Women empowerment and Gender role changed after renewal of Irrigation system
A case study of village “Banbhan” southern Punjab, Pakistan

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Abstract
This paper deals with the renewal of irrigation system in particular society, which is being a cause of change in gender role and empowered the women in particular social structure. Renewal of irrigation system from controlled tube well irrigation to canal irrigation has brought prominent changes in the social structure of the society. Through renewal in the irrigation system, canal irrigation has changed the gender role and empowered the women economically and socially that ultimate brought changes in their social status in the society. The participation of women in agrarian activities has increased after the renewal of irrigation system which has improved the social status of the women. The research conducted in a village of South Punjab district D.G.Khan. This article emphasis on how renewal in irrigation system has brought occupational changes, women empowerment and changed gender role in particular society settings. How such prominent changes occur in the society after the renewal of the irrigation system are explained in detail in the article.

Key words: Peesh, Patwari. Darkhn, moga, muzairgeeri, patta, ganwara, likhai parhai, Nikha Nama

Introduction
The present study conducted in the village Banbhan Tehsil Tauns Sharif District D.G.Khan. District D.G.Khan is unique in its feature that it has linked boundaries with other three provinces than that of Punjab like linked Balochistan at Rukni, KP at Ramak D.I.Khan and Sindh at Kasmoor. The village Banbhan also has very important geographical setting in the area because it linked dozen of village at the right bank of River Indus with Indus highway Peshwar to Karachi. The village Banbhan is situated 21km away from the tehsil tauns at Indus highway. The soil of village is very fruitful for the agriculture because Indus River flow only 3km away from the village, but after the reformation in the irrigation system from tube well irrigation to Canal irrigation, the construction of the Canal has created the a boundary mark in the village geographically as well as socially.

The economy of the village depends upon the agriculture. The lands of the village irrigated through the chota Darya (Small River) branch of Indus River. The irrigation water extracted from the Small River through the Nala Masowah, it irrigate the only Kharif crop. In 1992 Nala Masowah blocked due to low water level in the Small River. The period from the 1992 to 2002 was very difficult for the agriculture as well as for the villagers.

After the blockage of the small River first reform came in the irrigation through tube well irrigation. This reformation was not more helpful for the formers as well as for agriculture because this type of irrigation was costly that has reduced the crops intensification in the village. But one benefit of this irrigation system was that it was controlled irrigation system. Another reformation in the irrigation system at village through the formation of CRB Canal phase three in 2002.

The construction of the CRB Canal has created a hope for formers that it will be helpful for them because it was cheap irrigation system and also irrigated the 90% barren lands. But the other side of the coin was quite unfamiliar for the natives of the village. This reformation in the irrigation system has completely changed the social structure of the society.
Methodology

Qualitative anthropological methodology which includes methods like Socio-economic survey, participant observation, key informants interviews and in-depth interviews were used to collect the empirical data. Different sampling techniques were used during the research like purposive sampling, random sampling and snowball sampling. By using these sampling techniques 100 households out of 300 households have selected as sample of study. Beside this structured and unstructured questionnaire and in-depth interviews have been used during the study. Modern methodology like photography and recording have also used during research. The research conducted in four month from February 2012 to June 2012.

Results and Discussions

Role of women in development of household economy

After the introduction of Canal, women contribution in household economy has increased and it was not just limited to men. Before Canal women contribution in household economy was very low as 10 to 25% by participating in different working activities that were:

a) Women of the village contributed in their household economy through different embroidery work on dupatta and were getting 30/- to 40/- rupees per dupata to extend their contribution to the household economy. Embroidery work on shirts and cover cloth of different types used at domestic level were very popular there and were most wanted for giving gifts to relatives and friends on different occasions.

b) Women before canal also contributed in household economy by making different things with Peesh. Most common things made with Peesh were changair, pankha, carpet, jaie Namaz etc. some women were very expert in the work. First they dye the Peesh with different colors then made things of different types. Thus they contributed a lot in household economy.

c) The other contribution of women in household economy was through work as daily wages. These are different types of works, harvesting wheat, rice sowing and cotton budding where the women were participating for earnings.

After the Canal, women contribution in household economy has increased from 25% to 48%, their contribution in household economy was through cattle raring, helping their husbands in agrarian activities, participation in daily wages agrarian activities etc. after canal irrigation cropping patterns have changed and crops have intensified with the women contribution in agrarian activities for helping the household economy due to the increase in the wages after the Canal, the wages before the Canal were Rs150/- per day that were enhance to 300/- to 400/- rupees per day after the green revolution in the village with the Canal irrigation.

Case study

Allah Wasai a widow of the native village had five children told the researcher that before the death of her husband, she was happily living because her husband worked and eared for them, but after his death, total responsibility of children and the household came upon her shoulders. In the start she was very much worried about her children’s future but when the Canal formation completed in 2003, she formed a female labor group consisted of 11 women headed by her. The group started agricultural work of different types like harvesting, sowing in the fields of the landowners on reasonable daily wages.

She further said that she earned much from the labor activities; later on she inducted her daughters in the group for increasing the household income. The landowner of the fields where the group was performing its labor activities was providing pick and drop facility to the group members. The Canal has proved itself a great blessing of Allah to her and her children for providing livelihood opportunities.
Outcome

- CRB canal provided equal opportunities of employment to men as well as women;
- Women contribution has increased in household economy;
- Canal irrigation has improved the social status of women because their economic contribution has increased;
- Canal irrigation has alleviated poverty at micro as well as at macro levels;
- Canal irrigation provided the opportunities to fulfill the basic needs and desires of the poor people of the locale.

Changes in occupational and gender role

Before the Canal formation there was no proper system of irrigation in the village, therefore the people relating to agriculture were few in number. Most of the people did labor work; some did their own business at small scale while some were in government job. The division of occupation before canal formation is shown in the below table:

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Occupations</th>
<th>%age of people related to different occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Labor work</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Business</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>Govt. job</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>Agriculture</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Field Data

According to data collected by the researcher that 80% agriculture land of the village Banbhan was barren before the start of the Canal, 20% land was irrigated through tube well and rain water but after 2002 when the Canal started its functioning the agricultural activities immediately increased and occupational pattern changed. Most of the people who did labor work in the factories in Karachi, Lahore, and Faisalabad they came back to their homes and started working in their fields lands and became busy to correct their land records by local Patwari.

Thus the change in occupation started early in 2000, but after that when Canal irrigation started in 2002, people related to other occupations like business, government jobs, labor in other cities diverted their attention to agriculture and tried to make their land fertile.

The trend of other occupations was also changed as observed by the researcher while performing his field duty that most of the government servants after their duty hours started agriculture with their own or involved the tenants to intensify their crop production with the frequently available Canal water. Another occupation change traced out by the researcher during the field work that many low caste people of the village who were engaged in different job such as Mochi, Mohana, Darkhn and Nai changed their professions and moved towards the agriculture because of its profitability.

Case study

Muhammad Ramzan was 40 years old man of the village; he was from Mocha caste group and had four children. According to Muhammad Ramzan, his traditional occupation was mending shoes and cattle slaughtering but due to insufficient income, it was not possible to survive, he was looking for other occupation to adopt for better earnings. One day his brother Siddique advised him start agriculture; they bought some agriculture land in Canal Zone and started agriculture. Before the Canal, his land was barren because there was no proper irrigation system and was not cultivable but after the Canal irrigation a mogo (outlet) was opened 5km away from his land from where he got very frequent water supply for his fields. He with the help of his brother cultivated his six acre land which produced as much he could not imagine. With the outstanding agriculture produce, he and his brother’s families became prosperous and left their traditional occupation forever. The Canal water was the blessing for both the brothers and for the whole of the population of village Banbhan that not only brought economic stability but changed the old and un-profitable occupations pattern.
Outcomes

- Canal irrigation brought changes in the traditional occupation;
- After canal irrigation, people changed occupation for survival strategy;
- New occupations provided good employment opportunities;
- Canal irrigation also forced the people to leave their traditional occupation;

Another aspect of occupational changes after canal irrigation was observed that people left their labor work and moved to agriculture. Before canal there was a labor group in the village that used to load timber on trucks and unload timber from the trucks, but after 2002 the group broke up because of insufficient income and moved to agriculture, they acquired agricultural land on patta and muzairgeeri and started agriculture. In a very short period of time they were able to generate sufficient revenue through the agriculture produce. In the beginning they cultivated a small land and gradually increased the volume of land for the increase of produce and income and forever left their traditional occupation. Occupational changes after the Canal are shown in the table 2:

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Occupations</th>
<th>%age of people related to different occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Labor work</td>
<td>15%</td>
</tr>
<tr>
<td>2</td>
<td>Business</td>
<td>35%</td>
</tr>
<tr>
<td>3</td>
<td>Govt. job</td>
<td>35%</td>
</tr>
<tr>
<td>4</td>
<td>Agriculture</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: Field Data

The change in occupation after the canal formation, there was another change in gender role; especially the woman role, according to collected data 60% to 70% women’s role was changed not in the households but for contributing to the household economy. Before canal 60% to 80% women managed their household activities, few of them contributed to the household economy through doing different works like sewing of clothes, embroidery work etc. But after the Canal irrigation, the women labor groups worked in the fields on reasonable wages to supplement their husband’s income.

Change in female status

After Canal formation, female education has increased from 50% to 70% according to survey conducted by the researcher during the field work. With the increase in the literacy rate, the women role was also changed. Before the Canal, there was no availability of water for household use, women used to bring water from Small stream and Nalas in pitchers along with washed clothes at the streams of water carrying on their heads.

After the availability of Canal water for household and for irrigation, they were bailed out of the hard labor, their husband while leaving for their fields in the Canal Zone taking drinking water with them available at the household level. Thus a serious problem of water shortage faced by the women was resolved with the blessing of the Canal water frequently available to them. Thus their role was changed and they spend more time at home to manage household activities and care for children and animals. The earning ways were also changed after Canal formation; women played an important role in generating household economy by working as agricultural labor and animal husbandry etc. Their wages were also increased after the Canal, because the male labor was not available in the village as most of the men were doing agriculture, while another aspect of gender role was changed, mostly the crops were harvested by the women labor groups like harvesting of sun flower, cotton budding, harvesting of ganwara etc. Women wages after the Canal formation are shown in the below table:
Table 3
Wages of female labor

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Category of crop</th>
<th>Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotton sowing</td>
<td>Rs350 per day</td>
</tr>
<tr>
<td>2</td>
<td>Cotton budding</td>
<td>Rs10 per kg</td>
</tr>
<tr>
<td>3</td>
<td>Sunflower harvesting</td>
<td>Rs400 per day</td>
</tr>
<tr>
<td>4</td>
<td>Rice sowing</td>
<td>Rs400 per day</td>
</tr>
<tr>
<td>5</td>
<td>Rice harvesting</td>
<td>Rs350 per day</td>
</tr>
<tr>
<td>6</td>
<td>Ganwara harvesting</td>
<td>Rs 450 per day</td>
</tr>
</tbody>
</table>

Source: field data

Thus women contribution in household economy has increased and they were playing a central role in household economy and were managing household activities by helping their husbands in agrarian activities. With the increase in contribution of household economy, women social status has increased, they were participating in decision making and were no more the victims of domestic violence.

Women participation has increased in agrarian activities along with the domestication of animals and producing dairy products at household level. Thus women role has changed after CRB Canal in different fields. During field work researcher conducted a survey through structured questionnaire. According to research survey 30% women were participating in the household economy through animal husbandry and by participating in the agrarian activities.

Another aspect related to the change of women role after canal was the unmarried girls participation in labor activities that has decreased in agrarian activities and other household activities because with economic development after canal formation people started to move their attention toward female education. Through a survey conducted during the field work, unmarried girls have increased their participation in education from 15% to 60%.

With the economic development after Canal formation natives started to enhance their livestock watched and looked after by the women while young females were going to schools and colleges.

Table 4
Female Education after Canal

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Middle</td>
<td>08</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Metric</td>
<td>05</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>Intermediate</td>
<td>02</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Graduation</td>
<td>02</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>Masters</td>
<td>01</td>
<td>06</td>
</tr>
<tr>
<td>7</td>
<td>Professional degrees</td>
<td>Nil</td>
<td>02</td>
</tr>
<tr>
<td>8</td>
<td>Religious education</td>
<td>02</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: socio-economic census survey

Islamic education among the female was improved in the village, because of two religious madras’s in the after the Canal irrigation system improving the religious education among the female from 2% to 27%. With the increase of income, education was gaining it momentum and as a result awareness among both the sexes was prevailing about the human rights, thus a very incredible change was observed regarding domestic violence in the village. According to Mr. kareem:

“If we say something to our wives they threat us that they are going to their father homes. After that we think if they go back to their father home who will manage our household and who will care for our children and cattle.”
Another aspect that was observed by the researcher that increases in modern technology in agriculture was reducing women labor work. For example before five years, women work in the fields to pick out the extra herbs from crops but with the changing patterns, machines were used for the purpose.

Another aspect related to change of women role after Canal was the change of marriage rituals, for example, there was no concept of likhai parhai in nikah of female. The concept emerged after Canal because female education has increased along with women participation in household economy, thus their social status was increased. Due to the reason, during Nikha jewelry, separate house, no violence on women etc, were made the conditions part of Nikha Nama that indicated high social status of women improved through Canal irrigation in the village.

**Conclusion**

The renewal of irrigation system has brought many changes but this article is focused on the changes like women empowerment, gender role and occupational changes. Due to lack of proper irrigation system in the village before the introduction of canal irrigation role of women in economic activities was limited. Women contributed in the household economy through different ways but these ways of earning were not sufficient to play a key economic role in the3 household economy. So their social status was very poor in the society. But after the renewal of irrigation system women participation in the economic actives has increased which improved their economic status in the status. When the economic status of the women has improved it directly effect on their social status, their social condition at household level has improved. Their consultancy in household decision became compulsory and it got too much weighted in the house hold.

Visible occupational changes have been noted by the researcher during the field work. Many people at the locale have withdrawal from their traditional occupation to agriculture. It not only improved their economic condition as well as improved their social status in the society. Another benefit of the occupational changes was that people started move back to their village which satisfied them psychological as well as economically. The participation of unmarried female in the economic activities has reduced because due to women economic empowerment they sent to schools and colleges to get education. Thus this renewal in irrigation system has proved a blessing of God for them which improved their social status. Another drastic change in the noted by the researcher in the field that after the renewal of irrigation system in the village has reduced the domestic violence on the women because now they are economically and sound and providing economic assistance to their families.

**References**

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