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Abstract

The population of Pakistan is increasing tremendously: therefore, the supply of food is not meeting the demand. Innovative techniques of agriculture are being introduced and more land is being put under cultivation. The agro-base and other industrial development are accelerating. The demand for power is increasing day by day and the only source of cheap power supply is hydroelectric generation. The Water and Power Development Authority (WAPDA) is establishing hydropower generation sources and Ghazi Brotha Hydropower Project is one of them which, was constructed by diverting the water of rive Sindh. Many families were dislocated for the execution of this project and resettlement of these families was one of the major issues. The services of National Rural Support Project (NRSP), an NGO were hired for amicably resettlement of the dislocated families and awarding compensation to the affected peoples. Two model villages were planed and developed for settling the dislocated families. This project was implemented and it left much socio-economic impacts on dislocated families. This research study was conducted to assess the socio-economic impacts on affected people. Participatory assessment techniques were used to ascertain the views of the respondents. The study results revealed that many people lose the employment opportunities. The compensation and award were not justified. The male and female were suffered both socially economically. The children have to travel a long distance for getting primary education. The affected people have to spent more money than the subsidy given to them by the Government on construction of their houses. The community buildings constructed by the Government were not functional up till now.

Key words: Electric Supply, Generation,

Hydroelectric, Power Channel, Cusecs, Resettlement

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Introduction

Due to tremendous increase in population of Pakistan, the growth in settlements is very high. The gulf between demand and supply of food and other basic needs is widening every day. To meet this challenge innovative techniques have introduced in agriculture and more area is being put under cultivation. The agro-base and other industrial development are also accelerating. Therefore, the demand for power is increasing rapidly. The difference between demand and supply of energy is increasing day by day. The rates of present electric supply are also very high and the poor community members cannot afford the high cost electric supply. The prices of oil are also increasing every day, therefore the thermal electric generation will be costly and only opting of hydroelectric power generation will be cheap. To meet the dire need of strengthening the energy sector and more specifically benefiting the country's acute shortage of electricity and costly supply, the Water and Power Development Authority (WAPDA) envisaged constructing the power channel designed to generate 1450 MW of economically viable hydro-electricity. The River Sind was selected for this purpose. To meet the demand about 2000 cumics (1 cumic is equal to 35.25 cusecs) water of river Sind was planned to be diverted, which after generating power ultimately rejoins the river. This power channel starts from 7 kilometers down stream Tarbella Dam and the name for this place is Ghazi and extends up to 52 kms i.e. Brotha where the power channel takes the shape of power complex and ends into river Sind. Due to the name of these two locations that is from start (Ghazi) and at end (Brotha) this project is called Ghazi Brotha Hydropower Project (GBHP).

The WAPDA had a lot of experience during the construction of Mongla and Terbala dames. At that time there were many problems for the resettlement of dislocated families. It was envisaged that there would be a lot of dislocation, forced/involuntary migration and resettlement of people due to intervention of this new huge man made engineering project (GBHP). Therefore, to ensure the successful implementation of the project, WAPDA recognized

that the assistance of an organization having experience in community development would be needed. The major task of this organization will be to:

- Interface with the Project Affected Persons (PAPs) and maintaining a pleasant liaison with them over the construction period and beyond, especially when there is state of mistrust between WAPDA and the affected communities.
- Ensure a sustainable socio-economic uplift of the project area through effectively taping the opportunities granted by the project and implementing an Integrated Regional Development Plan (IRDP).

To carry out the resettlement and compensation matters in the light of above mentioned manner, WAPDA and the project donor consortium led by the World Bank approached the National Rural Support Programme (NRSP) to assist in setting up a participatory Project Non-government Organization (PNGO), provisionally named as Ghazi Brotha Taraqiati Idara (GBTI), an organization to operate on the same principles as NRSP, but with the mandatory roles of advocacy, facilitation and mediation, beside the specific tasks of helping to setup community organizations (COs) in the project area and implementation of IRDP. Meeting the abovementioned requirements eventually, GBTI was established by NRSP and incorporated under section 42 of the companies' act 1894 in October 1995.

A total of Tac Kanal land was acquired for the alignment of this channel. This counts on 10/3/2007ly 4 % of the total project area. All along the way (52 kms) only 150 households were affected. The whole project was well conceived and the following studies were conducted before the project initiation:

- Baseline surveys by the Sociology Department, University of Punjab Lahore.
- Social and Environmental Scoping on the World Bank's Guidelines was conducted.
- Stakeholders' analysis was conducted.
- Community consultation meetings were held.
 Moreover Focus Group sessions were held to
 assess the price of land and type of settlement
 desired by the PAPs.
- The Pakistan Hydro Consultants before the designing the channel conducted a study. The objective was to save local structures and cultural points/places.
- After the analysis of these studies the community interaction strategy was devised. It stated that:
- One-month advance notices will be served to all PAPs to vacate the requisite land and other structures.

- Maximum culverts/crossing bridges will be constructed for free movement of the target population residing on both sides of the channel.
- The land under the spoil earth will be putted under cultivation and tubewells will be installed by the WAPDA to irrigate this land. This fertile land will be allotted to the deserving PAPs on very cheap price.
- The Land Valuation Committee will determine the price of the acquired land and the representation of LVC will be given to the leaders of the PAPs.
- Model villages having all basic facilities (water supply, sewerage, electricity, school, dispensary, pacca roads, play ground, mosque, graveyard, community centre and approach road) will be developed and all PAPs will be settled there. The nominal price of developed plots in the model villages will be charged from the allottees. Each household will get a plot of one kanal and two additional plots will be allotted if there were two sons in the household of having age of 25 years or above. In addition the rent of 9 months will be given during the settlement period.
- Work permits will be issued to the PAPs for employment in the project activities.
- Compensation for building material and transportation cost for shifting the building material and other luggage will be given to the PAPs.
- Compensation for the fruit trees will be given.
- Following three model villages were developed:
- Easa Model Village for 22 houses
- Feroze Banda Model Village for 37 houses
- Barotha Model Village for 28 houses

This project was implemented and it has many social impacts on the community members who were dislocated due to the construction of this project. This paper is about the social impact assessment of this area.

Material and Methods

To ascertain the views of both genders of target groups, two survey teams; one comprised on males and second on females was formed. It was decided that a guide from GBTI team will also be accompanied by each survey team. First of all a briefing session was held at the office of GBTI to have a first hand knowledge of the project. Afterwards a visit of two model villages (Feroze Banda and Easa) was made. It was based on the principle that "as the size of the population increases the sample size decreases" (Fitzgibbon and Morris, 1987:163). The overall methodology adopted for this research study was participatory and the ffollowing

Participatory Social Impact Assessment

participatory assessment techniques/methods were used for socio-economic assessment study:

- General Observation
- Focus Group Discussion
- Participants Observation
- Reflective Probing
- Cross Triangulation

After completion of visit the male and female members of the respective groups consolidated the information collected separately from men and women community groups and accumulative results were prepared.

Results and Discussion

1. Visit of Feroze Banda Model Village

First of all a transect walk (round) of the village was made by the facilitating team members to get the overall impression or a bird eye view of the village. The team observed that few houses were constructed. At the time of arrival the male members of the village were in the mosque for prayer. A message was sent to the residents that a visiting/research team has come and the interviewing members are waiting in the girls' school premises. After a while the residents got together in the school. It was planned that the female members of the study team will conduct a group interview with the female section of the target population and male members of the study team will conduct a focus group interview with males of the village. The detail of each group is as under:

Results and Discussion of Focus Group Interview of Male Members

First of all the guide (a member from GBTI team) introduced the study team to the villagers and the purpose of the visit was explained. Then the interview started and following were the views of the interviewees:

- The old village was at a distance of about 1
 Furlong (220 yards) away from the new site and
 all facilities like, water supply, electricity,
 school; graveyard and dispensary etc. were
 available.
- All facilities are available at new site (model village) and even the roads are paved and sewerage and children play ground facility is also provided, but there are some problems as given below:
- The water supply lines have been laid down and overhead reservoir was constructed but the system is not still augmented. The residents faced many problems during the construction of their new houses and each of the house owner purchased water during the house construction costing about Rs. 40000 on average. Moreover

- still the drinking water is not available and people are facing a lot of problems for fetching the water.
- The site is low-lying area and every resident has to pay too much for earth filling (raising the plinth level) for construction of foundation. There was no compensation for this additional cost of construction. Moreover, whenever there is rain the area is flooded as there is no storm drainage facility. It is damaging our houses and roads of the settlement.
- The schools constructed in the model village are not still operated. Therefore our children have to go for schooling at a distance of about 3 kms. The parents always remained under unrest/fear as the children have to cross the power channel and they may be hijacked on the way to school. Moreover, whenever there is rain the children do not go to school due to long filthy katcha path. It was proposed that the community would run the school. We are poor people and cannot afford the running cost of the school.
- The dispensary building is constructed in the model village but there is no doctor. Moreover, the residents of this village cannot run the dispensary on self-help basis. Therefore it is lying idle.
- Most of the dislocated families were tenants and no damage of agriculture land for them was fulfilled.
- At the beginning (before starting the execution of project) it was promised that work permits would be issued to the dislocated personals and preference will be given to them for employment opportunities available during the execution work on the project. But no permit is still issued and even a single person from this village is not accommodated for employment in this project.
- The social functions like death and marriages etc. are not being attended due to blockage of tress passing from the channel. Even for some time the marriages of our daughters were delayed due to disturbance and unrest created during the whole process of dislocation.
- Some shops were demolished from old village during the dislocating process but no shops have been allotted against the claim in the new model village to the affected ones.
- Previously all residents were working on casual labour one way or the other. But due to disturbance the labour opportunity is also discontinued.
- The old graveyard was demolished and the demise bodies were removed from the graves. It was very emotional situation and every one in

the village was weeping at that time. It injured our feelings and it is against the social and cultural values. We bearded this torture in the national interest but no one is now resolving our problems.

- A high voltage line of electricity is passing over the new model village. It is continuous danger for us and especially for our children. Moreover, all electric appliances are not working properly due the creation of high voltage electric and magnetic field all around us.
- It was promised at the time of dislocation that some training will be imparted to the PAPs for enhancing their production skills so that they could find some employment. But no training has been yet imparted to any one from this village.
- As it was apparent that due to disturbance unemployment would result therefore, it was promised by NRSP that some small-scale credit facility would be provided to the PAPs. We are waiting but no credit facility has been yet provided.

Results and Discussion of Females Focus Group Interview

There were four female interviewers. They conducted a group meeting with village women in the house of one of the PAPs' house. The female interviewers introduced themselves and also explained the purpose of the visit. Following were the views of the females of the model village:

- The women interviewees told that only few houses have been constructed. There is no water and it is difficult to construct a house with out water.
- Girls School has been constructed but there is no female teacher, so it is not functioning. Therefore, the education of our daughters is suffering, as we cannot send them at long distance.
- The women folk informed to the female interviewers that due to disturbance no one from our relatives who are residing elsewhere was interested to marry their sons or daughters with our sons and daughters.
- The water supply scheme is not operational and the females have to travel a long distance to fetch the water for drinking, bathing and washing purposes. It is very cumbersome to travel about 2 kms daily for fetching the water.
- No women organization of the females from the land-less class has been formed. They have not been properly compensated.

- Daily consumable items of kitchen are not available in the model village.
- There is a competition in the house construction and poor people cannot afford a costly construction. So they feel shame in the community and are socially alienated.
- If the small business was disturbed due to dislocation, there was no compensation for it at all.
- We are struggling for construction of mosque and no house was allotted to our Imam.
- Out of 37 houses only 16 have been constructed in 4 years.

2. Visit of Easa Model Village

It is about 500 yards away from the main road. The village was developed for PAPs of three settlements. The research study team visited the village and walked in the streets. The community buildings are on Western side of the village. These are newly constructed buildings. There are very few houses constructed in the village. We met to Mr. Chooha Khan who is the president of the village committee for this model village. Then the male interviewers went to the house of a respected person. Another man named Safdar Khan also came there. The female interviewer members of the research study team went to a house to conduct an interview with the women folk.

Results and Discussion of Male Focus Group Interview

The interviewing team was introduced to the interviewees and the purpose of the visit was explained at the outset. Then the discussion started when Mr. Zulqurnain from GBTI asked the president Mr. Chooha Khan to tell about the dislocation and resettlement process. He explained that:

- This village was established to resettle the PAPs from three villages, which were located in a radius of 1 km. All facilities were available in our previous village. We are also the affectees of Turbala.
- This model village was developed about 5 years ago but still the schools, mosques and other public facilities are not operational.
- The water supply scheme was not functioning or rather it was not augmented.
- The teachers are not available in the schools; therefore, about 15-18 children of this village have to travel about 2-3 kms for primary school level education.
- There was disintegration in the social cohesion instead of integration.

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- Poor construction material was used in all construction of public works.
- The allotment of plots was not faire and just and only rich people got the plots and the poor were left without compensation.
- Some shops were demolished from the old village but no compensation for shops was given to the affected ones.
- At the time of allotment 22 plots were allotted but only 10 houses have been constructed up till now and allotted plots are being sold out.
- A plot is reserved for graveyard but there is no demarcation and this site is without boundary wall or fence.
- Business of some persons was affected but no assistance/subsidy was given for establishing the new business.
- The work permits were not issued and there was no training for skills enhancement.
- No credit was given in this village for starting small entrepreneurs.

The social relations are not good and during the discussion the two interviewees started quarrelling with each other.

Results and Discussion of Female Group Interview

The female members of the interviewing team went to the house of one of the PAPs. They had only chance to meet with two women. The result is as on the next page:

- The females explained that they were happier at old place as compared to this one, as they have no rapport with the women residing in this village so they feel difficulty to meet them and have gossiping.
- Their children have to travel more for schooling.
- The women folk informed that only two families are residing from the PAPs and remaining are not owner but are renters.
- Their relatives are residing away and they are facing problems to attend the social functions.
- The women group informed that no employment opportunity or any other benefit has been provided for the women folk.

1. Assessment of Social Impact on the Paps

The following scale is used to express the social impact on affected community

Scale of impact	Positive	Negative
Not relevant/Negligible	0	0
Minor	1	-1
Moderate	2	-2
Major	3	-3

1.1. Summary of Main Findings

Type of Impacts	Scale	Main Findings
Type of Impacts Impact on Land- less/poorest Impact on children	-2	Lose employment. No compensation. Difficult to construct new house. No organization for poor women. The school distance increased and they have to travel more on foot. Danger of kid napping. Difficult to cross the
Impact on women Incidence of conflicts	-3	channel. No credit facility for women. Cumbersome to fetch water from a long distance. Marriages of daughters were delayed. Very high in Easa model village as we observe during the visit.
Willingness to participate	-3	They are not ready to take the responsibility of operating the public facilities like schools, water supply and others.
Environment Impact	-2	A high-tension line is passing over the village. The whole set up has been divided into two parts like Barlon Wall. In Easa village air pollution has been created.

Conclusions and Recommendations

Following conclusions are drawn and recommendations are made:

- People have suffered socially and economically.
- The employment opportunities have been lost and unrest has been created.
- The project is not cost effective and also not environment friendly.
- The land less class has affected/suffered severely.
- The children and women folk are affected badly.
- It is recommended that more effective and more useful Participatory Rapid Assessment techniques should be used in similar projects in future.
- Some credit and saving programme should be introduced.
- The schools and other facilities should be augmented as soon as possible; especially the water supply should be started immediately.
- Some training programme of production skills enhancement should be started.
- Work opportunities that are available during the project execution should be given to the PAPs on priority basis.
- In future for such projects the social screening, social scoping and environment scoping must be carried out before launching the project. In other words a social appraisal study should be conducted before launching such major projects.

References

- Ahmad, B., and A. Munir. Rapid Rural Appraisal of Pilot Area Real Life (PARL) Project, Kurranwala, Department of Farm Management, Faculty of Agricultural Economics and Rural Sociology, Univ. of Agri. Faisalabad. 1995.
- Anwar Haq Nawaz Impact Assessment of Katchi Abadi Improvement Programme in Punjab, a Ph.D. Thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Rural Sociology, Univ. of Agri. Faisalabad. 2002.
- Fitzgibbon, C. T., and Morris, L. Lyons How to Design a Programme Evaluation, Newbury Park, CA: Sage. 1987
- Government of Pakistan "Guidelines for the Preparation and Review of Environmental Reports", part of a package of regulations and guidelines of Pakistan Environmental Protection Ordinance. 1997.
- Multi Dimensional Consultants (MDC) and MOTT Macdonald International Limited "Project Impact Evaluation Study of Second Scarp Transition Project" (SSTP), Follow up Study (Rabi 1995-96) submitted to Irrigation and Power Department, Government of the Punjab. 1997
- Vermillion Doug Impacts of Irrigation Management Transfer: Results from IIMI's Research, News Letter No. 7 April, 1998; International Network on Participatory Irrigation Management. 1998.