



PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY

DASU HYDROPOWER PROJECT

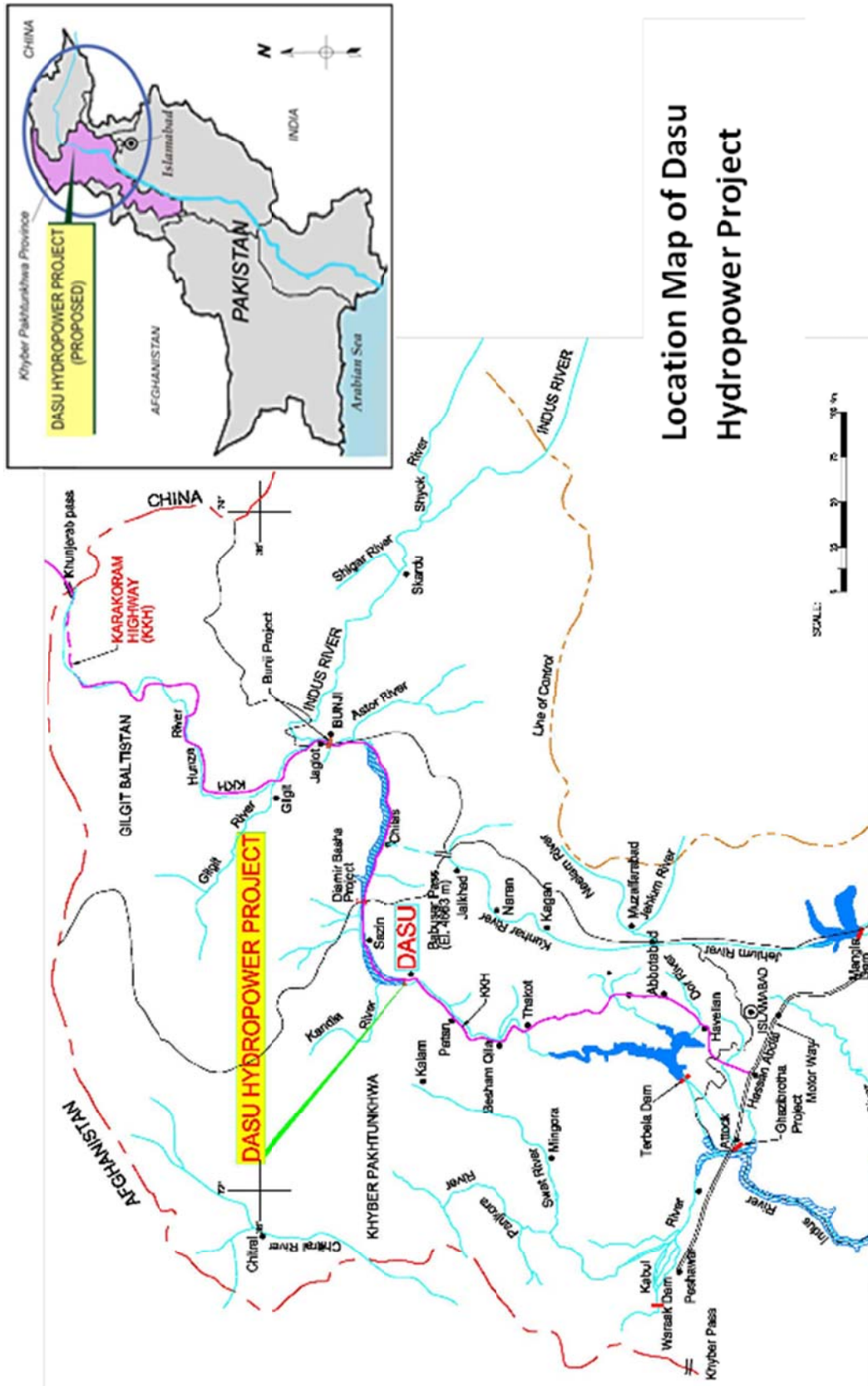


ENVIRONMENTAL MANAGEMENT ACTION PLAN

Volume 5: PHYSICAL CULTURAL RESOURCES

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June 2013



Location Map of Dasu
Hydropower Project

ENVIRONMENTAL MANAGEMENT ACTION PLAN

Vol 1: Executive Summary

Vol 2: Environmental Impact Assessment

Vol 3: Terrestrial Ecology

Vol 4: Aquatic Ecology

Vol 5: Physical Cultural Resources

Vol 6: Environmental Baseline Quality

Vol 7: Cumulative and Induced Impact Assessment

Vol 8: Environmental Management Plan

ABBREVIATIONS

AD	Anno Domini
BC	Before Christ
CSC	Construction Supervision Consultant
DHP	Dasu Hydropower Project
DOAM	Department of Archaeology and Museum
EA	Environmental Assessment
EIA	Environment Impact Assessment
EMAP	Environmental Management Action Plan
EMP	Environmental Management Plan
EU-CSC	Environmental Unit in Construction Supervision Consultant
EU-DHP	Environmental Unit in Dasu Hydropower Project
GB	Gilgit-Baltistan
GPS	Global Positioning System
KKH	Karakoram Highway
km	Kilometre
km ²	Kilometre Square
KP	Khyber Pakhtunkhwa
m	Metre
MW	Megawatt
OP	Operational Policy
PCR	Physical Cultural Resources
PMU	Project Management Unit
RCC	Roller Compacted Concrete
UNESCO	United Nations Educational, Scientific & Cultural Organization
WAPDA	Pakistan Water and Power Development Authority

Volume 5
PHYSICAL CULTURAL RESOURCES

Table of Contents

1. INTRODUCTION.....	1-1
1.1 PURPOSE OF THE REPORT.....	1-1
1.2 PROJECT INFORMATION.....	1-1
1.3 STUDY AREA.....	1-1
1.4 SURVEY METHODOLOGY.....	1-1
1.5 NATIONAL LEGISLATION AND WORLD BANK GUIDELINES.....	1-2
1.5.1 Antiquity Act, 1975.....	1-2
1.5.2 International Conventions.....	1-2
1.5.3 World Bank OP 4.11 Physical Cultural Resources.....	1-2
2. EXISTING PHYSICAL CULTURAL RESOURCES.....	2-1
2.1 CULTURAL HERITAGE OF THE REGION.....	2-1
2.2 ROCK CARVINGS AT SHATIAL.....	2-1
2.2.1 Location and History.....	2-1
2.2.2 Condition of Rock Carvings at Shatial.....	2-5
2.2.3 Religious Association.....	2-5
2.3 MOSQUES.....	2-5
2.3.1 Seo Mosque.....	2-5
2.3.2 Seer Gayal Mosque.....	2-7
2.4 GRAVEYARDS.....	2-8
2.4.1 Seo Graveyard.....	2-8
2.4.2 Moveable Artefacts.....	2-8
3. IMPACTS AND MITIGATIONS.....	3-1
3.1 SHATIAL ROCK CARVINGS.....	3-1
3.2 MOSQUES.....	3-2
3.2.1 Mosque at Seo.....	3-2
3.2.2 Seer Gayal Mosque.....	3-2
3.3 GRAVEYARDS.....	3-2
3.4 CHANCE FINDS.....	3-2
4. PCR MANAGEMENT PLAN.....	4-1
4.1 IMPACTS, MITIGATION AND MONITORING MEASURES.....	4-1
4.2 INSTITUTIONAL FRAMEWORK.....	4-1
4.3 BUDGET.....	4-5
4.4 IMPLEMENTATION SCHEDULE.....	4-6

List of Tables

Table 4.1: Impacts on PCRs and Mitigation Measures, and Monitoring Schedule.....	4-3
Table 4.2: Cost Estimates for PCR Management Plan.....	4-5

List of Figures

Figure 2.1: Locations of Identified PCRs.....	2-2
Figure 2.3: Rock Carving depicting <i>Sibi Jataka</i>	2-4
Figure 2.4: Shatial: Rock carving showing <i>Khasa's</i> inscription	2-4
Figure 2.5: Seo Mosque: General view from south east	2-6
Figure 2.6: Seo Mosque showing wooden pillar and brackets	2-6
Figure 2.7: Seer Gayal Mosque: General View	2-7
Figure 2.8: Seer Gayal Mosque: Decorated Wooden Pillar and Brackets.....	2-7
Figure 2.9: Seo Graveyard	2-8
Figure 2.11: Terracotta Pot of Mughal Period	2-9
Figure 4.1: Organization Chart	4-2
Figure 4.2: Implementation Schedule of PCR Management Plan.....	4-6

List of Annexes

Annex 1.1: PCR Survey Questionnaire	
Annex 1.2: Consultation Record	
Annex 2.1: An introductory note on the Rock carvings of Northern Areas	
Annex 2.2: Current Conditions of Rock Carvings at Shatial	
Annex 3.1: KP DOAM Request to WAPDA on Procurement of Shatial Rock Carving Site	
Annex 3.2: Fatwa on Protection of Graveyards	

1. INTRODUCTION

1.1 PURPOSE OF THE REPORT

This volume presents the description of existing physical cultural resources (PCRs) in Dasu hydropower project (the Project or DHP) study area and assess potential impacts of the Project on existing PCRs, and recommend a management plan that includes measures for avoiding or mitigating any adverse impacts on PCRs. This volume is a part of series of reports prepared under Environmental Management Action Plan (EMAP) of the Project.

World Bank's Operational Policy (OP) 4.11 defines PCRs¹ as "movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance". PCRs may thus include: (i) man-made buildings, and archaeological sites; (ii) natural (e.g. sacred places, historic trees, paleontological) sites; (iii) both man-made and natural such as cave paintings, sites used for ceremonies, burial grounds, and battlefields objects; and (iv) movable artefacts (e.g. religious artefacts, ancient books, statues, icons).

1.2 PROJECT INFORMATION

Pakistan Water and Power Development Authority (WAPDA) intend to build a 4,320 MW Dasu Hydropower Project (DHP) in Kohistan District of Khyber Pakhtunkhwa (KP) Province. The dam site is located about 7 km upstream of Dasu town.

Description of Project activities are presented in Section 3 of Volume-2 Environmental Impact Assessment (EIA). DHP will constitute a 242 m high concrete gravity dam with the reservoir behind the dam having a length of 73 km and average width of 365 m. The reservoir area at full supply level 950 m above mean sea level (masl) will be 23.85 km². The Project will include an underground powerhouse having 12 turbines; each of which will produce 360 MW power. The Project will be implemented over phases and the first phase of implementation, where major earthworks are required will be finished in 6 years.

The main engineering components of the Project are: (a) coffer dam and diversion tunnels before starting of the main dam construction; (b) the dam with associated facilities such as spillway and low level outlets; (c) intake structure, tunnels for water ways, underground powerhouse; (d) office and residence colony, and temporary facilities such as construction camp; (e) access roads to the construction sites and; (f) 62 km relocation of Karakoram Highway (KKH).

1.3 STUDY AREA

The study area for the purpose of PCR is the direct impact area of the Project, which includes foot prints of the project facilities (dam, realigned KKH, offices, etc. and temporary facilities) and reservoir inundation area under 950 m elevation contour, and immediate vicinity of the impact area up to 1,000 m elevation contour level, in which access roads and realigned KKH will be located.

1.4 SURVEY METHODOLOGY

The survey was conducted by using a structured questionnaire (Annex 1.1), by consultant team (Irshad Ahmad Soomro and Prof. Ihsan H. Nadiem) and representative of KP Directorate of Archaeology and Museum (Bakht Muhammad, Assistant Curator, City Museum, Peshawar) with the support of the local government

¹ PCRs are sometimes referred to as cultural heritage or cultural property

and community, to identify the PCRs in the study area. GPS coordinates are noted at each PCR.

Consultations with the local district government, provincial (KP) and national Directorate of Archaeology and Museums (DOAM), and local knowledgeable residents have provided valuable inputs in identifying the PCRs and their historical and religious importance. Details of consultation record are given in Annex 1.2.

Topographical surveys using total station surveys were conducted near all the rock carvings in Shatial, which are located very close to the river to confirm they are above the inundation areas of the proposed reservoir.

1.5 NATIONAL LEGISLATION AND WORLD BANK GUIDELINES

Detailed description of national legislation and World Bank guidelines on environmental assessment is given in Section 2 of Volume-2 EIA. However, a brief description of legislations and guidelines relevant to PCRs is given below.

1.5.1 Antiquity Act, 1975

Pakistan Antiquities Act of 1975 ensures the protection of physical cultural resources in Pakistan. The Act is designed to protect especially the notified “antiquities” from destruction, theft, negligence, unlawful excavation, trade and export. The law prohibits new construction in the proximity of a protected antiquity and empowers the Government of Pakistan (Provincial Governments after the introduction of the 18th Amendment to the Constitution of Pakistan) to prohibit excavation in any area which may contain articles of archaeological significance.

The Act describes antiquity as (i) any ancient product of human activity, movable or immovable, illustrative of art, architecture, craft, custom, literature, morals, politics, religion, warfare or science or of any aspect of civilization or culture; (ii) any ancient object or site of historical, ethnographical, anthropological, military or scientific interest; (iii) any national monument; and (iv) any other object or class of such objects declared by the Federal Government, by notification in the official Gazette. The Act also defines ‘ancient’ as an antiquity which has been in existence for a period of not less than seventy five years.

The Antiquities Act of 1975 further provides about the fate of Chance Finds, officially termed as “Accidental discovery”. In such a case the chance find is to be reported to the Director General Provincial Archaeological Department within seven days of its being discovered or found and preserve it for the period thus specified. If, within seven days of his being informed of the discovery of movable antiquity, the Director General decides to take over the antiquity for purpose of custody, preservation and protection, the person discovering or finding it shall hand it over to the Director General or a person authorized by him in writing. It further says that if Director General decides to take over the antiquity he may pay such amount as would be decided by the Advisory Committee.

1.5.2 International Conventions

Pakistan has ratified the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention) in 1976 and has inscribed 6 sites on the World Heritage list, and recommended 4 more sites from KP and Gilgit-Baltistan in 2004. None of these sites are located in the project area.

1.5.3 World Bank OP 4.11 Physical Cultural Resources

The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not

contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements.

The borrower addresses impacts on PCRs in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. As an integral part of the EA process, the borrower develops a physical cultural resources management plan that includes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities. The physical cultural resources management plan is consistent with the country's overall policy framework and national legislation and takes into account institutional capabilities with regard to physical cultural resources.

2. EXISTING PHYSICAL CULTURAL RESOURCES

2.1 CULTURAL HERITAGE OF THE REGION

The study area is a part of historical Silk Road and witnessed rise and fall of Buddhist Culture over a long span of millennia. The high mountain range that today encompasses Gilgit-Baltistan formed the shortest land route between China on one hand and the Central Asia on the other. It then had served as a secondary branch of the legendary Silk Route led through the mountainous reaches of the Indus Valley. This 'road' had also been traversed both ways by Buddhists to the famous Uddiyana and Gandhara, the traditional centres of Buddhism. The conquerors to the region and beyond on both the sides were obliged to use this course for executing their adventurous plans. It is then no wonder that all of them left indelible physical legacy in the shape of petroglyphs in the region.

PCRs identified in the study area are (i) Shatial rock carvings, (ii) historical mosques at Seo and Seer Gayal, (iii) graveyards and (iv) moveable artefacts. Locations of these PCRs are shown in Figure 2.1.

2.2 ROCK CARVINGS AT SHATIAL

2.2.1 Location and History

Shatial is located about 52 km upstream of DHP damsite. Rock carvings located near Shatial between the Indus and Karakoram Highway (KKH) is a designated archaeological site. It consists of 46 major rock boulders with carvings representing a wide variety of anthropomorphic (having human characteristics), zoomorphic (representing animal forms), and inanimate images. Anthropomorphic depictions range from simple line drawings of humans to an elaborate rendering of the '*sibi-jataka*'² with in a large triptych. Most zoomorphic images are drawings of mountain goats, including ibexes and markhors characterized by long exaggerated horns. These rock carvings belong to 1st to 7th century AD (Source: KP DOAM and also Figure 2.2, a signboard established by KP DOAM). These are of interest, in addition to the scholars, to local and foreign tourists particularly the Buddhists for their religious significance.

The geographic position of Shatial on the Indus River close to the Harban, Sazin, and Shatial streams and the Tangir and Darel valleys enabled it to function as a hub for connecting several routes through the upper Indus region. Shatial, like other petroglyph complexes in northern Pakistan, was an important transit station within a network of trade and pilgrimage routes through a series of high mountain valleys on the frontiers between South Asia, Central Asia, and western China.

Historians have identified that old languages such as Sanskrit, Brahmi, Kharoshthi and Sogdian (specific to Shatial village) have been used in these carvings.

Two of the rock-carvings at Shatial are of particular importance for their subject matter. One of them, along with other inscriptions, portrays the '*Sibi Jataka*' (Figure 2.3). The second one is with the inscriptions of *Khasarajagana*³ (Figure 2.4) indicating that the Khasas are known as early as the times of the Mauryan rule corroborating some historical events mentioned in Mahabharata, one of the two major Sanskrit epics of ancient India thought have been scribed around 400 BC.

² Sibi Jataka is one of the tales of Buddha's incarnations in which he offers his flesh in sacrifice

³ A legendary king of Khasas, or Khasiyas, known to be ancient people making a section of the Indo-Aryan stock who originally belonged to Central Asia but penetrated to the hilly region of present Gilgit-Baltistan

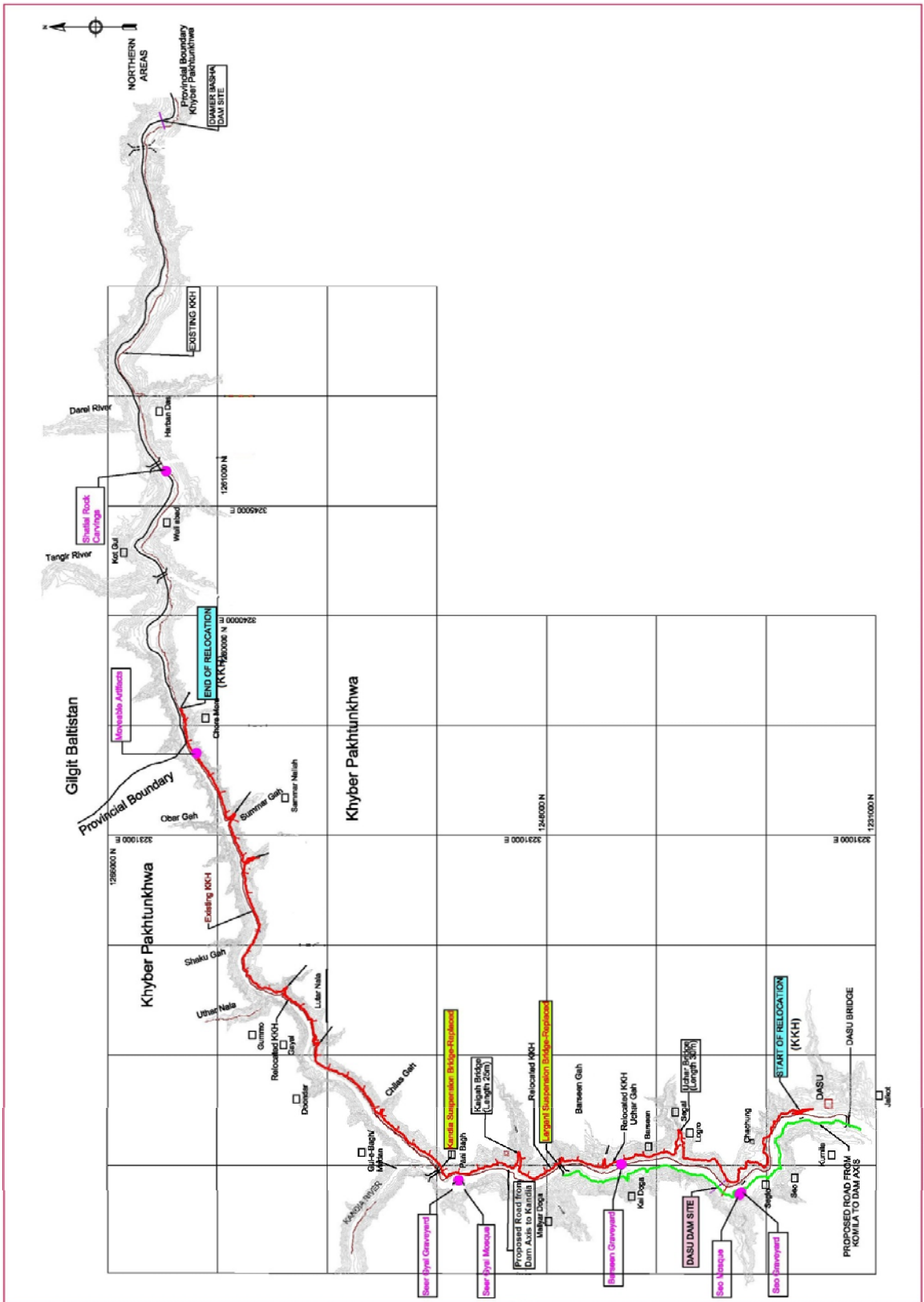


Figure 2.1: Locations of Identified PCRs

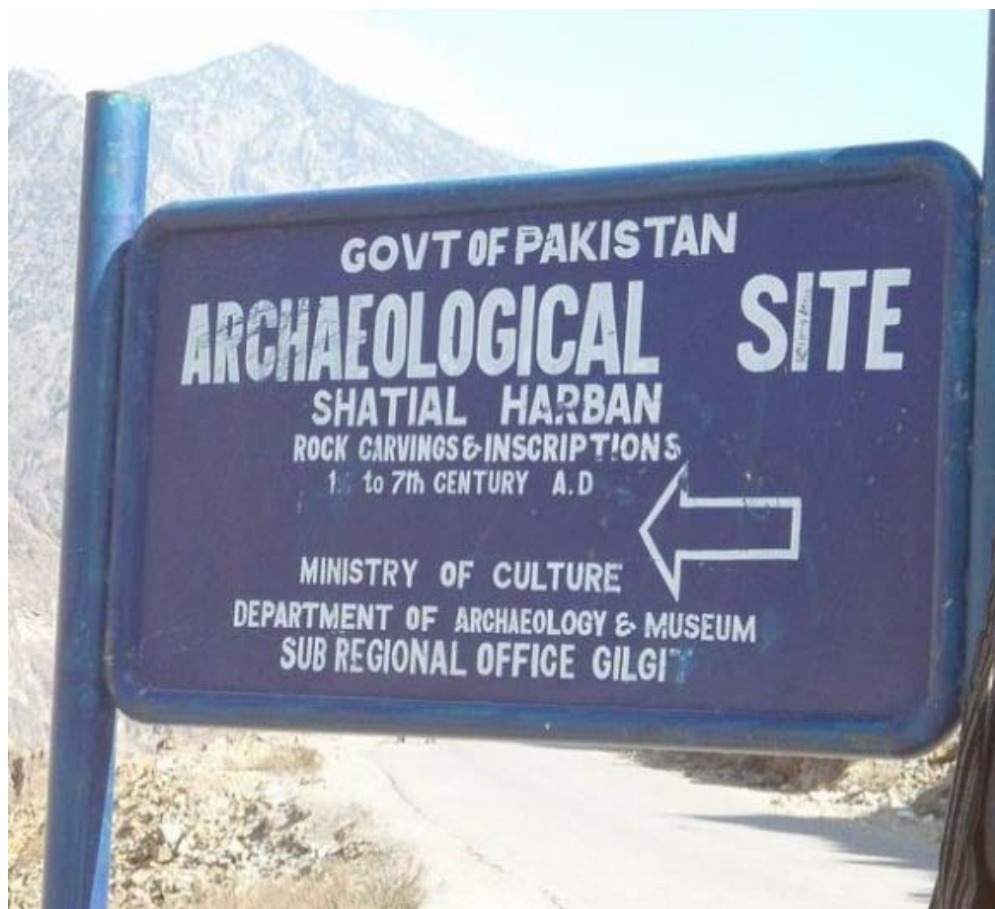


Figure 2.2: Sign Board at Shatial Rock Carvings Site

Rock carvings at Shatial are a part of a large complex of over 30,000⁴ petroglyphs and 5,000 inscriptions, spread over 30 sites stretching over 100 km from Shatial to the Raikot Bridge (located outside the study area). This is one of the world's largest and impressive complexes of rock art, which date from 5,000 BC to 8th Century AD. Systematic studies have been carried out since 1970's after the construction of KKH, which provided access to these carvings. Of these, the most important is the long-term collaboration between the Federal Department of Archaeology and Museums and Germany's Heidelberg Academy for the Humanities and Sciences, the "Pak-German Archaeological Mission to the Northern Areas". The results have been published in a series of academic papers and other reports, such as the 2009 the Ancient Heritage of the Northern Areas and the Diamer-Basha Dam Project, an extract of which is reproduced in Annex 2.1 to provide readers an introductory note on rock carvings of Northern Pakistan.

⁴ Rock Art in the Northern Areas, Rock Carvings and Inscriptions along the Karkoram Highway (Pakistan) – A Brief Introduction, Heidelberg Academy (<http://www.rzuser.uni-heidelberg.de/~u71/kara/intro.html>)



Figure 2.3: Rock Carving depicting *Sibi Jataka*

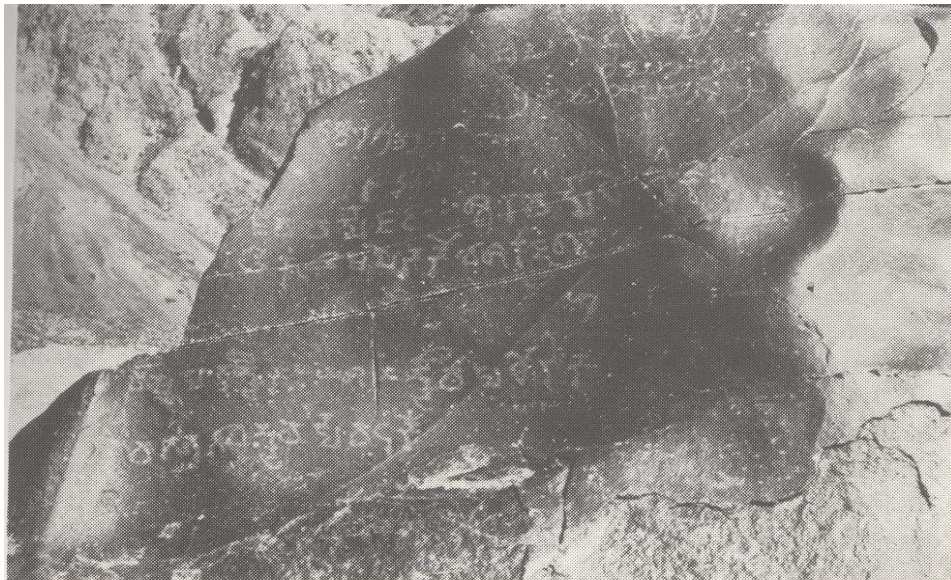


Figure 2.4: Shatial: Rock carving showing *Khasa's* inscription

2.2.2 Condition of Rock Carvings at Shatial

The boulders on which these carvings have been made are presently not in good state of preservation. Many of them have developed cracks while almost all of them bear the adverse weathering effects. The surface of rock at most of the places is eroded and the inscriptions are not readable. The rock carvings are located in a private property and are not protected with fencing or security, and hence are subjected to vandalism. Some of the carvings had already been deformed by vandals. Photographs depicting the current conditions of rock carvings are shown in Annex 2.2.

2.2.3 Religious Association

Many of these rock-carvings are of Buddhist origin and portray religious subjects. They are thus held sacred by the adherents of the religion. It is particularly that the Chinese and Japanese tourists, who visit Gilgit-Baltistan region, also have on their itinerary a visit to these historical rock-carvings having much religious significance for them. Some of the rocks not only bear inscriptions of historical and/or religious import, they also depict highly venerated part of their faith portraying the “*Jatakas*”, the stories of the Gautama Buddha from his previous incarnations.

2.3 MOSQUES

A Mosque is a symbol of Islamic religion and built to offer in congregation regular prayers five times a day. The mosques are also used to hold Friday prayers. The Islamic influence in the region perhaps had its advent some 400 years ago, which also saw its increasing sway over the whole area. The copies of the Holy Qur’an kept in some of the mosques of the region bear testimony to their being quite old.

The region being predominantly Muslim country has special sentimental attachment with their worship places – mosques. There are many mosques in the project area, but there are two mosques of importance because of their structural beauty and historical value. These mosques are i) Seo mosque and ii) Seer Gayal mosque.

2.3.1 Seo Mosque

The Seo mosque, a widely revered mosque in the area, is located in the Seo village, on the downstream of the proposed Dasu dam. According to the local tradition the mosque is approximately 400 years old. The village is accessible by a narrow right bank road from Komila. The mosque is constructed in dressed timber trunks placed one over the other (Figure 2.5). Three walls are built in timber while the fourth one is in masonry. The roof stands supported by wooden walls and a set of 8 rectangular wooden columns supplemented by additional 6 circular wooden columns. The western wall apparently seems to have been replaced by stone masonry wall. A window on the western side of the main entrance is provided at a low level, sometimes even serving as ‘crawl-in door’. The mosque has a courtyard, which is partly covered by a roof that is supported by a set of 12 wooden columns (Figure 2.6). It is one of the tourist attractions for all the tourists visiting the region.

The mosque has an arrangement for ablution. The area immediately outside the mosque also serves as part of the mosque and is used as prayer ground for “*janaza*” (the prayer offered for the Muslim dead before burial). This area is also used for “*Jirga*” (assembly of local elders). The inside of the mosque is presently lit by gas-lanterns or by electricity bulbs. The mosque is equipped with a set of loud speakers. There are copies of the Holy Qur’an kept in the mosque, some of which on close inspection seemed quite old.



Figure 2.5: Seo Mosque: General view from south east

A residential school (*madrassah*) is attached to the mosque, which has lodging/boarding facilities for the students during their course of education in Qur'an. About half a dozen shops are built on the side of the mosque which generates rental income for the mosque.



Figure 2.6: Seo Mosque showing wooden pillar and brackets

The structure of the Seo mosque is in good state of preservation but may need some action for its safety and longevity.

This mosque is currently in use for prayers and imparting Islamic religious education. Muslim visitors to Dasu visit this mosque in reverence while it also attracts common tourists for its ancient style of building and remarkable wood carvings.

2.3.2 Seer Gayal Mosque

The mosque at the village Seer Gayal (Figure 2.7 and Figure 2.8), like the Seo mosque, is said to be over 400 years old. The wooden mosque has the same articulately carved motifs, which suggest their origin in the same period as that of the Seo mosque. The roof of the mosque, at some stage, seems to have been replaced with iron corrugated sheets. This mosque is also decorated with carving work on its wooden columns, door or other decorative elements like brackets.



Figure 2.7: Seer Gayal Mosque: General View



Figure 2.8: Seer Gayal Mosque: Decorated Wooden Pillar and Brackets

The structure of the Seer Gaya mosque is in good state of preservation. Religiously the mosque has less significance compared to the Seo mosque and frequented by only local community.

2.4 GRAVEYARDS

In a Muslim society the corps of a human being is buried usually in a graveyard after offering the funeral prayers. These graves – and with them the graveyards – are held sacred and any effort to mutilate or destroy them is taken as sacrilege. As a matter of cultural trait in Muslim society of the region almost every village, big or small, has its own graveyard earmarked near the locality. There are 4 large graveyards in the study areas (at Seo, Seer Gayal, Barseen and Lichi Nullah), in which the Seo grave yard is the only culturally significant graveyard.

2.4.1 Seo Graveyard

The Seo graveyard lies on a large plot of level land though having an eastward slope. It spreads over an area of approximately 250 m x 120 m. (Figure 2.9.) This is also claimed by local tradition to be some 400 years old like the nearby Seo mosque. The graves are generally in the shape of mounds raised in mud. Only about 12 graves in *pacca* (brick) masonry were noticed. The graveyard is protected by a boundary wall on three sides while it shares its northern wall with the Seo mosque's outer courtyard.



Figure 2.9: Seo Graveyard

From the condition of the graves and overall upkeep of the graveyard it appears that no proper attention is given towards the maintenance and cleanliness of graveyards. The local community came up with a strange explanation of its being kept unclean. Their belief prompted them to leave the grave as it was once the dead were buried in it - they thought that it was a polite gesture not to interfere with the grave as it might harm the spirit of buried.

2.4.2 Moveable Artefacts

The area has not yet been intensely explored by any archaeological team, or any archaeological digging carried out to precisely find out the ancient wealth. Based on the consultation with local community, it was noted that only two artefacts were found in the Project area at Lichi Nullah, about 40 km upstream of the dam site. One was an iron sword with handle (Figure 2.10), which fortunately was in good state of preservation. This is thought to belong to the period when there was Sikh rule in Kashmir (early 19th century). Another find was a piece of pottery (Figure 2.11), which was a chance discovery during diggings for laying building foundation. This pottery item is a rimmed jar with two handles and a spout. It is in fairly good state of preservation except for a small portion of the rim, which is missing. From its design appearance it is thought to go back to the Mughal period. Both these items are within the custody of a local person, Mr. Malik Zaboob Khan of Lichi Nullah.



Figure 2.10: Iron Sword of Sikh Period



Figure 2.11: Terracotta Pot of Mughal Period

3. IMPACTS AND MITIGATIONS

3.1 SHATIAL ROCK CARVINGS

Though the rock carvings are located on the river bank on the upstream side of the proposed Dasu dam site, none of these rock carvings will be submerged under the reservoir. This is confirmed by a detailed topographic survey conducted using 'Total Station'. The lowest elevation at the rock carving site is 967.8masl, while the maximum reservoir level under probable maximum flood is 959.46masl. Hence it is concluded that the rock carvings will not be submerged under the reservoir. Rather the proposed reservoir may add to the beauty and grandeur of this petroglyphs site by providing an environment with the beautiful water body in the background.

Further, no construction areas and construction activities will be carried out near the rock carvings site that will have direct impact on the rock carvings.

As explained in Section 2.2.2, the natural weathering process and vandalism are threat to these carvings. Further, the site is located in a private land and not guarded with fencing and security and hence it is easily exposed to an increased activity of human vandalism, littering or undesired scribing on the boulders. The potential for vandalism may increase due to increase of traffic along KKH due to construction traffic of the Project.

Directorate of Archaeology and Museum (DOAM) of KP has designated about 25 acres of land for procurement and protection of the rock carving site under Antiquities Act, 1975. DOAM has submitted an application to local government in Dasu for purchase of this land. However, non-availability of funds with DOAM has hindered any progress in this direction. DOAM has officially requested the DHP for its support in funding the amount for land acquisition (Annex 3.1).

The rock art complex near Shatial is part of a much larger complex stretching over 100 km distance upstream from here, with more than 30,000 petroglyphs. Most of them will be flooded by the proposed reservoir of the Diemer Basha dam. It is proposed in Diemer Basha Project to set up a museum at Chilas with three dimensional life size replicas and documentation of important petroglyphs, and relocation of carvings (subjected to feasibility).

Hence it is important to note that rock art complex at Shatial is the only art complex left in its original position in Pakistan after completion of Diemer-Basha Project. It is also important to protect the rock carving-cluster of Shatial in their original condition without any compromise with their authenticity. This can be done by procurement of the land from the private owners, fencing the area, treatment of the weathered carvings and protection from further weathering, and development of tourism facilities. These facilities will be designed by an Archaeological Consultant (to be hired by PMU during implementation) in coordination with KP DOAM and Construction Supervision Consultant, and will be provided to the PMU for approval during the first year of construction. This may provide a good opportunity to the local community to expand business and commercial activities and to promote tourism and hotel accommodation. These activities will also stimulate local employment in an area with few economic activities. KP DOAM will be responsible for procurement of the site and developing these facilities with the support of the Project. KP DOAM will also be responsible for documenting the importance of rock carvings and their translations in to Urdu and English.

3.2 MOSQUES

3.2.1 Mosque at Seo

Due to cultural and religious importance of Seo mosque in the region, the dam site was originally selected (from various possible alignments) to avoid submergence of Seo mosque and Seo village. Details of alternative assessment on selection of damsite are given in Section 6 of Volume 2: EIA.

However, the mosque can be indirectly affected by dust, noise and vibration from the construction related activities such as construction traffic, operation of machinery, and blasting. These impacts can be mitigated by strict implementation of Environmental Code of Practices in Annex 1 of Volume 8: Environmental Management Plan. Regular monitoring of air quality, and noise and vibration levels will be carried out here to ensure the compliance with the national environmental quality standards.

Enhancement measures are recommended to keep the mosque in good state of preservation and a living monument to serve its original purpose, the mosque must be protected against hazards of termite attack, decay, and the danger of fire. For this purpose injecting of anti-termite chemical into the ground surrounding the mosque structure must be carried out at regular intervals. Fire extinguishers are to be made available for emergency fire fighting. Water supply and sanitation facilities are to be developed near the mosque to meet the requirement of visitors of the mosque.

3.2.2 Seer Gayal Mosque

The historic Seer Gayal mosque will be submerged under the proposed reservoir. It is common that local community have their attachment to the mosque for centuries. The sentimental value of this attachment will be hard to be cut off suddenly for the concerned population when they see it submerge into the reservoir. It is also more important to save the structure of this mosque as it represents a typical style of wood construction and decoration in the area, along with the other important mosque at Seo.

The mosque will be disassembled carefully and re-erected at new resettlement village of Seer Gayal, according to the original plan and design through the use of the original and authentic material dismantled. This must be accomplished before the water starts filling the reservoir. Additional facilities such as water supply and sanitation facilities will also be provided to the mosque. Design of mosque will be carried out along with the design of resettlement village of Seer Gayal.

3.3 GRAVEYARDS

Major grave yards at Seer Gayal and Barseen will be submerged under the reservoir along with 14 small graveyards. Local communities have requested the protection of graveyards from the collapse of graves under water and floating of human remains. A fatwa was also issued by a local religious leader on protection of the graves that will be submerged under the Project (Annex 3.2). The graves will be mud pitched with clay and local material to withstand the impact of water.

3.4 CHANCE FINDS

The part of the Indus valley in which the project is located, has always been a narrow and dangerous passage for men and animals. Throughout the pre-historic and historic periods caravans, merchants, pilgrims and armies have used the valley bottom and /or lower slopes on the way to cross the mountain ranges from the Central Asia and the Sub-continent to China and vice versa. Most of the settlements are exclusively located at the valley bottom. At these places older and newer human settlements and the continuous passage of men and animals on these crossroads must have left traces behind. Therefore, it might be expected that with construction activities at the hydraulic structures and roads there might be so-called “chance finds” of cultural and historic

sites and objects. Unknown archaeological sites and objects might be accidentally damaged during project activities (earthwork, rock blasting, drilling operation etc.) As a mitigation measure for these types of impacts clear chance-find procedures, described in Antiquity Act of 1975, are included in the contract documents.

Section 5A of the Antiquities Act 1975 describes the accidental discovery of antiquities and provides the following procedure to be followed:

Sub-section (1): Whoever discovers, or finds accidentally, any movable antiquity shall inform the Director General within seven days of its being discovered or found and preserve it for the period specified in sub-section (2).

Sub-section (2): If, within seven days of his being informed under sub-section (1) of the discovery of moveable antiquity or of a moveable antiquity having been found the Director General decides to take over the antiquity for purposes of custody preservation and protection the person discovering or finding its shall hand over to the Director General or a person authorized by him in writing.

Sub-section (3): Where the Director General decides to take over an antiquity he may pay to the person by whom it is handed over to him such cash reward as the Advisory Committee may deem fit.

Sub-section (4): If any person who discovers or finds any movable antiquity contravenes the provisions of sub-section (1) or sub-section (2), he shall be punishable with imprisonment for a term which may extend to three years, or with fine or with both or\and the court convicting such person shall direct that the antiquity in respect of which such contravention has taken place shall stand forfeited to the Federal Government.

The Project will retain services of an Archaeological Consultant (details are given in Section 4) to guide PMU to deal with chance findings and comply with the regulatory requirements.

4. PCR MANAGEMENT PLAN

4.1 IMPACTS, MITIGATION AND MONITORING MEASURES

The impacts of the Project on PCRs in the study area and the mitigation measures are summarized in Table 4.1. The Table also shows the responsible institutions for implementation and supervision of the mitigation measures, and monitoring schedule. The plan is also presented in overall EMP of the Project as 'EMP Sub-Plan 13: Physical Cultural Resources Management' (see Volume 8: Environmental Management Plan'.

4.2 INSTITUTIONAL FRAMEWORK

The institutional mechanism for implementation of the Environmental Management Plan (EMP) including PCR management plan of the project is given in Volume 8: Environmental Management Plan. Organisation chart of DHP for implementation of EMP is given in Figure 4.1 and brief descriptions of their roles are given below (detailed descriptions of the institutions are given in Volume 8: EMP):

- DHP and its Project Management Unit (PMU) will be responsible for overall implementation of the Project and hiring of contractors and consultants.
- An Environmental Unit will be established in DHP (EU-DHP) to undertake responsibility for routine and random monitoring of implementation of EMP.
- Construction Supervision Consultant (CSC) will also have an environmental unit (EU-CSC) to effectively supervise and monitor the implementation of EMP.
- Contractors will be responsible for implementation of EMP during construction and first year of operation of the project.

Implementation mechanism specific to PCR plan is as follows:

- Directorate of Archeology and Museum (DOAM) of KP is responsible for procurement, and protection of Shatial rock carvings with the financial support of DHP. DOAM is also responsible documenting the importance of rock carvings and their translation in to Urdu and English languages. DOAM supports the project by providing guidance on improvement and relocation of Seo and Seer Gayal mosques.
- EU-DHP will retain an Archeological Consultant on long term basis and will use his services (whenever required) to provide guidance on the implementation of PCR management plan and deal with chance finds during construction. He will also be responsible for preparation of designs, in coordination with KP DOAM and environmental specialists of CSC, for protection of Shatial rock carvings and tourism facilities; improvements of for Seo mosque; and Seer Gayal Mosque.
- Director Social Unit will support DOAM for procurement of land of rock caring site and relocation site of Seer Gayal mosque
- Project Director is responsible for hiring contractor for implementing the plan.
- Assistant Director Environment at EU will responsible for supervision of PCR management plans.

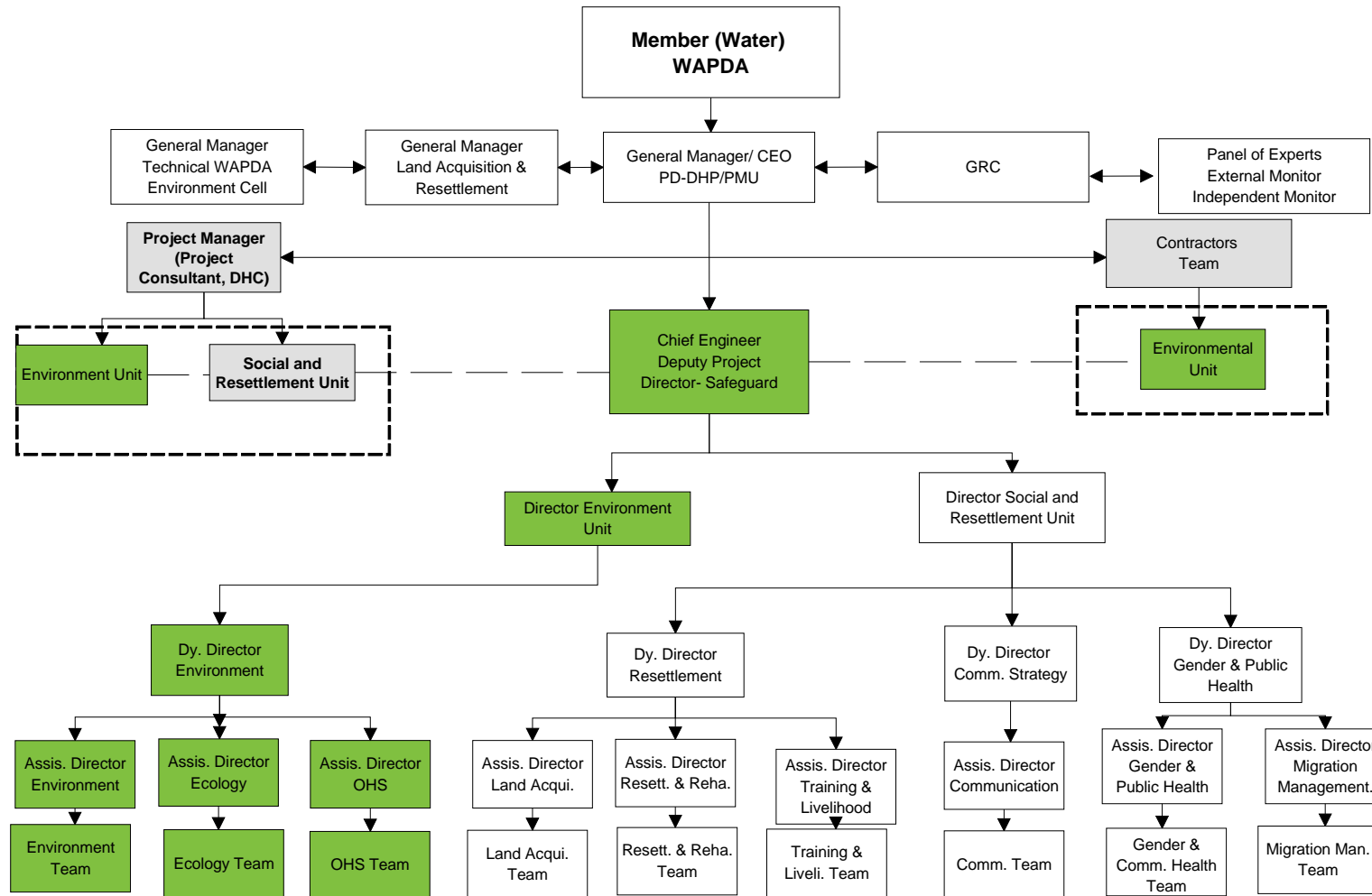


Figure 4.1: Organization Chart

Table 4.1: Impacts on PCRs and Mitigation Measures, and Monitoring Schedule

PCR	Issue/impact	Mitigation/Enhancement Measures	Responsibility for implementation	Responsibility for Supervision	Timing	Monitoring
Shatial Rock Carvings	<ul style="list-style-type: none"> Rock carvings at Shatial are currently located in a private land and not protected and are subjected to vandalism. They have potential for further vandalism by construction workers 	<ul style="list-style-type: none"> DHP will support KP DOAM to (i) procure 25 acres of land for acquisition of land, in which rock carvings are located , (ii) fence the area, and (iii) provide security staff . 	KP DOAM	EU-CSC/ EU-DHP	Pre-Construction/ Construction	Monthly
	<ul style="list-style-type: none"> Protection from natural weathering 	<ul style="list-style-type: none"> Design and installation of weathering protection measures such as fibreglass shades, etc. Chemical cleaning of rocks 	Archaeological Consultant and KP DOAM	EU-CSC/ EU-DHP	Construction	Monthly
	<ul style="list-style-type: none"> Tourism development 	<ul style="list-style-type: none"> Design of tourism facilities with all necessary amenities Training of 3 local persons as guides at Dept. of Tourism, Shadman Lahore Documentation of the rock carvings and their translation into Urdu and English by KP DOAM 	Archaeological Consultant and KP DOAM/CSC	EU-DHP	Construction	
	<ul style="list-style-type: none"> Facilities for Tourism Development 	<ul style="list-style-type: none"> Development of tourism facilities 	Contractor/ KP DOAM	EU-CSC/ EU-DHP	Construction	Monthly
Seo Mosque	<ul style="list-style-type: none"> Enhancement measures for a 400 year old historical mosque at Seo that is widely revered in the study area 	<ul style="list-style-type: none"> Design of enhancement facilities such as drinking water, sanitation (flush toilets) and ablution facilities in the mosque Provision of fire fighting equipment to the mosque Protection of timber against termite Preservation of historical records of the mosque (including holy Quran) 	Archaeological Consultant and KP DOAM/CSC	EU-CSC/ EU-DHP	Construction	Monthly
		<ul style="list-style-type: none"> Construction of drinking water, sanitation and other enhancement facilities Termite injection and polishing of the timber 	Contractor	KP DOAM EU-CSC/ EU-DHP	Construction	Monthly

PCR	Issue/impact	Mitigation/Enhancement Measures	Responsibility for implementation	Responsibility for Supervision	Timing	Monitoring
	<ul style="list-style-type: none"> Dust, noise and vibration from the construction equipment & traffic, and blasting activities 	<ul style="list-style-type: none"> Implementation of mitigation measures proposed in Environmental Code of Practices 	Contractor	EU-CSC/ EU-DHP	Construction	Monthly
Seer Gayal Mosque	<ul style="list-style-type: none"> An historical old mosque at Seer Gayal with wooden structure will be submerged under reservoir 	<ul style="list-style-type: none"> Design of new mosque including disassembling and re-assembling process, including enhancement facilities such as water and sanitation facilities, timber polishing, etc. (Design of the mosque will be prepared along with the design of resettlement village of Seer Gayal). 	Design Consultant	Project Director, DHP/ KP DOAM	Pre-Construction	
		<ul style="list-style-type: none"> Preservation of historical records of the mosque (including holy Quran) 	Archaeology Consultant and KP DOAM/CSC	EU-DHP	Construction	
		<ul style="list-style-type: none"> Construction of mosque (disassembling and re-assembling) with all designed facilities 	Contractor	KP DOAM EU-CSC/ EU-DHP	Prior to first reservoir filling	Monthly
Graveyard	<ul style="list-style-type: none"> Submergence of 16 grave yards in the reservoir 	<p>The graves must be protected by s mud-pitching so that no floating and washing away of the bodies or skeletal remains occur.</p> <p>Consultations with individual community</p>	Community	EU-CSC/ EU-DHP	Prior to first reservoir filling	Monthly
Chance finds	<ul style="list-style-type: none"> Chance finds during Excavations 	<ul style="list-style-type: none"> Chance finds procedures are included in the contract documents Supervision by the Archaeology Consultant as need basis to comply with regulatory requirements in case of chance finds 	Contractor Archaeology Consultant	EU-CSC/ EU-DHP	Construction	Whenever reported by KP DOAM

4.3 BUDGET

The detailed cost estimates for implementation of PCR management plan is shown in Table 4.2. The cost estimates are part of the total EMP cost of the Project. DHP is responsible for providing funds for the implementation of the PCR management plan and timely disbursement of funds.

Table 4.2: Cost Estimates for PCR Management Plan

	Item	Unit	Quantity	Rate. PKR	Amount, PKR
I	Procurement and Protection of Shatial Rock Carvings				
1.	Land Acquisition (According to agreement between District Revenue office and DOAM KP)	Ha(Acres)	10(25)	In accordance with Projects' Resettlement Action Plan	125,800,000
2.	Fencing	meters	1250	100 (including charges)	125,000
3.		Poles	417 (with poles for every 3m)	500	208,500
4.	Gate	Number	1	Lump sum	50,000
5.	Facilities for office and tourists (office, information centre, visitors' toilet, visitors pavilion, etc.)	Square meters	5,000	5,000	25,000,000
6.	Cleaning of Carvings with chemicals and providing fibreglass facilities	Number	46	30,000	1,380,000
7.	Training of 3 local persons for 6 months as guides at Tourism Dept., Shadman Lahore	Number	3	100,000 (including tuition fees, accommodation and stipend)	300,000
8.	Salaries for 2 security staff for 3 years by WAPDA (later will be by KP DOAM)	Year	3	360,000 (15,000 per month / staff)	1,080,000
	Sub Total I				153,943,500
II	Seo Mosque				
1.	Anti-termite chemicals for protection of timber (2640 square meters of timber and 1217 square meters of ground)	Litres	62	4,000	248,000
	Rental charges (12 days) for Tools for injection (injector machine and spray machine), their transport from Lahore and labour charges	Days	12	20,000 (incl. daily rental charge for machine/day is 5,000)	240,000
2.	Fire fighting equipment (fire extinguishers)				100,000
3.	Timber Precision/Polish	Lump sum			1,000,000
4.	Water supply, sanitation and ablution facilities	Lump sum			1,000,000
	Sub Total II				2,588,000
III	Seer Gayal Mosque				
1.	Dismantling mosque structure and transporting to new site	Lump sum			400,000
2.	Land acquisition of 505 square meter (1 canal) for relocation site of mosque	Lump sum			500,000

	Item	Unit	Quantity	Rate. PKR	Amount, PKR
3.	Foundation and reassembling and new material provision, water supply, sanitation, etc.	Lump sum			2,000,000
	Sub-Total III				2,900,000
IV	Protection of Graveyards				
1.	Provision of mud, and mud pitching	Grave	320 graves in 16 graveyards	700	224,000
2.	Religious ceremony at each graveyard (including food for 100 people and bringing of religious leaders for Quran recitation)	Graveyard	16	25,000	400,000
	Sub-Total IV				624,000
V	Chance Finds				
1.	Services of an archaeological expert over a period of one year (spread over 6 year of constructions phase)	Month	12	400,000	4,800,000
	Grand Total				164,855,500
	Grand total in USD				1,648,555

4.4 IMPLEMENTATION SCHEDULE

Tentative implementation schedule of PCR management plan is shown in Figure 4.2.

Plan	Year 1	Year 2	Year 3	year 4	Year 5	Year 6
Procurement Shatial Rock Carvings & Construction of facilities						
- Protection of Carvings and Promotion of Tourism						
Enhancement measures for Seo Mosque						
Relocation of Seer Gayal Mosque						
Protection of Graveyards						
Chance Find						

Figure 4.2: Implementation Schedule of PCR Management Plan

ANNEXES

List of Annexes

Annex 1.1: PCR Survey Questionnaire

Annex 1.2: Consultation Record

Annex 2.1: An introductory Note on the Rock Carvings of Northern Pakistan

Annex 2.2: Current Conditions of Shatial Rock Carvings

Annex 3.1: KP DOAM Request to WAPDA on Procurement of Shatial Rock Carving Site

Annex 3.2: Fatwa on Protection of Graveyards

Annex – 1.1 PCR SURVEY QUESTIONNAIRE

Section: A

Study Code										
	District	-	Village	-	UC		Reg. No.			

District Name: Tehsil Name:

UC Name: Valley:

City/Town/Village:

Urban: Rural: Time Taken:

Interviewer Name: _____ Interviewer Code:

Name of Respondent _____

Father Name of Respondent _____

Date of Interview: _____
DD/MM/YYYY

Checked by: _____ **Signature:** _____

101	Gender of the respondent	1. Male 2. Female	
102	What is your approximate age? (Write in figures only)		
103	What is the highest level of education you have reached or	1. No education 2. Primary (up to 5 Years)	

	completed?	3. Secondary (up to 10 years) 4. High School (up to 12 Years) 5. University 6. Other professional education (specify) _____	
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Section 2: Physical Cultural Resources Existence

201	Is there any historical mosque in this area? (Be specific of being old) (If yes give number in figures)(<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
202	Do you know about any old graveyard? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
203	Do you know about any tree of historical nature? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
204	Is there any stone carving work in this area? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
205	Are there any heritage features? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
206	Do you know about other special places? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	
207	Do you know if there is any moveable Physical Cultural Resources? (If yes give number in figures). (<i>In case of yes, fill separate forms of section C for each of the heritage</i>)	1. Yes _____ (How many) 2. No	

Section: C

(To be filled separately for each of the heritage type like one for one mosque etc.)

Typology Code (Encircle one of the following)

201 = Mosque, 202 = Graveyard, 203 = Tree, 204 = Stone carving, 205 = Heritage, 206 = Other,

207 = Moveable PCR

Sr. No.	Description	Reply		
1	Location			
2	Description/Comments by Respondent			
3	Description /Comments by Interviewer			
5	Other comments			
6	GPS coordinates	East	North	Elev. Masl
7	Description of Photography			

Annex – 1.2

Consultation Record

	Date	Location	People
1	28-Dec-11	Islamabad	Dr. Fazal Dad Kakar, DG, DOAM GP ; Dr. Muhammad Arif , Director
2	29-Dec-11	Peshawar	Nidaullah Sahrai, Director, DOAM KP Ahmed Nawaz; Archaeological Engineer
3	29-Feb-12	Dasu	Akal Bacha, DCO
4	29-Feb-12	Dasu	Qazi Abdul Rehman, ADO
5	30-Mar-12	Logro	M. Ameen, Fazal Rabi
6	30-Mar-12	Uchar Nullah	Abdul Rehman; Sher Ghazal
7	30-Mar-12	Barseen	Abdul Hadin; Soon Mian
8	30-Mar-12	Largari	Raat Mian; Fazal Rabi
9	30-Mar-12	Kaigah	Soan Mian; Abdul Rehman
10	30-Mar-12	Pani Gah	Saifoor Khan; Juma Saeed
11	31-Mar-12	Gadeer	Zareen Khan; Baber Sher
12	31-Mar-12	Chalash	Abdul Salam; Muhammad Taqeer
13	31-Mar-12	Lutter	Abdul Razzaq; M.Paman sha
14	31-Mar-12	Gober	Zahoor ul Haq; Daud Khan
15	31-Mar-12	Chori Nullah	Rozi MandKhan; Muhammad Younis
16	31-Mar-12	Summer Nullah	M.Nabi; Mustaqeem
17	31-Mar-12	Lachi Nullah	Ijaz Ahmad; Malik Zaboora Khan
18	31-Mar-12	Sazin	Basharat Khan; Fazal Ameen
19	31-Mar-12	Shatial	Muhammad Sadique; Arsh Khan
20	31-Mar-12	Gayal	Jehangir Khan; Babar Khan
21	31-Mar-12	Gayal	Jehangir Khan; Babar Khan
22	02-Apr-12	Dasu Town	Atta Ullah; Abdul Wahab
23	02-Apr-12	Komila	M. Zahoor Khan; Peer Zada
24	02-Apr-12	Kach	Azam Khan; Mehtab Khan
25	02-Apr-12	Rango	Sahib zada
26	02-Apr-12	Siglo	Abdul Ghayaas; Doshan Khan
27	02-Apr-12	Seo	Sheer Muhammad; Abdul Rehman; Akbar Khan
28	02-Apr-12	Maliyar	Syed Rubab Khan; Shahzada
29	02-Apr-12	Koz Koi	Habinur Rehman; Gul Daad
30	02-Apr-12	Kai Dogah	M.Munir; Muhmood Munir
31	03-Apr-12	Seer Gayal	Abdul Quayam; Mehdood; Gul Amin
32	03-Apr-12	Waris Phero Abad	Inyait ullah; Ihsan ul Haq
33	03-Apr-12	Dhoondar	Lal Nabi
34	03-Apr-12	Gummo	Naeem Salaar: Zameer
35	03-Apr-12	Dogah	Abdul Qavi: Sardar
36	04-Apr-12	Jalkot	Abdul Aziz; Barkat Shah
37	04-Apr-12	Kot Gul	Sher Zaman; M. Anwar
38	04-Apr-12	Thingari	Khalid mehmood
39	04-Apr-12	Nutbel	Qalander; Midaae Shah
40	04-Apr-12	Salaash	Zainulabdin: Akhtar Zaib
41	09-Sep-12	Peshawar	Dr. Shah Khan, Director, KP DOAM; Dr. M. Bhashir, DG, KP- EPA (in EIA workshop)
42	02-Oct-12	Islamabad	Dr.Fazal Dad Kakar, DG. GP DOAM; Tahir Saeed, AD, GP DOAM (in EIA workshop)

Annex – 2.1

AN INTRODUCTORY NOTE ON THE ROCK CARVINGS OF NORTHERN PAKISTAN

Extract from '*The Ancient Heritage of the Northern Areas and the Diamer-Basha Dam Project*'
Heidelberg Academy for the Humanities and Sciences, March 2009

ROCK ART IN THE NORTHERN AREAS

The majestic peaks of the Himalayas with their 14 eight-thousand meter high towering above the scenery, separate the Tibetan Plateau and the South Asian subcontinent on a length of 2500 km. They do not though form an impassable barrier to man as evident from its western part comprising the Hindu Kush, the Western Himalayas and the Karakoram in the north of Pakistan. From the Tarim Basin, several paths lead over passes more than 4,000 meters high over the glaciers of the mountain chains of the Karakoram down to the northern steppe regions of the Indus River and its tributaries. This network of routes that connects the northern steppe regions with Kashmir and the Indo-Pakistani lowlands has been frequented by hunters and nomads since the end of the Ice Age as well as during historical times by merchants with their caravans, by Buddhist pilgrims, Chinese emissaries and foreign conquerors.

The high mountain range that today encompasses the Northern Areas of Pakistan formed, on the one hand, the shortest connection to the trading posers in the Trim Basin for Indian caravans, but on the other hand it was also in the opposite direction, at least temporary the gate to India for Sogdian merchants from Samarkand. A southern branch of the legendary Silk Route led through the Indus Valley. It consisted of a network of trading routes that started in the ancient Chinese imperial city of Changan and led to the Mediterranean Sea via the cases cities in the Tarim Basin such as Khotan Yarkand and Kashgar as well as Turfan and Kucha, The first description of the passages leading from the Trim Basin via the Hindu Kush and Karakoram to the kingdoms of jibin (Chi-pin) and Nandou – kingdoms that are located in the region around Kapisa-Peshawar and Gilgit is provided by the chronicle Han Shu (25-221 B.C.E) from the time of of the Hun dynasty. The different route continues until it reaches the "Hanging Passages", spanning deep chastens, which are described as life-threatening challenges for man and beast. This toponym might either refer to the paths running in vertiginous heights along the scarps above the Hunza and the Indus rivers or more probable to the shaky rope bridges stretching over mountain torrents. The adventurous itineraries of Chinese pilgrim vividly narrate the arduous journeys across the snow-covered peaks of the "Onion Mountains" down to the Indus Valley. The earliest among these pilgrims, according to the tradition, was the monk Faxian (317-420), who started his 15 years long pilgrimage in the imperial city of Changan. After having scaled the Karakoram Faxian reached the kingdom Jiecha (Kie-cha) probably modern Baltistan, and the small kingdom of To-lieh or Tuoli in the year 400, this place was of supra-regional religious importance, as its sanctuary was most prominent for a gilded wooden statue of Maitreya, the future Buddha, which was over 20 meters high. Only afterwards, Faxian crossed the "Route of the Hanging Passages," i.e., the Indus river to arrive at his destination, the kingdom of Uddiyana, in Swat. In the report of the most famous pilgrim, Xuanzang (629-645) a Chinese Marco polo who had also chosen the southern route over the "Onion Mountain", to Gandhara. The Miraculous Maitreya statue and an adjunct monastery is described again at a place that he call TA-LI-Lo. This location is probably to be identified with the religious center such as the one in the Chilas Basin.

ROCK ART GALLERIES IN THE NORTHERN AREAS

Apart from these reports and some later chronicles, there exist no other historical sources on this region. Yet, there is another group of monuments giving deeper insight into the history of this high mountain region: A gallery of rock art images unique in their diversity and extraordinary in their quantity. Carved into the rock faces and boulders of the Indus gorge, reaching from Indus-Kohistan to Baltistan, and even beyond, to Ladakh and Tibet, extends one

of the worldwide largest and most impressive rock art provinces. These monuments can also be found on the important pass routes and subsidiary valleys of the Indus river be it along the Gilgit, in Yasin, in Hunza up to the Kilik pass,

Along the Shigar or the Shook in Baltistan, they concentrate along the fully developed routes to both sides of the Indus river, Having their richest clusters within a stretch of more than 100 kilometers between Shatial in Indus-kohistan and the bridge of Raikot. In these rock art galleries, which centered around Chilas and Thalpan in the district of Diamer at the foot of the 8,125 meter high Nanga Parbat, over 50,000 rock drawings and more than 5,000 inscriptions represent a time span lasting from the late Stone Age. I.e. after 9th 8th millennium B.C.E, to the Islamisation of the mountain region that took place in the 16th century. The remarkable diversity of these engravings, also known as the “guest book of the Silk Route”, mirrors the history, the Cultural and social traditions and the religious ideas of local as well as immigrated ethnic groups.

The existence of this rock art as well as that of the two monumental Buddha reliefs of Kargah near Gilgit and Menthol near Skardu in Baltistan has already been known since the 19th century. But only after the completion of the 751 km long Karakoram Highway – the direct connection between China and Pakistan – Karl Jettmar 1918-2002. Holdelberg, and Ahmad Hasan Dani 1920-2009 Islamabad, could commence systematic research of the rock art province. They started as a joint German-Pakistani project in 1980 and in 1984. The project was taken over by the Heidelberg Academy of the Sciences and has continued with the generous approval and sport of the Pakistani Department of Archaeology and Museum in Islamabad and its Director General Dr. Fazaldad Kakar to date.

The prehistory – from the Late Stone Age to the Bronze Age

With the onset of the Holocene (9500 – 6200 B.C.E.), the milder climate in this region went along with heavier precipitation that has favored a lush vegetation in the valleys and thus permitted the emergence of a diverse fauna. These propitious environmental condition, starting with the melting of the large glaciers, attracted groups of hunters who created the earliest rock images of wild animals: depictions of ibex, marcher, and barrel (Himalayan blue sheep), but also hunting scenes that occasionally even future depictions of humans. The artist’s symbolic presence seems to be expressed by representations of hand and footprints. The pictures of game usually engraved in silhouettes and showing a sub naturalistic style, find their counterparts in the rock art provinces of Western Asia and Siberia ranging from the late Stone Age to Neolithic times.

Impressive images of large, naked figures of men can be ascribed to the Bronze Age, the late 3rd Millennium B.C.E. Depicted in frontal view, with arms out-stretched, these “giants”, found as single figure or in pairs, are attested in more than 60 examples from prominent places in the Indus valley to Ladakh and might represent images of ghosts, demons, or local deities. Alternatively they might just depict shamans. In isolated cases the faceless giants or connected with images of masks that, if compared with the Siberia Okunev culture, could be explained as relating to shamanistic action. We can only assign some rare rock art examples of wild animals or hunting scenes, and few depictions of chariots, to the 2nd millennium B.C.E. the earliest megalithic round tombs in Ishkoman and Yasin can be ascribed to this era as well.

The Iron Age: Eurasian nomads and Persians in the Northern Areas

With the beginning of the first millennium B.C.E., a new population appears in the Upper Indus region, which can be traced back to invasions of Scytho-Sakr 2nd tribes. These steppe nomads that enter from Central Asia and are known as Sake from the inscriptions of the Persian Great King Darius 1(552-485 B.C.E.) contribute numerous pictures of ibexes, deer, and predators. Featuring the Eurasian animals style, they correspond to animal bronzes discovered in Scythian Kurgans from Kazakhstan and Siberia with the eastern expansion of the Achaemenid-Persian Kingdom in the 6th century D.C.E and the establishment of the Indian Provinces of Gandhara and Hindus (Sindh) also Iranian influence reaches the Upper Indus Valley. This is reflected in perfectly rented images of stylized horse, mythical creature in the

characteristic bent-arm, bent-leg posture that indicates flying and particularly, in warrior figures dressed in Western Iranian Costumes.

The Early Buddhist Period

Under the region of the Kushan dynasty (first century C.E.), Buddhism started to spread as a new belief system in the Upper Indus Region. With the beginning of the earlier Buddhist era, lasting from the 1st to 3rd century, the region enter the stage of history, as engravings of the Stupa worshipped by pilgrims, scenes abundant with figures and Enthroned rulers, and in particular the first inscriptions in Kharosthi show. But there is no representation of Buddha himself.

The Golden Era of Buddhism

In the era concerned, the Buddhism reached its peak between the 5th and 8th centuries. Small principalities were founded in the high mountain areas, such as the powerful Great Palur of the Palola Sahi Dynasty in the east (called Bolor in Tibetan sources), with its center in Baltistan as well as Little Paler (Tibetan Bruza) on the high plateau of Gilgit with Yasin that borders on the west. Starting from the seventh century, those principalities fell under the alternating rule of two great powers: The Chinese Tang Dynasty and the Tibetan Kingdom. The third political power was the Daradas or Dards living in the southern part of the Upper Indus valley. The kingdom's center was located in the Nilum-Kishaganga area and from its outpost Chilas, situated at one of the main crossings of the Indus (possibly the seat of a regional ruler), it controlled the main route across the Babusar pass leading to Kashmir and Taxila, an old center of the Gandharan Kingdom. The imagery is dominated by numerous remarkable depictions of Stupas and images of Buddha that were engraved on both sides of the Indus river along the devolved traffic routes secured by sentry posts and fortresses, at places of smaller sanctuaries, at river crossings, and at central locations such as Shatial, Thor, Hodur and Chilas-Thalpan, and Shing Nala. From the Numerous religious buildings, particularly the Stupas, only one Monument has been preserved in an almost complete state. the "Miner of the Taj Mongol" of Jutial above Gilgit. Very sporadically ruins of these monuments and of monasteries can be observed in the Gilgit valley in Baltisatan in the Buddhist hill settlement of Shigar, or at Surmo in the Shyok valley.

Due to their high artistic quality and vibrancy, several scenic depictions showing Jataka scenes that is episodes narrating previous existences of the Buddha, are outstanding among the rock art. Some of them as Vyaghti ot Tiger Jataka, the Rsipancaka Jataka or Jataka of the Greater Evils, and the Sibi Jataka, which adorn rocks at Chilas and Thalpan, were apparently created by one and the same artist and can be dated to the 6th century. An older depiction of the Sibi Jataka in Shatial is comparatively crude and, compared to the Jataka of Chilas-Thalpan shows more Gandharan influence. The magnificent composition consisting of two pagodas-like Stupas shows the close connections between the Upper Indus region and the Buddhist world lying beyond the "snowy mountains", namely Kashmir and Gandhara.

The temptation of the Buddha by the beautiful daughters of the demon king Mara, a popular motif in Gandhran art is depicted on a rock in Thalpan. With the gesture of trouncing the earth with his right hand, the earth opens and the earth goddess testifies to the Buddha's victory over Mara, and the temptress wilt away quickly. He overcame this obstacle, and was subsequently enlightened under the Bodhi tree near Urabilva where Gautama became the Buddha in a night of the full moon of the year 528 B.C.E, The first sermon he gave as the Buddha in the Dear Peak of Senath near Varanasi (Benares) is one of the most important events of the Buddha legend. It is reproduced at Thalpan in an impressive engraving. This scene, very popular in Buddhist art, shows the Buddha in the company of his first five disciples, who were companions of Siddhartha during his phase of asceticism. The deer park is represented by two gazelles at the bottom, and the wheel symbolizes the act of teaching. Among the most beautiful images at Thalpan is the enthroned Buddha with his companion Bodhisattva Vajrapani portrayed in the background.

Due to its highly artistic execution and its distinctive importance for Buddhist imagery, an image found in Hodur-West has to be put in line which the most impressive examples of his art genre

represented along the Upper Indus. It shows two Buddha's both seated on a signal pedestal with a Stupa between them. Apparently, this depiction hints at chapter 11 of the famous Lotus one figure represents Sakyamuni, the historical Buddha, the other Prabhutaratna's Stupa of the seven precious material "is very popular in the Buddhist art of central Asia and China as its numerous examples in paintings in the cave temples of Duphuang, Lang Men, and Yun gang as well as on relief steles show.

The historical background of the Buddhist era in this region is particularly apparent in inscriptions. In the earlier phase, they are written in Kharosthi where in the later phase of the 3rd to 8th century, they use, in large numbers, the Brahmi script. The inscriptions are often added images and render personal names of the donator and consecration formulas. Over 700 Sogdian, but also Bactrian, Parthian and middle Persian inscriptions that predominantly concentrate at Satal, which is now interpreted as a former market place, attest the presence of Parthian and particularly Sogdian merchants from Samarkand. We can trace drawings of Iranian fire altars, tamgas interpreted as heraldic family signs or emblems of cities such as Samarkand and even Nestorian crosses. These images not only mirror the special importance of the Sogdians as merchants on the Silk Road, but also as mediators between the great religions such as Buddhism, Christianity, Zoroastrianism and Manichaeism. Among the most beautiful creations are the saddled but riderless horses, that are, in Central Asian fashion, depicted in the pace gait. Hephthalitic, i.e. Hunnic, as well as Turkish names appear in the inscriptions, too thirteen Chinese inscriptions, probably applied by merchants or pilgrims, and even one composed in Hebrew testify to the ethnic diversity of the region. A Chinese graffito on the rock formation of Haldeikish in the Hunza valley, through which the path up to the important pass leading to Kashgar in Xinjiang runs, mentions even an envoy of the dynasty of the "Great Wei". This site represents the most important epigraphic monument so far discovered in the Karakorum, with 131 inscriptions in Kharosthi, Brahmi, Sogdian, Chinese and Tibetan.

The Battle-Axe people: an anti-Buddhist movement

From the 9th century onwards, anti-Buddhist influences appear on the scene, which indicate the arrival of foreign horse-riding peoples from the surrounding high mountain ranges of the Indus valley. This new ethnic element is represented by crude depictions of battle axes, round disks which would be understood as reminiscent of sun symbols, and picture of riders and warriors. Images of attacking battle axe people evidently besieging Buddhists practically seem to defend stupas inform about the political and religious changes taking place in the mountain area. In the northern regions, for instance Gilgit and Baltistan, Buddhist traditions seem to have kept flourishing, though. The approximately three metre high relief of a standing Buddha at Naupure in the Kargah Valley near Gilgit depicts him with the right arm held aloft on the gesture of fearlessness and indicates growing influence of Tibetan style in the 8th century as does the relief on a six meter high rock in Manthal near Skardu in Baltistan. There, together with 20 smaller Buddhas the meditating Buddha is seated in Mandala-shaped assembly. This exceptional composition is flanked by two standing Bodhistvas; Padmapani with the lotus to the left, Maitreya to the right. Below, a purnaghata, the Vase of Plenty, is depicted. The only large-sized rock painting of Chaghdo near Skardu, showing a magnificent stupa veneration scene with the Raja of Shigar, attests to the final significant period of prosperity of Buddhism in the 12th century.

The Victory of Islam

Islamisation started from Kashmir in the 16th century, and has its most impressive monuments in the first characteristic mosque with rich wood carving decoration in Hunza, in Khaplu, Shigar, and Skardu in Baltistan.

Annex – 2.2

CURRENT CONDITION OF ROCK CARVINGS AT SHATIAL



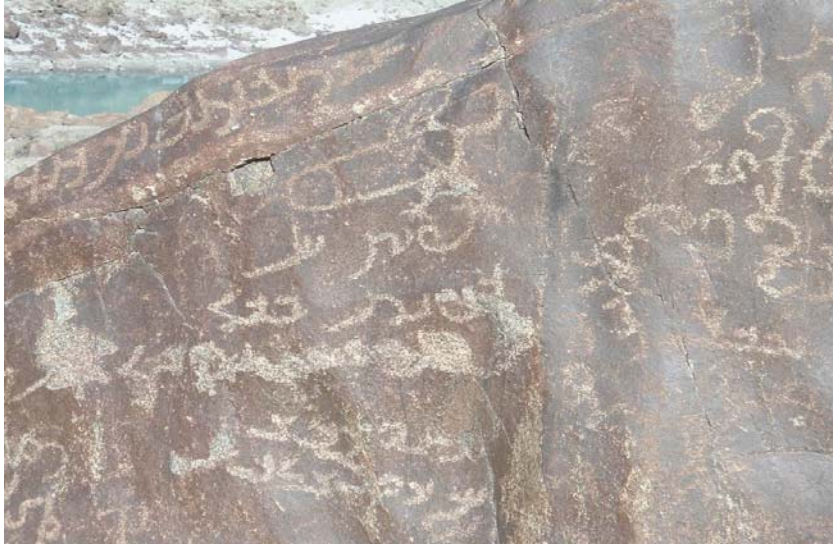
1. Developing cracks in rock due weathering



2. Concentric circles and squares symbols with various other small symbols and characters



3. Signs and symbols including inscription



4. Animal figures and inscription



5. Stupa and symbols of tridents



6. Seated Buddha and inscription



7. Inscription and symbols fading away due to weathering



8. Rock developing cracks



9. A view showing extents and severity of cracks developed in the rocks



10. Several carvings, a sign of trident is clearly visible



11. A scene of various rocks settings and carving thereon



12. A view of weather damages effected to rocks



13. Rock carvings are hardly visible while sign of human vandalism is too visible



14. Present age graffiti on rock only too loud to call for early action to save history



15. Inscription hardly visible due to patination

Annex – 3.1

KP DOAM REQUEST TO WAPDA ON PROCUREMENT OF SHATIAL ROCK CARVING SITE



**DIRECTORATE OF ARCHAEOLOGY AND MUSEUMS
GOVT. OF KHYBER PAKHTUNKHWA, PESHAWAR**

No. 1041/12-4-Archymus

Dated: 26-6-2012

C/O Peshawar Museum Peshawar

Ph. # 091-9211194, 9211488

Fax # 091-9210690

To

The Project Director,
Dasu Hydropower Project WAPDA,
D-Block Sunny View,
Lahore.

Subject: DASU HPP-ARCHAEOLOGICAL ASSETS IN DASU HYDROPOWER PROJECT AREA.

Dear Sir,

Kindly refer to your letter No. CE//D/Dasu – 6BC/1071-73 dated 30/04/2012 on the subject noted above.

This Directorate intends to purchase the whole chunk of land measuring 200 kanal 4 marla at the Archaeological site of Shatiyal, Kohistan. The District officer (R&E) Kohistan in this regard has sent an estimate of Rs.77.28 million to this office. It is a huge amount and this Directorate at the moment cannot arrange such a great amount to pay as cost of the said land.

It is, therefore, requested to kindly to explore ways and means for the purchase of the said piece of land.

Yours faithfully

Dr. Shah Nazar Khan
Director

25-6-12

OFFICE OF THE
DISTRICT OFFICER REVENUE & ESTATE,
KOHISTAN

No. 105-HCR/Acqu./ 794 /DOR&E (KH)

Dated Dassu the 17 / 04 /2012

To

The Section Officer,
Sports Tourism Archeology, Museums &
Youth Affairs Department Government of Khyber Pakhtunkhwa,
Peshawar

Subject:- **BEIF REPORT ON ACQUISITION AT SHATYAL BLOCK
CARVING SITE DASSU KOHISTAN**

Memorandum:


Reference this office endorsed No. 755-57, dated 07/04/2012 on the subject cited above.

The Revenue Field Staff of Tehsil Dassu has worked out on the amount of Rs.77.28 million as estimated cost of the proposed land measuring 200 Kanals 04 Marlas, which may be placed at the disposal of this office at the earliest.

It is further added that without depositing the estimated cost of land under the rules/instructions no further action can be initiated.

c. c
pl. prepare a
case. Let's see.

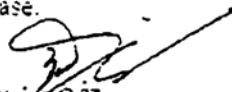
S
M-11
27/4/12


District Officer,
Revenue & Estate,
Kohistan

Endost: No. 795-96

Copy forwarded to:-

1. The District Coordination Officer, Kohistan.
2. The Deputy Secretary-I, Board of Revenue, Khyber Pakhtunkhwa, Peshawar for information and further necessary action please.


District Officer,
Revenue & Estate

061



GOVERNMENT OF KHYBER PAKHTUNKHWA;
SPORTS, TOURISM, ARCHAEOLOGY, MUSEUMS
& YOUTH AFFAIRS DEPARTMENT.

No. SOI(M)4-44/2010 /1572-74
Dated Peshawar, the 14th March, 2012.

To

- 1- The District Coordination Officer,
Kohistan.
- 2- The Deputy Secretary-I,
Board of Revenue, Revenue & Estate Department,
Khyber Pakhtunkhwa, Peshawar.

Subject:- **BRIEF REPORT ON ACQUISITION OF LAND AT SHATIAL
ROCK CARVINGS SITE AT DASSU, KOHISTAN.**

Dear Sir,

I am directed to refer to District Officer, Revenue & Estate Kohistan letter No.105/HCR/DOR(KH) dated 13.02.2012 (received on 01.3.2012) addressed to Deputy Secretary-I, Board of Revenue, Revenue & Estate Department, Khyber Pakhtunkhwa and copy thereof endorsed to this Department on the subject noted above and to state that the site of Shatial containing Rock Carvings was protected by the Federal Archaeology Department under the Antiquities Act, 1975 and initiated a case to acquire the land adjacent to the said site and on their request, the District Officer, Revenue & Estate Kohistan issued a Notification No.337-42 dated 10.03.2011 under Section 4 of the Land Acquisition Act 1894 for the acquisition of land measuring to 200 Kanals and 4 Marlas.

I am further directed to request that to calculate the price of the land measuring 200 Kanals and 4 Marlas through District Officer, Revenue & Estate Kohistan and sent to this Department for taking up a case with the Provincial Government for the provision of funds and direct the D.O.R. Kohistan to issue a Notification under Section 5 and Section 6 of the Land Acquisition Act 1894 in respect of the said chunk of land also.

Yours faithfully,

(SYED NOOR EHSAN SHAH)
Section Officer (Arch: & Museum)

Endst: number & date even.

Copy of the above is forwarded to the Director, Archaeology & Museums Department, Khyber Pakhtunkhwa, Peshawar with reference to his letter No.466/KC-9/Archymus dated 08.03.2012.

Section Officer (Arch: & Museum)

English Translation of Fatwa

This is with reference to your important question (on the reservoir submergence and protection of graves). The remains of human bodies, whether they are intact or decayed, command respect. As per Shariah, the transfer of remains is not allowed. To keep body remains protected in graves, the proposal, as per Shariah, is: the graves which are in good state be plastered with strong mud such that body remains may not float after plaster. The graves which are old and in collapsed state, be also repaired with mud-fill and then plastered. To hit a corpse with stone to disintegrate is prohibited.

“Insha Allah” (God willing), the dead body would not float.

Details of References from Islamic religious books are given.

Sd/-
Mufti Saeed-ur-Rehman,
District Khateeb,
Department of Auqaf,
Kohistan.
(Stamped) Dated 2-6-2012

Vetted and certified correct & stamped by:

- (i) Mulana Atta-ur-Rehman, Khateeb Jamia Masjid, Komila, Kohistan.
- (ii) Mufti Nasb-ud-Din Haqani, Fazil Jamia Karachi.