	Literates (2001)	997597 (73.30)	652996 (76.56)

Source: Districts of Chhattisgarh (<http://www.raipur.gov.in>)

Note: Figure in parenthesis shows percentages to total population

3.2.5 Land utilization pattern

The land utilization pattern of the study area during the year 2012-13 is presented in (Table 3.5). Out of the total geographical area of 290169 hectares and 66202 hectares in Raipur district and Dharsiwa block respectively. The net sown area was 59793 hectares and 6949 hectares accounting for 20.61 percent and 10.49 percent of the total area of the Raipur district and Dharsiwablock whereas, forest land accounting only 0.53 per cent of the total geographical area.

Table: 3.5 Land Utilization Pattern in Raipur district and Dharsiwa Block

S.No.	Particulars	Raipur Area (ha.)	Dharsiwa Area (ha.)
1	Total geographical area according to village papers	290169 (100.00)	66202 (100.00)
2	Area under Forest	1551 (0.53)	0 (0.00)
3	Land under non agriculture use	40318 (13.89)	14248 (21.52)
4	Barren and uncultivable land	37199 (12.82)	8353 (12.62)
5	Agricultural land	20807 (7.17)	7643 (11.54)
6	fallow land	21057 (7.26)	8056 (12.16)
7	Gross sown area	169237 (58.32)	27902 (42.15)
8	Double Cropped area	229030 (78.93)	34851 (52.64)
9	Net sown area	59793 (20.61)	6949 (10.49)

Source: Jilasankhikhiyepustika 2011, Raipur (C.G.)

Note: Figure in parenthesis shows percentages to total area

3.2.6 Cropping pattern of Raipur district:

Being a mono cropped region, paddy is the main cereal crop in the kharif season in the study area. Though most of the area is covered by this crop, several other crops are now being grown in kharif as well as rabi season in this region. The existing crop area distribution in the district is shown in the (Table 3.6)

Table 3.6 Cropping pattern of Raipur District and Dharsiwa Block

S.No.	Particulars	Area (ha.)	
		Raipur	Dharsiwa
1	Rice	187379.00 (82.13)	27680.00 (79.90)
2	Wheat	3228.00 (1.41)	659.00 (1.90)
3	Maize	59.00 (0.03)	49.00 (0.14)
4	Other cereals	36.00 (0.02)	0.00 (0.00)
5	Gram	4621.00 (2.03)	927.00 (2.68)
6	Tur	611.00 (0.27)	85.00 (0.25)
7	Other legumes	25434.00 (11.15)	3674.00 (10.61)
8	Groundnut	23.00 (0.01)	0.00 (0.00)
9	Linseed	464.00 (0.20)	55.00 (0.16)
10	Soybean	248.00 (0.11)	49.00 (0.14)
11	Rye	650.00 (0.28)	62.00 (0.18)
12	Sesamum	347.00 (0.15)	18.00 (0.05)
13	Other oilseed	0.00 (0.00)	0.00 (0.00)
14	Sugarcane	109.00 (0.05)	20.00 (0.06)
15	Fruits and vegetables	4351.00 (1.91)	1230.00 (3.55)
16	Total spices	583.00 (0.26)	136.00 (0.39)
	Total	228243(100.00)	34744 (100.00)

Source: Jilasankhiyekipustika 2011, Raipur (C.G.)

Note: Figure in parenthesis shows percentages to total sown area

3.2.7 Irrigation resources:

In the Raipur district the net irrigated area covers 69.32 percent of the total cropped area whereas in Arang block 65.21 percent of the area is irrigated. The major source of irrigation is canal (Table 3.7).

Table: 3.7 Irrigation sources (in ha.)

S.No.	Source	Raipur District	Dharsiwa Block
1	Canal	133054 (83.21)	12974 (57.09)
2	Ponds	3780 (2.36)	834 (3.66)
3	Wells	1164 (0.72)	250 (1.10)
4	Tube-Wells	17171 (10.74)	6211 (27.33)
5	Others	4717 (2.95)	2456 (10.80)
	Total irrigated area	159886 (100.00)	22725 (100.00)

Source: Jilasankhikhiyepustika 2011, Raipur (C.G.)

Note: Figure in parenthesis shows percentages to total irrigated area

3.2.8 Distribution of land holdings:

The distribution of land holdings according to size and the total cultivated area falling in each category are given in table 3.7. The largest number of holdings falls under category below 1.00 hectares. However, farmers in this category owned only a small proportion of the cultivated land

Table 3.8: Distribution of land holding

S.No.	Size of holdings	Raipur		Dharsiwa	
		Number of holdings	Area (ha)	Number of holdings	Area (ha)
1	Marginal (up to 1 ha)	97845 (63.15)	84169 (37.56)	21817 (67.53)	9718 (28.27)
2	Small (1 to 2 ha)	32556 (21.01)	45683 (20.38)	6271 (19.41)	8673 (25.23)
3	Semi Medium (2 to 4 ha)	16689 (10.77)	38871 (17.34)	3014 (9.32)	7587 (22.07)
4	Medium (4 to 10 ha)	6869 (4.43)	38801 (17.31)	1073 (3.32)	6009 (17.48)
5	Large (More than 10 ha)	979 (0.63)	16548 (7.38)	131 (0.40)	2385 (6.93)
	Total	154938 (100.00)	224072 (100.00)	32306 (100.00)	34372 (100.00)

Note: Figures in parentheses indicate percent of total holdings and total area in the respective column.

Source: Government of Chhattisgarh, Agricultural Statistical Table (2011)
Commissioner office, Land Revenue Department, Raipur, C.G.

3.2.9: Transport and Communication:

The Raipur district has very strong transport and communication facilities/ system, which is attributed as a major reason for its strengthens.

The total length of road ha 4914.90 kms (kachha road 1159 kms and pacca road 3755.9 kms) whereas is 552 villages are connected by pacca road.

3.2.10: Infrastructural Facilities:

The infrastructural facilities available in the study area are presented in table 3.8. Table shows that the state and Raipur district have good supporting network for the development of rural economy of the area.

Although, in the Commercial bank branches, District co-operative banks,

PACS, Krishiupajmandees and other administrative units etc. are fairl adequate.

Table 3.9 : Infrastructural Facilities

S.No.	Facilities	Raipur
1	Post Offices	4
2	Primary Health Centres	4
3	Veterinary Hospitals	2
4	Krishi Upaj Mandies	4
5	District Central Co-operative Banks.(DCCBs)	1
6	District Central Co-operativen Branches	62
7	Primary Agricultural Cooperative Credit Societies (PACS)	340
8	Commercial bank branches	220

Source: Government of C.G. (2011) Chhattisgarh at a Glance, Directorate Of Economics and Statistics, Raipur.

Results and Discussion

CHAPTER- IV

RESULTS AND DISCUSSION

This chapter includes food consumption pattern, impact of Public Distribution System on food security of selected households, structural and functional reforms in Public Distribution system in Chhattisgarh state and constraints in Public Distribution System. The outcomes of this study yielded many useful findings regarding food consumption pattern, saving through PDS and constraints in PDS system in the study area for the sake of convenience. The present chapter has been broadly discussed under the following sub heads:

- 4.1 Structural and Functional Reforms in Public Distribution System in Chhattisgarh State
- 4.2 General Characteristics of the Sample household
- 4.3 Income distribution of sample households
- 4.4 Employment pattern in sample households
- 4.5 Expenditure pattern of food item by sample households
- 4.6 Dietary intake in terms of food items of sample households
- 4.7 Expenditure on Non-Food items of selected households
- 4.8 Expenditure on food and non-food items of selected households
- 4.9 Impact of PDS on Food Security of selected households
- 4.10 Main complaints with Fair Price Shops (FPS)
- 4.11 General view of the Respondent Regarding Public Distribution System

4.1 Structural and Functional Reforms in Public Distribution System in Chhattisgarh:

4.1.1 Role of Public Distribution System:

India, the second most populous country in the world, has always grappled with the challenge of ensuring food security to the nation ever since Independence. Among all the policy options pursued by the government for this purpose, the PDS stands apart; "The most far reaching, in terms of coverage, and also by far the most expensive" (Ahluwalia, 1993).

The PDS, as the name suggests, manages the distribution side of the food grains supply-chain through a network of outlets known as Fair Price Shops (FPSs). It is backed up by an open ended procurement of wheat/paddy that guarantees a pre-specified Market Support Price (MSP) to the growers. MSP is announced by the Government well before the crop season. Rice is also procured through a compulsory levy on the rice mills. The food grains procuring had been initially the exclusive purview of the state run Food Corporation of India (FCI). Established in 1964, FCI was also entrusted with the task of storage of food grains so procured, before supplying to the state governments and maintaining an adequate buffer stock for managing contingencies. Historically, the objectives of the PDS have been listed below (Bapna, 1990):

- maintaining price stability,
- increasing the welfare facilities for the poor (by providing access to basic foods at reasonable prices to the vulnerable population),
- rationing during situations of scarcity, and
- keeping a check on private trade.

It is clear that some of these objectives are less important today than in the past. While rationing is not very relevant today, the first two objectives remain very

important. In fact, maintaining price stability is crucial in the post-liberalization period when private traders have been given a freer hand and when international price fluctuations can more easily affect domestic prices. In the context of widespread malnutrition and inflation in food prices, access to basic foods at reasonable prices remains an important policy intervention.

4.1.2 The Public Distribution System in India:

The public distribution system or PDS is a rationing instrument that enables households to have specified quantities of selected commodities at subsidized prices. Public distribution was first started in 1939 as a war-time rationing measure. The British government introduced it in Bombay and later extended it to six other cities and a few other regions. The drought and food shortages of the mid-sixties highlighted the need for strengthening and continuing with a system of food distribution and the PDS was made a universal scheme in the 1970s. Thus, from its inception as a rationing scheme in big cities during World War II, the PDS was converted into a universal programme for the provision of cheap food and made a component of the strategy to alleviate poverty. There have been four phases, broadly speaking, in the history of the PDS in India. (Swaminathan, 2000)

The first phase was from its origins to 1960, a period when the system was expanded to other cities. During the first phase, distribution through the PDS was generally dependent on imports of food grain.

The second phase, from 1960 to 1978, was one which saw major organizational changes. Specifically, in response to the food crisis of the mid-1960s, the government of India took a holistic approach to food security, and set up the Agricultural Prices Commission and the Food Corporation of India in order to strengthen domestic procurement and storage.

The third phase, from 1978 to 1991, was marked by large-scale expansion of the PDS, supported by domestic procurement and stocks.

The fourth phase, from 1991 to the present, is one in which the policy of universal PDS has been replaced by a targeted policy in line with the objectives of economic liberalization. Thus, over the entire period, the PDS grew from a rationing scheme in selected cities to a national universal programme of food distribution and then to a policy targeted at the income-poor.

4.1.3 Public Distribution System in Chhattisgarh:

PDS has become the instrument to ensure food security to millions of BPL families with 37 lakh card holding families, PDS in 70 percent of Chhattisgarh state population. Total 0.48 million fair price shops in the country. There were a total of 222.2 million (2222 lakh) families with ration card in the country and on average one fair price shop served 454 ration cards. PDS with a network of about 4.78 lakh fair price shop (FPS) is perhaps the largest distribution network of its type in the world.

Chhattisgarh, that became a separate state in 2000, has 27 districts with an area of 135, 190 sq.km.(10 th largest state) It is the poorest state in India with a Human Development Index of 0.358 in 2011("Chhattisgarh,")..Success of an ICT intervention in this backward state with poor infrastructure raises hopes of success in other places. The idea is to link the changing notions of governance with the broader concepts of development of the society with a view to understanding the drivers of ICT adoption in the Government.(T.R. Sreenivas, 2011)

The BPL families in Chhattisgarh is 73% of its population against a national average of 50% .Govt. of India has fixed the no. of BPL families for Chhattisgarh at 18.75 lakh i.e. 42.52% of its population. Therefore, looking into the Saxena committee report and Chhattisgarh Govt's efforts to provide relief to poor families, it

is requested that 36 lakh (2009) families be allowed as BPL families instead of 18.75 lakh (2001) as considered by GOI. (Dr. N. C. Saxena committee,2011)

4.1.4 Ration Cards Issued Under Public Distribution System:

There is provision of issuing ration cards to provide essential commodities to consumers through fair price shops. Gram panchayats have the right to issue APL ration cards in rural areas and municipal corporation/municipal council/nagar panchayat have the similar right in their area of jurisdiction. Officer authorized by the Collector has the right to issue ration cards of Chief Minister Food Grain Assistance Scheme, Antyodaya Anna Yojana and Annapurna Yojana. In the financial year 2012-13, total 34.62 lakh BPL and 11.39 lakh APL ration cards are in use under Public distribution system. Information of scheme wise cards is as follows Table 4.1 :-

Table 4.1 - Types of Ration Cards and Food grain Entitlement in Chhattisgarh

Types of Cards	Colour	Target group	No. of Cards (in Lakh)	Amount of Grain	Rice		Wheat	
					Rs.	Kg	Rs.	Kg
BPL	Yellow	Poor households	6.13 lakh	35	2	25	2	0
Antyodaya Anna Yojana	Red	Poorest of the poor	8.93 lakh	35	1	35	-	-
Annapurna Yojana	Purple	Senior citizens and the destitute	0.22 lakh	10	0	10	-	-
Saffron (MKSY)	Ogange (35 kg)	OBCs/Generals	5.95 lack	35	2	25	2	10
Slaty (MSKY)	Grey	SCs/ STs	11.5 lack	35	2	25	2	10
Saffron (MSKY)	Orange (10 kg)	Senior citizens and widows	1.53 lack	10	2	10	-	-
Disabled	Green	Persons with disabilities	0.33 lack	10	2	10	-	-

Table does not include APL ration cards

Source- [http:// cg.nic.in/ pds online/ jilewarRCReport.aspx](http://cg.nic.in/pds_online/jilewarRCReport.aspx).

4.1.5 Targeted PDS (1997):

The system of supplying food grains to the entire population through PDS was found to be neither desirable nor sustainable. The inefficiencies of the so called Universal PDS (UPDS), that is supplying food grains to entire population, led to increased cost (overall food subsidy bill), at the same time depriving the food security of many. The response of the government had been to target the PDS to the most deserving so that the operations of the PDS could be better managed. The Targeted PDS (TPDS), launched in 1997, replaced the UPDS that had been in operation, through the PDS (Control) order, 2001.

(A) Some salient features of the TPDS are (*PDS (Control) Order, 2001, 2001*):

- The Targeted group is Below Poverty Line (BPL) households. At the macro level, the proportion of BPL population in any state is estimated by the planning commission. Any Central subsidy is limited by this number. The actual identification of a specific BPL household is left to the state governments, who conduct BPL surveys once in five years to identify such households.
- Each of the BPL household is eligible to get 20 kilograms of food grains (before April 2000 this was only 10 kilograms) every month at 50 percent of the economic value of food grains determined by the FCI. The price at which subsidized food grains are issued by FCI is referred to as the Central Issue Price (CIP).

4.1.6 Antyodaya Anna Yojana, (2000):

The aim of this scheme, launched in 2000, is to provide special food-based assistance to destitute households. These households are given a special ration card (an “Antyodaya card”), and are entitled to special grain quotas at highly subsidised prices. Today, Antyodaya cardholders are entitled to 35 kg of grain per month, at Rs

2/kg for wheat and Rs 3/kg for rice. Initially, the Antyodaya scheme covered 1 crore families, but this was later expanded to 1.5 crore families and then 2 crore families.

(A) Supreme Court Orders:

1. Orders related to the Public Distribution System also apply to Antyodaya Anna Yojana (AAY), since AAY is a component of the PDS. For instance, the order of 23rd July directing State Governments to ensure regular supply of grain to the ration shops applies to AAY also.s.N
2. The State Governments were requested to consider providing grain free of cost to those who are so poor that they are unable to lift their quota, even at the highly subsidised AAY prices.¹
3. The Central Government “shall formulate the scheme to extend the benefits of the Antyodaya Anna Yojana to the destitute section of the population”.
4. On 2nd May 2003, the Supreme Court declared that all households belonging to six “priority groups” would be entitled to Antyodaya cards. More precisely, the Government of India was directed “to place on AAY category the following groups of persons:
 - (a) Aged, infirm, disabled, destitute men and women, pregnant and lactating women, destitute women;
 - (b) Widows and other single women with no regular support;
 - (c) Old persons (aged 60 or above) with no regular support and no assured means of subsistence;
 - (d) Households with a disabled adult and assured means of subsistence;
 - (e) Households where due to old age, lack of physical or mental fitness, social customs, need to care for a disabled, or other reasons, no adult member is available to engage in gainful employment outside the house;

(f) Primitive tribes.

5. Possession of a BPL card is not necessary for inclusions in the AAY category. The Central Government was directed to issue guidelines to this effect.

6. In April 2004, the Court asked the Central Government to direct the State Governments to “accelerate the issue of Antyodaya cards especially to primitive tribes”. Further, “the guidelines issued to State Governments shall be implemented in letter and spirit”.

7. In October 2004, the State Governments were directed to complete the identification of AAY families and the distribution of AAY cards “by the end of the year”, and to begin the distribution of grain to AAY cardholders “immediately”. Further, the AAY cardholders “should not be made to pay, directly or indirectly, any amount other than what they are liable to pay for the supply taken”.

(B) Comments:

The most important order here is the order of 2nd May 2003, whereby six “priority groups” are entitled to Antyodaya cards as a matter of right. However, the government is yet to devise (and implement) an effective procedure to ensure that all households in these priority groups are identified and covered under AAY. In the case of (so-called) “primitive tribes”, the task is relatively easy, and in some states at least Antyodaya cards have been distributed to most families in this group. The other groups, however, have no simple means of claiming an Antyodaya card as a matter of right.

1 Supreme Court order dated 28th November, 2001.

2 Supreme Court order dated 29th October 2002.

3 Supreme Court Order dated 20th April, 2004.

4 Supreme Court Order dated 20th April, 2004. (Targeted Public Distribution System in Chhattisgarh)

4.1.7 Annapurna Scheme, (2001):

The Ministry of Rural Development launched the scheme in 2000-01. Indigent senior citizens of 65 years of age or above who are eligible for old age pension under the National Old Age Pension Scheme (NOAPS) but are not getting the pension are covered. 10 kg of foodgrains per person per month are supplied free of cost under the scheme. From 2002-03, it has been transferred to State Plan along with the National Social Assistance Programme comprising the National Old Age Pension Scheme and the National Family Benefit Scheme. The implementation of the Scheme at the State level rests with the respective States / UTs. (Rehman et al, 2010)

(A) Annapurna Yojna: Guidelines:

This scheme has been started in 2000 to ensure food security to those senior citizens who don't have any care taker and at the same time have no source of income.

- 10 Kgs. of food grains (wheat/rice) should be given free of cost to all those senior citizens who are eligible for the old age Pension but are not getting it at present.
- The number of beneficiaries to this scheme is limited to 20% of the old age pension holders of the state.
- The beneficiaries would be selected by the gram panchayat.

(A) Annapurna : Orders of the Court:

The scheme should be implemented in all the states and 10 Kgs of free food grains should be provided to all the needy elderly people whose names are there in the old age pension scheme but are unable to avail the same.

(B) Comments:

The most significant order is of 27th May 2003 under which six "priority groups" have got the right of Antyodaya card. Yet no effective measures or indicators

have been devised under Antyodaya Anna Yojna to identify the desiring families to be included in the priority groups. In case of the tribal communities this process is relatively easy and in some states, distribution of cards has been done in most of the households of this category. The other household's do not have any means to attain the Antyodaya cards on their own.

1 Supreme Court order dated 28th November, 2001.

2 Supreme Court order dated 29th October 2002.

3 Supreme Court Order dated 20th April, 2004.

4 Supreme Court Order dated 20th April, 2004.

4.1.8 Mukhya Mantri Khadyanna Sahayata Yojna, (2007):

The states can also supply food grains to other groups, referred as Above Poverty Line (APL) group. Every month the state places an indent for the total requirement of food grains and the center, through FCI, is responsible for supplying such quantity. The states, however, will get the APL food grains at economically viable prices and subject to availability. Any subsidies to such APL groups have to be borne by the respective state governments. In fact, many states have chosen to provide some subsidy to certain categories of APL population. For instance the Chhattisgarh Government has a scheme called "Mukhya Mantri Khadyanna Sahayata Yojna" (*Mukhya Mantri Khadyanna Sahayata Yojna, 2007*). The states are empowered to issue their own PDS orders and Chhattisgarh has its own order issued in 2004 (*Chhattisgarh Public Distribution System (Control) Order, 2004, 2000*)

4.1.9 Smart card:

Chhattisgarh government plans to plug leakages in the public distribution system by identifying the beneficiaries through biometric data stored in the smart cards being used to deliver health insurance to the poor. Of the 2.4 million BPL

families in Chhattisgarh, 1.38 million are enrolled in RSBY. The number of PDS beneficiaries is much larger at more than 3.6 million households because the state and the Centre use different parameters for poverty. Raipur, April 04, 2011: Chhattisgarh Government has drafted an ambitious plan to bring in remarkable change in the pattern of distribution of PDS through fair price shops. The Government plans to give smart card to all the 1.5 lakh ration card holders living below poverty line (BPL) in the Raipur city for drawl of ration materials. Under the Smart Card provision, any registered BPL of the Raipur city can draw ration materials from any point of sale or fair price shop out of the 174 ration shops located in the capital city and through networking that data would be made available on line. Currently each card holder is attached to a particular PDS shop in the city and once the Smart Card is in operation the PDS can be drawn from any of the point of sale by the beneficiaries. Smart cards are used to provide health insurance under RSBY to 28 million people below the poverty line across the country. The scheme is being slowly extended to a number of unorganized sectors to include domestic workers, coolies and street vendors. The government plans to make it available to 70 million families by the end of the 12th Five-Year Plan in 2017.

4.1.10 Fair Price Shop:

Consumers are provided food material at fair price through Public Distribution System. 6501 fair price shops were operating at the time of creation of Chhattisgarh state. 4382 new shops have been established after creation of the state. 10883 fair price shops are operating in the state as on Aug, 2012, out of which 3995 are being operated through panchayats, 4359 through service cooperative societies, 2363 through women self-help groups, 154 through forest security societies and 12 through urban bodies.

4.1.11 Transparency in Public Distribution System:

Following actions have been taken for transparency and effective control in allotment of ration material of Public distribution system, supply to fair price shops and distribution of ration material to beneficiaries by the state govt.

4.1.12 PDS Online System:

Computerization work of Public distribution system was started in the year 2007 and till now, whole process from the state level to supply centres of Chhattisgarh State Civil Supplies Corporation has been computerized. All District Food Offices have been connected to State Hqr. through internet for computerization of Public distribution system. For allotment of ration material, database of all 10883 fair price shops of the state was prepared and on the basis of ration cards registered with them, from January, 2008, shop wise ration material is being issued by the Food Directorate through the medium of computer. It has been directed by the order dated 14.09.11 of honourable Supreme Court to implement computerized PDS system of Chhattisgarh State in other states of the country as well. (www.cg.nic.in/citizen)

Many states have subsidized rice schemes for the BPL households. The only difference Chhattisgarh made was to add the highest level of political commitment. If politics is all about numbers, the evidence from this state is clinching. In parliamentary and assembly elections, in which the Bharatiya Janata Party won, many a seasoned political commentator felt that it was paddy rather than the lotus that seemed to have bloomed here. What, then, are the lessons that the UPA can learn from these reforms—something that should form a critical part of the National Food Security Act?

First, an expanded PDS, with universal or near-universal coverage, stands a much better chance of succeeding rather than one driven by minimalist BPL quotas. A

scheme only for the very poor will always remain a very poor scheme. Second, privatization that just strengthens the local elite should be done away with; instead, it's government machinery that should be strengthened. Third, a majority of leakages occur much before the food grains reach FPSs: An excessive focus on the "last mile", with solutions such as smart cards and unique IDs, will change little on the ground. Fourth, political will and good governance need to translate into specific reform steps. You know you have it when you are willing to prosecute offenders without fear or favour and you commit your best human resources to strengthen a programme. As the last general election showed, the states (Orissa, Chhattisgarh, Tamil Nadu and Andhra Pradesh) where political parties successfully managed to break the anti-incumbency factor had expanded their PDS.

4.2 General Characteristics of the Sample household:

4.2.1 Average family size, age, educational Status, caste, and farm size:

The general characteristics of the sample households are presented in table 4.2. It can be seen from the table that the average family size was 4.58. The average age of the males, the females and the children were 34.52, 36.73 and 8.12 years respectively. The average age did not differ significantly among different categories of family members. The sample households comprised predominantly of schedule tribe (40.00) and followed by Schedule caste (31.66) percent. The overall percentage of illiterate was about 63.34 percent and literacy level was 36.66 percent. Majority of literate sample households studied up to middle school due to lack of higher educational institution and infrastructural facilities in villages. The average size of holding was 0.78 hectares.

Table 4.2 General Characteristics of sample Households

Particulars	Income Group- Rs. 20,000- 40,000	Income Group- Rs. 40,000- 60,000	Income Group- Rs. 60,000-80,000	Overall
1. Total no. of sample households	30	21	9	60
2. Family members (per household)	137	99.5	39	275.5
a. male	1.97	2.14	1.56	1.97
b. female	1.97	2.05	1.66	1.95
c. children	0.63	0.50	1.11	0.66
3. Average family size	4.57	4.74	4.33	4.58
4. Male -female ratio	985	955	855	991
a. male	36.64	35.88	37.89	34.52
b. female	33.98	36.56	31.98	36.73
c. children	8.34	6.76	7.89	8.12
6. Literacy (Percent)	36.66	33.33	44.00	36.66
a. Illiterate (Percent)	63.34	66.67	56.00	63.34
b. Primary (Percent)	16.9	11.45	17.09	5.81
c. Middle (Percent)	11.76	13.43	14.74	15.78
d. Higher (Percent)	6.5	2.56	5.89	6.32
e. University (Percent)	1.5	5.89	6.72	8.75
7. Caste (Percent) a. General	13.33	9.52	55.56	18.33
b. Schedule caste	60.00	47.62	33.33	31.66
c. Schedule tribe	6.67	23.81	11.11	40.00
d. Other backward class	20.00	19.05	0	10.00
9. Average farm size(ha.)	0.59	0.85	0.93	0.73

4.3 Income distribution of sample households:

The Income distribution pattern in the sample households is shown in table 4.3 and fig. 4.1 shows that per family per annum income, on an average, was observed Rs. 48063.82 and per person per annum income was Rs.10471.42 for sample households. The main source of income for sampled households was Non- farm (52.35 percent) and farm (44.25 percent) sector. Farm and non - farm sector together

contributed 96.60 percent of the total income and a small portion 3.40 percent was contributed by off farm sector.

Table 4.4 and fig. 4.2. shows that in income group Rs. 20,000-40,000 per family income was Rs 30105.29 and income per person/year income was Rs. 6587.59. The main source of income for this income group was Non- farm (51.81 percent) and farm sector (42.65 percent) and a small portion 5.53 percent was contributed by off farm sector.

Table 4.5 and fig.4.3 shows that in income group Rs. 40,000-60,000 per family income in all source of income (farm, non-farm and off farm) was Rs. 47193.81 and per person /year income was Rs. 9956.50. The main source of income for this group was farm sector (50.22 percent) and non-farm sector (47.12 percent) and a small portion (2.66 percent) was contributed by off farm sector.

Table 4.6 and fig. 4.4 shows that in income group Rs. 60,000-80,000 per family income in all source of income (farm, non-farm, and off- farm) was Rs. 69624.15 and per person /year income was Rs16079.48 sector. The major source of income for sampled households was non- farm sector (58.94 percent) and farm sector (38.27 percent) and a small portion (2.79 percent) was contributed by off farm sector.

In different income group , family income varied from Rs. 30105.29 in lower income group (Rs. 20,000- 40,000) to Rs.69624.15 in higher income groups (Rs. 60,000-80,000).

It is clear from results that farm and non- farm income was directly related with different income groups i.e. lower income groups to higher income group.

Table 4.3 Income pattern of sample households-overall

Sources of income	Income (Rs./person/Year)	% to Total	Rs.per family
1. Farm	4632.61	44.24	21263.68
2. Off- farm	356.39	3.40	1635.83
3. Non- farm	5482.42	52.36	25164.31
Total	10471.42	100.00	48063.82

Table 4.4 Income pattern of sample households-(Income Group-20,000-40,000)

Sources of income	Income (Rs./person/Year)	% to total	Rs.per family
1. Farm	2810.22	42.66	12842.71
2. Off- farm	364.23	5.53	1664.53
3. Non- farm	3413.14	51.81	15598.05
Total	6587.59	100.00	30105.29

Table 4.5 Income pattern of sample households-(Income Group-40,000-60,000)

Sources of income	Income (Rs./person/Year)	% to Total	Rs.per family
1. Farm	5000.00	50.22	23700.00
2. Off- farm	264.50	2.66	1253.73
3. Non- farm	4692.00	47.12	22240.08
Total	9956.50	100.00	47193.81

Table 4.6 Income pattern of sample households-(Income Group-60,000-80,000)

Sources of income	Income (Rs./person/Year)	% to total	Rs.per family
1. Farm	6153.84	38.27	26646.13
2. Off- farm	448.72	2.79	1942.96
3. Non- farm	9476.92	58.94	41035.06
Total	16079.48	100.00	69624.15

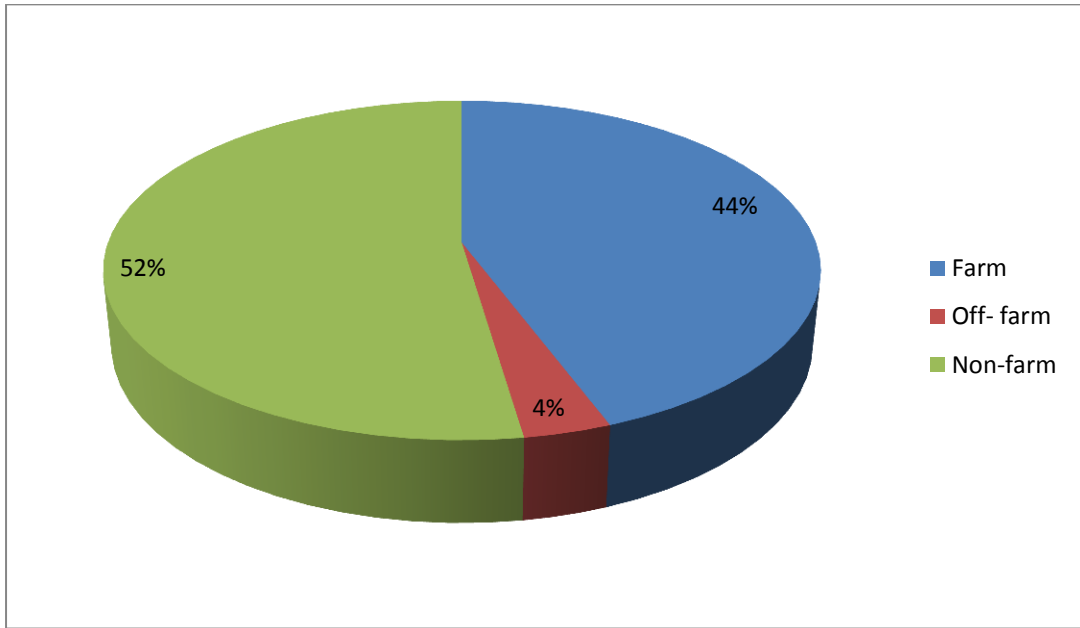


Fig.- 4.1 Income distribution of selected households (overall)

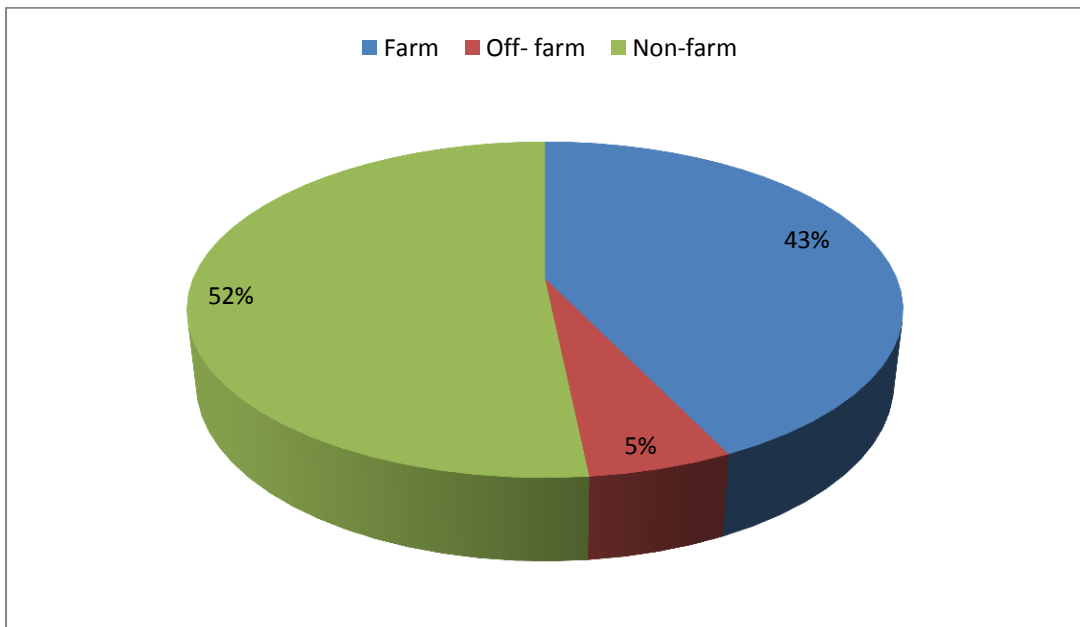


Fig.- 4.2 Income distribution of selected households (income groupRs. 20,000-40,000)

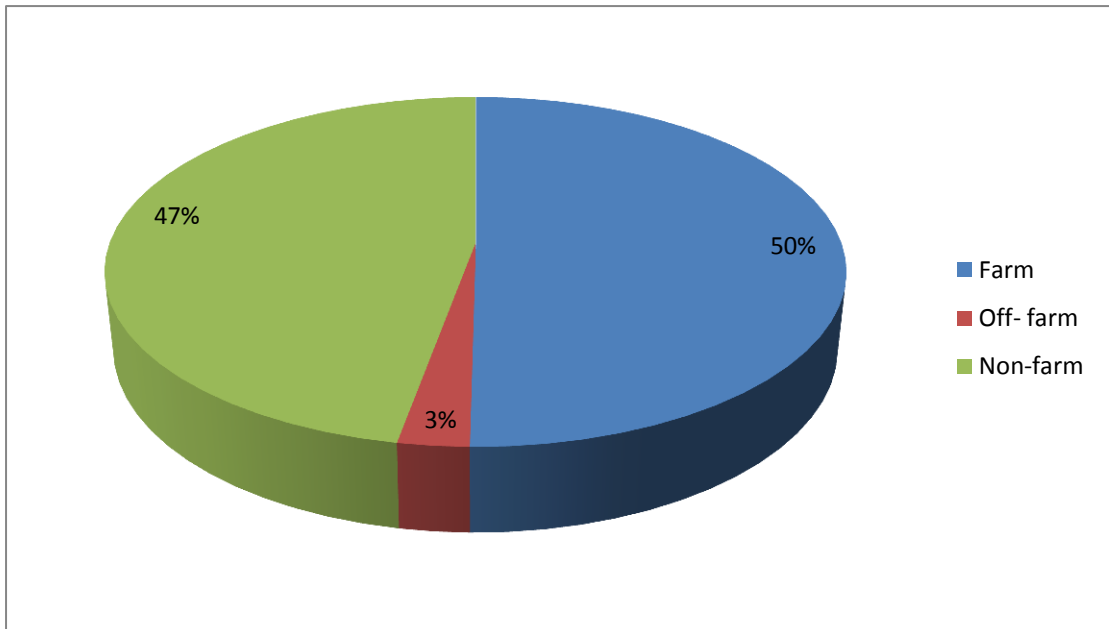


Fig.- 4.3 Income distribution of selected households (income group Rs. 40,000-60,000)

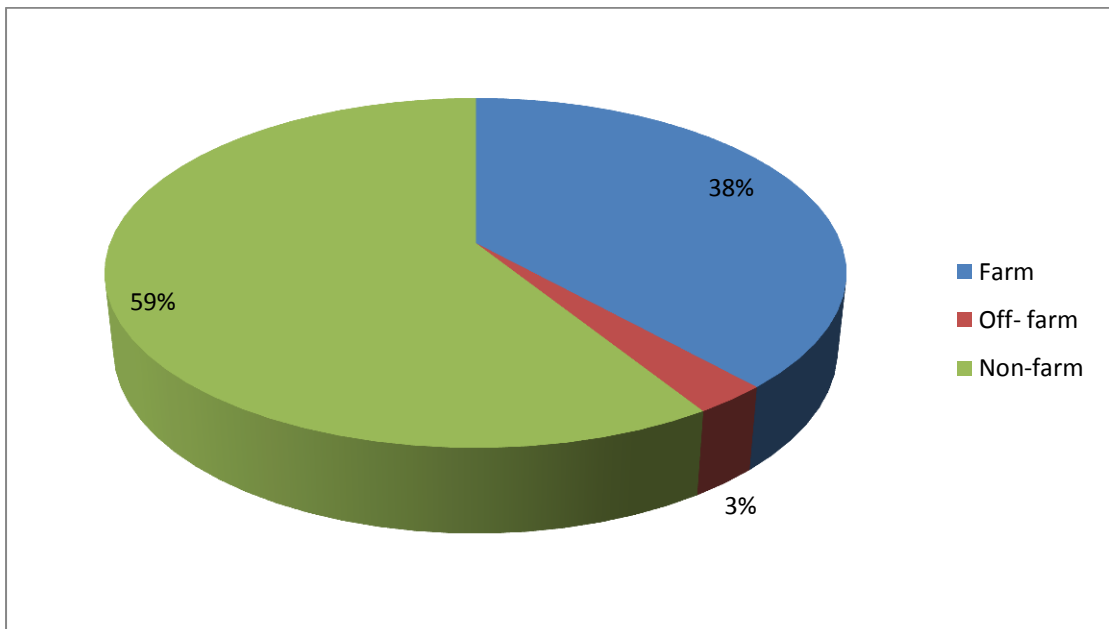


Fig.- 4.4 Income distribution of selected households (income group Rs. 60,000-80,000)

4.4 Employment pattern in sample households:

Employment pattern in sample households have been given in table 4.7, fig- 4.5, 4.6, 4.7, and 4.8. On an average, per person was engaged for 156.43 man days in different activities. Highest share being 52.06 percent contributed by non –farm activities followed by farm activities i.e. 29.21 percent and lowest share was 18.73 percent contributed by off- farm activities.

Income group 20,000-40,000 households getting highest (209 man days) employment days per person and income group 60,000-80,000 households getting lowest (122 man days) per person employment days. It is clear from the table that percent contribution of farm and off-farm employment was directly related with income groups. However non-farm employment it was inversely related with different income groups.

Table 4.7 Employment pattern in different categories of Sample household's

(Man-days/person /year)

Categories of household	per household number of employment days in a year created by			Total employment man-days
	farm	Off-farm	Non-farm	
Income Group-20,000-40,000	45.00	30.00	134.00	209.00
percent	21.53	14.35	64.11	100.00
Income Group-40,000-60,000	47.00	28.00	62.00	137.00
percent	34.31	20.44	45.26	100.00
Income Group-60,000-80,000	45.00	30.00	47.00	122.00
percent	36.89	24.59	38.52	100.00
Overall income	45.70	29.30	81.43	156.43
percent	29.21	18.73	52.06	100.00

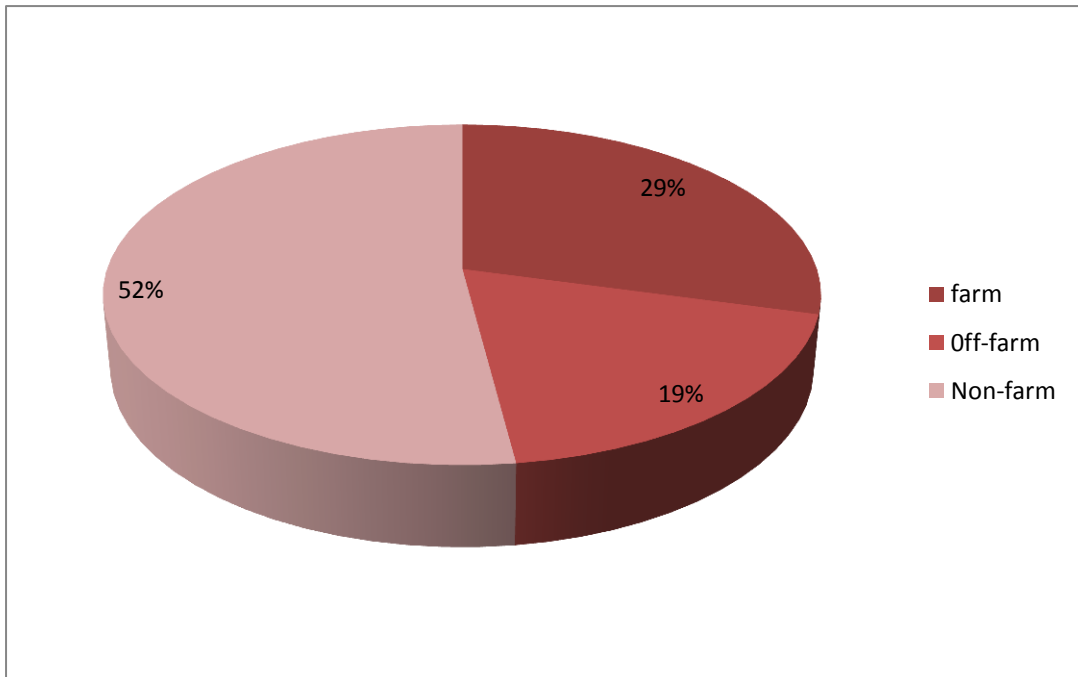


Fig.- 4.5 Employment pattern of selected households (overall)

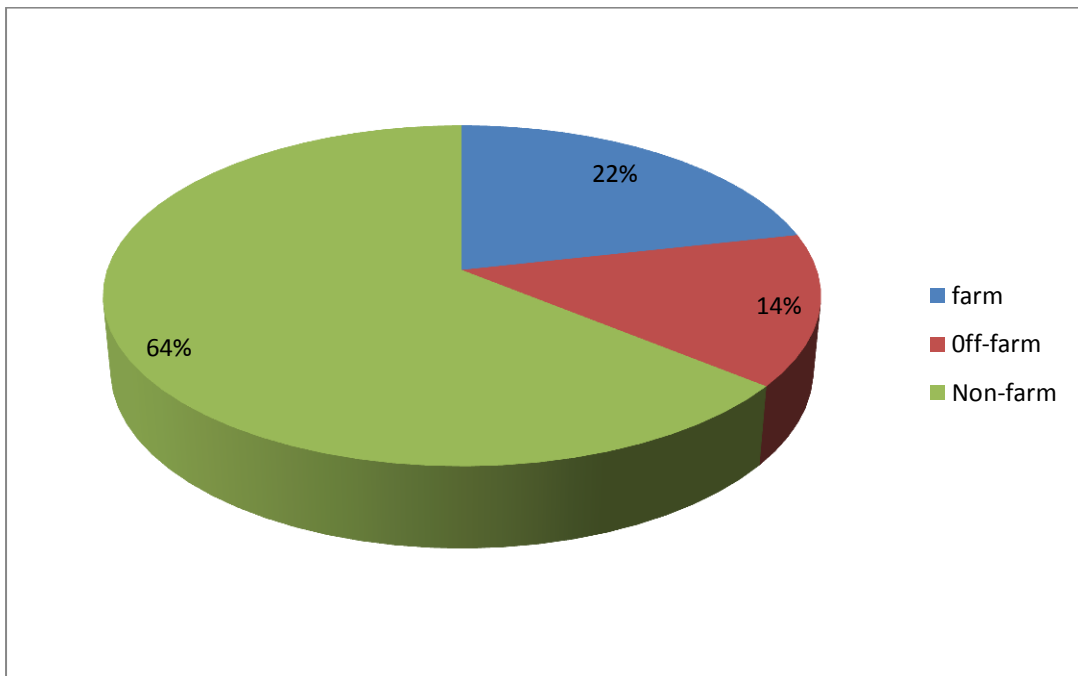


Fig.- 4.6 Employment pattern of selected households (income group Rs. 20,000-40,000)

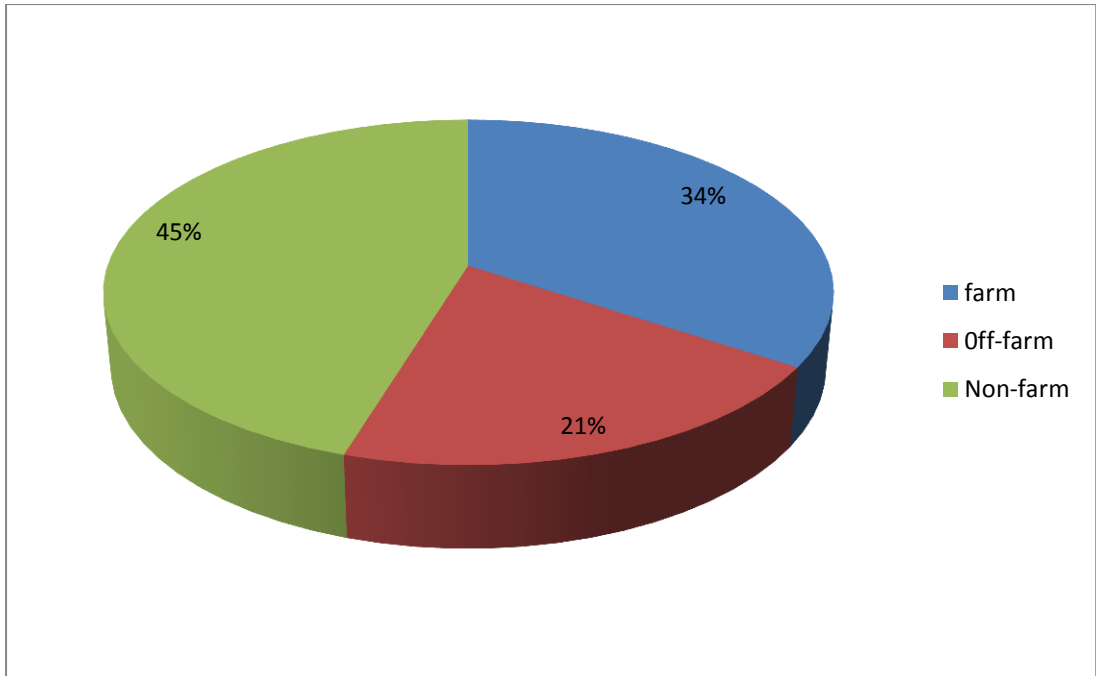


Fig.- 4.7 Employment pattern of selected households (income group Rs. 40,000-60,000)

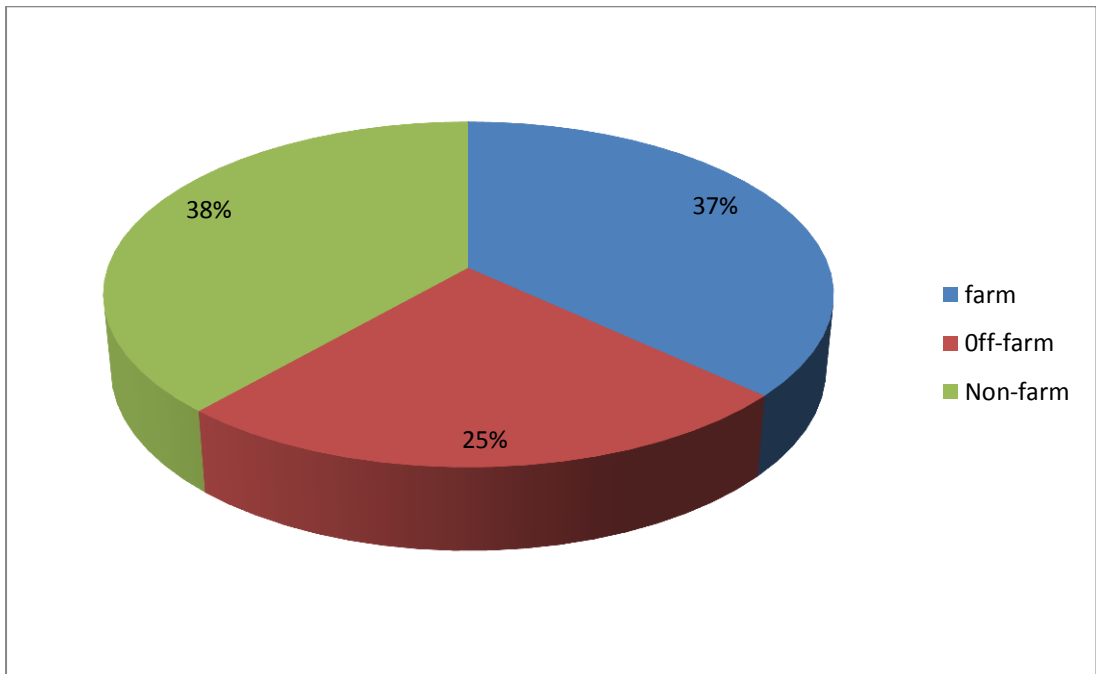


Fig.- 4.8 Employment pattern of selected households (income group Rs. 60,000-80,000)

4.5 Expenditure pattern of food item by sample households:

Overall per family/per person Expenditure pattern of food item by households are presented in table 4.8 and fig.- 4.9. It is evident from table that large proportion of per family/per person expenditure was spent on meat, fish, eggs & alcohol (28.54 percent), milk and milk products (14.18 percent), Cereals (13.71percent), pulses(11.35 percent), fruits (11.74 percent) ,vegetable (9.15 percent), edible oil (8.96 percent), and small proportion was spent on sugar (1.58 percent) and spices (0.8 percent) .

Per family / per person food expenditure on different food item in income group Rs. 20,000-40,000 have been presented in table 4.9 and fig. 4.10indicated that major portion of per family/per person expenditure was spent on meat, fish, eggs and alcohol (40.38 percent), Cereals (15.20 percent), pulses (10.01percent), milk and milk products (9.98 percent), vegetables (8.25 percent) Edible oils (8.34 percent), fruits (6.14 percent) and small portion contributed by sugar (1.13 percent) and Spices (0.58 percent).

food expenditure on different food item in income group Rs. 40,000-60,000 have been presented in table 4.10 and fig. 4.11 indicated that major proportion of per family/per person expenditure was spent on meat, fish, eggs & alcohol (26.94 percent), milk and milk product (14.14 percent), pulses(12.61percent), cereals (12.89 percent), edible oils (10.34 percent),fruits (10.74 percent), vegetables (9.82) and small portion contributed by sugar (1.49 percent) and spices(1.04 percent)

food expenditure pattern of income group Rs. 60,000-80,000 is presented in table 4.11 and Fig.- 4.12 it represented the major portion of fruits (18.56 percent), milk & milk products (18.56 percent), meat ,fish, eggs & alcohol (18.12 percent), cereals (13.07 percent), pulses (11.34 percent), vegetables (9.33 percent), Edible oils (8.11 percent) and small portion contributed sugar (2.13percent) and spices (0.77 percent) .

It is clear from the results that lower income Below Poverty Line households expanded more on alcohols compared to other income groups. It should be checked by awareness & other mental measures.

Table 4.8 per Family and per person food expenditure (Rs./ year) Overall income

S.N	Food items	Food expenditure Per Family	Food expenditure Per Person	% to total
1	Cereals	2814.86	613.26	13.71
2	Pulses	2330.02	507.63	11.35
3	Vegetables	1878.14	409.18	9.15
4	Milk & milk products	2911.99	634.42	14.18
5	Edible oils	1840.09	400.89	8.96
6	Fruits	2409.57	524.96	11.74
7	Sugar	323.60	70.50	1.58
8	Spices	165.15	35.98	0.80
9	Meat, fish, egg and alcohol	5859.23	1276.52	28.54
	Total	20532.63	4473.34	100.00

Table 4.9 Per Family and per person food expenditure (Rs/Year) Income Group-20,000-40,000

S.N	Food items	Food expenditure per family	Food expenditure per family	% to total
1	Cereals	3055.05	668.50	15.20
2	Pulses	2012.17	440.30	10.01
3	Vegetables	1658.91	363.00	8.25
4	Milk & milk products	2001.66	438.00	9.96
5	Edible oils	1676.05	366.75	8.34
6	Fruits	1233.90	270.00	6.14
7	Sugar	226.44	49.55	1.13
8	Spices	117.45	25.70	0.58
9	Meat, fish, eggs and alcohol	8116.32	1776.00	40.38
	Total	20097.95	4397.80	100.00

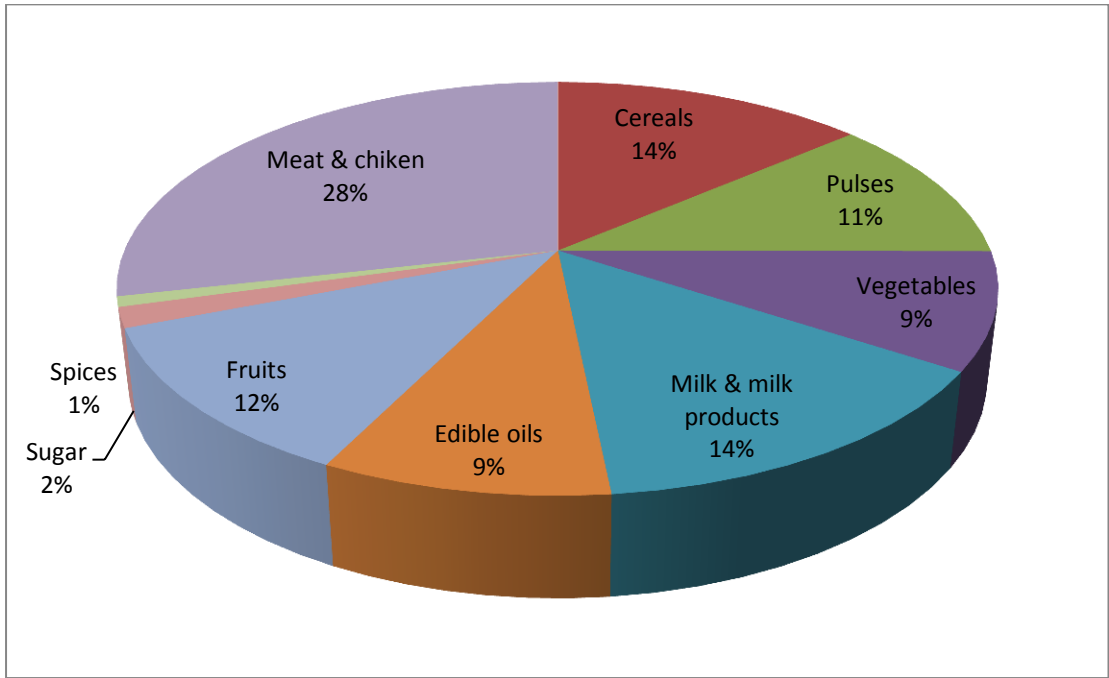


Fig. 4.9 Per Person Food expenditure (overall)

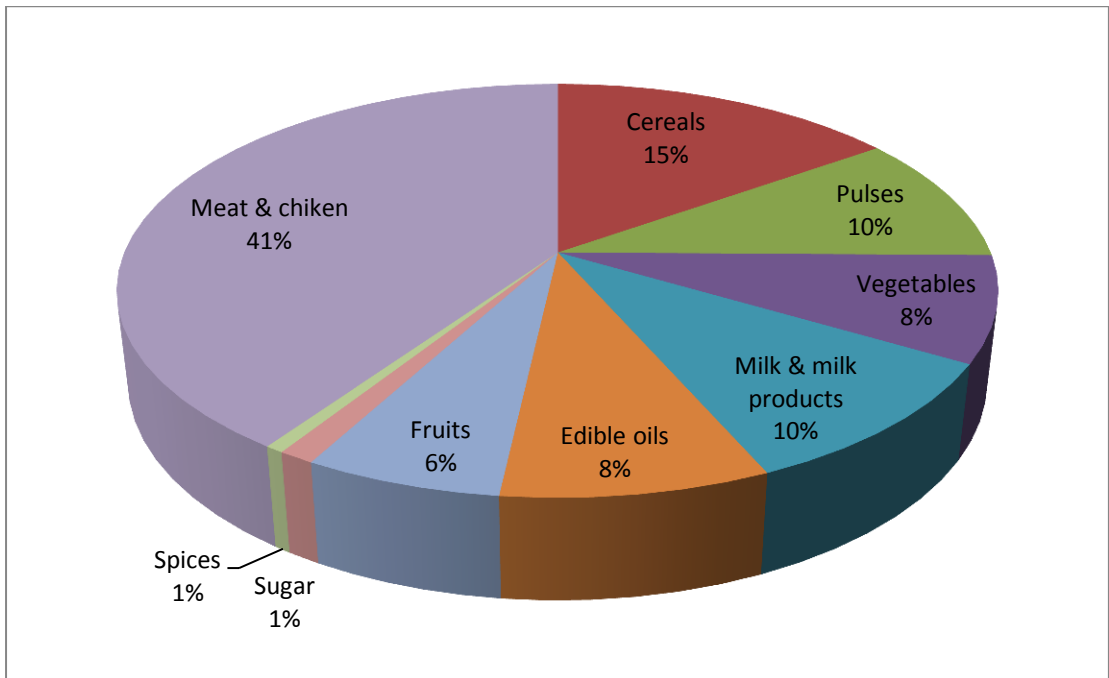


Fig. 4.10 Per Person Food expenditure (income group Rs. 20,000-40,000)

**Table 4.10 Per Family and per person food expenditure (Rs/Year) Income Group-
40,000 60,000**

S.N	Food ite	Food expenditure per family	Food expenditure per family	% to total
1	Cereals	2274.68	579.89	12.89
2	Pulses	2211.30	567.52	12.61
3	Vegetables	1147.08	442.00	9.82
4	Milk & milk products	1118.64	636.00	14.14
5	Edible oils	1256.10	465.00	10.34
6	Fruits	868.37	483.00	10.74
7	Sugar	175.62	67.00	1.49
8	Spices	79.63	46.80	1.04
9	Meat, fish, eggs & alcohol	1422.00	1212.00	26.94
	Total	10553.42	4499.21	100.00

Table 4.11 Per Family and per person food expenditure (Rs/Year)Income Group-60,000-80,000

S.N	Food items	Food expenditure per family	Food expenditure Per person	% to total
1	Cereals	1262.20	591.50	13.07
2	Pulses	2221.81	513.12	11.34
3	Vegetables	528.26	422.00	9.33
4	Milk & milk products	363.72	840.00	18.56
5	Edible oils	573.73	366.75	8.11
6	Fruits	363.72	840.00	18.56
7	Sugar	71.19	96.44	2.13
8	Spices	64.95	35.00	0.77
9	Meat , fish, eggs &alcohol	1818.60	820.00	18.12
	Total	7268.16	4524.81	100.00

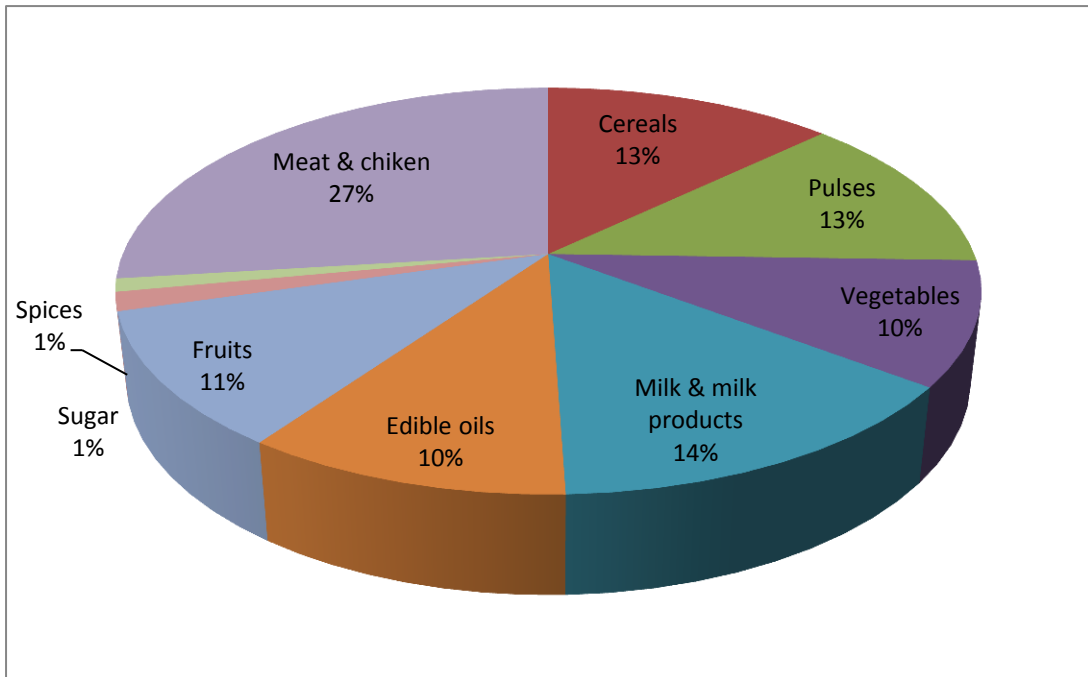


Fig. 4.11 Per Person Food expenditure (income group Rs. 40,000-60,000)

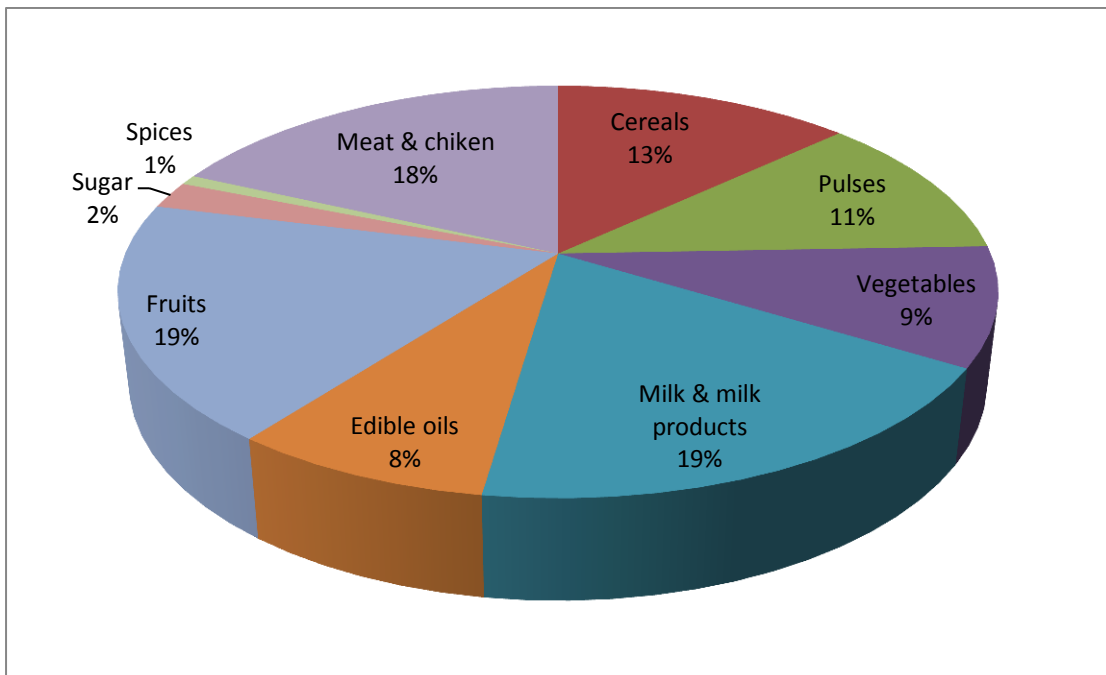


Fig. 4.12 Per Person Food expenditure (income group Rs. 60,000-80,000)

4.6 Dietary intake in terms of food items of sample households:

Table 4.12 indicates that overall food basket of sample households was mainly cereal based. Sample households were deficient in consumption of all food items to Recommended Dietary Allowance (RDA) except cereals. Consumption basket for sample households was considerably deficient in vegetable, pulses, milk and its products, sugar, edible oils and fruits Consumption.

In Overall income households average cereal consumption 472.00 gms/adult/day (surplus 47.46 gms/adult/ day) and other food items was considerably deficient in Milk & milk products (-220 gms/adult/day) actual intake 79.93 gms/adult/day, vegetables (-218 gms/adult/day) actual intake 132 gms/adult/day ,fruits (-51.00 gms/adult/day) actual intake 49.00 gms/adult//day , pulses (-26.72 gms/adult/day) actual intake 55.95 gms/adult/day, sugar (-5.88 gms/adult/day) actual intake 26.79 gms/adult/day and edible oils (-0.26 gms/adult/day) actual intake 29.74 gms/adult/day food items.

In income group 20,000-40,000 food basket was mainly cereal based (table 4.13). Sample households were deficient in consumption of all food items to Recommended Dietary Allowance (RDA) except cereals. cereals consumption 491.60 gms/adult/day (surplus 71.60 gms/adult/day) and considerably deficient in milk & milk products actual intake 79.93 gms/adult/day (-220.07 gms/adult/day), vegetables 132 gms/adult/day (-218gms/adult/day) , fruits 50 gms/adult/day (-50 gms/adult/day),pulses 55.95 gms/adult/day (-26.72 gms/adult/day), sugar 26.79 gms/adult/day (-5.88 gms/adult/day) and 29.74 gms/adult/day (-0.26 gms/adult/day) food items.

In income group 40,000-60,000 food basket also cereal based (table 4.14). Sample households were deficient in consumption of all food items to recommended

dietary allowance (RDA) except cereals. Cereals consumption 422.22 gms/adult/day (surplus 2.22 gms/adult/ day) and considerably deficient in milk and milk products actual intake 59 gms/adult/day (-241 gms/adult/day), vegetables 121 gms/adult/day (-229 gms/adult/day) , fruits 45.80 gms/adult/day (-54.20 gms/adult/day , pulses 69.50 gms/adult/day (-13.17 gms/adult/day),sugar 27.45 gms/adult/day (-5.22 gms/adult/day) and edible oils 26.50 gms/adult/day (-3.50 gms/adult/day) food items.

In income group 60,000-80,000 food basket of sample households were surplus in consumption in Cereals (table 4.15) actual intake 507.44 gms/adult/day (87.44 gms/adult/day), edible oils 113.19 gms/adult/day (83.19 gms/adult/day),Sugar 69.72 gms/adult/day (37.05 gms/adult/day) and pulses 102.64 gms/adult/day (19.97 gms/adult/day) food items. Consumption basket for sample households was considerably deficient in milk &milk products actual intake 180.55 gms/adult/day (-119.45 gms/adult/day), Fruits 39.12 gms/adult/day (-60.88 gms/adult/day) and vegetables 322.56 gms/adult/day (-27.44 gms/adult/day) food items.

Table 4.12 Dietary intakes in terms of food items of Sample Households - Overall

S.N	Food items	Recommended dietary allowance	Actual intake Gm/Adult/Day	Surplus(+) Deficit (-)
1	Cereals	420.00	472.00	47.46
2	Pulses	82.67	55.95	-26.72
3	Vegetables	350.00	132.00	-218.00
4	Milk & milk products	300.00	79.93	-220.07
5	Edible oils	30.00	29.74	-0.26
6	Fruits	100.00	49.00	-51.00
7	Sugar	32.67	26.79	-5.88

Table 4.13 Dietary intake in terms of food items of Sample Households (Income Group- 20,000-40,000)

S.N.	Food items	Recommended dietary allowance	Actual intake Gm/Adult/Day	Surplus (+) Deficit (-)
1	Cereals	420.00	491.60	71.60
2	Pulses	82.67	55.95	-26.72
3	Vegetables	350.00	132.00	-218.00
4	Milk & milk products	300.00	79.93	-220.07
5	Edible oils	30.00	29.74	-0.26
6	Fruits	100.00	50.00	-50.00
7	Sugar	32.67	26.79	-5.88

Table 4.14 Dietary intake in terms of food items of Sample Households (Income Group- 40,000-60,000)

S. N.	Food items	Recommended dietary allowance	Actual intake Gm/Adult/Day	Surplus (+) Deficit (-)
1	Cereals	420.00	422.22	2.22
2	Pulses	82.67	69.50	-13.17
3	Vegetables	350.00	121.00	-229.00
4	Milk & milk products	300.00	59.00	-241.00
5	Edible oils	30.00	26.50	-3.50
6	Fruits	100.00	45.80	-54.20
7	Sugar	32.67	27.45	-5.22

Table 4.15 Dietary intake in terms of food items of Sample Households (Income Group- 60,000-80,000)

S.N.	Food items	Recommended dietary allowance	Actual intake Gm/Adult/Day	Surplus(+) Deficit (-)
1	Cereals	420.00	507.44	87.44
2	Pulses	82.67	102.64	19.97
3	Vegetables	350.00	322.56	-27.44
4	Milk & milk products	300.00	180.55	-119.45
5	Edible oils	30.00	113.19	83.19
6	Fruits	100.00	39.12	-60.88
7	Sugar	32.67	69.72	37.05

4.7 Expenditure on Non-Food items of selected households:

Average expenditure on Non-food items was presented in table 4.16 and fig.- 4.13. It is evident from the table that more income was spent on fuel & light 44.17 percent, Clothing 13.84 percent, transport 10.76 percent, social ceremony 6.22 percent, Medical & Health 6.75 percent, Recreation 5.42 percent, Education 4.10 percent, cosmetic 4.77 percent, utensils 3.03 percent and other items 0.94 percent.

Income group Rs. 20,000-40,000 (table 4.17 and fig.- 4.14) was spent more on fuel & light 54.21 percent, Clothing 10.84 percent, transport 8.13 percent, social ceremony 6.77 percent, Recreation 5.42 percent, Medical & Health 4.06 percent, cosmetic 4.88 percent, Education 2.17 percent, utensils 2.71 percent and other items 0.81 percent in non-food items.

Income group Rs. 40,000-60,000 (table 4.18 and fig.- 4.15) was more spent on fuel & light 42.04 percent, Clothing 15.04 percent, transport 11.75 percent, Medical & Health 7.52 percent, social ceremony 6.77 percent, Education 4.70 percent, Recreation 4.44 percent, cosmetic 4.70 percent, utensils 2.82 percent and other items 0.94 percent in non-food items.

Income group Rs. 60,000-80,000 (table 4.19 and fig.- 4.16) was more spent on fuel & light 39.95 percent, Clothing 14.58 percent, transport 11.46 percent, Medical & Health 7.68 percent, social ceremony 6.02 percent, Recreation 6.32 percent, Education 4.74 percent, cosmetic 4.77 percent, utensils 3.43 percent and other items 1.03 percent in non-food items.

Expenditure on fuel and light was highest for the lower Income group's amount non-food items, and it was inversely related with different income groups. Expenditure on education was lowest in income group 20,000-40,000 and it was highest on income groups 60,000-80,000.

Table 4.16 Non- food items Rs./person/year

Non- food	20,000-40,000 Expen- diture /person	Expen- diture /family	40,000- 60,000 Expen- diture /person	Expen- diture /family	60,000-80,000 Expen- diture /person	Expen- diture /family	Overall Income Expen diture /person	% to total	Expen- diture /fam/ family
Fuel & light	2001.00	9144.57	2236.00	10598.64	2527.00	10941.91	2249.64	44.17	10325.85
Clothing	400.00	1828.00	800.00	3792.00	922.00	3992.26	704.71	13.84	3234.62
Cosmetic	180.00	822.60	250.00	1185.00	302.00	1307.66	243.05	4.77	1115.60
Recreation	200.00	914.00	236.00	1118.64	400.00	1732.00	276.00	5.42	1266.84
Social ceremony	250.00	1142.50	322.00	1526.28	381.00	1649.73	316.61	6.22	1453.24
Medical& Health	150.00	685.50	400.00	1896.00	486.00	2104.38	343.54	6.75	1576.85
Education	80.00	365.60	250.00	1185.00	300.00	1299.00	208.91	4.10	958.90
Transport	300.00	1371.00	625.00	2962.50	725.00	3139.25	547.86	10.76	2514.68
Utensils	100.00	457.00	150.00	711.00	217.00	939.61	154.52	3.03	709.25
Others	30.00	137.10	50.00	237.00	65.00	281.45	48.06	0.94	220.60
Total	3691.00	16867.87	5319.00	25212.06	6325.00	27387.25	5092.90	100.00	23376.41

Table 4.17 Non- food expenditure of sample households- (Rs./person/year)
Income Group 20,000-40,000

Nonfood items	expenditure/person	% to total	expenditure/family
Fuel & light	2001.00	54.21	9144.57
Clothing	400.00	10.84	1828.00
Cosmetic	180.00	4.88	822.60
Recreation	200.00	5.42	914.00
Social ceremony	250.00	6.77	1142.50
Medical& Health	150.00	4.06	685.50
Education	80.00	2.17	365.60
Transport	300.00	8.13	1371.00
Utensils	100.00	2.71	457.00
Others	30.00	0.81	137.10
Total	3691.00	100.00	16867.87

Table 4.18 Non -food expenditure of sample households- (Rs./person/year)
Income Group 40,000-60,000

Non - food items	expenditure/person	% to Total	expenditure/family
Fuel & light	2236.00	42.04	10598.64
Clothing	800.00	15.04	3792.00
Cosmetic	250.00	4.70	1185.00
Recreation	236.00	4.44	1118.64
Social ceremony	322.00	6.05	1526.28
Medical& Health	400.00	7.52	1896.00
Education	250.00	4.70	1185.00
Transport	625.00	11.75	2962.50
utensils	150.00	2.82	711.00
Others	50.00	0.94	237.00
Total	5319.00	100.00	25212.06

Table 4.19 Non- food expenditure of sample households- (Rs./person/year)
Income Group 60,000-80,000

Non-food items	Expenditure/person	% to total	Exenditure/family
Fuel & light	2527	39.95	10941.91
Clothing	922	14.58	3992.26
Cosmetic	302	4.77	1307.66
Recreation	400	6.32	1732
Social ceremony	381	6.02	1649.73
Medical& Health	486	7.68	2104.38
Education	300	4.74	1299
Transport	725	11.46	3139.25
utensils	217	3.43	939.61
Others	65	1.03	281.45
Total	6325	100.00	27387.25

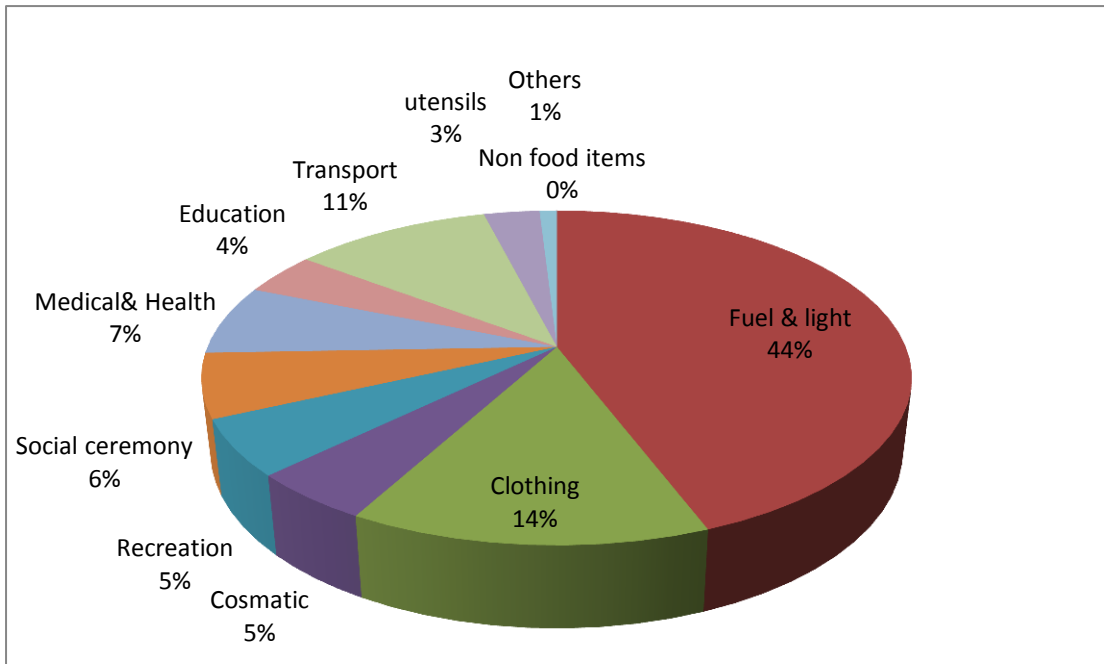


Fig. 4.13 Non –food expenditure in sample households (overall)

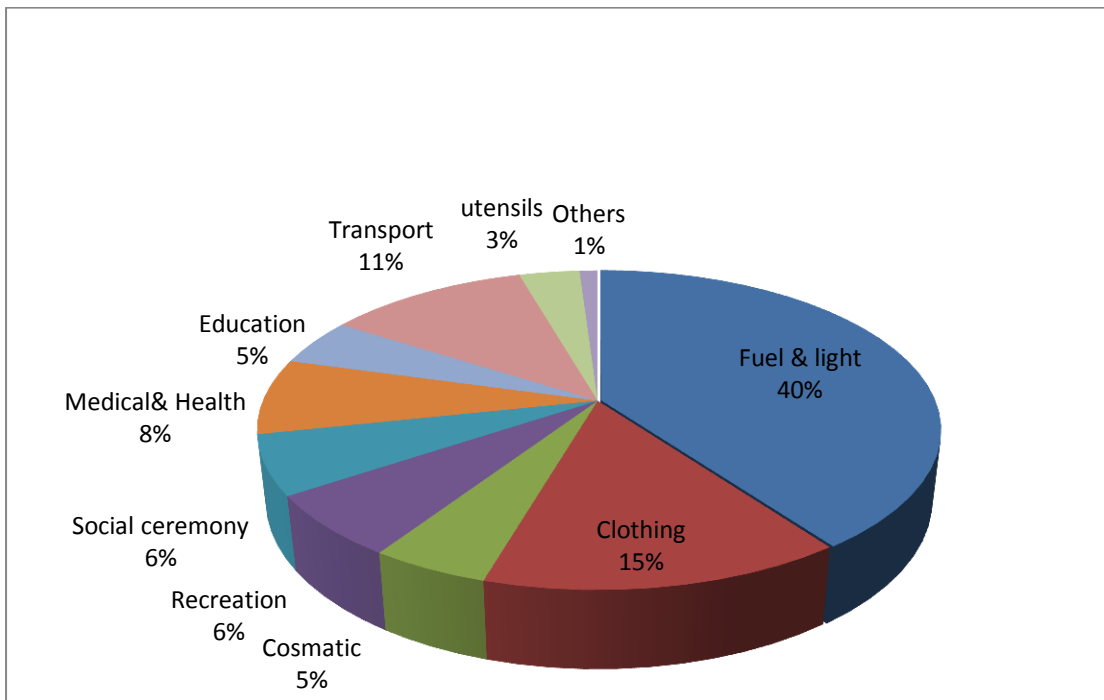


Fig. 4.14 Non –food expenditure in sample households (income group 20,000-40,000)

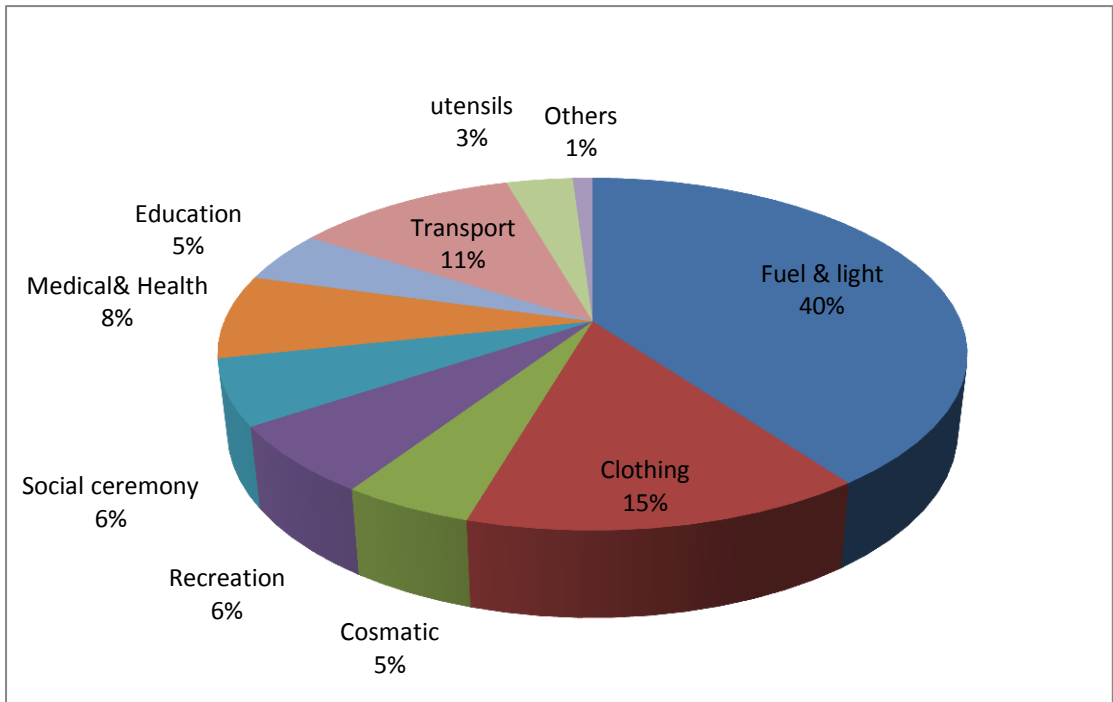


Fig. 4.15 Non –food expenditure in sample households (income group 40,000-60,000)

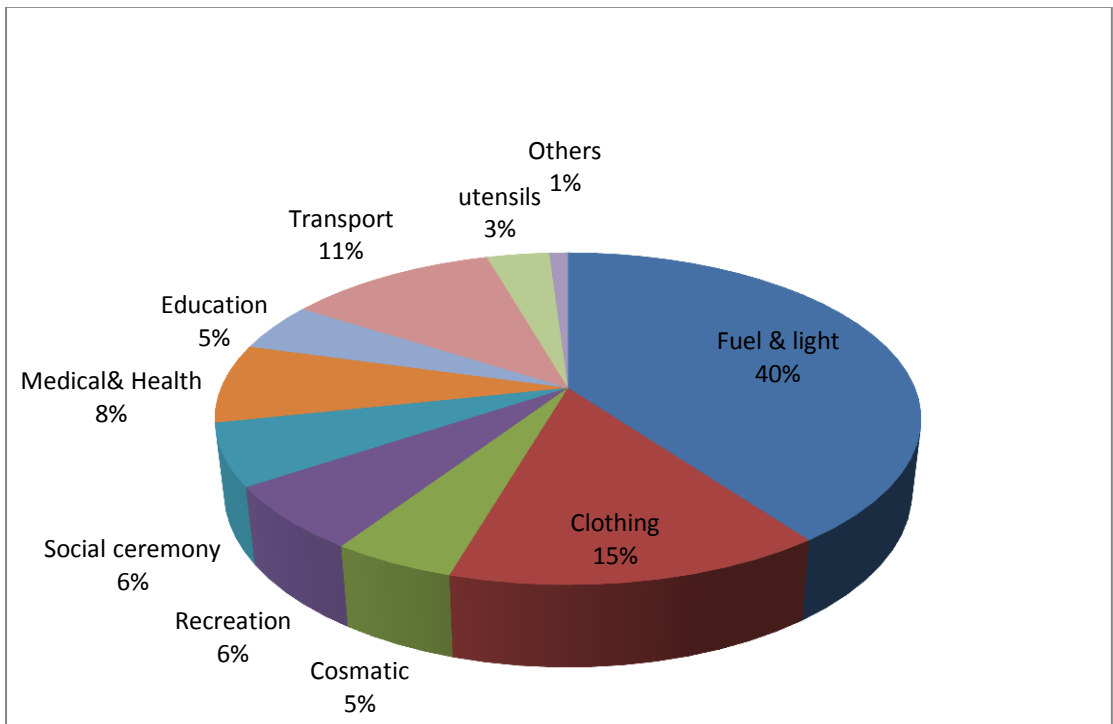


Fig. 4.16 Non –food expenditure in sample households (income group 60,000-80,000)

4.8 Expenditure on food and non-food items of selected households:

Expenditure on food and non-food items was presented in table 4.20. It is evident from the table that about 53.24 percent of the total income was spent for non-food items and about 46.76 percent for food items in overall households. An amount of Rs. 1205.25 was balance with selected households.

Food expenditure was 54.36 percent and non-food expenditure was 45.63 percent in income groups Rs. 20,000- 40,000. Total expenditure on food & non-food was Rs. 8088.80 Rs./person/year. After food and non-food expenditure the balance was nil and it was deficit of on amount of Rs. 1501.21.

In income group 40,000-60,000 the non- food expenditure was 54.17 percent which is higher than food expenditure 45.82 percent and very few amount was balance (Rs138.29) with the households.

In income group 60,000-80,000 the non-food expenditure was 58.29 percent which is higher than food expenditure 41.70 percent and high amount was balance (Rs. 5229.67) with the households.

Proportion of expenditure on food & non- food items was inversely related with the different income groups. It was also observed that the expenditure on non-food items was lower in (20,000-40,000 income) lowest income groups as compared to other income groups.

Table 4.20 Expenditure on Food and Non-Food items of selected households:

Income Group	expenditure (Rs./Year)			Income	Balance
	food	Non-Food	Total	(Rs./year)	Income
	A	B	C	D	E= D-C
20,000-40,000	4397.80	3691.00	8088.80	6587.59	-1501.21
percent	54.36	45.64	122.79		
40,000-60,000	4499.21	5319.00	9818.21	9956.50	138.29
percent	45.82	54.18	98.61		
60,000-80,000	4524.81	6325.00	10849.81	16079.48	5229.67
percent	41.70	58.30	67.47		
Overall	4473.34	5092.90	9566.24	10771.49	1205.25
percent	46.76	53.24	88.81		

4.9 Impact of PDS on Food Security of selected households:

Table 4.21 and 4.25 indicates that overall an amount Rs. 397.79 per person and Rs. 5425.86 per family was saved by selected households due to BPL card holder; BPL card holders received Rice and wheat from PDS shop at very cheaper rate.

In income group Rs. 20,000- 40,000 (table 4.22) was save high amount Rs 662.10 per person and Rs 3025.80 per family of sample households.

In income group Rs. 40,000-60,000 (table 4.23) also save Rs 375.92 per person and Rs 1781.86 per family and income group 60,000 – 80,000 (table 4.24) save few amount Rs 151.25 per person and Rs 654.91 per family. It was also observed that the major saving was comes from Rice as compared wheat.

Table 4.21 saving from PDS of overall sample households

Overall	Rice BPL	Rice Purchase	Wheat BPL	Wheat Purchase
Quantity(Kg)	15.13	22.5	6.77	6.95
Price (Rs.)	2	18	2	25
Total	30.26	405	13.54	173.75
Value at market price	272.34		169.25	
Save (Rs.)	242.08		155.71	
Total (wheat + Rice)	397.79			

Table 4.22 saving from PDS of different sample households

	Rice		Wheat	
	BPL	Purchase	BPL	Purchase
Quantity(Kg)	26.25	8.5	10.5	3.5
price (Rs.)	2	18	2	25
Total	52.5	153	20.4	87.5
	472.5		262.5	
save	420		242.1	
total	662.1			

Table 4.23 saving from PDS of different sample households

income group Rs.40,000-60,000	Rice BPL	Rice Purchase	Wheat BPL	Wheat Purchase
Quantity(Kg)	13.22	9.5	6.85	2
Price (Rs.)	2	18	2	25
Total	26.44		6.85	50
Value at market price	237.96		171.25	
Save (Rs.)	211.52		164.4	
Total (wheat + Rice)	375.92			

Table 4.24. Saving from PDS of different sample households

income group Rs.60,000-80,000	Rice BPL	Rice Purchase	Wheat BPL	Wheat Purchase
Quantity(Kg)	5.5	4.5	2.75	1.45
Price (Rs.)	2	18	2	25
Total	11	81	5.5	36.25
Value at market price	99			68.75
Save (Rs.)	88			63.25
Total (wheat + Rice)	151.25			

Table 4.25 Saving from PDS of different sample households

Income	Rice	Wheat	per person	per Family
20,000-40,000	420.00	242.10	662.10	3025.80
40,000-60,000	211.52	164.40	375.92	1781.86
60,000-80,000	88.00	63.25	151.25	654.91
overall	242.08	155.71	397.79	5425.86

4.10 Main complaints with Fair Price Shops (FPS):

Respondents were asked about the quantity allowed per ration cards was sufficient for 56 percent in case of rice, 93.33 percent in case of wheat, 61.67 percent in case of sugar and 100 percent in case of salt. About 11.67 percent respondent said that food-grain taste was not good for consume at home. Sample households (23 respondents, 38 percent) often complained about non availability of kerosene and sugar.

Table 4.26 Main complaints with fair price shops (Percentage of respondents)

S.No.	Particulars	No. of respondent	% of respondent
1.	Quantity allowed per Ration Card is sufficient for		
	(a) Rice	34	56.00
	(b) Wheat	56	93.33
	(c) Sugar	37	61.67
	(d) Salt	60	100.00
2.	Regular intake by respondents it self	55	91.67
3.	Ration card given to other to for intake	05	8.33
4.	Utilization of food grain in home	53	88.33
5.	Reasons for not consuming at home		
	(a) Poor Quality	-	-
	(b) Fair Quality	-	-
	(c) Taste is not good	07	11.67

4.11 General view of the Respondent Regarding PDS:

Most of the respondents under BPL category were satisfied with the Quality 70 percent said it was of fair quality and 33.33 percent said that grain they received was of poor quality (table 4.27). About 10 percent of households were unsatisfied from the day of opening of Fair Price Shops. 10 percent respondent said that the dealer's attitude was not helpful, and 8.33 percent said that last visit, travel and queuing took more than three hours. About 13 percent respondent said that day of opening are not adequate. The local fair price shop was more than 1 km away from the respondent's house for 30 percent respondents. Majority (100 percent) of the respondent were not satisfied with infrastructure facilities in the place of FPS like lack of drinking water, appropriate place for queuing to get food grains.

Table 4.27 General view of the respondents

S.No.	Particulars	No. of respondent	% of respondent
1	Quality related concerns		
	(a) Best Quality	-	-
	(b) Fair Quality	42	70.00
	(c) Poor Quality	20	33.33
2	Days of opening are not fixed	06	10.00
3	Distance to FPS more than 1km.	18	30.00
4	Last visit (travel + queuing, took more than three hours)	5	8.33
5	Days of opening are not adequate	8	13.0
6	Dealers attitude is unhelpful	6	10.00
7	Place for queuing is not appropriate	45	75.00
8	Lack of drinking water and sitting arrangement for disable person	60	100.00
9	Reasons for not buying Ration		
	(a) No availability at Ration shop	5	8.33
	(b) Lack of money	10	16.67

*Summary, Conclusions And Suggestions For
Future Research Work*

CHAPTER-V

SUMMARY, CONCLUSIONS AND SUGGESTIONS

FOR FUTURE RESEARCH WORK

5.1 Summary and Conclusions:

The Public Distribution System (PDS) is one of the important elements of the Government's 'Food Security' system. Food security means availability, accessibility and affordability of food to all people at all times. The poor households are more vulnerable to food insecurity whenever there is a problem of production or distribution of food crops. Food security depends on the Public Distribution System (PDS) and government vigilance and action at times, when this security is threatened.

Chhattisgarh with high poverty ratio and high percentage of tribal population is struggling against hunger and starvation. It is the poorest state in India with a Human Development Index of 0.358 in 2011("Chhattisgarh,"). PDS has become the instrument to ensure food security to millions of BPL families with 37 lakh card holding families, PDS in 70 percent of Chhattisgarh state population. In the financial year 2012-13, total 34.62 lakh BPL and 11.39 lakh APL ration cards are in use under Public distribution system. The system of supplying food grains to the entire population through PDS was found to be neither desirable nor sustainable. The inefficiencies of the so called Universal PDS (UPDS), that is supplying food grains to entire population, led to increased cost (overall food subsidy bill), at the same time depriving the food security of many. The response of the government had been to target the PDS to the most deserving, so that the operations of the PDS could be better managed. The Targeted PDS (TPDS), launched in 1997, replaced the UPDS that had been in operation, through the PDS (Control) order, 2001. Some salient features of the TPDS are(*PDS(Control) Order, 2001, 2001*)

Each of the BPL household is eligible to get 20 kilograms of food grains (before April 2000 this was only 10 kilograms) quantity. The states, however, will get the APL food grains at economically viable prices and subject to availability. Any subsidy to such APL groups has to be borne by the respective state governments. In fact, many states have chosen to provide some subsidy to certain categories of APL population. For instance the Chhattisgarh Government has a scheme called "Mukhya Mantri Khadyanna Sahayata Yojna" (*Mukhya Mantri Khadyanna Sahayata Yojna*, 2007). The states are empowered to issue their own PDS orders and Chhattisgarh has its own order issued in 2004 (*Chhattisgarh Public Distribution System (Control) Order, 2004*, 2004). There is a sub category of poorest among BPL who is eligible for a more highly subsidised scheme called *Antyodaya Anna Yojana (AAY)*. Under this scheme 35 kg of food grains are provided at rate of Rs 2 per kg for wheat and Rs 3 per kg for rice. This group is expected to cover 25 million households or 38% of BPL families from 2003-04. ("Targeted Public Distribution System (TPDS)," 2009)

In Chhattisgarh State the PDS focused on extending coverage, improving delivery and increasing transparency leading to its remarkable revival. Under PDS reform first step taken by the Chhattisgarh government was passing the Chhattisgarh PDS (control) order, 2004 which shifted the management of ration shop from private dealers to community based organizations. The second step was addressing the problem of diversion of food grains while they were being transported from Government godown to PDS outlets in private transport. Third, a significant reform initiated by the state government was the launch of the Mukhya mantra Khadyan Sahayata Yojana (MKSJ) in April, 2007. Under the MKSJ, the government provides ration cards to all households identified as living below the poverty line. Keeping in view the above fact present study was conducted in Raipur district of Chhattisgarh to

know the impact of reforms introduced by Chhattisgarh government with the following specific objectives:

1. To study the Structural and Functional Reforms in Public Distribution System in Chhattisgarh State.
2. To find out the role of Public Distribution System in Food basket of selected households.
3. To find out the Food consumption pattern of selected households.
4. To examine the constraints in Public Distribution System and suggest suitable measure to overcome them.

The present study was conducted in Raipur district of Chhattisgarh. Sixty farmers were selected randomly from six villages. The primary data were collected for the agricultural year 2011-12. Primary data regarding the General characteristics of sample households, food consumption pattern, farm size, income and employment pattern, impact of PDS on food security of sample households and problem related Public Distribution System were collected from the respondents using well designed questionnaires and schedules. The secondary data were collected from different Government publication, Bulletin, journal and from various government sources including the Directorate of Agriculture, Block development offices. The collected data were compiled and tabulated in order to achieve the desired objectives and analyzed by applying suitable statistical methods/tools for proper presentation of results.

5.2 The main finding of the study is summarized as follows:

5.2.1 General Characteristics of the Sample household:

- Average family size was 4.58. and the average age of the males, the females and the children were 34.52, 36.73 and 8.12 years respectively.

- The sample households comprised predominantly of schedule tribe (40.00) and followed by Schedule caste (31.66) percent. The overall percentage of illiterate was about 63.34 percent and literacy level was 36.66 percent.
- The average size of holding was 0.78 hectares.

5.2.2 Income distribution in sample households:

- Per family per annum income, on an average, was observed Rs. 48063.82 and per person per annum income was Rs. 10471.42 for sample households.
- The main source of income for sampled households was non- farm (52.35 percent) and farm (44.25 percent) sector. Farm and non –farm sector together contributed 96.60 percent of the total income and a small portion 3.40 percent was contributed by off farm sector.

5.2.3 Employment pattern in sample households:

- On an average, per person was engaged for 156.43 man days in different activities.
- Highest share being 52.06 percent contributed by non –farm activities followed by farm activities i.e. 29.21 percent and lowest share was 18.73 percent contributed by off- farm activities.

5.2.4 Expenditure pattern of food item by sample households:

- Overall large proportion of per family/per person expenditure was spent on meat, fish, eggs & alcohol (28.54 percent), milk and milk products (14.18 percent), Cereals (13.71percent), pulses(11.35 percent), fruits (11.74 percent), vegetable (9.15 percent), edible oil (8.96 percent), and small proportion was spent on sugar (1.58 percent) and spices (0.8 percent) .

5.2.5 Dietary intake in terms of food items of sample households:

- Overall food basket of sample households was mainly cereal based. Sample households were deficient in consumption of all food items to Recommended Dietary Allowance (RDA) except cereals. Consumption basket for sample households was considerably deficient in vegetable, pulses, milk and its products, sugar, edible oils and fruits Consumption.
- Overall income households average cereal consumption 472.00 gms/adult/day (surplus 47.46 gms/adult/ day) and other food items was considerably deficient in Milk & milk products (-220 gms/adult/day) actual intake 79.93 gms/adult/day, vegetables (-218 gms/adult/day) actual intake 132 gms/adult/day, fruits (-51.00 gms/adult/day) actual intake 49.00 gms/adult/day, pulses (-26.72 gms/adult/day) actual intake 55.95 gms/adult/day, sugar (-5.88 gms/adult/day) actual intake 26.79 gms/adult/day and edible oils (-0.26 gms/adult/day) actual intake 29.74 gms/adult/day food items.

5.2.6 Expenditure on Non-Food items of selected households:

- Average expenditure on Non-food items from income was spent on fuel & light 44.17 percent, Clothing 13.84 percent, transport 10.76 percent, social ceremony 6.22 percent, Medical & Health 6.75 percent, recreation 5.42 percent, Education 4.10 percent, cosmetic 4.77 percent, utensils 3.03 percent and other items 0.94 percent.

5.2.7 Expenditure on food and non-food items of selected households:

- Expenditure on food and non-food items was about 53.24 percent of the total income was spent for non-food items and about 46.76 percent for food items

in overall households. An amount of Rs. 1205.25 was balance with selected households.

5.2.8 Impact of PDS on Food Security of selected households:

- overall an amount Rs 397.79 per person and Rs 5425.86 per family was saved by selected households due to BPL card holder, BPL card holders received Rice and wheat from PDS shop at very cheaper rate.

5.2.9 Main complaints with Fair Price Shops (FPS):

- Respondents were asked about the quantity allowed per ration cards was sufficient for 56 percent in case of rice, 93.33 percent in case of wheat, 61.67 percent in case of sugar and 100 percent in case of salt.
- About 11.67 percent respondent said that food-grain taste was not good for consume at home. Sample households (23 respondents, 38 percent) often complained about non availability of kerosene and sugar.

5.2.10 General view of the Respondent Regarding PDS:

- Most of the respondents under BPL category were satisfied with the quality, 70 percent said it was of fair quality and 33.33 percent said that grain they received was of poor quality.
- About 10 percent of households were unsatisfied from the day of opening of Fair Price Shops.
- 10 percent respondent said that the dealer's attitude was not helpful.

5.3 Suggestion for future research works:

1.The State Government should facilitate distribution of wheat flour/fortified wheat flour instead of whole wheat in convergence with other Government program/schemes for nutritional improvement of targeted beneficiaries, the Department of Food and Public Distribution has issued revised policy guidelines

on this subject in January 2008. 14 States are presently distributing wheat flour/fortified wheat flour under PDS.

2. Allotment of Fair Price Shops to Institutions and Groups like Cooperatives, women's Self Help Groups, Village Panchayats, Urban Local Bodies and other Self Help Groups in States.
3. To make operations of FPS economically viable, the State governments have been advised to allow FPS licensees to enlarge basket of commodities by allowing sale of non-PDS items for daily use as per local requirements. Nine states governments have confirmed that FPS in these states are selling non-PDS items in FPS such as edible oil, pulses, milk powder, soaps etc.
4. The State Governments have been given the flexibility in 2001 for fixing the commission in order to enable them to increase the commission of FPS licensees.
5. This scheme was introduced during the Eleventh Five Year Plan to strengthen the PDS. The scheme aims at taking effective measures to curb diversion and leakages through Global Positioning System, Radio Frequency Identification Device, etc. General awareness of the beneficiaries, high literacy and strong grass root level organization, particularly Panchayati Raj Institutions have helped States in minimizing FPS level leakage.
6. State Government should be identify the BPL families and include the really poor and vulnerable sections of the society such as landless agricultural laborers, marginal farmers, rural artisans/craftsmen such as potters, weavers, black-smith, carpenters etc. in the rural areas and slum dwellers and persons earning their livelihood on daily basis in the informal sector like potters, rickshaw-pullers, cart-pullers, fruit and flower sellers on the pavement etc. in urban areas. The Gram Panchayats are involved in identification of BPL households.

7. To identifying the poor and administering direct income transfers is likely to be costly, food subsidy with proper targeting remains a more cost-effective way to improve food security. Policymakers, economists, and the general public should not be hasty in abolishing the PDS but should wait till the country is ready to make direct income transfers to the poor.
8. To ensure quality of food grains, sealed sample from government godowns should be displayed in ration shops. This system is already in placed on paper and even finds a mention on every ration card, but is not practiced. As a result, shopkeepers adulterate the food grains with straw, stones and this discourages the consumers from purchasing the grains.
9. The common mass should be made aware of their rights and should take initiatives in fighting against any kind of malfunctioning in the Public Distribution System.
10. Government should provide the training for proper and effective handling of the Fair Price Shops; the Shopkeepers face a lot of difficulties in running the Shops, specially the Women SHGs.
11. States were directed to carry out any intensive campaign to review the existing list of BPL and AAY families and ration cards so as to eliminate bogus ration cards.

Abstract

ROLE OF PUBLIC DISTRIBUTION SYSTEM IN ENSURING FOOD SECURITY IN RURAL AREA OF RAIPUR DISTRICT OF CHHATTISGARH

**By
ARUNDHATI RAJ**

ABSTRACT

The Public Distribution System (PDS) perform a very vital role in ensuring food security for the poor. In another important sense it ensures a regular supply of food grains even in the remotest part of the country. In Chhattisgarh State the PDS focused on extending coverage, improving delivery and increasing transparency leading to its remarkable revival. Under PDS reform first step taken by the Chhattisgarh government was passing the Chhattisgarh PDS (control) order, 2004 which shifted the management of ration shop from private dealers to community based organizations (cooperative societies, *panchayats*, women's self-help groups and other public bodies). The second step was addressing the problem of diversion of food grains while they were being transported from Government godown to PDS outlets in private transport. Third, a significant reform initiated by the state government was the launch of the MukhyamantriKhadyanSahayataYojana (MKSY) in April, 2007. Under the MKSY, the government provides ration cards to all households identified as living below the poverty line. The present study was conducted in the Dharsiwa block of Raipur district of Chhattisgarh. Sixty farmers were selected randomly from six villages Ten respondents were selected randomly from each of the selected villages. The primary data were collected for the agricultural year 2011-12. The major findings of this study revealed that the average family size was 4.58. the average age of the males, the females and the children were 34.52, 36.73, 8.12 years respectively. The sample households comprised predominantly of schedule tribe 40.00 percent and followed by schedule caste 31.66 percent. The average illiterate 63.66 percent and literacy level 36.66 and average size of holding was 0.78 hectares. Per family per annum income, on an average, was observed Rs. 48063.82 and per person per annum income was Rs. 10471.42 for sample households. On an average, per person was engaged for 156.43 man days in different activities. The main source of income for sampled households was non- farm (52.35 percent) and farm (44.25 percent) sector. The Present study was showed that lower income Below Poverty Line households expanded more on alcohols compared to other income groups. Food basket of sample households was mainly cereal based. Sample households were deficient in consumption of all food items to Recommended Dietary Allowance (RDA) except cereals. Consumption basket for sample households was considerably deficient in vegetable, pulses, milk and its products, sugar, edible oils and fruits Consumption. BPL card holders received Rice and wheat from PDS shop at very cheaper rate. Respondents were asked about the quantity allowed per ration cards was

sufficient. Sample households (23 respondents, 38 percent) often complained about non availability of kerosene and sugar. Few number of respondent said that food-grain taste was not good for consume at home. Most of the respondents under BPL category were satisfied with the Quality 70 percent said it was of fair quality and 33.33 percent said that grain they received was of poor quality. Majority (100 percent) of the respondent were not satisfied with infrastructure facilities in the place of FPS like lack of drinking water, appropriate place for queuing to get food grains.

State government is ensuring quality of food grains, sealed sample from government godowns should be displayed in ration shops. This system is already in place on paper and even finds a mention on every ration card, but is not practiced. As a result, shopkeepers adulterate the food grains with straw, stones and this discourages the consumers from purchasing the grains.

The State governments have been advised to allow FPS licensees to enlarge basket of commodities by allowing sale of non-PDS items for daily use as per local requirements. Nine states governments have confirmed that FPS in these states are selling non-PDS items in FPS such as edible oil, pulses, milk powder, soaps etc. In spite of these positive development, their remains much scope for improving the PDS, especially in terms of supplying better quality of food grains. In order to ensure both, food as well as nutritional security among the under privileged and poor people, in particular.

College of Agriculture,
Indira Gandhi Krishi Vishwavidyalaya
Raipur, Chhattisgarh.



(Dr. A. K. Gauraha)

Major Advisor

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Appendices

C.Season wise Food Consumption Pattern

Food items	Winter		Summer		Monsoon		Price(Rs.)
	Quantity	Price	Quantity	Price	Quantity	Price	
1.Cereals							
Rice							
Wheat							
Bajra							
Maize							
Ragi							
other							
Total Cereals							
2. Pulses							
Gram							
Kulthi							
Moong							
Arhar							
Urd							
Lathyrus							
Other							
Total pulses							
3. Vegetables							
4. Spices - cilly - coriander - Turmeric -Cumin							
5.Milk and Milk Product							
6.Edible oils							
Mustard oil							
Groundnut oil							
Safflower							
Niger							
Other							
Total oil							

Food items	Winter		Summer		Monsoon		Price (Rs.)
	Quantity	Price	Quantity	Price	Quantity	Price	
7. Meat/Chicken (kg)							
8. Eggs (No.)							
9. Fish (Kg)							
10. Fruits							
11. Sugar & Jaggary							
12. Others							
- Pan - Tobacco - Betel & nuts - Alcoholic							

D. Non Food Consumption

Particulars	Amount/No. of items	Expenditure on Particular item
1. Kerosene		
2. Soap		
- Bath Soap - Wash Soap - Detergent		
3. Clothing		
4. Footwear		
5. Cosmetic		
6. Recreation		
- Mela - Market - Cinema - Marriage - Social ceremony - Medical & health care		
7. Durable goods - Furniture		
- Chair - Table - Bed		
- Motorcycle		
- Scooter		

- Cycle		
- TV		
- Radio/ Music System		
- Fan		
- Refrigerator		
8. Ornamental		
- Gold - Silver		
9. Utensil		
- Brazen - Steel - Alumminium - Other		
10. Plastic Products		
11. Litigation		

- The problems faced in purchasing food through PDS ?
.....
.....
.....
- Quality related concerns
 (1) Best Quality
 (2) Fair Quality
 (3) Poor Quality
- Days of opening are not fixed.....
.....
.....
- Distance to FPS more than 1 km.
.....
.....
.....
- Last visit (travel+ queuing) took more than two hours
.....
.....
.....
- Days of Opening are not adequate
.....
.....
.....

- Dealers attitude is unhelpful

.....
.....
.....

- Place for queuing is not appropriate

.....
.....
.....

- Lack of drinking water and sitting arrangement for disable person.....

.....
.....

- Reasons for not buying Ration-
(1) No availability at ration shop
(2) Lack of money

APPENDIX-II
Name of Sample households

S.N.	Farmer name	Village	S.N.	Farmer name	Village
1	kanesharyadav	Temari	31	Bisahu Ram Sahu	Kenari
2	santulohar	Temari	32	HariramNirmalkar	Kenari
3	MahendraGiriGoswami	Temari	33	Janak Ram Yadav	Kenari
4	panchobai	Temari	34	Tej Ram Sahu	Kenari
5	kumbhkard	Temari	35	JhalariyaSahu	Kenari
6	BirbalGoud	Temari	36	Dhannu Ram Sharma	Kenari
7	Joghat	Temari	37	SundarLalSinha	Kenari
8	kishan ram sahu	Temari	38	Malik Ram Markande	Kenari
9	Bharat LalDhuruv	Temari	39	ChanrashekharSahu	Kenari
10	Nand Kumar	Temari	40	PrahladMarkam	Kenari
11	MadhubanNirmalkar	Nakati	41	GokulYadav	Barouda
12	Hariram	Nakati	42	KhorbaharaNirmalkar	Barouda
13	BanvasaBai	Nakati	43	MoharSahu	Barouda
14	PhulkuwarDhivar	Nakati	44	Samundar Singh	Barouda
15	ToranlalNagarchi	Nakati	45	SirjuBandhe	Barouda
16	KuleshwarTarak	Nakati	46	LakhanTandon	Barouda
17	PiparamSinha	Nakati	47	TuganTandon	Barouda
18	GajadharDhivar	Nakati	48	Delu ram Nirmalkar	Barouda
19	NaradNagarchi	Nakati	49	VishramKoshal	Barouda
20	GesuBaiNagarchi	Nakati	50	Bhagva ram Sahu	Barouda
21	Salik Ram Kosle	Dharampura	51	Man Singh Sahu	Jora
22	LakhanLal	Dharampura	52	Bishat Das Deheriya	Jora
23	BudharuNirmalkar	Dharampura	53	Budharu Das Sarang	Jora
24	PatiramDhivar	Dharampura	54	Shatrughan	Jora
25	JhabuLalSahu	Dharampura	55	Bharat Lal	Jora
26	Gyan Das Sultan	Dharampura	56	VishramSahu	Jora
27	keshav Das	Dharampura	57	Sunil Jarj	Jora
28	Chenu Ram	Dharampura	58	Jay kumarSahu	Jora
29	Manik Ram Dhritlahre	Dharampura	59	ChhaganLalMarkande	Jora
30	SudamaNirmalkar	Dharampura	60	BhukhanLalTandan	Jora

APPENDIX- III**List of Abbreviations**

- AAy- Antyodaya Anna Yojana
- APL – Above Poverty line
- AY- Annapurna Yojana
- BPL – Below Poverty Line
- CGSCSC- Chhattisgarh State Civil Supplies Corporation
- CIP- Central Issue Prices
- EAS – Employment Assurance Scheme
- FAO- Food & Agriculture Organization
- FCI- Food Corporation of India
- FPS- Fair Price Shop
- GoI- Government of India
- HRD- Human Resources & Development
- MSP- Minimum Support Price
- NSSO – National Sample survey Organization
- OBC – Other Backward classes
- PDS – Public Distribution System
- PRI – Panchayat Raj Institution
- RPDS – Revamped Public Distribution System
- SC – Scheduled Caste
- SFC – State Food Corporation
- SGRY – Sampoorna Gramin Rojgar Yojana
- ST – Scheduled Tribe
- TPDS – Targeted Public Distribution System
- WFP – World Food Programme
- WHO – World Health Organization