

DEVELOPMENT PROJECTS AND LAND USE CONFLICTS IN PAKISTANI RURAL SETTINGS AN ANALYSIS

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Abstract

This article describes the impact of the Chotiari water reservoir on socio-economic values and livelihoods in Pakistan and the policy implications of the project, based on deeper analysis. First, it defines the background of the reservoir through the concepts of land distribution with respect to national and international interests. Then the research emphasizes the depletion of natural resource values to rural communities in terms of economic activities and wild resource gathering for rural livelihoods. It highlights the root causes of conflicts with response to land use decisions of the project. Finally, the article offers a discussion on the governance and policy implications of the findings, particularly from a land use conflict perspective.

Introduction

In rural settings, many economic and social decisions made by governments have negative influences on rural livelihoods (Barron, 2004) although these economies are naturally gifted with commercial agriculture (Folke, 1998), farm work population (Ashraf et al., 2007), biodiversity (Husnain et al., 2010) and touristic sights (Laghari, 2001; Campbell et al., 2000). However, this stereotype does not necessarily apply throughout many developing regions of the world (Bernstein, 1992). The vision of a rural area is one where agriculture is an important and probably dominant component of people's livelihoods. Such regions possess low levels of education, are less built up, have fewer infrastructures and a lower human population density than urban areas (WWF, 2008).

Since most developing countries depend on agriculture and farm business, better irrigation systems will contribute to their economic and social development (Khan et al., 2006). In spite of development, rural people are forced to migrate while their lands are used for some infrastructural projects. This type of governance creates dependencies among households and ultimately poverty and bribes.

This article tries to provide some understanding of rural socio-economics and their resource valuation particularly in the context of Pakistan. It also discusses a case of reservoir construction in an economically and ecologically rich area (Husnain et al., 2010) of the Sindh province in Pakistan, which has not only devastated the natural resource-dependent livelihoods of poor locals but has also diminished ecological habitats (Nauman, 2003).

The specific objective of this research is to assess the impact of the Chotiari water reservoir on socio-economic values and livelihoods in its surroundings and to discuss governance failure and policy implications. The article tries to point out the important factors in each section to provide foundations for a deeper investigation of a flawed development project. It also discusses the interests of the project initiation and explores the conflict phenomenon. It ends with the governance and policy implications of the findings, particularly for land use conflicts.

Project description

• *Characteristics of the study area*

Human rights violation is directly proportionate to development projects in developing countries. If one has to pick a single example of a development related project from Pakistan, then the Chotiari reservoir along the *Indus* basin would be the ideal case. This project includes massive damage to socio-economic conditions, ecological situations (WWF, 2008), blatant violations of water rights (Memon, 2004), a total disregard for livelihood concerns and human right violations of the affected communities. The reservoir area is characterized by wetlands, riverine forests, desert scrub and sandy dunes and comprised of small river depressions, lakes, narrows, swamps, irrigation channels and agricultural lands, providing an ecological richness (WWF, 2008), which is rare in the country. The Chotiari reservoir area is a haven for migratory and resident birds, hog deer, crocodiles, jungle cats, smaller mammals, and a variety of fish

and reptiles (Azam, 2002). It also supports grazing, fishing and a range of agricultural activities.

The project was designed to increase the storage capacity of existing lakes in the Chotiari wetland area, by occupying over 18,000 hectares of land. Primarily, it was designed to store *Indus* flood water during the flood seasons from June to September, and to release the water during the winter season from December to March as well as during early summer from April to June (Government of Pakistan, 1998). Its main goal was to irrigate about 0.12 million hectares in three districts. The capacity of the reservoir would be increased to 0.75 million acre-feet (MAF) of water, which would flood an area of approximately 160 square kilometres (Qureshi, 2009). The construction cost of the reservoir is likely to escalate to over six billion rupees (approximately US \$ 105 million), compared to the previous estimate of Rs 1.5 billion (approximately US \$ 26.3 million) that was made when the project was expected to be completed in 1997. Due to ineffectual planning and corruption, the project was delayed by five years to December 2002 (Iqbal, 2004).

The Chotiari reservoir is part of the Left Bank Outfall Drain (LBOD) stage I project which was executed at the end of the *Indus* river basin to provide drainage to 0.5 million hectares in three districts of Sindh province – Sanghar, Nawabshah and Mirpur Khas. Financial assistance was provided by donors led by the World Bank. The resettlement plan was supposed to be executed by the Government of Sindh but failed because of massive corruption (World Bank, 1984). Despite resolution of the conflict, those affected by LBOD then had the Chotiari water reservoir project imposed on them.

The construction of a reservoir has negatively affected Chotiari's natural beauty and economic features, but the area is still a rich breeding and nesting ground for birds and stopping place for migratory birds (WWF, 2008). The reservoir area supported fishing, grazing and agricultural activities to the indigenous people (Government of Pakistan, 1998), and tourism services to nationals. It occupied fertile agricultural land and barren lands. Due to full storage in the dam area to the extent of about 0.75 MAF, the grazing area within the embankments has been mostly submerged since 2005-06. This has caused

the relocation of periphery villages as well as difficulties for herders and fishing communities.

The seepage of the reservoir has depleted adjoining agricultural and grazing lands, not only reducing farm productivity outside the reservoir area but also livestock resources (Khaskheli, 2010). More than 20% of the reservoir's surface was covered by open wood and *Makhi* forest¹ which was a major source of energy (fire-wood) and apiculture to local people, but has almost disappeared with the rise in water level.

- *National and international interests*

Initially, financial assistance for the project was approved by international donors led by the World Bank. Construction funds were provided by Saudi Funds for Development (SFD) and other agencies. Due to corruption in constructive funds, the World Bank has reportedly shown an interest in funding for a resettlement action plan (RAP) rather than the reservoir construction (UNEP, 2004).

The following organizational arrangements were made as per recommendations of the RAP prepared in 1994 by LBOD consultants. The proposition was approved by the Government of Sindh with the help of international donor agencies.

- Chotiari Resettlement Agency (CRA) was set-up by the government of Sindh in 1994-95 to implement the RAP under the direction of the commissioner of *Mirpur Kkhas* division, where a Sri Lankan resettlement specialist was appointed to assist the CRA. The Chotiari resettlement management committee (CRMC) comprised of selected members, are compelled to coordinate the policy and implementation issues.
- A local NGO was appointed in 1996 to provide field services and carry out community mobilization and settler support services.
- An independent monitor was appointed to make quarterly field visits to the project area and independently monitor the implementation of key aspects of the resettlement plan.

¹ The word *Makhi* originated from Sindhi and means honey. The forest was famous for reserves of quality honey, where people from this region used to collect honey from the forest for commercial purposes, as well as wooden logs and fire-woods collected for their basic needs (Magsi, 2006).

- Euro consultants appointed during LBOD were replaced by consulting firm Sir McDonald and Partners Ltd.

The government and its allied agencies declared that the project would improve irrigation in the end, and claimed that satisfactory measures had been taken to mitigate adverse impacts of the project. In addition, the environmental management committee (EMC) was formed to supervise the environmental management plan. The EMC was chaired by the Water and Power Development Authority (WAPDA) and senior representatives of IUCN, WWF and Pakistan Environmental Protection Agency.

Pre-construction of the Chotiari reservoir

- *Demographic and socio-economic conditions*

Historically, people have been settled in the Chotiari reservoir area for generations in a mixed society belonging to various communities. These communities were distributed in several *Dehs*² scattered over the villages inside the reservoir area and adjoining sandy dunes, where they were a mixture of fishermen, agriculturists and pastorals (Government of Pakistan, 1998).

The population distribution of rural and urban Pakistan is unequal. In rural areas, the majority are dependent on agriculture and allied activities. Before the introduction of agriculture in the Chotiari reservoir area, the local people were engaged in fishing and herding their livestock, keeping their herds within the reservoir area adjoining the desert. With the introduction of irrigated agriculture since the 1960s, the local people started farming purchasing land from the settlers or from the government (Government of Pakistan, 1993).

- *Level of education among local settlers*

Education creates social and political stability among regions (Østby and Urdal, 2010), promotes a culture of peace and enables societies to understand the need for norms of tolerance (Lipset, 1959). However, the situation of the Chotiari-affected population is completely different. More than half of the household heads were illiterate and every fourth household head had only five years of

² Deh can be defined as an administrative boundary of a community.

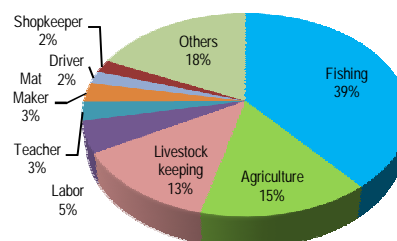
formal education (WWF, 2008). Only 9% females were literate against 51% males. The low literacy among females may be due to gender discrimination. In rural areas of Pakistan, men think they have dominance over women (Hussain et al., 2009) because there is a poor representation of women in decision-making at all levels in the country.

Education is a proxy for development and an indicator of general levels of prosperity in society (Urdal, 2008). On the other hand, low literacy can be treated as proxy for conflict generation, i.e., it may be one of the reasons for the emergence of conflicts with the Chotiari reservoir construction. Similarly, at the time of project initiation, local people were not consulted by the authorities to see if they were in accord with the reservoir construction and voluntary displacement (Iqbal, 2004). Because of low literacy, they did not know about the impacts of the project (Jillani, 1999) and the value of their resources.

- *Economic activities, income sources and livelihood*

The Chotiari area was naturally rich and provided opportunities for diversified activities to the local population. Most household heads in the fishing business, followed by tenant cum agricultural wage labourers, while livestock keeping was found to be the third major occupation (see figure 1). Landless people were dependent upon livestock farms for their livelihood. Sindh province is famous for keeping fine livestock breeds (IUCN, 2004), but in this area the cows are relatively more adaptable than buffaloes. Most *Thari* cows were kept for milk and meat purpose. This breed is famous in the area and originated from the *Thar* desert of Sindh (WWF, 2008).

Figure 1: Main actors of the Chotiari water reservoir area



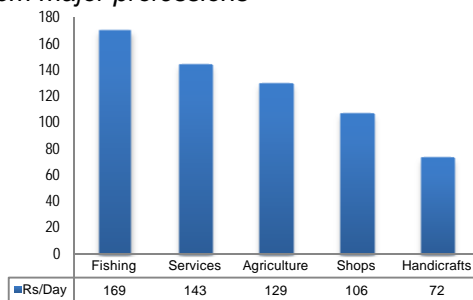
Source: Author's calculation from; (Government of Pakistan, 1998; UNEP, 2004; WWF, 2008)

In rural areas of developing countries people's income is always at risk as they directly depend on natural resources, i.e., land and

water. The use of these natural resources depends on weather conditions and political situations (Humphreys, 2005). Before the Chotiari reservoir, the economic situation of the area was not bad³; the average per month income of each family was Rs. 6619 (approximately US \$ 80) (WWF, 2008). This is sufficient for a family living in a rural area.

The income distribution was skewed rather than normally distributed for each family. The average wages per day were recorded for fishing, followed by servants engaged in construction of buildings, mills and field activities (see figure 3). In general, agricultural wage labor is employed on a half-day basis, but there is a great instability in this income. Sometimes agriculturists can earn more from seasonal employment, i.e., during crop harvesting seasons. In small villages, local people also run small scale businesses to maintain their economic position either by establishing small shops or by selling homemade handicrafts in the nearest towns and cities.

Figure 2: Average per day wages earned from major professions



Source: author's calculation from WWF, 2008

³ Almost all experts in the study area opined that people used to live happily and their economic position was good (Expert opinion survey conducted in December 2010).

The contribution of women to the household economy in rural areas of developing countries cannot be ignored. They play a significant role in the economic development of the household and the village in terms of household tasks, farming operations and livestock management, but their efforts and services remain unacknowledged. Handicrafts including; embroidery, quilt and mat making are mostly done by women at home. This highlights the need to tackle gender discrimination and establish income-generating activities for women.

Post-construction of the Chotiari Reservoir

- *Affected communities*

Families who lived in the Chotiari region for many generations were forcibly displaced in the name of development (Shah, 2007). The reservoir not only displaced local people but also occupied fertile agricultural land (Government of Pakistan, 1998). The loss of productive land not only had a significant impact on the agricultural output of the area but severely disordered the socio-economic lifestyle of the communities (Husnain et al., 2010). Besides that, fishing communities were harmonized with the ecology of the lakes, which are trapped outside the reservoir. Similarly, the loss of productive food chains created at the currently existing aquatic margins may devastate the fishery. Such loss of livelihood for the traditional fishing community in the area has not been sufficiently evaluated or addressed.

According to the Environmental Impact Assessment (EIA) of the project the "major carp" is the dominant commercial fish at Chotiari reservoir area, which requires flowing water to develop (Government of Pakistan, 1993), rather than stopping the flow of water in the shape of the reservoir. There is a possibility of re-establishing artificially a new fishery on the reservoir system, but it may take a long time. Fishing communities may not have the resources to survive the temporary loss of their livelihood. Even in the long run, the existing small boats and nets of the fishermen would not be appropriate for a deeper and larger reservoir. The fishing community has neither the resources to purchase large boats and nets nor the skills to manage livelihood under these conditions (Khaskheli, 2008).

There are vast grazing grounds in the Chotiari reservoir area. For generations the herdsmen were using lake fringes as a pasture for their herds. The reservoir forced them to move away in search of alternative grazing sites, because immense tracts of grazing lands were affected as water level increased in the reservoir (Raza, 2009). Grazing along existing lake shores is perennial and maintains herds throughout the dry period. However, after completion of the reservoir, the grazing lands were inundated and herdsmen dislocated without any resettlement or proper compensation; they are homeless. The historical and human rights of the herdsmen are not even recognized in the RAP (Husnain et al., 2010). Remaining on the shores of the enlarged reservoir is not an option as that area is mainly composed of sandy dunes. Even if new grasslands were generated in the future, there is no option for the herdsmen to survive the many years of transition.

- *Compensation and resettlement issues*

From the start of the project there have been significant wrongdoings in land acquisition, compensation and resettlement but no adequate mitigation measures. The resettlement plan was revised many times but not disseminated publicly (Iqbal, 2004). A relocation site has been acquired in *Patipota Deh* for resettlement of the displaced families. It is located about 80 kilometres north of the reservoir. Initially some development works were carried out on this site to give hearing to the grievances of those affected. Finally it was declared that the site was not feasible and the compensation scheme needed revision (Nauman et al., 2001). The authorities kept defending the project saying it would provide improved livelihoods and community life to the dispossessed families in a planned way (Iqbal, 2004; Mangrio, 2002). In this regard, the CRA has failed because:

- There was no consultation with affected communities during planning and execution of the project.
- The land valuation, assessment and disbursement of the compensation were inadequate.
- The resettlement site selection was illegitimate.
- Poor institutional arrangement performances.

The committee started the process of land compensation in 1995. However, it did not

make a reliable assessment of compensation according to market values. So far compensation has been paid to 260 out of 993 families, who either belong to or are supported by local landlords⁴. Thus, the powerful lobby has managed to drain over Rs. 76 million (approximately US \$ one million) to fake owners, which is about 80% of total disbursement (Nauman, 2003). On the other hand, poor families were referred to the courts for justice because either they refused the lower rates or they were not included in the list of compensation. Initially, the courts proceeded with these corruption and compensation-related cases but after inauguration of the reservoir in 2003, almost all the cases were discarded without any decisions. The government has not addressed the scandalous inadequacy in project implementation because of the involvement of high profile officials and bureaucrats (Mangrio, 2002).

- *Controversies and oppositions*

Those affected in groups or individually have repeatedly pointed out during the visit of the World Bank's monitoring team that the Pakistan government has not been provided with reports and documents related to the Chotiari reservoir project (Jillani, 1999). They complained to team members that despite of their continuous efforts, they could not get hold of official lists or details of the affected, who are entitled to receive land and house compensation or lists of those who have already received compensation. Moreover, the affected population had no information about the measures actually being taken to mitigate adverse environmental effects (Nauman et al., 2001). Lack of transparency and accountability have increased corruption at the local level and suppressed the dissenting voices of poor people. This was where massive misappropriation took place.

Either the project was poorly implemented or no proper feasibility study was carried out. That is why there was no estimation of economic benefit and loss to measure the adverse impacts of the reservoir. There are also allegations of mismanagement in land acquisition and massive misappropriation of funds allocated to the affected for their land and home compensation. Those affected,

⁴ There were records of fraud and recrimination in the process of compensation. Not all those affected have been compensated. The compensated families mostly were landlords and influential persons (Expert opinion survey conducted end of 2010).

community based organizations (CBOs), NGOs, and local experts are questioning the compensation and suitability of resettlement.

There were no CBOs in the affected areas before the project execution. Controversial opposition to the project gave birth to CBOs (Abro, 2001), when the communities noticed corruption in compensation and construction funds, adverse impacts of the relocation site, environmental issues such as water logging and danger to wildlife. The first CBO was formed just before the compensation process began in 1995. This organization, *Anjuman mutasreen Chotiari* (Union of Chotiari Affected), represents small land owners and tenants and has exposed corruption in the compensation process and prepared a list of fake land owners; it has consistently confronted CRA and government officials on compensation issues.

Another active CBO is *Makhi Welfare Organization*, which has a broad base among various segments of the affected, especially herdsmen and fishermen; it is working on various issues ranging from education to resettlement, and the environment. The *Chotiari Development Organization* is interested in taking up issues of resettlement and the environment after construction. The *Rural Women's Development Organization* (RWDO) is organizing seminars on women's education and health issues as well as confrontation with the government for their rights, because more than half the affected are female (Nauman et al., 2001). The *Charagah bachayo tahreek* (Movement for Pasture Protection) is a recently formed organization, which has raised voices against declining natural meadows and the environmental beauty in the region. Local journalists have also contributed in highlighting the issues in order to draw the attention of the government and national or international NGOs.

Governance: Roles and Responsibilities

In Pakistan, the institutions for the process, planning, implementation and monitoring of the project is incapable of safeguarding public interests or protecting the rights of poor communities. In the case of Chotiari reservoir the access of information and public participation discouraged people at all stages of planning and monitoring. The structures of related institutions such as CRA, EMC, SIDA and WAPDA are highly bureaucratic. Corruption and nepotism during the project

implementation highlight the way bureaucrats and major political parties encourage such development projects for monetary and non-monetary benefits. Provincial and federal governments are dominated by a few strong lobbies⁵.

Transparency regarding the project's policies, programs and objectives, and wide dissemination of accurate information to the public is crucial to project success. Official policy for such internationally financed projects strongly favours public dissemination and disclosure of all reports to prevent conflicts. The reports, documents and information related to the Chotiari reservoir project were in the possession of agencies like the CRA, EMC, SFD, SIDA, WAPDA and the World Bank. Mission teams used to visit sites during implementation of the project, but never shared facts and figures about the project with those affected, CBOs or NGOs who had no information about the measures actually being taken to mitigate the adverse impacts of the project.

After the realizing how poor the governance of the project and the inhabitants was, the government formulated an environmental management and monitoring plan (EMMP) in 1998, intended to carry out an effective decision on how to resolve emerging confrontations. The EMMP has strongly recommended the following actions for immediate conflict resolution:

- Fulfil the obligations of the Land Acquisition Act.
- Make immediate payment of the compensation to those affected.
- Implement EIA recommendations.
- Prepare another resettlement plan for those affected.
- Modify the storage process of flood water, particularly in the monsoon season.

No action on these recommendations has been taken, nor was it with other projects initiated in the country in the past. Almost all EMC members come from typical government organizations, either national or international. The IUCN and WWF were key members of the

EMC for overseeing the environmental aspects of project implementation (Nauman, 2003). Experts in the study area have opined that both IUCN and WWF failed to safeguard the public interest in the project. On the other hand, the involvement of international financial institutions in this project was skilful, to make it appear that the responsibility had shifted to the community level. They were involved in creating an independent monitoring committee and NGO to look after assessment plans for resettlement. Neither plan became effective, because the NGO was under the direct control of the CRA, and the independent monitoring committee became complex due to the intervention of local landlords and politicians. The failure of governance occurred because there was no provision for public participation in the implementation, resettlement and compensation plans and no democratic control over the planning and executing agencies.

Conclusion

The Chotiari reservoir project is no different from other related mega projects executed in other developing countries (Lama, 2008; Vainer, 2007; Awakul and Ogunlana, 2002) but it exhibits a greater degree of poor governance, human rights violations and ecological destruction. Many communities have still not received any compensation or land for their rehabilitation. The issue of appropriate compensation and resettlement needs immediate attention, because many families have no permanent residence and have lost livelihoods, homes and livestock.

The extension of democratic processes to grass root levels strengthens the autonomy of institutions. Public participation in the functioning of institutions could act as the lever for the promotion and protection of human rights and ensure development in the region. Economic opportunities created through employment, natural compensation, proper distribution of resources and market access are central components for poverty reduction in rural areas. In the case of the Chotiari reservoir, the government should pay the social and environmental debts to the affected families and avoid any repeat of such catastrophes in the future.

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⁵ Due to institutional weaknesses in rural Pakistan, there are a few lobbies (comprised of local land lords and politicians) which have influenced the establishment. In order to get justice, indigenous people used to visit local landlords and politicians, rather than the administrative courts (Expert opinion survey conducted end of 2010).

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