CHAPTER - VI
SUMMARY, CONCLUSION AND POLICY IMPLICATIONS

This chapter is designed to recapitulate the nature, method, content and results of our analysis as carried out in the preceding chapters and to highlight some of the most significant conclusions, suggestions and policy implications emerging there from.

The study has critically analyzed and evaluated the operational working of Public Distribution System at dealer and beneficiary levels in rural and urban areas of Cuttack district, Orissa during the year 2002-2003. The specific objectives of the study are:

1. To study the working of the fair price shops at the dealer level in terms of coverage of the beneficiaries, volume of business, cost and return in operating fair price shops in rural and urban areas.

2. To analyse the quantities of different commodities obtained from fair price shops and their adequacy among the beneficiary households in rural and urban areas.

3. To work out the cost of obtaining different commodities from fair price shops and compare the above with the prevailing market price in rural and urban areas.

4. To examine the factors affecting the quantity of off-take of different commodities from fair price shops by the beneficiary households.

SAMPLE DESIGN

A multi-stage random sampling technique has been adopted for the present study. Of all the districts of Orissa, Cuttack district has been selected purposively as the area of present study because of the familiarity of the investigator in the study area to get more reliable and accurate data.
from the grass root level. After the selection of district, urban and rural areas have been classified as per government identification (District Hand Book, Cuttack, 2003).

One C.D. Block from rural area and one N.A.C. from urban area are selected at random. Having selected the block and NAC, the total number of FPSs under each area are listed separately. From each area 50 percent of the FPSs are selected at random. Thus 35 FPSs from rural area out of 60 and 11 FPSs from urban area out of 22 are selected for the purpose of the study. Again for the study at beneficiaries level all beneficiary households of the sample FPSs are listed and classified accordingly to four categories- APL, BPL, Antodyoya and Annapurna. 10 percent of beneficiary households from each category are selected from the study area. In rural area 70 APL, 37 BPL, 21 Antodyoya and 12 Annapurna beneficiary households are selected. In urban area the corresponding figures are 60, 23, 12 and 10 respectively. Thus, in aggregate 245 beneficiary households are selected out of which 140 households are from rural location and 105 households are from urban location.

The study is largely based on primary data collected from dealers and beneficiaries. The primary data have been elicited systematically through well structured pre-tested personal interview schedule prepared separately for dealers and beneficiaries of both rural and urban areas. The primary data are further supplemented by discussions and observations as per the necessity. The secondary data have been collected from different books, journals, magazines, newspapers, reports and government records.

Public Distribution System at Dealers level

The analysis at dealers levels in the study area reveals that higher percentage of rural dealers is doing the FPS business for longer period than their urban counterparts. So far as the business status of dealers is concerned in rural area less percentage of dealers have accepted FPS as full time affair in comparison to the urban dealers. It is also found that
more FPSs are running in rented houses in both the areas but the magnitude in percentage is found higher in urban area. So far as the floor area used for FPS is concerned, rural dealers are better-off than urban dealers as the former is having larger floor area over the latter. Urban FPSs are found engaging more hired labour for operating FPS than their rural counterparts and urban dealers are getting better maydays of employment from FPS as compared to the rural dealers. Display of stock and rate chart is also found better with the urban dealers in comparison to their rural counterparts.

With regard to the average number of beneficiaries per dealer, it is found that a rural dealer has more number of beneficiaries in comparison to its urban counterpart. Similarly, it is found that rural dealers are better placed in obtaining quantities of different commodities for distribution among beneficiaries in comparison to urban dealers. So far as the monthly commission of dealer for distributing the items among beneficiaries is concerned, it is found that a rural dealer gets more commission than an urban dealer. In case of rural dealer commission received from kerosene is the highest followed by commission from rice and sugar. On the contrary an urban dealer gets more commission from rice followed by kerosene and sugar. So far as income from the sale of gunny bags is concerned, a rural dealer gets more income than the urban dealer. Thus, taking commission and sale of gunny bags into account it is concluded that income from FPS is higher in case of a rural dealer than that of an urban dealer.

Analysing the cost aspect of operating FPS it is concluded that rural dealers spend more on it in comparison to urban dealers. It is found that in both the areas transport cost and expenses on hired labour are found to be the major items of expenditure in the operation of FPS. Taking the official source of income (commission and sale of gunny bags) and expenditure in operating FPS, it is found that dealers are facing loss in both areas but amount of loss for an urban dealer is found higher than its rural counterpart. Taking income from undistributed stock and undercover
expenses into account it is found that dealers in both areas are reaping profit and profit earned by rural dealers are found higher than the urban dealers.

Thus, the hypothesis that the rural dealers have larger number of beneficiaries, higher volume of business and better return in operating FPSs as compared to the urban dealers is found confirmed from the findings of the study.

Public Distribution System at Beneficiaries level

(i) *Socio-economic status of the beneficiary households.*

The analysis on socio-economic characteristics of beneficiary household in the study area reveals that urban beneficiaries are better off than their rural counterparts. And among the beneficiaries, APLs and BPLs are found better placed than Antodyoya and Annapurna beneficiaries and this is irrespective of the areas under study.

With regard to size of family it is observed that the average family size of rural beneficiary households is found greater than that of urban area. Within the beneficiaries of both rural and urban area, the average family size of Antodyoya households is found highest followed by BPL, APL and Annapurna. With regard to occupational pattern, it is observed that quite a sizeable percentage of households in both rural and urban areas are found concentrated in double occupation. So far as occupational distribution is concerned while in rural area 47.14 percent beneficiary households is having double occupation, 35.72 percent and 17.14 percent households having more than double and single occupation respectively. In contrast in urban area 60 percent households is having double occupation, 24.76 percent having single occupation and 15.24 percent have more than double occupation. Among the beneficiaries of rural area, while in case of APLs and Annapurnas more households are found having double occupation, in case of BPLs more households are found having more than
double occupations and more Antodyoyas having single occupation. On the other hand in urban area there is larger concentration of households in double occupation for the APLs, BPLs and Antodyoyas. In case of Annapurna all beneficiaries are having single occupation.

The dependency ratio in rural beneficiary households is found higher than that of the urban households. Within rural area dependency ratio is highest in case of APLs followed by Antodyoyas, Annapurnas and BPLs. On the contrary in urban area APL households are found having highest dependency ratio followed by Annapurnas, Antodyoyas and BPLs.

An analysis of the distribution of beneficiary households on the basis of asset values across reveals that the urban beneficiaries are at a better position as compared to their rural counterparts. Among the beneficiaries within rural area the APLs are found better-off over other three categories. Similar situation is also noticed in case of urban area.

With regard to income range it is observed that quite a sizable percentage of households in both the areas are found concentrated in the income range of Rs.15,000 - Rs.19,999 per annum. In rural area larger percentage of APL households are found in higher income range as compared to BPLs, Antodyoyas and Annapurnas. Similar situation is also observed in urban area. In both the areas Annapurna households are at the most disadvantage position in this respect.

As regards the level of income the beneficiaries of urban area are better placed as compared to the rural area. Between categories the APLs in both the areas are in a better position of having higher level of income as compared to other categories. With regard to annual expenditure it is found that average annual expenditure of urban beneficiaries is higher than its rural counterparts. Among the beneficiaries, APLs are found having higher amount of expenditure as compared to other categories in both the areas. As regards the adequacy of income to meet the consumption expenditure it is found that the rural beneficiary households are at a
greater disadvantage position as compared to the urban households. The deficit is found higher among rural beneficiaries as compared to urban ones. Deficit as a percentage of income is found the highest among Antodyoyas in rural area and BPLs in urban area.

To sum up, it may be mentioned that taking the socio-economic characteristics into account the beneficiary households of urban area are found better placed as compared to their rural counterparts. Between the categories, the APLs followed by BPLs are found better-off than the Antodyoya and Annapurna households and this is irrespective of areas under study.

(ii) Interactive behaviour of beneficiaries with Public Distribution System

This section deals with the number of ration cards in possession, nature of possession of ration cards, time duration of getting PDS benefit, average number of off-takes of different commodities, quantities of commodities received over the years and comparison between the requirement of different commodities, their allotment and off-take by the beneficiary households in the study area.

As regards the number of ration cards in possession, it is revealed that while there is high degree of concentration of households in possessing more than two cards in rural area, in case of urban area households having two cards are found quite high. Between the categories of households, larger numbers of BPL households in both the areas are found possessing more than one card as compared to other categories. With regard to the nature of possession of ration card, it is found that in case of rural area while larger percentage of beneficiaries have kept their cards with the dealers, in urban area beneficiaries keeping their cards with friends and relatives are found higher. Within rural area, the BPLs are found more involved in such irregularities followed by Annapurna, Antodyoya and APL households. In urban area more irregularities in card possession is found among the Annapurnas followed by BPLs, APLs and
Antodyoya households. Regarding duration of enjoying the facility of PDS it is revealed that a sizeable number of beneficiaries of both areas are found availing it for more than two years. Within the beneficiary households excepting the Annapurna category all others are found getting the benefit of PDS for more than two years.

With regards to distribution of beneficiary households according to the number of commodities received from FPS it is revealed that in rural area larger percentage of beneficiaries are receiving only kerosene from FPS followed by kerosene & rice, only rice, kerosene & sugar and kerosene, rice & sugar. The beneficiaries not availing any items from FPS are found to 12.86 percent for rural areas. In urban area there is higher choice towards kerosene only followed by kerosene & rice, rice only, kerosene, rice & sugar, kerosene & sugar and sugar only. As it is revealed 20.96 percent urban beneficiary do not avail any item from FPS. Thus, preference for kerosene only is found highest in both rural and urban area but the magnitude is higher in urban area as compared to the rural area. Beneficiaries not availing any items from FPS are found higher in urban area as compared to the rural area.

An analysis on average number of off-take of different commodities by the beneficiaries from FPS in a year shows that both in rural and urban areas average number of rice off-take is highest among the beneficiaries followed by kerosene and sugar. Within the beneficiaries of rural area it is found that Antodyoya households are having more number of kerosene off-take per year followed by BPLs, APLs and Annapurna households. In case of rice, number of off-take is higher among the Annapurna households followed by Antodyoyas and BPLs in rural area. With regards to sugar numbers of off-take by rural BPL households are more than that of Antodyoya households. In contrast, in urban area the number of kerosene off-takes from FPS is found the highest among the BPL followed by Antodyoya, Annapurna and APL households. Regarding number of rice off-take, the Annapurna beneficiaries are found ahead of the Antodyoyas and
BPLs during the year. In case of sugar the numbers of off-take in a year is found higher within Antodyoyas in comparison to BPL beneficiaries. Thus, in case of rural area while the larger numbers of off-take of kerosene are found with the Antodyoya households, for rice the number of off-take are more with the Annapurnas and for sugar the numbers off-take are found higher with the BPLs. In urban area while larger numbers of off-take of kerosene is made by BPLs, the numbers of off-take of rice and sugar are found higher with Annapurnas and Antodyoyas respectively.

The average quantities of commodities received from FPS by beneficiaries per annum of rural and urban area during the study shows wide variation. As it is noticed in rural area a beneficiary receives higher amount of kerosene and sugar and lesser amount of rice from FPS in comparison to its urban counterpart. Among the beneficiaries of rural area it is revealed that Antodyoya beneficiaries receive the highest amount of kerosene followed by BPL, APL and Annapurna beneficiaries. With regard to rice in rural area Antodyoya beneficiaries receive maximum quantum of rice from FPS followed by BPL and Annapurna beneficiaries. And in case of sugar, quantity received by rural BPL beneficiaries is found higher in comparison to Antodyoya beneficiaries. Among the beneficiaries of urban area BPLs receive highest amount of kerosene from FPS followed by Antodyoya, Annapurna and APL beneficiaries. In case of rice, urban Antodyoya households are found receiving maximum amount followed by BPL and Annapurna households. And with regard to sugar, Antodyoya beneficiaries are receiving more quantum of sugar from FPS in comparison to BPL beneficiaries.

Thus, the hypothesis that the rural beneficiaries are receiving larger quantities of all commodities from FPS is found correct for kerosene and sugar only. But in case of rice, the hypothesis is found disproved from the findings of the study. Further, the hypothesis that the APL beneficiaries are receiving more quantities of different commodities from FPSs as
compared to their counterpart is found disproved from the quantities of distribution of kerosene only.*

Comparison between consumption requirement, allotment by government and off-take by beneficiaries from FPS reveals that allotment is short-of the requirement, off-take by beneficiaries is found less than the allotment and off-take is also below the requirement in case of all commodities irrespective of areas and categories.

However, between rural and urban beneficiaries the gap between consumption requirement and quantity of off-take in case of kerosene and sugar is less with the former as compared to the latter. In contrast for rice, the gap between quantity of off-take and consumption requirement is found more in rural area as compared to urban area.

Among the beneficiaries, within area no consistent trend is found on the gap between consumption requirement and quantity off-take of different commodities. Gap between consumption requirement and quantity of off-take as percentage of consumption requirement in case of kerosene is found higher for BPLs in rural area and Antodyoyas in urban area. With regards to rice and sugar, gap between consumption requirement and quantity of off-take as percentage of consumption requirement is found higher for BPLs in both the areas.

In case of rural area, quantity of off-take as percentage of consumption requirement of kerosene and rice is found higher for Annpurnas as compared to other category of beneficiaries. For sugar, the Antodyoyas are found better placed over the BPLs as the quantity of off-take as percentage of consumption requirement is higher with former over the latter. In urban area quantity of off-take as percentage of consumption requirement for kerosene is found higher for APLs, in case of rice and sugar the same is found higher for Annapurnas and Antodyoya respectively.

* The APL households are entitled to receive kerosene only from FPS.
Considering the quantity of off-take and consumption requirement it is found that PDS satisfies better to the kerosene requirement of Annapurnas in rural area and APLs in urban area. In case of rice, it is found that supply of rice through FPS to Annapurnas met their consumption requirement better as compared to other two categories in both rural and urban area. In case of sugar it is concluded that in both the areas Antodyoyas are better placed over the BPLs as the formers' off-take to requirement is higher than that of the latter.

The hypothesis that quantities of different commodities received from FPSs by beneficiary households fall short-off their consumption requirement and this is irrespective of within areas and between rural and urban areas is found confirmed from the findings of the study. However, the difference between requirement and off-take varies across categories, areas and commodities.

(iii) **Comparison between cost of commodities in Fair Price Shop (FPS) and in the open market**

Analysis on the comparison between cost of commodities in FPS and in the open market reveals that in case of kerosene and rice, cost of purchasing these commodities from FPS is found lower in comparison to its cost in open market. But cost of sugar in FPS is worked out higher than that of its open market cost.

In case of kerosene it is revealed that cost of purchasing it from FPS is found lower than getting it from open market both in rural and urban areas. Price benefit of purchasing kerosene from FPS is worked out higher for urban beneficiaries than their rural counterparts. Among the beneficiaries of rural area the price benefit of purchasing kerosene from FPS is found higher for APLs as compared to BPLs, Annapurnas and Antodyoyas. In case of urban area price benefit of purchasing kerosene from FPS is found higher for APLs as compared to Antodyoyas, BPLs and Annapurnas.
In case of rice the finding reveals that the cost of purchasing it from FPS is lower than the cost of purchasing it from open market both in case of rural and urban areas. Price benefit of purchasing rice from FPS is higher in urban area than that of rural area. Among the beneficiaries of rural area it is revealed that price benefit of purchasing rice from FPS is higher for Annapurnas as compared to Antodyoyas and BPLs. Similar situation is also found in urban area.

In case sugar it is found that cost of purchasing it from FPS is higher than cost of purchasing the same from open market. It is true both in rural and urban areas. Price loss of purchasing sugar from FPS is found higher in urban area in comparison to the rural area. Within rural area, it is revealed that the price loss of purchasing of sugar from FPS is higher for Antodyoyas in comparison to BPLs. Similar situation is also observed in urban area.

Thus, the hypothesis that the cost of obtaining commodities from FPS is higher as compared to cost of getting it from open market is found partially correct from the findings of the study. In case of kerosene and rice, cost of purchases from FPS is found lower as compared to the open market. For sugar however the reverse is noticed.

(iv) **Factors influencing the quantity of off-take from Fair Price Shop (FPS)**

As regards the factors influencing the quantity of off-take of different commodity from FPS by the beneficiaries, a multiple regression model is used in which the dependent factor is the quantity of monthly off-take from FPS (Y) and independent factors are; monthly households income in rupees (X₁), proportion of expenditure on essentials to total monthly consumption expenditure (X₂) and ratio of dependants in the family to total family members (X₃).

**Rural APL beneficiaries**

In case of rural APL beneficiaries it is found that quantity of monthly kerosene off-take from FPS is significantly influenced by proportion of
expenditure on essentials to total monthly consumption expenditure \((X_2)\) and ratio of dependents in the family to the total family members \((X_3)\).

**Rural BPL beneficiaries**

In regard to rural BPL beneficiaries, it is found the quantum of kerosene off-take from FPS is significantly influenced by monthly household income \((X_1)\). In case of rural BPL rice beneficiaries, quantity of rice off-take from FPS is influenced by proportion of expenditure on essentials to total monthly consumption expenditure \((X_2)\) and ratio of dependents in the family to the total family members \((X_3)\). With regard to BPL sugar beneficiaries of rural area it is revealed that quantity of sugar off-take from FPS is significantly influenced by monthly household income \((X_1)\).

**Rural Antodyoya beneficiaries**

Regarding rural Antodyoya beneficiaries, proportion of expenditure on essentials to total monthly consumption expenditure \((X_2)\) significantly influences the quantum of off-take of kerosene from FPS. In case of rice, monthly household income \((X_1)\) and ratio of dependents in the family to the total family members \((X_3)\) significantly influence the quantum of off-take of commodities from FPS. In case of sugar it is the monthly household income \((X_1)\) that is found significantly influencing the quantity of off-take from FPS.

**Rural Annapurna beneficiaries**

For rural Annapurna beneficiary households the quantity of kerosene off-take from FPS is found significantly influenced by proportion of expenditure on essentials to total monthly consumption expenditure \((X_2)\).

**Urban APL beneficiaries**

In case of urban APL beneficiaries, it is found that quantity of monthly kerosene off-take from FPS is significantly influenced by
proportion of expenditure on essentials to total monthly consumption expenditure \((x_2)\).

**Urban BPL beneficiaries**

In regard to urban BPL beneficiaries, it is found that the quantum of kerosene off-take from FPS is influenced significantly by proportion of expenditure on essentials to total monthly consumption expenditure \((x_2)\). In case of rice, quantity off-take from FPS is found significantly influenced by monthly household income \((x_1)\) and ratio of dependents in the family to the total family members \((x_3)\). With regard to sugar, it is revealed that monthly household income \((x_1)\) is significantly influencing its quantity of off-take from FPS.

**Urban Antodyoya beneficiaries**

Regarding urban Antodyoya beneficiaries it is found that proportion of expenditure of essentials to total monthly consumption expenditure \((x_2)\) significantly influences the quantum of off-take of kerosene from FPS. In case of rice, monthly household income \((x_1)\) and ratio of dependents in the family to the total family members \((x_3)\) is found influencing the quantum of off-take from FPS. With regard to sugar, it is the monthly household income \((x_1)\) that is found influencing the quantity of off-take from FPS significantly.

**Urban Annapurna beneficiaries**

For Annapurna beneficiary households the quantity of kerosene off-take from FPS is found significantly influenced by proportion of expenditure on essentials to the total monthly consumption expenditure \((x_2)\).

Thus the hypothesis that factors like monthly household income, proportion expenditure on essentials to total monthly consumption expenditure and ratio of dependents in the family to the total family members influences the quantity of off-take of different commodities by
beneficiaries from fair price shops is found true and accepted from the result of regression analysis.

**Major Findings of the Study**

The broad findings of the study are the followings:

1. In the working of PDS at the dealers level, the rural FPSs are found better compared to their urban counterparts in terms of number of beneficiaries under their disposal, volume of business and income derived there-off. The cost of operating FPS though found higher among the rural dealers, the higher income obtained from FPS results in less loss for the rural dealers as compared to their urban counterparts. The profits earned after manipulation being found higher with the urban dealers over their rural counterparts exhibits higher corrupt practices followed by the former as compared to the latter which is cause of concern in the better working of PDS. However, taking the PDS activities in all fairness it can be concluded that the working of FPS at the dealers level is found better in rural area as compared to urban area.

2. With regard to the quantities of commodities received from FPS, it is found that rural beneficiaries have received more quantities of kerosene and sugar than their urban counterparts and in case of rice urban beneficiaries have availed more quantities than the rural beneficiaries. Regarding the relationship between requirement, allotment and off-take it is found that allotment is the short off the requirement, off-take is below the allotment and requirement. It is true irrespective of beneficiaries, areas and commodities. But it is found that allotment serves better to the kerosene requirement in rural area than that of urban area. Off-take in relation to allotment and off-take as percentage of requirement of kerosene is found better in rural area than urban area. But regarding rice, allotment to requirement, off-take to allotment and off-take to requirement is better in urban area than rural area. So far as these relations in case of sugar are concerned, rural area is found better served.
than urban area. Among the beneficiaries in rural area percentage of off-take to requirement of kerosene and rice is higher in case of Annapurnas as compared to other beneficiary groups. Corresponding figure in case of sugar is found higher for Antodyoyas in rural areas. Among the beneficiaries in urban area quantity of off-take as percentage of requirement of kerosene, rice and sugar is found higher for APLs, Annapurnas and Antodyoyas respectively.

(3) The comparison between cost of obtaining commodities from FPS and from open market reveals that cost of kerosene and rice obtained from FPS is found lower than the open market. In case of sugar, however a reverse trend is noticed - the cost at FPS is higher than that in the open market. This is irrespective of areas and beneficiaries.

(4) With regard to factors influencing the quantum of off-take from FPS, independent variables such as monthly household income \( (x_1) \), proportion of expenditure on essentials to total monthly consumption expenditure \( (x_2) \) and ratio of dependents in the family to the total family members \( (x_3) \) are found significantly influencing the quantity of off-take of different commodities by beneficiaries from FPS in both the areas. In case of Annapurna beneficiaries however the independent variables are not found influencing the dependents variables significantly in both the areas under study.

Policy implications

In view of the conclusions drawn from the study the following policy implications are suggested.

(1) To make the fair price business more attractive for the dealers and to check unfair practices at dealers level, the amount the commission given to the dealers for doing the business may be enhanced and regulated.
(2) As the quantities of different commodities supplied through FPS fall short of requirement of the beneficiaries, necessary measures may be taken to enhance the availability of different commodities to different beneficiaries. A demand survey may be conducted to work out the quantum of commodities required by different beneficiary households. This will encourage the beneficiaries to receive commodities from FPS. In this context, the quality of commodities supplied through FPS needs improvement. This will facilitate more off-take from FPS by the beneficiary households.

(3) Since the cost of obtaining sugar from FPS is higher than that in open market and the marginal difference between market price and issue price is offset by the cost involved in terms of extra time spent in getting the commodities from FPS and wastages due to poor quality of commodity supplied, there is necessity of looking into these aspects for making price at FPS competitive with open market price. This will attract beneficiaries to off-take higher quantity of sugar from FPS.

(4) Among the beneficiaries of PDS, the rural beneficiaries in general and Antodyoyas & Annapurnas in particular being poorer as compared to APLs and BPLs and urban counterparts special effort may be taken to make PDS commodities available and accessible to them.