

INCOME PATTERNS AND DETERMINANTS OF RURAL POVERTY IN TWO DISTRICTS OF SINDH.

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ABSTRACT

This research explores income patterns and determinants of rural poverty in Sindh province. The Data were collected from 300 households from two districts i.e. Khairpur, and Thatta of Sindh Pakistan by using the simple random technique; a structural questionnaire was design as an instrument tool for measuring the poverty determinants and income patterns. The households are classified into three groups i.e. A, B and C. Group A and B are below subsistence holding and group C is related to subsistence holding and, all the households were engaged in farm production . It was revealed that the average size of farm A group is 7.2 acres but the grower cultivates average area 4.5 acres and the remaining 2.7 acres are not cultivated by them due to deficiency of water. In the same way, the grower of group B cultivates 7.475 acres instead of 11.5 acres and grower of C group cultivates 16.56 acres in place of 27.6 acres. The surveyed data of district Khairpur describes that the average size of farm of group A is 7.47 acres but each grower average cultivates 4.78 acres and the remaining 2.69 acres are uncultivated. Similarly, the grower of B group cultivates 7.462 acres instead of 11.9 acres and the grower of C group brings 17.4 acres under cultivation in place of 29 acres. The surveyed data of both districts clearly indicate that the income of all growers is low because they do not bring all land under cultivation. The surveyed data has further pointed out that 50% households are below the official poverty line, 33.33% households are just above poverty line and 16.67% well above official poverty line. The group C is in a better position to provide health, education etc facilities to their family members.

Keywords: *Poverty, Sindh, Income Patterns*

INTRODUCTION

The problem of poverty is prevalent in all ages and in all countries. (Haq 1999). Poverty is the result of economic, political and social processes that interact with each other and frequently reinforce in ways that exacerbate the deprivation in which poor people live (Haq 1999). The World Development Report 2003-2004 describes poverty as “the pronounced deprivation in wellbeing”. According to this report, the world has deep poverty amid plenty. Out of the world’s 6.2 billion people, 2.8 billion live below the international poverty line dollar one a day.

Pakistan being a developing country, where 68 percent of the total population lives in rural areas, overall economic growth largely depends on the growth of the rural sector. Agriculture contributes nearly 24 percent to GDP, provides livelihood to almost 47 percent of the working population and is the main source of foreign exchange earnings (Economic Survey 2004-05). Despite being an agricultural economy, the progress of this sector is not as satisfactory as could have been. The incidence of poverty is also considerably high in rural areas. Pakistan today faces the challenges of rising poverty, with almost one-third of its population classified as poor. This translates into nearly 46 million people currently living below the international poverty line of \$1 a day. The poor are not only deprived of income and resources, but they also lack basic facilities like education, health and clean drinking water. Pakistan compares poorly with other developing countries on most social indicators. Concern for human development has not been enough of priority.

Rising Trends of Poverty in Pakistan

The phenomenon of poverty was felt more during the decade of 1990s. The overall growth slowed down and almost one third of its population classified as poor. This accounts about 46 million population living below the international poverty line of dollar one per day. The main reasons of increasing trends of poverty were shortage

of irrigation water, decreasing size of farm land, drought, lack of capital, political instability and water logging and salinity.

A number of measures were initiated by the government to reduce poverty through establishing Task Force on Poverty Alleviation in 1993, the Social Action Program (SAP) in two phases 1993-96 and 1997-02, Pakistan Poverty Alleviation Fund, Micro-Credit Bank (Khushhali Bank), Pakistan Baitulmal, Khushal Pakistan Program and Food Support Program. All these programs, aimed at helping the poor and reducing poverty. Besides, the non-governmental organizations (NGOs) were allowed to provide micro credit facilities to the rural poor. But the poverty did not reduce and the people of the rural areas are still in worst conditions.

LITERATURE REVIEW

- Otsuka, Keuro (2002) has examined that income consist to total of the one's resources, both physical as well as the human. It is determined by the amount resources and returns to those resources. Important assets in rural areas are land and human capital. For the reduction of poverty raised land and human capital owned by the poor is necessary, to reduce land rent if the poor are tenants, to increase wage rates for the poor by increasing labor demand, and to reduce food prices by increasing food supply.

For that following objectives are suggested by Otsuka, Keuro.

- (a) land reforms,
 - (b) investment in agricultural research,
 - (c) investment in human capital or schooling,
 - (d) promotion of rural industries
- Sen, Dilip Kumar (2005) has explained his feelings about the perspective of poverty in SAARC Nations. The author strongly holds the view that people are not born to alleviate their poverty they are born with the right to express themselves as well as to apply their talents and creative power. Even poor parents long to see that their children have come out victorious in the struggle for existence. They gladly starve themselves to assist their children to march on in life. At the same time, we are seeing that the society has provided some opportunities for the people; and many of us are satisfied with what the society has done for them, as against a class of people in the society enjoying political and economic honeymoon. But it is a tragedy that we have not yet had the opportunity to see that the poor producers are turned into economic growth agents either in the field of agriculture or industry. It is a pity that we never feel that social justice is never like anything to be given out of favour rather it is to be given as a matter of social obligation and responsibility. We still ignore in our calculus of economics that it is the hardworking poor who are the most efficient of our social classes. Their rates of returns on capital are the highest, their choice of technology, more appropriate to our resource base, their consumption less, import-intensive, their willingness to state their own equity more apparent and their repayment of loans more reliable than the better-off classes of our society. To leave the toil of this class unrewarded, its skills under used and its capacity to use resources under-utilized is a luxury that no poverty stricken and externally dependent nation can afford. Hence, the need for the society's categorical duty towards the have-nots is to honor the principles of justice in regard to awarding co-ownership of the factors of production by turning them into growth agents, if there is at all to be any social justice in the truest sense of the term. It is, therefore, imperative for the economists, national planners and thinkers to realize this humanness of people. They are required to be very much particular in devising policies and strategies for the establishment of social justice. And if they do so in

real earnest, there will be no need for separately for separate endeavor to alleviate poverty and the need to be concerned poverty alleviation will automatically disappear.

Zaidi and Vos (1993) used different techniques and method to calculate poverty. Their work showed the consequences of different choices in the assessment of poverty. Head count index was used to measure poverty. The study concluded that given a large family size for a vast majority of the households, the level of poverty and the composition of the poor population were not much affected by the choice of equivalence scale.

- Malik (1996) analyzed the micro survey data obtained from a Wanda Village in Punjab, comprising 100 households. The survey was carried out in March-April 1990, and studied a large number of rural-specific and household specific variables besides landholdings, to determine their role in raising levels of living of rural masses. He tested his hypothesis mainly be the decomposition of FGT Index and

confirmed his results by regression analysis. He concluded that the percentage of rural poverty is found to be in line with the declining trend of rural poverty in Pakistan.

- Malik and Nazli (1999) evaluated the underlying relationship between rural poverty and credit use. They used the household data collected in 1990s from a representative sub-sample of the 1985 Rural Credit Survey of Pakistan Household by the International Food Policy Research Institute. They calculated head count ratio, poverty gap and FGT on the basis of expenditure based poverty line. They concluded that there was a linkage between welfare enhancing and poverty reduction, with rural credit use in Pakistan.
- Jafri (1999) estimated poverty from 1986-87 to 1993-94 using the headcount ratio, income gap and FGT Index on the HIES data. He also decomposed the data on the basis of demography and socioeconomic groups. He concluded that poverty had worsened in the country over time and was higher among households, which have large families or family headed by middle aged persons lacking formal education and were either self-employed or engaged in agricultural production activity.

Analysis of Data in Study Area

The important information source of the research is growers in district Thatta and Khairpur of Sindh province. The research was conducted on survey method during 2006-07. From each district 150 respondents were interviewed on random sample. In this way, 300 respondents were chosen from both districts.

The main purpose of this research is to analyze rural poverty in Sindh province. The households are classified into three groups i.e. A, B and C. Group A and B are below subsistence holding and group C is related to subsistence holding and above as mentioned in table 5.5 and 5.6. All households are engaged in farm production

Cultivated Area of Surveyed Farms

Table 1 describes the number of surveyed farms of district Thatta. The total area of farms of A group is 540 acres. Out of which the growers have cultivated 341.325 acres and the average size of cultivated farm becomes 4.5 acres. The total area of farms of B group is 575 acres. Out of which they have brought 373.75 acres under cultivation and the average size of cultivated farm stands 7.475 acres. The total area of third group C is 690 acres. Out of which 414 acres are cultivated by the growers and the average size of cultivated farm is 16.56 acres. The total area of farms all three groups is 1805 acres. Out of which they have cultivated 1129 acres and the remaining 676 acres could not be cultivated due to shortage of water.

Following Table highlights the position of district Khairpur. The surveyed farms are classified into three groups. The total area of farms of group A is 560 acres and its average size stands 7.47 acres. Out of total area, the cultivated area of farms is 358.4 acres and the average size of cultivated land becomes 4.78 acres. The total area of farms of group B is 595 acres and its average size becomes 11.9 acres. But the cultivated area of this group is 380.8 acres and average cultivated farm size is 7.462 acres. The total area of C group is 725 acres and its average size becomes 29 acres. The growers of third group have brought land under cultivation 435 acres and its average size stands 17.4 acres. The total area of farms of three groups is 1880 acres but the growers have brought 1174.2 acres under cultivation and the remaining 705.8 acres could not be cultivated by the growers due to shortage of water.

Table. 1: Number of Surveyed Farms of Below Subsistence, Subsistence and above Subsistence Household Growers in District Thatta During 2006-2007

Group	Farm size group in acres	Number of House-hold growers surveyed farms	Total area of surveyed farms in acres	Average size of surveyed farms in acres	Total cultivated area of surveyed farms in acres	Average cultivated size of surveyed farm in acres
A	Below 0 – 8	75	540	7.2	341.25	4.5
B	8 – 16	50	575	11.5	373.75	7.475
C	16 & above	25	690	27.6	414	16.56
Total		150	1805		1129.00	

Survey Data 2006-07

Fig. 1
Number of Surveyed Farms of Below Subsistence, Subsistence and above Subsistence Household Growers in District Thatta During 2006-2007

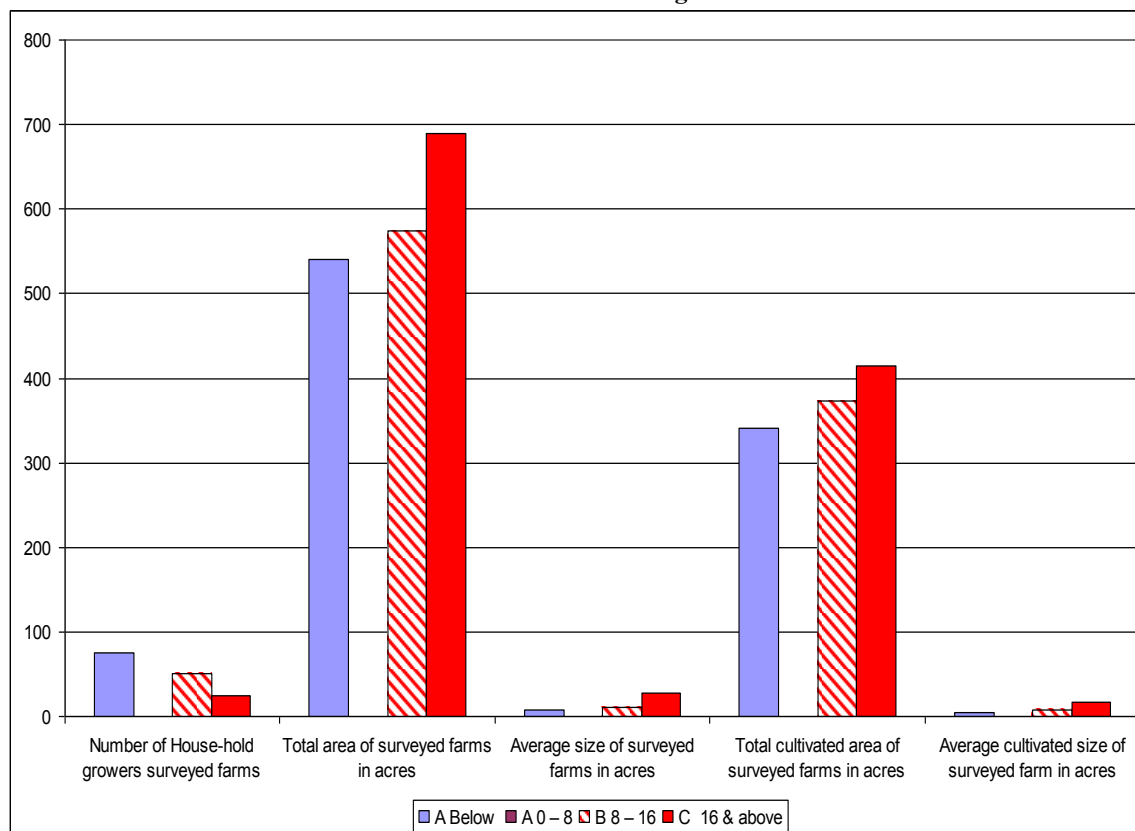


Table 2
Number of Surveyed Farms of Below Subsistence, Subsistence and above Subsistence Household Growers in District Khairpur During 2006-2007

Group	Farm size group in acres	Number of House-hold growers surveyed farms	Total area of surveyed farms in acres	Average size of surveyed farms in acres	Total cultivated area of surveyed farms in acres	Average cultivated size of surveyed farm in acres
A	Below 0 – 8	75	560	7.47	358.4	4.78
B	8 – 16	50	595	11.9	380.8	7.462
C	16 & above	25	725	29.0	435	17.4
Total		150	1880		1174.2	

Survey Data 2006-07

Income of Growers in Districts Thatta and Khairpur

It refers to money income accruing to the growers from the sale of their crops they produce. It is calculated by multiplying the physical productivity (yield) obtained with the price, sold in the market. For the purpose of economic analysis, the total income at sampled farms in the study area is also calculated for each individual farm and then the average is derived for each group of farm size viz A, B and C groups.

Fig. 2
Number of Surveyed Farms of Below Subsistence, Subsistence and above Subsistence Household Growers in District Khairpur During 2006-2007

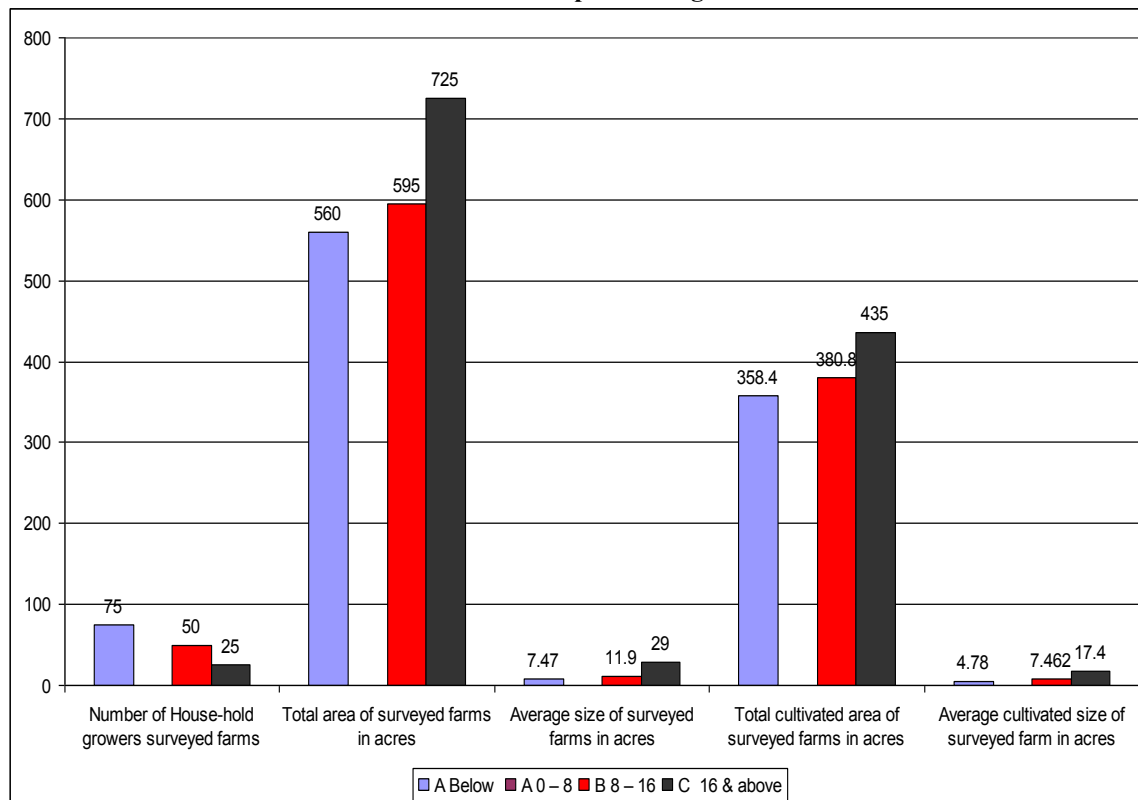


Table 3
Number of Surveyed Households, Their Total Net Yearly Income, Average yearly and Monthly Net Income of Each Household in district Thatta During 2006-2007

Group	Farm size in acres	Numbers of households surveyed farms	Total yearly net income of household in Rs.	Average yearly net income of each household in Rs.	Average monthly net income of each household in Rs.
“A” Below subsistence holding	Below 0 – 8	75	27,80,163.75	37,068.85	30,89.07
“B” Below subsistence holding	8 – 16	50	33,90,660	67,813.2	5,651.1
“C” Subsistence & above holding	16 & above	25	37,79,820	1,51,192.8	12,599.4
Total		150			

Survey Data 2006-07

It is evident from the table that the total net income of growers A group is derived Rs. 27,80,163.75 from their farms and the average yearly net income of each grower becomes Rs. 37,068.85. The average monthly income of each grower is Rs. 3,089.07 of this group. Similarly, the average monthly income of each grower of B group is Rs. 5,651.1 and the average monthly income of each grower of C group stands Rs. 12,599.4 respectively. It is further pointed out from the table 8.7 that the income of C group is more as compared to group A and B because the size of farm of C group is 16 acres (subsistence holding) or more.

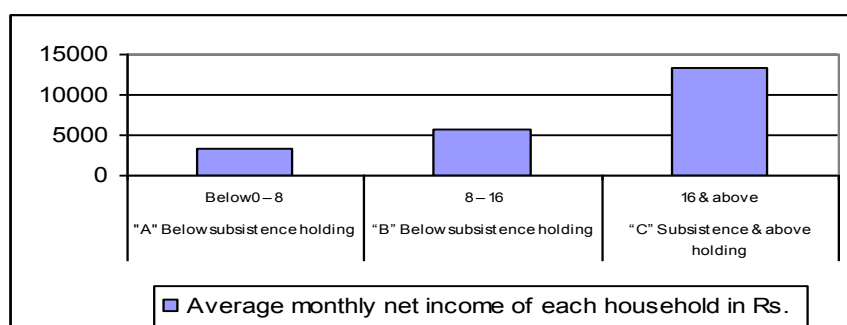
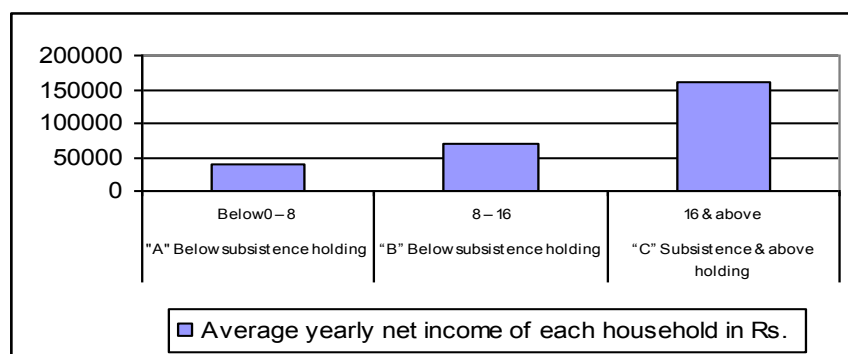
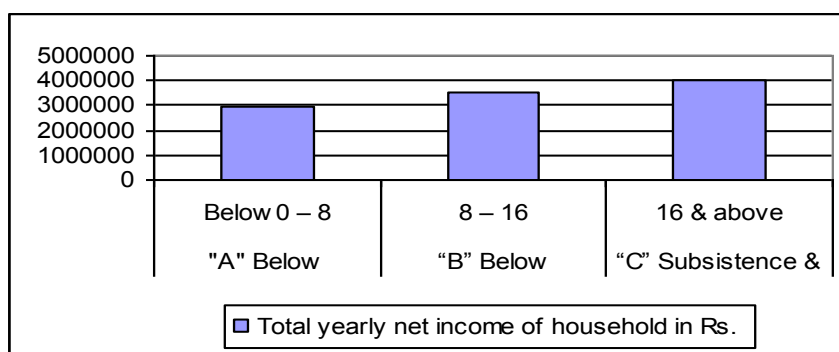
The analysis of surveyed households of district Khairpur is made in table 3 and Fig. 3.

Table 3
Number of Surveyed Households, Their Total Net Yearly Income, Average yearly and Monthly Net Income of Each Household in district Khairpur During 2006-2007

Group	Farm size in acres	Numbers of households surveyed farms	Total yearly net income of household in Rs.	Average yearly net income of each household in Rs.	Average monthly net income of each household in Rs.
“A” Below subsistence holding	Below 0 – 8	75	29,65,760	39,543.47	3295.29
“B” Below subsistence holding	8 – 16	50	34,91,087.5	69,821.75	5818.48
“C” Subsistence & above holding	16 & above	25	40,23,750	1,60,950	13,412.5
Total		150			

Survey Data 2006-07

Fig.3
Number of Surveyed Households, Their Total Net Yearly Income, Average yearly and Monthly Net Income of Each Household in district Khairpur During 2006-2007



It is pointed out from the table that the total net income of growers A group is derived Rs. 29,65,760 from their farms and the average yearly net income of each grower becomes Rs. 39,543,47. In this way, the average monthly income is Rs. 3,295.29 of this group. Similarly, the average monthly income of each grower of B group is Rs. 5,818.48 and the average monthly income of each grower of C group stands Rs. 13,412.5 respectively.

Determination of Poverty in Study Area

The poverty calculation requires the 3 factors , wellbeing (e.g. per capita calorie intake, The household expenditure as an indicator of welfare of people, either poverty line is absolute or relatively. means by the approach of the food poverty (FEI) and the poverty of basic needs (CBN). This research shows poverty lines based on the estimated cost of food consistent with a calorie intake 2350 per adult equivalent per day in country.

The Planning Commission in Pakistan has recommended nutritional requirement 2350 calories per day for each adult.

Each person requires Rs. 875.64 monthly for nutritional requirement. To estimate the poverty, the focus is on computing a nutritionally satisfactory level on consumption expenditure called poverty line, which meets the poverty norm in term of calorie intake. This poverty threshold can be employed to assess whether individuals are poor or not. The consider food and non-food needs, an overall poverty line is derived by calorie intake on total consumption expenditure. The survey data is analyzed by Erelawn model given as under:

$$C = a + b \ln E$$

Where C = daily calorie intake per adult Equivalent

E = is the monthly food expenditure Per adult equivalent

Since the poverty lines used in this study are based on daily calorie intake and expenditure on food and non-food items, it seems necessary to look at data on calorie intake and expenditure on food and non-food items. The analysis of surveyed households of district Thatta is described in table 4 and Fig. 4 and district Khairpur in table 5 and Fig. 5.

Table 5 describes poverty line (per capita) based on calorie intake and non-food items in study area district Thatta of Sindh province during the year 2006-07

**Table 4
Poverty Line (per capita) Based on Calorie Intake and Non-Food Items in Study Area District Thatta of Sindh Province in Year 2006-07 Used Official Poverty Line Rs. 878.64 Per Adult Each Family Average Members 6,3 Adults and 3 Minor (Expenditure of Minors are Half of Adult)**

Food Poverty Line	Group	Monthly Average Income	Monthly Average Expenditure on Food	Monthly Average Expenditure on Non-Food Items in Rs.	Total Monthly Expenditure Column 4 + 5 in Rs.	Required Income
Below	A	3089.07	3953.88	500	4459.88	-1370.81
Above	B	5651.1	3953.88	1500	5453.88	Surplus + 197.22
Well Above	C	12599.4	3953.88	3500	7453.88	Surplus +5145.52

Survey Data 2006-07

Fig. 4
Poverty Line (per capita) Based on Calorie Intake and Non-Food Items in Study Area District Thatta of Sindh Province in Year 2006-07 Used Official Poverty Line Rs. 878.64 Per Adult Each Family Average Members 6,3 Adults and 3 Minor (Expenditure of Minors are Half of Adult)



Each household has six members, three adult and three minor. The expenditure of minor is calculated as half of the adult. The official poverty line is Rs. 878.64 per adult monthly in Pakistan. Keeping in view the official poverty line, it is analyzed from table that the growers of group A is below the poverty line, group B is above poverty line, and group C is in better position. Similarly, monthly income, monthly expenditure on food and non food is explained.

Table 5 analyses the poverty line (per capita) based on calorie intake and non-food items in study area of district Khairpur of Sindh province during the year 2006-07. it is observed from the survey data that each household has six members, three adult and three minor. The expenditure of minor is calculated as half of the adult. The official poverty line is Rs. 878.64 per adult monthly during the year 2006-07 in Pakistan. Keeping in view the official poverty line, it is analyzed from table 5 that the growers of group A is below the poverty line, group B is above poverty and group C is in better position. The monthly average income, monthly average expenditure on food and non-food is analyzed in fig.5

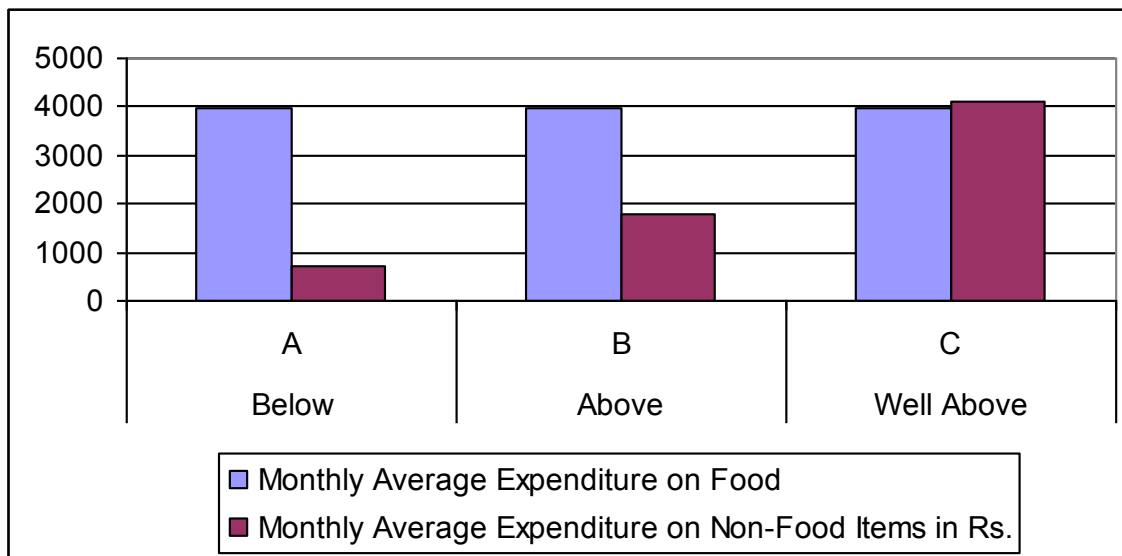
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Poverty Line (per capita) Based on Calorie Intake and Non-Food Items in Study Area District Khairpur of Sindh Province in Year 2006-07 Used Official Poverty Line Rs. 878.64 Per Adult Each Family Average Members 6,3 Adults and 3 Minor (Expenditure of Minors are Half of Adult)

Food Poverty Line	Group	Monthly Average Income	Monthly Average Expenditure on Food	Monthly Average Expenditure on Non-Food Items in Rs.	Total Monthly Expenditure Column 4 + 5 in Rs.	Required Income
Below	A	3295.29	3953.88	700	4,653.88	-1358.59
Above	B	5818.48	3953.88	1800	5,753.88	Surplus 64.6
Well Above	C	13412.5	3953.88	4100	8053.88	Surplus 5358.62

Survey Data 2006-07

Fig. 5

Poverty Line (per capita) Based on Calorie Intake and Non-Food Items in Study Area District Khairpur of Sindh Province in Year 2006-07 Used Official Poverty Line Rs. 878.64 Per Adult Each Family Average Members 6,3 Adults and 3 Minor (Expenditure of Minors are Half of Adult)



The surveyed data of district Thatta further reveals that the average size of farm A group is 7.2 acres but the grower cultivates average area 4.5 acres and the remaining 2.7 acres are not cultivated by him due to deficiency of water. In the same way, the grower of group B cultivates 7.475 acres instead of 11.5 acres and grower of C group cultivates 16.56 acres in place of 27.6 acres. The surveyed data of district Khairpur describes that the average size of farm of group A is 7.47 acres but each grower average cultivates 4.78 acres and the remaining 2.69 acres are uncultivated. Similarly, the grower of B group cultivates 7.462 acres instead of 11.9 acres and the grower of C group brings 17.4 acres under cultivation in place of 29 acres. The surveyed data of both districts clearly indicate that the income of all growers is low because they do not bring all land under cultivation. The irrigation is main component for the development of agricultural sector in rural Sindh. As pointed out that Sindh province has not received allocated water share as per Water Accord 1991 and there is always found shortage of water which has brought negative effects on socioeconomic conditions of rural Sindh.

The surveyed data has further pointed out that 50% households are below the official poverty line, 33.33% households are just above poverty line and 16.67% well above official poverty line. The group C is in a better position to provide health, education etc facilities to their family members.

The results of surveyed data pointed out that the shortage of irrigation water is one of the important causes for rising trends of poverty in rural Sindh. Besides, there are also other related factors such as political instability, increasing growth rate of population, inheritance law and lack of the latest technology.

The following main points are derived from the foregoing discussion:

Low Income: The growers of A and B groups have derived low income from their farms and they are facing the following problems:

- Size of Family: The average size of family is six members, three minor and three adult.
- Food: They are not getting proper food, meat, fish and chicken.
- Accommodation: Mostly their houses are katcha containing one or two rooms.
- Cloth: Their dresses are simple.
- Education: Mostly their children have got education up to primary level. The children of a few families have education up to middle and high school level.
- Health: Health conditions are poor. They are mostly suffering from cough, cold / flu and fever, as the most prevalent diseases. Water borne diseases such as diarrhea, cholera and malaria are common among children.

CONCLUSION

The research study has proved that the socioeconomic conditions of rural Sindh are worst due to deficiency of irrigation water. The small growers whose farms are below subsistence holding can improve their economic conditions when their farms are fully cultivated. But it is not quite an easy to see how agricultural output growth determines the wellbeing of growers especially in rural Sindh. As discussed earlier that due to deficiency of irrigation, the growers are unable to cultivate their all land. The increasing output of agricultural sector is also related to other factors such as new developed seeds, efficient farm management and the latest technology. It has the potential to improve the yield of land and also income of the growers. But the new technology requires a steady supply of water, which the growers of Sindh province do not get in time and there has been shortage of water since the Water Accord 1991. It clearly indicates that the new seed and the new technology can not increase the output of agricultural sector until the required quantity of water is not supplied to the farms. The surveyed data of both districts clearly indicate that the income of all growers is low because they do not bring all land under cultivation. The surveyed data has further pointed out that 50% households are below the official poverty line, 33.33% households are just above poverty line and 16.67% well above official poverty line. The group C is in a better position to provide health, education etc facilities to their family members. The efficient irrigation management is essential, which can be adopted by the appropriate macro policy. If it is adopted in proper way, all the growers viz small, medium and large can enhance their yield of farms and the living conditions of the rural people will be improved on the one hand and on the other hand, the revenue of the government will be increased. From this research, it is analyzed that the irrigation is the life-blood of rural economy and the poverty can be alleviated by increasing the output of agricultural sector through appropriate policy of water supply.

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