THE SOCIO-ECONOMIC EFFECT OF CHASHMA RIGHT BANK CANAL ON FARMERS AT VILLAGE TIBI QAISRANI, TEHSIL TAUNSA SHARIF, DISTRICT DERA GHAZI KHAN

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ABSTRACT
The purpose of the study knows socio-economic effects of Chashma Right Bank Canal on farmers at Tibi Qaisrani Tehsil Taunsa Sharif District D.G.Khan. The canal was launched in 1984, which brought vast area of Tehsil Taunsa Sharif. Income of the farmer's effect on their socio economic condition. Variables have been obtained from the survey conducted through interview schedule based 100 respondents; collects the information with convenient sample technique. Most of the respondents said that their socio-economic development is increased after the Chashma Right Bank Canal. People have improved their standard of living, having facilities like T.V. Motor bike, Car and Fridge. They are satisfied regarding their needs.

INTRODUCTION
Irrigation has always very significance role in the contribution of economy in Pakistan. Pakistan has little rainfall therefore we are using artificial way to irrigate our land for crop and cultivation. Irrigation means to irrigate land for cropping and cultivating to produce maximum crop. The water of irrigation applying to land to generate maximum economy through this the farmers produce maximum crop and contribute in the country's economy, while producers are using more water than rainfall. (Organic 2005).

A few years back many thinkers and technocrats addressing the issue that we need maximum water for drinking and irrigated our land because in 2020 the population grows rapidly and we have scare resources. Now, the challenge is to balance between population and using water for domestic and production usage of water. (Hussain, 1991).

The analysis reveals that since the inception of Chasma Right Bank Canal, have continuously increase in the cropping intensity particularly in its boundary. Before introduction the canal irrigation, a cropping intensity in D.I.Khan district was very low. This was mainly due to limited supply of water for agricultural land. Rod Kohi (hill torrent irrigation) and rainfed cultivation was largely practiced, but with uncertainty in maturity of crops. Pre CRBC, small

area was under irrigation, but after CRBC, rapid increase in the canal irrigated area occurred mainly due to the inception of CRBC. However, CRBC has brought an immense change in the cropping intensity (Atta, 2011).

The Chashma Right Bank Irrigation Project (CRBIP) lies on the West bank or right side of the main Indus River. It takes its start from the Chashma Barrage in DIKhan district Khyber Pakhtun Khaw (KPK province) and ends in the Punjab province in Taunsa Sharif. One of the objectives of the project was to accelerate growth by increasing agricultural productivity in the command area, increasing employment, income, consumption and saving. Dera Ismail Khan from the agriculture point of view is backward as compared to other districts of the province. Before the advent of CRBC water was not available except rain and flood irrigation (Rod Kohi). CRBC has not only provided water for irrigation but it is also a constant source of drinking water. Due to the project the agricultural productivity has increased many folds. Cropping pattern and cropping intensities has also changed. This has improved the standard of living of the people (Sheladia, 2001).

CRBC play an important role in the reduction of poverty and improved standard of life and promoting quality of life for people living in taunsa Shareef. On the other hand its sustainability is question mark both economically and ecologically. (Tahal, 1988).

Various studies on the irrigation projects like CRBC indicate that with the availability of assured canal irrigation the cropping intensity has improved for socio-economic development all the irrigation projects cause both positive and adverse impacts on the environment. However, the positive impacts of irrigation projects do not need any emphasis particularly during the times of acute food shortages and growing population. The wide spread of irrigation has been a key factor behind the near tripling of global grain production, since 1950. However, it is very unfortunate that about one-third of the world's irrigated lands have reduced productivity because of poorly managed irrigation system (Sadhukhan, 1990).

The irrigation and water management in Asia indicates that application of irrigation has increased the cropping intensity and is one of the positive impacts of irrigation projects the evaluation of socio-economic development may be described as a systematic process of collecting and analyzing data to measure pre-determined objectives and targets of a project within a specified time period (Hussain, 1991).

In an agrarian economy of Pakistan, CRBC is a good source of employment for the socio-economic development. CRBC raises employment and income and thus adds to capital formation but at the same time changes the consumption and saving pattern of the people. Development of the irrigation project has a considerable impact on the social and economic life of the people living within the command area. Huge investment in the irrigation projects creates new productive activities which in turn increases income. This increase in income changes the behavior of the consumer. This is reflected in the change in the consumption and saving behavior of the people (Reddy, 1995).

The CRBC effect on the people living in taunsa sharif because people are using water to produce maximum crop and their living standard also become better due to this canal. The correlation coefficient between agricultural growth and poverty remained -0.32 during the period of 1985 to 1999 (Munawar, 2004).

Water is the essential element of daily life. It uses for drinking water and irrigated land. Water is very an essential element in our life. If the researcher talk about the importance of water in developed countries had store fresh water. Unluckily, in developing countries situation is worst (Amoral, 2004).

Sociological Significance of the Topic

Most of the land in Pakistan is based on agriculture to irrigate the water to land become agriculture is just due to irrigation system the country progress towards forward which will help full in the country's economy. Pakistan irrigation and Drainage is the best system overall in Asia. CRBC play a vital role in socio-economic development of the people living in Pakistan. Most of the poor people make their land irrigated & agriculture because of CRBC. People at this area rely on this canal; they produce the food consumed by their people.

The purpose of this study is that the socio-economic effect of CRBC on farmers in Tibi Qaisrani Tehsil Taunsa Sharif because of this CRBC people life standard has been changed. They get education; their living standard has been improved. Through this CRBC their economic social life has been upgrade. After the coming at CRBC the socio-economic development has been improved. People have all types of facilities like, Television, Car, Fridge, Motorbike, Paca houses, hospitals, schools, sanitation, employment, food etc.

Objectives

Following were objectives of study: -

1. To find out the socio-economic effect on farmers.
2. To study the contribution of the farmers in the development.
3. To study the upward and downward of the socio-economic growth on their lives.

LITERATURE REVIEWS

Chaudhary (1990) explored that water allocation in Pakistan's canal system are divided into three canal level the first level called upper level are Area water Board Level the Second Level is called Farmers Organization Level (FO) and the Third Level is Khal Panchayit Level (KP).The system of water based on rotation plan according to rotation (warabandi) each farmers irrigated their land.

Gill (1997) has concluded that irrigation have vital role in the life's of people living in CRBC because it also play role to reduce poverty. It also helps by increasing production of land and make land productivity. It plays positive role to the source of income of poor farmers**.** Latif (2002) stated the CRBC is the backbone of the agriculture in the South Punjab. The mostly land of south Punjab is based on CRBC it contribute 80% of the agriculture production. It is a positive sign of income of those people live in Taunsa Shareef. Ali (2004) Studied that availability of this not only has a positive sign on income but also has a positive impact on the consumption and saving pattern of the people benefiting from that irrigation project. In D.I.Khan the study area Rod Kohi (hill torrent irrigation), lift irrigation, flood irrigation and canal irrigation are the major form of irrigation. However, Rainfed *(Barani)* farming dominates the land use...Mehmood (2009) viewed that Chashma Right Bank Irrigation has a vital role in the agriculture production on south Punjab and also in (KPK). The major reason of this large capital investment in the area is to increase the production of major crops and improve farm incomes. Farm size has a major bearing on many aspect of crop production and depends on many conditions. Farm sizes in CRBC are in transition from a Rod Kohi (Flood / spate irrigation system from hill torrents) system of irrigation to canal irrigated system. The subject has been examined intensively in Pakistan.Mehmood (2009) concluded that n an agrarian society like Pakistan, irrigation is good source of employment and adds to capital formation. A major objective of agricultural development is to increase agricultural productivity which in turns increases farm incomes and lessen the incidence of poverty. The increase in agricultural productivity may be largely due to

increased use of HYV seeds, fertilizer and irrigation. It is therefore imperative that the future of Pakistan agriculture lies in the direction of increasing multiple cropping.

RESEARCH METHODOLOGY

Universe/Population

"The population of present study consisted of 100 male farmers have no limit of education and aged 20 to above 60 are living in Village Tibi Qaisrani Tehsil Taunsa Sharif, District D.G.Khan city in month May 2014".

Sampling

For the present study, the convenience sampling technique has been applied.The study was conducted in August, 2014.

Instrument for Data Collection

The researcher has collected the data from respondents through interview schedule.

Hypothesis

For the present research, hypothesis is;

"More the socio-economic effect of Chashma Right Bank Canal on farmers more will be the production on their lives".

RESULTS AND DISCUSSION

Table No. 1.

Percentage distribution of the Respondents regarding their age group.

Age	Frequency	Percent
20-25	1	1.0
25-30	16	16.0
30-35	21	21.0
35-40	46	46.0
Above	16	16.0
Total	**100**	**100.0**

This table shows that 46.0 percent of the respondents were in age category of 35-40, 21.0 percent of the respondents were in age category of 30-35, 16.0 percent of the respondents were in age category of 25-30, 16.0 percent of the respondents were in age category of above from 35-40, 1.0 percent of the respondents were in age category of 20-25 years. According to this table most of the respondents were related with the age group level of 35-40 years.

Table No. 2

Percentage distribution of the respondents regarding their Infrastructure of the house.

Infrastructure	Frequency	Percent
Pakka	70	70.0
Kacha	28	28.0
Rent	2	2.0
Total	**100**	**100.0**

This table shows that 70 percent respondents had pakka (constructed with cement) infrastructure of the house and 28 percent respondents had Kacha (constructed with mud) infrastructure of house and 2 percent respondents had houses on rent. According to this table most of the respondents were use to live Pakka houses for living.

Table No. 3

Percentage distribution of the respondents regarding their house holds things.

House Hold Things	Frequency	Percent
Bike, Fridge	14	14.0
Fridge, TV, Bike	39	39.0
Fridge, T.V. Car	5	5.0
Bike, T.V.	13	13.0
None	29	29.0
Total	**100**	**100.0**

This table shows that 39 percent respondent has fridge, T.V and bike, 29 percent respondents had None of these house hold things, 14 percent respondents had bike and fridge, 13 percent respondents had Bike, and T.V. and 5.0 percent had Fridge, T.V. and car. According to this table most of the respondents were said they have fridge, T.V. and Bike.

Table No. 4

Percentage distribution of the respondents regarding their monthly saving from all resource

Monthly Income	Frequency	Percent
Below 10,000	74	74.0
10,000 to 20,000	18	18.0
20,000 to 30,000	5	5.0
above	3	3.0
Total	**100**	**100.0**

This table shows that 74 percent respondents were in category below 10,000 per month income sources and saving from all resources, 18 percent respondents were in category 10,000 to 20,000 per month income sources and saving from all resources, 5 percent respondents were in category 20,000-30,000 per month income sources and saving from all resources and 3 percent respondents were in category above per month income sources and saving from all resources. According to this table most of the respondents were said their monthly saving from all resources below 10,000.

Table No. 5

Percentage distribution of the respondents regarding their area of land which possessed.

Possessed Area	Frequency	Percent
Below 05 acer	70	70.0
05 acer to 10 acer	15	15.0
10 acer to 15 acer	7	7.0
above 15 acer	4	4.0
None	4	4.0
Total	**100**	**100.0**

This table shows that 70 percent respondents were in category below 05 acer according to their area of land which possessed, 15 percent respondents were in category 05 - 10 acer according to their area of land which possessed, 7 percent respondents were in category 10 - 15 acer according to their area of land which possessed, 4 percent respondents were in category above 15 acer according to their area of land which possessed and 4 percent respondents were in category none of land they possessed. According to this table most of the respondents were said they have below 05 acer possessed land.

Table No. 6

Percentage distribution of the respondents regarding their satisfaction with the economical condition of family

Economic Condition	Frequency	Percent
Yes	52	52.0
No	48	48.0
Total	**100**	**100.0**

This table shows that 52 respondents were satisfied with their economical condition whereas 48 respondents were not satisfied with the economical condition of their family. According to this table most of the respondents were said yes regarding their satisfaction with the economical condition of family.

Table No. 7

Percentage distribution of the respondents regarding their satisfaction with the socio-economic developing growth of family

Development	Frequency	Percent
Yes	54	54.0
No	46	46.0
Total	**100**	**100.0**

This table shows that 54 percent respondents were satisfied with their socio-economic condition of the family and 46 percent of the respondents were not satisfied with their socio-economic condition. According to this table most of the respondents were said they are satisfied with their socio-economic condition.

HYPOTHESIS TESTING

Alternate Hypothesis

For the present research, hypothesis is; "More the socio-economic effect of Chashma Right Bank Canal on farmers, more will be the production on their lives."

Null Hypothesis

"More the socio-economic effect of Chashma Right Bank Canal on farmers, lower will be the production on their lives."

Table No. 8

Association between Chashma Right Bank Canal and its socio-economic effects on farmers

Farmers of different ages	Socio economic effects on farmers		Total
	Yes	No	
20-25	0	1	**1**
25-30	7	9	**16**
30-35	8	13	**21**
35-40	25	21	**46**
Above 40	14	2	**16**
Total	**54**	**46**	**100**

Chi-square value = 11.220 Degree of freedom = 4

Level of significance = 0.024 Significant = 0.02

Gamma Value = 0.449

Conclusion

Above table shows that there is relationship between the Chashma Right Bank Canal and socio economic effect better understanding of effect on farmers. The relationship is significant. The gamma value is positive and it shows that Chashma Right Bank Canal developed the socio economic effect on farmers. So, the Alternate Hypothesis is accepted and Null Hypothesis is rejected.

SUMMARY AND CONCLUSION

This canal help stabilized and strengthened the country by playing important role in the socio-economic development of the area. Before the canal people were very poor, schools were not available in the area, basic health facilities were not provided to the people. Garrison for cattle were not found in the area. Ground water was brackish. People had no social life and no contact with the other area of the country. But after canal, socio-economic condition i.e. education, health, electricity, productivity, agricultural, income, saving, etc are increased. Living standard of the people is developed. People use latest machinery and technology in their daily life. Awareness regarding new techniques, way of life, attitudes, ethics and code of conducts are improved. Thus this study shows the results of the socio-economic effects of Chashma Right Bank Canal on farmers of Tibi Qaisrani Tehsil Taunsa Sharif, District D.G.Khan.

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