

Diamer-Bhasha Dam in Pakistan: Report from a Field Trip

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Introduction

The planned 4,500 MW Diamer-Bhasha Dam on the Indus in Pakistan is, at US\$12.6 billion, one of the largest and most costly planned dams in the world. In August 2008, a fact-finding team visited the proposed site of the dam for one week to collect information and document the public perception of the project. The team was composed of four Pakistani water experts: Mr. Mustafa Talpur, Mr. Ifthikhar Hussain and Mr. Mohsin Babbar and Mr. Aimal Khan from Sungi Development Foundation. Ms. Sameeta Ahmad, Assistant Professor, Department of Architecture, NWFP UET, Abbottabad Campus, and Member of the Pakistan Chapter of the International Council on Monuments and Sites (ICOMOS) assisted the team by giving her input on questions related to cultural heritage.

Background

The Pakistani Water and Power Development Authority, WAPDA, is planning to start construction of the Diamer-Bhasha Dam in 2010. The dam on the Indus in Northern Pakistan would be constructed 40km downstream of Chilas town, on the border of the North Western Frontier Province and the Northern Areas. The majority of the reservoir will be located in the Northern Areas, while the power houses will be in the North Western Frontier Province, NWFP.

The hydropower project would have an installed capacity of 4,500 MW, a dam wall of 270 meters, a reservoir with a storage capacity of 6.4 million acre feet, at the cost of over US\$12.6 billion. The 200 km² reservoir would flood around 100 km of the Karakoram highway, villages that house over 28,000 people would disappear, and up to 50,000 thousand-year old rock carvings would vanish.

According to the project design, the hydropower project will have two diversion tunnels and two cofferdams upstream and downstream of the project site. The project would have two powerhouses, which would house 12 units with 375MW capacity each. The average generation of the two power houses is estimated at 18,000Gwh per year.

The reservoir would be in the politically contested Northern Areas, referred to by India as Pakistan-occupied Kashmir. The region presents engineering challenges due to its difficult topography. One challenge will be widening the Karakoram highway, along which all material for the dam would have to be transported.

Before construction of the dam can commence, a new bridge at Thakot, on the river Indus, needs to be built as the existing bridge would not sustain the transportation of heavy material needed for the construction of the hydropower project. In addition, 320 km of the Karakoram highway need to be upgraded to allow for transportation of

machinery and equipment, and 100km of the highway need to be rebuilt at a higher elevation, since a stretch of the highway of this length will be flooded by the reservoir.

According to WAPDA, the project will not only generate hydropower, but will also have irrigation benefits. The stored water would be available for agricultural use during low flows, while the 4,500 MW electricity would reduce the country's dependence on thermal power from abroad. WAPDA also claims that the project would generate employment opportunities for the local people during construction and operation. WAPDA also claims that the project will contribute to mitigate floods and control sedimentation in the Indus.

Project Status

The detailed engineering design and tender documents for the project were completed by Lahmeyer International in 2008. Since then, a notice for prequalification of contractors has been issued. Applications from international and Pakistani contractors are being received. In addition, a monitoring system has been installed to monitor seismic activities in the project area. The construction of a new bridge at Thakot has been approved and work on the Karakoram highway has commenced.

The Resettlement Action Plan (RAP) and the Environmental Management Plan for the project have been finalized and the Government of Pakistan has approved the first phase of the project, including land acquisition for the reservoir, at the cost of one billion US-Dollars, in November 2008. The Asian Development Bank has rejected the RAP, and so have the people who would be affected by the dam. According to media reports, WAPDA is considering revising the plan and likely to redraft it. As a result of this, the construction of the dam is likely to get postponed, which will again increase the costs of the project.

According to Raja Pervez Ashraf, federal minister for water and power, Chinese companies are interested in constructing the project and "some Arab countries" want to form a consortium to help Pakistan build the project. Pakistan has signed a memorandum of understanding with the China International Water and Electricity Corporation for the construction of Diامر-Bhasha Dam, however, no international financier has officially associated themselves with the project. According to media reports, the Economic Affairs Division of the Government of Pakistan has been directed to make formal requests to the Asian Development Bank for one billion US-Dollars funding annually.

Project Costs

Financial Year	<i>Expenditures in US\$ Million</i>		
	Local	Foreign	Total
Pre-Construction 2008-09	545		545
Construction starts			
2009-10	545	180	725
2010-11	735	261	996
2011-12	972	555	1527
2012-13	826	595	1421

2013-14	826	760	1586
2014-15	855	809	1664
2015-16	811	640	1451
2016-17	553	470	1023
2017-18	673	574	1247
Sub Total	7341	4844	12185
Post Construction 2018-19	200	215	415
Total	7541	5059	12,600

Source: <http://www.wapda.gov.pk/htmls/water-dams-basha.html>

Public Consultation, Information Sharing and Transparency

Transparency levels in Pakistan are generally poor and it is very difficult to get information for educated ordinary citizen of the country, while it is almost impossible for illiterate laymen to access information on any development project, program or policy.

The government agencies usually pay no heed to the legally required social and environment assessments for new projects, and the standards for stakeholder participation are very low.

During numerous meetings of the fact finding team with project-affected people, concerned officials of the district administration and the execution agency, the team learned that planners, designers and the execution agency had never consulted stakeholders of the project at any stage.

Some representatives of the people who will be displaced by the project told the fact finding team that the only visits they had received in connection with the project were from private consultants who had come to assess the size and value of their land.

Contrary to the relevant laws, no public hearing was organized after conducting the Environmental Impact Assessment (EIA). The Environment Management Plan was approved without following the required process.

Instead, according to the project director of the Diamer Basha Dam project, WAPDA will establish a project information desk in Chilas.

However, the fact finding team believes that this is not enough and that there is a need to disseminate information about the impacts of the project to the general public, government officials, media, private individuals, concerned citizens and especially women.

The livelihood and economic losses of the project-affected people also need to be discussed at a greater level of detail, especially with the women of the area, since women in that area have no access to information. The information about the project also needs to be translated into Urdu and other local languages for broader understanding about the project and its impacts.

Constitutional and Political Status of the Northern Areas

According to Pakistan's constitution, the Federally Administered Northern Areas (FANA) is not part of Pakistan, and its inhabitants have never had any representation in Pakistan's parliament. Only in 2000 did a Pakistan Supreme Court judgment lead to the establishment of a body with powers to legislate on local matters in the Northern Areas. Today, the Northern Areas are ruled by the Northern Areas Legislative Assembly (NALA). Development projects financed by the Aga Khan Rural Support Programme and the existence of the Karakoram highway that connects Pakistan with China have contributed to improving the socio-economic status of the people in the Northern Areas in recent years.

Royalty and Project Benefits

In Pakistan, the constitution stipulates that royalties for a power project accrue to the province where the electricity is being generated. In the case of the Diamer-Bhasha project, since the power houses will be located in the North Western Frontier Province, NWFP would accordingly receive all project benefits.

Since more than 90% of the reservoir will be located in the Northern Areas, the government of the Northern Areas demands an adequate share of the project benefits. However, this issue is still being disputed. The lack of clarity regarding the distribution of project benefits is being further complicated by an ongoing border dispute between the Northern Areas and NWFP. NWFP and the Northern Areas also have different levels of influence in the government and parliament in Islamabad: while the Northern Areas do not have a strong representation in Islamabad, the NWFP government, led by the Awami National Party, is influential in both houses of parliament as well as in the government of the country.

Displacement

According to WAPDA, 27 villages will be flooded by the reservoir of the Diamer-Bhasha Dam. These villages are located either on the banks of River Indus or its tributaries. Looking at the geographical and physical nature of the area, one understands quickly that land is very valuable around the proposed dam site: the steep mountains do not offer a lot of flat land conducive for human settlements or agriculture. The fact finding team heard from local people that 31 villages will be flooded, 3115 houses destroyed and 1,500 acres of agricultural land inundated by the reservoir. WAPDA is planning to build nine model villages for the people who will have to leave their homes to make place for the reservoir. The fact finding team visited the following six villages that will be flooded by the reservoir:

List of affected villages visited in rapid assessment

No.	Name of village	Households	Remarks
1	Pine	250	
2	Shine	250	
3	Soniwal Kot	100	
4	Seri Thor	500	
5	Khanbari	300-400	

6	Gonar Farm	1200	
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In the villages, the fact finding team learned that because of the scarcity of available agricultural land, even small tracts of good land matter a lot to the people. Already without the dam and its reservoir, the team saw a big population pressure on the land. Not only more mouths are opened for food, but people need a place to settle down in an area where land is just not available. In such a stretched land situation, a 100 km lengthy reservoir will take away a most precious resource from the people.

Locals describe the land utility by the dam in the following way:

- 11,428 hectares will be flooded by the dam
- WAPDA colony + officers colony will need 150 hectares in Thurnala
- Camps and workshops will require about 200 hectares of land in Poshidas Harpan
- 454 hectares land are required for the nine model villages

Acquiring of this much land will put even more pressure on the existing land, and locals fear that this will lead to increased land litigation cases and an increase in poverty and landlessness.

The fact finding team heard the following comments from local people near the planned dam site.

“We love our land, two-thirds of Chilas town will be inundated. The heart of the city will be destroyed by the dam. If one looks from a helicopter, the River Indus looks like a line surrounded by bare mountains, but this district (Diamer) is the biggest producer of wood. People think they will be having no land to settle and become *mohajareen* (people who migrate somewhere).”

Consultations

From discussions with local people in the villages near the proposed dam site, the fact finding team learned that no project consultations have taken place. When asked, nobody was aware of any consultation, people had only been contacted by “patwaris” who had come to assess the value of their land. People learned about the plans to build the dam from the patwaris and the media. No efforts have been made to inform the local people of the project and its impacts or to get their consent on the plans.

Therefore, local communities feel alienated from the decision-making process as they have no representation in any committee taking decisions about the dam, the compensation or the resettlement plan. The information is either classified or not being shared with local communities. No documents are available in local languages. The people are ready for sacrifice but they are being pushed towards mountains or drowned in the reservoir, said a local member of a Northern Areas Assembly in Chilas.

Compensation

People in the area where the reservoir of the Diamer-Bhasha dam is planned have no titles to their land, traditional land management practices prevail. Having no proper land records in this mountainous area, the chances for irregularities are high. From talks to the people, the fact finding team understood that the powerful and influential people in the area have used their resources and networks to manipulate the land assessment process. The communities have characterized the assessment in the following way:

- “We are not happy with assessment, they have not included our outside barrier, we built these barriers for animals, brought stones on tractor, and they have only included cemented walls and houses. The cheating has started from very inception.”
- “We have no idea about land measurement, we just have demarcation of our land.”
- “Improper assessment by Patwaris.”
- “They are not properly measuring, a lot of houses have been left out.”
- “If someone has 30 canals, it has been recorded as 20-25 canals.”
- “About 20 houses have been left out and were not recorded, including the houses of Saiful Rehman, Haji Misri Khan and Zareen Khan in Gonar farm.”
- “We are not satisfied with assessment.”
- “Money was involved in the assessment, if somebody paid Rs. 20,000 their houses were put into ‘A’ category, otherwise in B.”
- “The categorization itself opened the door for corruption and manipulation with assessment.”

The main concern raised was regarding the land compensation rates. A lot of people were not sure about the compensation rates, as the rates had not been officially communicated to them. They had heard different accounts of compensation rates, different people had told them different things. Similarly, people were also concerned about the different categories of land; according to them, all land is equally important. They reported that land along the Karakoram highway was considered as commercial, whereas all other land was considered non-commercial. Agricultural land was divided into two categories, cultivated and non-cultivated land. According to local residents, non-cultivated land is as important as cultivated land for them because the uncultivated land is pasture land used for grazing animals. Some people had heard that the compensation would amount to 300,000 Pakistani Rupees per canal (one canal equals one-eighth of an acre), others had heard 350-400,000 per canal, again others had heard 600,000 for one canal of cultivated land and 400,000 for one canal of non-cultivated land. Uncertainty over the official land compensation rate and the methods used to differentiate between high-value and low-value plots remains.

There is also a shared concern that people would not be able to buy replacement land at the rates offered for their current land, as land prices in the area are likely to go up with the construction of the dam. According to a local official, the land price is already at one million Pakistani Rupees for canal – well above the rate offered to the affected people for their existing land.

The people also reported uncertainty regarding the compensation payment process. The district administration is not happy with the way WAPDA officials are handling

the payment of compensation. Looking at the previous experience with large infrastructure projects in Pakistan, people have often had to pay large sums for receiving their legitimate compensation, and only after having visited government offices multiple times. People in the area fear that this practice will be repeated, because the area lacks functioning institutions and efficient information channels. People also told the fact finding team that they had already seen first signs of corruption in the compensation process, especially when the land and the commercial property was categorized and assessed. People reported that money had been paid to the “patwaris” during the assessments. In addition to instances of corruption, people also criticize the experienced delay in compensation payments, and informed the fact finding team that many times, compensation was paid much later than planned.

WAPDA has not yet purchased any land in the affected area, at the same time, there is a complete ban on the purchase or sale of property.

Resettlement

Around 28,000 people of an estimated 27 villages will have to be displaced and will be resettled in nine model villages in the same area. Theoretically, the idea is attractive and looking at the scale of displacement, it is feasible to settle this number of people. But in practice there are several concerns with this idea. There is fear - based on the lack of information sharing - that the cost of the model villages will be deducted from the compensation packages of the local communities. People demand that the cost of building the model villages should be born by the government and not by the affected people.

The other concern raised by the local people is the size of the new land plots and the design of the houses in the model villages. According to their information, authorities intend to build flat houses with small gardens. Currently, people are living with large open spaces. They fear that with the new design of the houses in the model villages, their privacy will be compromised. The affected people are therefore interested to get new land and build their own houses according to their needs, local culture and personal situations.

Livelihoods

Life in the mountains in North Pakistan is tough as well as simple. Agriculture and livestock are the major sources of income. The land produces enough maize to eat and livestock for cash. Maize and wheat crops are grown in this area. Not every household possesses land. Food is secure; the land is quite fertile and produces enough to meet local requirements. The winter forces people to migrate and to use the low lying pastures. This cycle of movement is an essential element of the local livelihoods.

With the dam, this cycle is likely to change as there will not be enough fields available for everybody. Having no pastures left, people may be forced to stay in the mountains even during winter times, thereby putting additional pressure on the forest and other natural resources. People might also decide to abandon their livestock, if

the land is no longer available. It is, however, unclear how they could earn an income if they would give up their livestock, as alternative income sources are lacking.

Others in the area, the so-called “Soniwal” communities, gain their living with the collection of gold in the river. During the winter season, when the mighty river Indus is quiet, the communities embark on the river to search for gold. Even though this work is seasonal, and can only be carried out during three months of the year, it characterizes the lifecycle of the Soniwal communities and ensures the survival of their families. With the construction of a large dam and a reservoir on the Indus, it is unclear whether the Soniwal will be able to continue to make a living from gold.

Story of Soniwal Kot

A beautiful village in the mid of green and long trees Soniwal Kot is situated at the junction of River Indus and Thurnala. The village consists on about 100 households.

The tall fruit trees hug the village and the transparent water of Thurnala loses its identity in the Indus River. The communities are engaged in searching gold, rearing livestock and agriculture.

People think that they will lose about 300-350 canal of agriculture land. Their gold finding places will be inundated in the reservoir. They fear their land will be inundated and they do not want to live in mountains. The people think:

The government has nothing to do if we die, government will not give us land, the Tarbela people are still waiting, they were powerful, we don't have any rights.

The inhabitants of these narrow and steep valleys are already today facing problems because of the limited road network in the area. However, with the construction of the dam, even the few roads and bridges over the Indus will be destroyed and as of now, there are no plans for alternative routes. Crossing the entire reservoir by boat will be much more time consuming and costly than traversing the river over one of the existing bridges. Many communities are heavily dependent on the bridges to cross over to the other side of the river as many have land on both sides of the river, or need to cross the river to collect wood and other resources in the forest and to access markets and shops. With the destruction of the bridges, the people will lose income

possibilities as well as market access.

During the visit almost everybody echoed that they felt powerless, voiceless and had no other option but to leave the ancestral villages, graveyards, mosques and land. The level of frustration and hopelessness was very high and everyone the team talked with was found in the same condition. People feel that they don't have the power to oppose the dam.

Alternative Livelihoods

The area offers limited sources of income and livelihood opportunities. The scarcity of land, remoteness, geographical location and limited forest resources has pushed

people to the edge of poverty. The major livelihood sources are agriculture, fruit trees, livestock, pastures, local business, timber, wildlife (trophy hunting). These traditional means of subsistence agriculture and livelihood will be threatened or destroyed with the construction of the dam.

There is a need to create new livelihood opportunities and strengthen the capacity of communities to adopt new skills to accommodate to the changing situation. Once the community bond, social capital, environmental resources and physical capital is disturbed, huge investments will be required to provide alternatives to the people. The ultimate aim of any development intervention should be an enhancement of peoples' entitlements, choices and opportunities.

The following alternative livelihood options as well as benefits have been suggested by the local people:

- Creation of alternative employment opportunities for the local people
- Free electricity for the affected people
- Agriculture land for the displaced and otherwise affected in Punjab
- Fishing and tourism income of the dam should go to the Northern Areas
- Allot plots for the displaced in Islamabad
- Local people should be given work during the construction and operation of the dam
- Dam colonies should be built in this area
- Tax on the material used for the construction of the dam should be given to this area
- Establish industrial and tourist zone in Diamer
- The hospital should be converted into a medical college
- Improvement of local schools

Khanbari Valley

Khanbari Valley will be the closest to the dam. The dam wall will be just 2km down the valley. All six villages in the valley, namely Jusokum, Chengchar, Naroot, Neema, Baloute and Narar, will be flooded by the reservoir and everybody will have to be resettled. Ali Ahmed of Khanbari Neema and Rahim of village Narar narrated their story to the fact finding team.

These settlements are about 400 years old and engage in gold exploring. These people have no rights over forest; they pay qalang and then have limited user rights over forest resources. The valley is rich in fish resources and we catch it.

The agriculture is very rich in this valley. People grow food crops, vegetable and fruit trees. Nobody is happy in leaving their homes, land and settlements but we don't have no other options. If Pakistan is happy and developed with dam we have no objection, we just need a good compensation to settle down collectively. We don't want to settle individually or separately.

Cultural Heritage



Rock Carvings of the Buddha near the planned Diامر-Bhasha reservoir. Credit: Heidelberg Felsbild Archiv.

The cultural heritage at risk due to the construction of the Diامر-Bhasha dam consists of a vast collection of ancient rock carvings in the Upper Indus Valley which have an undeniable global importance. They will be completely submerged by the reservoir along its 100 km length. The fact-finding team has visited some of the major rock carving complexes in the proposed reservoir area, and has talked with Dr. Harald Hauptmann, Heidelberg University and the WAPDA authorities about the impact of the reservoir on the rock carvings. Sameeta Ahmed has also had interviews with local residents discussing the rock carvings in August 2008.

Chilas, Diامر District, is a central location for the complex of rock carvings and inscriptions in the Upper Indus valley, which provide a unique source for the study of the cultural history of Central and South Asia, and whose many old paths represent the heritage of the ancient Silk Road. The systematic documentation and publication of this material has been conducted since 1989 under the direction of Prof. Harald Hauptmann of Heidelberg Academy of Sciences and Humanities in Germany.

In the proposed Diامر-Bhasha dam reservoir area alone, there are 88 archaeological sites with 68 rock carving complexes. Altogether, 5,157 boulders and rocks showing 36,187 carvings including 3,610 inscriptions in many different scripts have been documented in this area. The scattered carvings of various sizes are pecked or chiselled into the dark brown varnished surface of the boulders spread out

on the river banks and the terraces of the valley. They provide a gallery of different images from prehistoric times up to the introduction of Islam, with an especially rich collection of Buddhist art which draws international attention. Since 1989, this mission from Heidelberg University has brought its archaeologists as well as its own topographers to Chilas, and measured, photographed and classified the carvings.

The Protection of Cultural Heritage in Pakistan

In Pakistan, every project proponent is required to carry out an Environmental Impact Assessment that addresses cultural heritage, as well as environmental and social impacts. This assessment is also sometimes referred to as Cultural Heritage Impact Assessment, CHIA, especially when significant impacts on cultural heritage require a more comprehensive study. Usually in Pakistan, these assessments on cultural impacts are carried out by the Federal or Provincial Department of Archaeology (FAD). When multinational lending agencies, including the World Bank or the Asian Development Bank are involved in a project, the cultural impact assessments are more extensive and conducted by outside experts.

Since no international lender has decided to support the Diamer-Bhasha project, it is not clear what standards will be used for the assessment and protection of cultural heritage. In August 2008, when the fact finding team consulted WAPDA on this question, Dr. Izharul Haq, General Manager of the project, reported that "The Environmental Impact Assessment of the project, with a full section on the cultural heritage, has been prepared by the company Lahmeyer from Germany. The cultural heritage expertise was provided by the Heidelberg Academy's Dr. Hauptmann and his team. The EIA report has been submitted to the Federal EPA (Environmental Protection Agency) and they have sent it forward to the NWFP's EPA where it is under review." WAPDA is currently not making this document available to the public. Dr. Harald Hauptmann, however, negating the WAPDA statement, says that he or his team were not consulted during the preparation of the Environmental Impact Assessment for the Diamer-Bhasha dam.

The EIA-CHIA report or any details about it have not been shared with Dr. Hauptmann either. According to Dr. Hauptmann: "We have no exact information about a full EIA/CHIA of the project by Lahmeyer for WAPDA."

On August 8, 2008, the Federal Department of Archeology's (FAD's) EIA Section in-charge, Tahir Saeed, when asked whether his department had been involved with the Dam project's EIA, commented that "Our Department will soon be conducting the EIA for Cultural Heritage of the Bhasha Dam project ourselves, and it has not been worked on as yet. We will be consulting the Heidelberg mission on this, and involving them." Dr. Hauptmann reports that: "On the basis of our field research we have selected a list of the most important rock carvings either to be transported to a local museum or to be copied on the basis of the 3D-scanning technique. In August 2007 we were able to start a first step to produce replicas from original carvings at Thalpan [one of the sites]. We are still preparing this "masterplan" which we should deliver to the ministry by autumn."

To conclude, the fact finding team understands that WAPDA has not consulted the Heidelberg team for the study even though they recognized them as the relevant specialists, and claimed to have involved them in the EIA study. WAPDA might soon

be conducting another Impact Assessment for Cultural Heritage, a CHIA, with new consultants. The ministry of archaeology has furthermore commissioned a separate Conservation Master Plan from the Heidelberg team.

The options for conservation, according to Dr. Hauptmann and WAPDA, include the cutting of important carvings with stone-cutters and transportation to local sites, or copying the most important pieces with the 3D-scanning technique of the Heidelberg team. The option of cutting and transporting pieces is generally discussed by all parties concerned as a very challenging and costly option, both technically in the cutting and in the transportation. The exact financial and logistical feasibility of this option was not available from any source.

Other cultural heritage

The vernacular or folk architecture which could be seen as cultural heritage in the various villages which will be submerged is of lesser significance, since it is not representing a rare heritage or one which cannot be replicated elsewhere authentically.

A lot of dam-affected residents who were interviewed were more concerned about the social and economic effects of the project rather than what could be seen as their local heritage.

The Chilas town fort dates back to the 19th century and has much significance for regional history. The adjoining old bazaar, as well as the fort, are located at a higher level and will not be submerged; however, there is the imminent danger of them being severely affected by the dam and its reservoir.

The Chilas Fort has had many insensitive modern additions to it in recent decades, with modern buildings built within it. It is not an officially protected monument. Many locals working in the fort, as part of the police force stationed there, talked proudly of the importance of the fort for international history, and a plaque placed at the entrance narrating its history also testifies to the official recognition it has previously received.

Recommendations for Preserving Cultural Heritage

As far as the fort and the old bazaar in Chilas are concerned, conservation should be done in line with the principles of historic area conservation. Rehabilitation of the area and public participation should create a sustainable conservation plan with economic benefits for locals and for the region. Again, local residents who own the property as well as the heritage need to be involved besides other professional bodies, to develop such a proposal with the authorities.

As far as the rock carvings are concerned, the Heidelberg mission has been conducting seminars and trying to connect with professionals and academics interested in the cause. More of such efforts are needed. Even more awareness raising is needed, especially with academic and heritage-related institutions, which can convey the message to broader audiences, and lead to meaningful public

discussions about salvage options, and more international collaboration and mobilization.

The EIA process should officially include professional experts in cultural heritage as well as the public. A transparent cost-benefit analysis, which includes social and heritage values and costs, should be conducted and shared with the stakeholders and the public.

Dr. Adam Nayyar of the Pakistan National Council of the Arts has proposed to set up local museums in Gilgit and Chilas, where the cultural heritage of the Northern Areas could be presented to the publicⁱⁱⁱⁱ. Especially the cultural context and history of the rock carvings as well as their remains could be presented there. However, the recent tragic death of Dr. Adam Nayyar has been a great loss for the cause at a national and international level. People need to take up his campaign to set up local museums to display the culture of the Northern Areas, with or without the construction of the Diamer-Bhasha dam.

Local Response to the Project

Initially, there was strong resistance to the dam in the area where it will be built. But gradually the opposition to the project has diminished, particularly after the visit of General Pervez Musharraf in 2005. For the last few years, the affectees strongly resisted the proposed dam and frequently held demonstrations to highlight their concerns. Many people boycotted the public gathering of Prime Minister Shaukat Aziz and the President of Pakistan in connection with the dam during the same year. A delegation of dam affected people also visited Islamabad in March 2006 and demonstrated against the dam in front of the parliament. The affected people also discussed their concerns and demands in public meetings. They have been calling Jirgas, and have sent delegations to deliver their concerns to the Prime Minister and to the provincial government.

Today, strong public reservations still exist against the offered compensation and resettlement package. Two committees of dam affected people, one in Diamer and one in Kohistan district, have been established to promote the concerns of the people that will be displaced and those that will be otherwise affected by the dam and its reservoir. The Diamer District in the Northern Areas will be most affected by the project, Kohistan to a lesser degree. The people living in the Diamer district therefore demand 100% of the project royalties.

Due to the lack of fertile land for resettlement, conflicts are arising between the locals on one hand and between the state and the community on the other hand. Once a little-valued and neglected commodity, now the people have started realizing the value of the land, particularly after the construction of the Karakoram highway. The highway is the highest paved international road in the world and connects China and Pakistan. Realizing the value of land, there are conflicts between the de jure and the de facto owners of the land.

The people in the area are however not fully aware of the environmental, cultural and socio-economic impacts of the proposed Diamer-Bhasha project. The concerns and reservations of the dam affected people today therefore mostly evolve around

compensation and resettlement issues, including the land acquisition rate, boundary issues between the Northern Areas and NWFP. Few people are today outright opposed to the dam.

There exist two separate committees of dam affected people - one in Diامر and one in Kohistan district. The Diامر committee is more active than the one in Kohistan.

The 22 – member committee represents all affected regions in Diامر and is very articulated in its demands. Ata Ullah is the president of the committee while Himatullah is working as secretary. The Diامر-Basha Dam Affectees Committee in Diامر has prepared a charter with sixteen demands. The following demands are fully endorsed and supported by the Chief Executive of the Northern Areas and the members of Northern Areas Legislative Assembly.

- The Rs. 300,000 compensation per household which was promised by the President of Pakistan needs to be paid.
- We have come to know the new government policy under which it has been allotting to the affected ones in replacement of our ever green lands and it is what we feel a complete injustice.
- It is the law of the finance department of the Northern Areas that whenever the government own land for any of its project, 15 % should be extra paid as *jabrana*.
- The packages announced by the President (Gen. Pervez Musharraf.) and Prime Minister (Shaukat Aziz) during their visit to the areas, be implemented we appeal to respected P.M that to give us 50 % extra package and that should be addition to our legal right.
- The affected people should be allotted a separate sector in Islamabad for their residence, accommodation and education of their children.
- Government of Pakistan should send our educated persons for employment and further education to the foreign countries keeping in view the demands of today's modern world.
- Harpal das (Chilas) where government want to rehabilitate the affectees, there was a case between the locals of Chilas and the government and that case was gone in the favor of the people, that case should be terminated with the mutual consent of the people, so that rehabilitation should take place smoothly.
- There is a cobweb of markets and roads in municipal area of Chilas but the irony is that the government has declared the KKH area commercial only. The Shaheen, Paen, Batu kot, Jalil gaon jachan, Thora bazaar area, gonar farm Bazar areas should be included declared as commercial area.
- Area under Bhasha Dam is consisting of grazing lands that was used by the local people for their cattle would be affected. So, the people must be compensated for it also.
- The compensatory money should be immediately released to the affected ones.
- Each affected family should be compensated with a job.
- There should be free provision of electricity for local people as well as whole of Northern Area.
- In order to delay in compensation the WAPDA should made responsible for paying extra 20 %.
- As Bhasha Dam most affects the Northern Area so, the royalty must be given to Northern Areas.
- A medical college must be established in Diامر district.

After a Jirga (tribal elder assembly), a committee of affected people was also formed in Kohistan and Farmast Khan was nominated as president and Abdul Wakil Advocate as its general secretary. Some of their key demands are:

- Government of Pakistan should allocate quota in the project jobs for the locals of Kohistan.
- There should be free provision of electricity for local people of Kohistan District.
- As Bhasha Dam also affects the Kohistan, the royalty must be given to Kohistan.
- A special developmental package be announced for the development of Kohistan District.

Recommendations of the Fact Finding Team

In light of the above mentioned demands by the two committees of locally affected people, the fact finding team recommends the following:

- To bridge the communication gap between the affected community and WAPDA, there should be regular meetings between them. Immediate establishment of Ghazi Barotha Taraqiati Idara GBTI-like body is desirable for undertaking the resettlement and compensation activities for the affectees.
- There is a need for linkages between both the committees of affected communities – Diamer and Kohistan.
- Genuine compensation related concerns and complaints of the locals must be addressed.
- A special resettlement plan should be made according to the local socio-cultural sensitivities and preferences rather than Wapda's standard colony type.
- To settle the boundary issue an independent judicial commission be formed, ideally from Sindh or Balochistan
- To preserve and conserve the cultural heritage, a comprehensive plan be devised and local must be included in all decision-making in this regard.
- To develop their capacities and skills, there must be capacity-building training for the committee members
- These committees should be linked with other dam affectees not only for experience sharing but also for expressing solidarity and moral support when needed
- Instead of waiting for the start of project, there is a need for establishing of a sort of *Liaison Committee* or *Support Committee* which not only to help the affectees, but also to do advocacy/lobbying along with or on behalf of the affectees. It could also link Diamer-Basha Dam affectees with other affectee's movements. If International Rivers agrees to support such a committee then the members of the fact-finding team in individual or organizational capacity are ready to work in the said committee. Other partners can also be included in it.
- The fact-finding mission report should be published in local languages for wide distribution.

References

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Rock Carvings and Inscriptions along the Karakoram Highway (Pakistan) a brief introduction. <http://www.rzuser.uni-heidelberg.de/~u71/kara/intro.html>

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Endnotes

[i] <http://www.rzuser.uni-heidelberg.de/~u71/kara/intro.html>.

[ii] "All archaeological sites on both sides of the upper Indus and in some side valleys between Shatial in Indus-Kohistan and Gor in the Diamer district have been mapped and documented. The During the field surveys since 1989 in our team two topographers of the 'Geodetic Institute of the University of Karlsruhe (TH)' were responsible for the mapping with exact locations of the numbered stones with carvings and inscriptions. Official maps under 1:100.000 were not available because of certain reasons; therefore we had to bring our own topographers to Chilas. All documented carvings have been photographed (sometimes also copied), measured, and classified according to the state of their patina. This documentation, consisting of the exact mapping and the recording of the rock carvings (and other archaeological remnants) are the basis for the series of monographic publications MANP. In this series until now rock art complexes situated on the south bank such as Shatial, Oshibat, Gichi Nala, Chilas I (bridge) thus have been edited, and from the north bank Dadam Das, Hodur (east), Thalpan I-IV (no. 4 in press), Shing Nala. The documentation of the sites in the future Diamer-Basha reservoir area are therefore "accomplished." Dr Hauptmann. Personal Communication, August 2008.

[iii] Seminar on the Archeological Heritage of the Northern Areas and the Bhasha-Diamer Dam Project. Gilgit, 8th Sep. 2007.