Report on Facts and Concerns Regarding

Chashma Right Bank Irrigation Project-Stage III (CRBIP-III) and

Grievance Redress and Settlement Committee (GRSC)

7 May 2003

Japan Center for a Sustainable Environment and Society (JACSES)

Introduction

The purpose of this report is to inform public interest organizations, the Board Inspection Committee (BIC) and the members of the Board of the Asian Development Bank (ADB) of the following issues: i) the current status of the GRSC and concerns; ii) design failures of the CRBIP, the subsequent damages, and other project-induced problems and concerns; and iii) the project-induced vulnerabilities and some of the demands of the local communities.

Such accounts are based on i) email exchange on 24 April 2003 with Mr. MATSUO Takashi, Senior Project Specialist/Head, Project Administration Unit, Agriculture, Environment and Natural Resources Division, South Asia Department, ADB; and ii) following activities during my visit to the Chashma Right Bank Canal from 6 to 10 April 2003:

- visits to 7 villages (Sakhani/Dhandla/Jhok Mishori, Lashari, Katehrey Vala, Mor Jhangi, Ghaman, Kandi Walla, and Sokkar) and meetings with villagers; and
- interviews with i) Mr. Baqir Shah, Land Collector, Punjab Revenue Department¹; ii) Malik Saif-ul-Rehman, Acting Chief Engineer, Water and Power Development Authority (WAPDA)²; and iii) Mr. Sohail Sober Khan, Project Implementation Officer, and Mr. Sangpa Tamang, Head, Portfolio Management Unit, ADB Pakistan Resident Mission³.

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¹ Meeting took place on 7 April 2003. Attendants include: Mr. Mushtaq Gadi (one of the Requesters of the Inspection Claim on CRBIP-III), MAUJ; Mr. Shoaib Aziz, Chashma activist; Mr. Asad Farooq, coordinator of Peoples Tribunal in Pakistan; and SUGITA Rena, JACSES.

² Meeting took place on 9 April 2003. Attendants include: Mr. Mushtaq Gadi, Mr. Shoaib Aziz, Mr. Asad Farooq, and SUGITA Rena.

³ Meeting took place on 10 April 2003. Attendant includes SUGITA Rena.

Executive Summary

This report is comprised of 3 sections as summarized below:

I. GRSC: concerns and its status⁴

Findings raise serious doubts regarding the effectiveness of the GRSC. First, current status of the GRSC process and the power and gender imbalance in its composition should be noted. The commencement of GRSC's operation has been delayed for nearly 2 months due the fact that 2 of its members have not yet been selected. Furthermore, the only meeting held so far was attended by only two member of the GRSC. Information dissemination to local communities is clearly insufficient and inadequate; none of the villagers I have met were informed of the GRSC. In addition, the fact that necessary information has not been provided to the ADB Management by the Government of Pakistan (GoP) suggests inadequacy of coordination between the ADB staff and GoP.

All of the members of the GRSC selected so far, including the Representatives of People affected, are male, powerful, and affluent figures of the society. It is important to note that the selection procedures for the Representative of People Affected were ignored, and an appointment was made on the discretion of the local official. According to the Requester, both representatives are prominent landlords and are known for their alliances with the governmental officials. In fact, one of the representatives has been the opponent of the affectees' campaign.

Secondly, the confidence of local communities in the GRSC, which is the prerequisite for any satisfactory resolution to the disputes, is completely absent. When we provided the villagers with the list of the GRSC members and selection procedures of the Representatives of People Affected, all villagers expressed strong distrust in the members of the GRSC. In fact, some villagers have displayed outright hostility against WAPDA and governmental officials based on their past experiences and disappointments. Moreover, all of the villagers rejected the legitimacy of the selection procedures for the Representatives of People Affected, and accurately speculated that the representatives appointed by the Government would be affluent allies of the government. In addition, they noted that two people could not possibly represent the various and vast concerns of the communities. Villagers were in unanimous agreement that the outcome of the GRSC will not be positive or meaningful without a greater presence of marginalized affectees in the GRSC, and that only direct representation by the affectees was appropriate and legitimate.

In contrast, staff of the ADB Resident Missions believed that the GRSC is legitimate and adequate despite the above concerns I have delivered to them.
They did not seem to

⁴ Please also refer to Appendix 1, "Summary of Criticism regarding the GRSC" based on *Second Supplement to the Chashma Inspection Claim.* 25 February 2003.

understand the concerns of the Requesters and local communities, and it is highly questionable if they have even read the relevant documents, such as: Second Supplement to the Inspection Claim, and Roster member's comment on the Recommendations of the Board Inspection Committee. Furthermore, the staff blamed the local NGOs for their disengagement in the GRSC; however, it should be noted that <u>no response has been made by the ADB to the Requester's demand</u> in the Second Supplement that the GRSC, which states:

The Requesters would like to present the following <u>demands in the context</u> of any insistence for negotiation and dialogue in the future...The GRSC should be redesigned in the light of the principles and guidelines provided by the World Commission on Dams Final Report. Most importantly, the project affectees should have fifty percent of the membership in the GRSC through direct nomination of their legitimate representative forums...⁵

Under such circumstances, the gap between the GRSC and the local communities is not expected to be filled.

Moreover, I have heard complaints from every villager regarding the corruption of the governmental officials in delivery of compensations or remedies. It should be noted that monitoring procedures of the GRSC told by the staff at the Resident mission, as well as the ADB's current anti-corruption measures, are inappropriate, and the recommendations of the GRSC are not even legally binding.

II. Design failures of the CRBIP, subsequent damages, and other environmental and social impacts of CRBIP⁶

It should be highlighted that the fundamental design flaws seem to stem from <u>careless</u> <u>disturbances with the natural hydrology</u>—failure to manage two different water flows, the hill torrent from West to East, and main canal from North to South. <u>Combining several natural flood streams per Flood Carrier Channel (FCC) has strengthened the destructive force of the hill torrent, while the ill-designed cross-drainage structures do not allow floodwater to cross the main canal, resulting in extensive flooding in the area before the structures.</u>

It should be noted that the study conducted by Japan International Cooperation Association (JICA) for the same hill torrents are different from the feasibility study of the CRBIP regarding the figures of maximum discharges of floodwater, etc. Furthermore, conclusion of JICA's study recommends not to engineer intervention of flood hydrology or disturb the watercourses.

According to the Requester, if local traditional knowledge has been consulted and incorporated into the project, such as use of existing natural floodwater channels and incorporation of traditional hill torrent irrigation, obvious design flaws and subsequent damages would have

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⁵ Second Supplement to the Chashma Inspection Claim. 25 February 2003.

⁶ Please refer to Appendix 2, "Illustrated Summary of Design Failures."

been prevented, and the amount of land acquisition and project costs reduced. Instead, the ADB documents suggest that the project design was based mainly on economic and budgetary concerns, and without proper consultations of the local communities or adequate environmental assessment.

Furthermore, some obvious and grave design failures seem to be caused by a simple lack of integrity or extreme carelessness. Based on the interview with the Acting Chief Engineer of WAPDA, it could be concluded that the shifting of Indus River to the east since the 70's, has not been considered in the project design. Therefore, the FCCs and distribution canals (distributaries) do not reach their ultimate drainage point, Indus River; instead, they terminate at the riverine belt, which was the active bed of the Indus River when the feasibility study was initially prepared in the 70's. As an obvious consequence, the riverine belt has been extensively flooded. It is difficult to imagine how such unequivocal and fundamental design flaw based on the obsolete feasibility study and topography passed the ADB's approval in 1991, and has been ignored for more than a decade. The same is true for the insufficient number of bridges over FCCs, inadequacy and erosion of embankments, and distributaries that are too deep to channel water to minor distributaries.

I have witnessed the extremely costly social and environmental consequences of such budgetary restrictions and alleged policy violation of the ADB. They include: extensive flooding of the west side of the main canal and riverine belt; destruction of villages and agricultural land, and production of water-borne diseases due to flooding and breaching of the distributaries; inevitable impoverishment of people due to the lack of appropriate compensation and a resettlement plan; risk of life caused by flooding and conflicts between ethnic groups; water logging; restriction on villagers' mobility and access to facilities; widened disparity between rich and poor; and environmental destruction, such as deforestation, land erosion, etc. Such situation especially disadvantages women and marginalizes groups.

III. CRBIP-III induced vulnerabilities and some demands of the local communities

Of the 7 villages I visited, I observed the urgency of the vast and various project-induced vulnerabilities that the local communities face and substantial burden imposed on the communities that are already deprived of resources. For example the village of Sokkar, population of 10,000, located on the west side of the main canal, faces the danger of drowning in floodwater in the flood protection embankment surrounding the village. In fact, the embankment was almost breached by the three flood streams that meet near the village last year. Affectees of Morjhangi Village at the riverine belt mourned that the entire village would submerge in free-flowing canal water if the distributary is operated for few more days. A villager of Lashari commented that they have became poorer due to recurrent damage to crops. Women of the Kandi Walla village are now forced to travel 5 to 6 km to obtain drinking water due to failure of the drinking water scheme of the CRBIP.

It is important to note that their experiences and demands are different depending on each situation of the communities. Furthermore, accurate or exact figures of the damages are not available regarding the extent of the land acquired for the project, damages, etc. Such circumstances illustrate the need for independent and comprehensive investigation in full consultation with the communities in order to understand the extent and nature of the project-induced vulnerabilities, and to explore the possible solutions that are effective and suitable for each community. Moreover, it is crucial to remember that although most of the affectees demand land for land, there is no resettlement plan. Mr. Gadi believes that the resettlement guidelines and land acquisition guidelines required for the National Drainage Programme (NDP) are applicable in the CRBIP because of supplementary financing through directing NDP loan proceeds to the CRBIP?

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⁷ According to the Requester, furthermore, it was told to the ADB Board at the time of supplementary financing in 1999 that relocation arrangements were being made; however, this commitment with the Board has not been honored by the ADB Management.

I. GRSC: Concerns and its Status

A. The GRSC has not yet formed as of 24 March 2003, thus the commencement of the GRSC operation has been delayed for nearly two months.

According to the MOU of the GRSC, the Government of Pakistan (GoP) was to send the shortlists of the candidates for the National Legal Expert and Land Acquisition Expert and their CVs to the ADB by 15 February 2003, and the GRSC was to commence its activities by 3 March 2003. However, Ministry of Water and Power was not able to find qualified judges for the position of the National Legal Expert, therefore the submission of the necessary documents to the ADB was delayed until the first week of March 2003⁸. National Legal Expert and Land Acquisition Expert have not been selected by the ADB⁹. As consequence, the overall timeframe required in the ToR has been neglected 10, including establishment of GRSC offices in Taunsa and D.I. Khan¹¹.

B. Information dissemination to affectees is insufficient and inadequate. Furthermore, site visit, consultation with Affectees, or establishment of information center have not been implemented.

None of the affectees in the 7 villages I have visited, including a member of local union council, were aware of the GRSC, besides those who have been informed previously by the local NGOs. It is also confirmed with the WAPDA official that there have been no site visits, consultation with affectees, or an establishment of an information center as required in the ToR¹². The only effort taken is the few advertisements regarding the GRSC in the local newspaper¹³; however, most of the affectees are illiterate. According to Mr. Gadi, furthermore, other local newspapers, having wider circulation in the Project area, have been ignored.

C. Coordination and understanding among the government officials and the ADB staff is insufficient.

So far, the first and only meeting of the GRSC was held on 3 March 2003¹⁴; however, only 2 members of the Committee were present at the meeting 15. Details of the GRSC, such as its schedule and activities, were not clearly understood by the two government officials

⁸ Meeting with Mr. Khan and Mr. Tamang at the Pakistan Resident Mission, ADB.

⁹ Email exchange with Mr. MATSUO Takashi, ADB, on 24 April 2003.

¹⁰ Meeting with Mr. Khan and Mr. Tamang at the Pakistan Resident Mission, ADB.

¹¹ Email exchange with Mr. MATSUO Takashi, ADB, on 24 April 2003.

¹² Meeting Mr. Malik Saif-ul-Rehman, Acting Chief Engineer, WAPDA, on 9 April 2003.

¹³ Ibid.

¹⁴ Meeting with Mr. Khan and Mr. Tamang at the Pakistan Resident Mission, ADB.

¹⁵ Meeting on 8 April 2003 with Mr. Baqir Shah, Land Collector, Punjab Revenue Department.

interviewed. In fact, the Acting Chief Engineer of WAPDA misunderstood that the second GRSC meeting was being held in Islamabad on the day of the interview. Furthermore, coordination between the ADB and GoP is inadequate. <u>Profiles and selection processes of the Representatives of People Affected have not been provided to the ADB by the Government despite of the ADB's request since 11 March 2003¹⁶. Staff at the Resident Mission were also not aware of the process of information dissemination to local communities.</u>

D. Selection procedures for Representative of People Affected have not been followed, and legitimacy of the representatives as well as their capacity to represent the interests of the affectees is highly questionable.

The selection procedures for the Representatives of People Affected were ignored; the representative (Punjab) was appointed by the Nazim of D.G. Khan on his discretion without proper discussion at the district council, as required in the ToR¹⁷. It should be noted that, according to the Requester, both of the representatives, Mr. Iftikhar-ul-Hasan and Mr. Shoaib Mian Khel, are the prominent landowners of the Chashma area, and are known for their alliances with government officials. Mr. Khel is a relative of the former member of the Parliament and the provincial cabinet, and Mr. Hasan has been an opponent of the Affectees' campaign.

E. Power and gender balance is completely ignored in the GRSC.

Besides the 2 members yet selected, <u>all members of the GRSC are male¹⁸</u>, and powerful and <u>affluent members of the society</u>. Moreover, social and cultural issues and position of women in local society were not taken into account in designing the GRSC. Women will probably be deprived to voice their concerns independently in this process due to a strict cultural segregation between women and men, and women's lack of access to public domain and public interest affairs. The design of the GRSC also fails to ensure the participation of other marginalized and deprived groups, such as: tenants and share-croppers, small farmers, affected villagers living in remote and geographically less accessible areas, etc.

F. Confidence of Affectees in the GRSC, which is the prerequisite for any satisfactory resolution to the disputes, is completely absent. Furthermore, ADB staff at the Resident Mission did not acknowledge the concerns of the affectees or the Requesters' demands made in the Second Supplement to the Inspection Claim. Under such circumstances, the gap between the GRSC and the local communities is not expected to be filled.

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¹⁶ Email exchange with Mr. MATSUO Takashi, ADB, on 24 April 2003.

¹⁷ Meeting Mr. Malik Saif-ul-Rehman, Acting Chief Engineer, WAPDA, on 9 April 2003.

¹⁸ Meeting with Mr. Khan and Mr. Tamang at the Pakistan Resident Mission, ADB.

F-1.Affectees' view on the GRSC¹⁹

All villagers expressed strong distrust in the members of the GRSC and government functionaries in general. They asserted that any Nazims or governmental officials do not have any democratic legitimately, and believed that all of them are corrupt and self-serving. In this regard, all of the affectees considered that all members of the GRSC are corrupt and powerful elites, and recognized them as the beneficiaries of the CRBIP. Villagers were in unanimous agreement that the outcome will not be positive or meaningful without a greater presence of marginalized affectees in the GRSC. In addition, they noted that two affectee representatives cannot possibly represent various and vast vulnerabilities faced by the local communities.

Moreover, <u>all of the villagers rejected the legitimacy of the selection procedures for the Representatives of People Affected</u>, and did not believe that the persons selected will serve the interests of affectees. All of them claimed that <u>only direct representation by the affectees was appropriate and legitimate</u>. Villagers accurately assumed that the representatives appointed by the Government would be the allies of the government, and lack knowledge of affectees' situation or integrity to serve the interests of the affectees. Below are comments of the villagers:

- Poor and affectees should be on the GRSC—only those who have suffered can articulate [the problems they face]. No one else needs to represent us.
- Nobody will listen to the poor.
- People like us should be on the GRSC. [WAPDA officials are] plunderers, not sincere, and will make money from the GRSC. If they come, I'll fight them, and use sticks to train them and break their legs. [Comment of an affectee of Ketehrey Vala Village in the West of the canal, who has participated in the Stakeholders' Dialogue Workshop held in March 2002.]

F-2. Response of the ADB staff to concerns of the affectees

Two staff at the ADB Resident Mission, who were involved in the preparation of the MOU and ToR for the GRSC, believed that the composition of the GRSC is legitimate and appropriate as it contains "representatives of the people", experts and diverse interest groups. They did not understand the affectees' concerns and distrust in governmental officials, and insisted that the government officials have integrity, and that the elected members are independent and represent

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¹⁹ Since none of the affectees at 6 villages were aware of the GRSC, their opinions presented in this report are based on the list of the GRSC members and selection procedures of the Representatives of People Affected explained by Mr. Gadi at the meetings.

the people.

The staff at the Resident Mission also believed that two people can adequately represent all concerns of affectees, and that the selection procedures are appropriate. In response to my delivering the affectees' wish for the greater representation of the marginalized affectees and direct representation, Mr. Sohail expressed that the poor people are incapable of participating in the GRSC; he stated: "we don't want poor people who can't say a word [be part of the GRSC]. They can't read, they can't write." In this regard, they failed to acknowledge the power imbalance of the GRSC, and political system in Pakistan where the military has ruled the country for more than half of its existence.

Moreover, the staff at the Resident Mission clearly lacked understanding of the concerns and demands regarding the GRSC raised by the Requesters and the Roster member of ADB Inspection Function. It is highly questionable if they have reviewed such documents as the Second Supplement to the Inspection Claim or the Recommendations of the BIC. The staff also laid blame on NGOs for their disengagement in the GRSC; however, it should be noted that **no response has been made by the ADB to the Requester's demand in the Second Supplement, made in the context of any insistence for negotiation and dialogue in the future²⁰. Furthermore, it is important to note the staff's distrust in the local NGOs supporting the affectees campaign, and lack of understanding of the urgency of project-induced problems that affectees are facing. For example, Mr. Tamang commented that the affectee's demonstration and hunger strike²¹, held in front of the Pakistan Resident Mission in December 2002, could have been faked by the NGOs.**

G. Widespread corruption of the government officials will create difficulties for affectees to receive compensation or for implementation of any remedial measures.

The Requesters believe that this project is very much corrupt ridden and a number of

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²⁰ "The Requesters would like to present the following demands in the context of any insistence for negotiation and dialogue in the future...The GRSC should be redesigned in the light of the principles and guidelines provided by the WCD Final Report. Most importantly, the project affectees should have fifty percent of the membership in the GRSC through direct nomination of their legitimate representative forums..." *Second Supplement to the Chashma Inspection Claim.* 25 February 2003. Please also refer to appendix 1, "Summary of Criticism regarding the GRSC" based on the Second Supplement.

According to NGOs, affectees traveled from remote Chashma area to convey their concerns to the ADB Resident Mission and submitted a petition letter requesting to address the problems of CRBIP. The event was widely reported in the media and interviews of the affectees appeared in the national newspapers.

irregularities are observed in the project administration. For an example, I have spoken to an affectee at the Katehrey Vala Village who suggested that the inadequacy of the Flood Protection Embankment around his village was partly caused by the misappropriation by the WAPDA official of budget allocated for the construction of the embankment ²². Another villager suggested that generally 50% of commission is misappropriated by Nazims as well as everyone in the government. Moreover, Besides the general complaint in every village meeting that land and asset valuation for compensation is substantially below the current market rate, all of the villagers complained that the large amount of bribery is required by the government officials for the payment of compensation. As a result, most of the villagers have not received any compensation ²³.

In this regard, without a thorough and strict monitoring process, implementation of the GRSC recommendations will suffer from similar situation. It should be noted that the recommendations of the GRSC will not legally binding, and monitoring procedures²⁴ told by the staff at the Resident Mission as well as ADB's anti-corruption measures²⁵ are clearly inadequate.

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²² For detail, please refer to Section II, 13. Widespread corruption among the government officials and project administration.

²³ For detail, please refer to Section II, 8e.

According to the staff at the Pakistan Resident Mission, the role of the Resident Mission in the monitoring process of the GRSC recommendations is to i) coordinate between the ADB Head Quarter and the EA; ii) obtain information from the EA periodically; and iii) follow up the EA whether implementation schedule is followed. Staff at the Resident Mission said that further action will depend on the instruction from the ADB Head Quarter.

²⁵ Although it was mentioned many times in the Inspection Request, ADB Staff at the Resident Mission were not aware of corruption issues regarding compensation for land acquisition. They suggested that the affectees could submit a written proof of the corruption and proceed with a long technical process with the ADB, which is difficult and unrealistic considering the nature of the problem.

II. Design Failures and Subsequent Damages, and Other Project-induced Problems and Concerns

Accounts are arranged by issues below. It is not intended to be a comprehensive report of the design failures and subsequent damages, and other project-induced problems. Please refer to appendix 2 for Illustrated Summary of Design Failures.

A. Design Failures and Subsequent Damages

1. The Flood Carrier Channels (FCCs) have not been properly designed.



Sanghar, the second largest flood river channel of the region. Its catchment area is approximately 3,000 km2.

According to the local NGOs, one of the reasons why floodwater from the FCC has gained such destructive force is that the <u>natural gradient</u>, flood discharges, silt load and <u>speed of the floodwater which were observed in Nullahs</u> (<u>natural passages for floodwater</u>) were not properly taken into account in designing the FCCs. There exist at least

150 streams of hill torrent in the region, branched out from a few flood river channels near the mountain ranges on the west side of the canal. Traditionally, floodwater was then

diverted into different small Nullahs and thus made controllable for irrigation purpose and less destructive for settlements, land, and crops. Silt brought in by the flood was used as natural fertilizer.

However, FCCs were constructed instead of utilizing the existing Nullahs, and average of 4 to 5 streams were combined into one FCC, which changed the course and increased the speed of floodwater. Thus it increased a risk of destroying settlements, land and crops. It should be noted that the study conducted by JICA²⁶ for the same hill torrents is different from the feasibility study of the CRBIP regarding the figures of maximum discharges of floodwater, etc²⁷. Conclusion of JICA's study recommends not to engineer intervention of flood hydrology or

²⁷ The Requesters believe that the flooding study used for the feasibility study of CRBIP is not accurate and design structures subsequently are also wrong. The examples of two embanked villages in the NWFP, which have never received any floodwater in known history, are illustrative of such inaccuracy. The GoP has denied disclosure of the flooding studies of CRBIP to this day.

²⁶ Japan International Cooperation Association. *Feasibility Study on Development of Irrigation based upon Flood Flows of D.G. Khan Hill Torrents*. October 1992.

<u>disturb</u> watercourse. Moreover, the <u>utilization</u> of the existing Nullahs would have greatly reduced the amount of land acquisition; approximately 80 % of the land acquired was for the construction of FCCs and the embankments.



FCC filled with vegetation.

Furthermore, I have observed <u>heavy silt depositions and</u> thriving vegetation growth in FCCs, which will render the FCCs increasingly ineffective and ultimately useless without continuous and sufficient operation and maintenance (O&M).

2. FCCs and distribution canals end abruptly before reaching the ultimate drainage point, the Indus River, and induce flooding in the riverine belt ranging from 3 to 7 kilometers.



Top: FCC ending before Indus River. Residence and farming area farther east have been severely flooded.

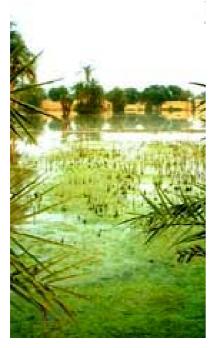
Bottom: Distribution canal ending abruptly.



Based on the interview with the Acting Chief Engineer, WAPDA, it could be concluded that the shifting of Indus River to the east since 70's has not been considered in the project design²⁸; therefore, the FCCs and distributaries do not reach the ultimate drainage point, Indus River. Instead, they terminate at the riverine belt, which was the active bed of the Indus River in the 70s' when the feasibility study was initially prepared. It is difficult to imagine how such unequivocal and fundamental design flaws based on obsolete feasibility study and topography has passed the ADB's approval in 1991, and has been ignored for more than a decade. It should be noted that in response to the local communities demand to extend the FCCs and distributaries to the Indus River at the stakeholders' dialogue

in March 2002, WAPDA flagrantly stated that the land necessary for the extension of the FCCs and distributaries must be donated for free by the communities to meet their demand. Local communities, already deprived of resources and suffered from land acquisition without compensation, obviously cannot afford such unjust and unrealistic requirement.

Requesters also believe that the design preparation efforts in general were not fully informed of the changes in the hydrology of the Indus River that took place after the construction of Tarbela Dam and Chashma Barrage in upstream areas. For example, the Project Performance Audit Report (PPAR) on the Chashma Command Area Development Project indicates that the construction of the Chashma Barrage and its impact on underground water reserves were not taken into account in designing the CRBIP Stage I.



Village Mor Jhangi in the riverine belt appeared like an island. Villagers mourned that the entire village could be submerged in water if water from the distributary continued to flow for few more days.

Although it was not monsoon season, I have observed flooding and subsequent damages in the riverine belt due to forceful floodwater from the FCCs and surplus canal water from the distributaries. Damages from the flooding include: destruction of housing and crops; restriction of mobility and disruptions in community networks and exchanges; and water-borne diseases, such as malaria. According to Mr. Gadi, there are serious environmental repercussions of flooding in the riverine belt. First, it will increase water logging in the very near future and thus render precious land and other natural resources in the riverine belt useless. It should be noted that the riverine belt was a fertile agricultural area based on an underground water irrigation. Secondly, silt deposition due to flooding in this area would further raise the level of the right bank of the Indus River, which is already high, and cause bank erosion.



Houses destroyed by flooding in the village of Lashari.

There are 68 FCCs and 78 distributaries under the project; all of which seem to have not been extended to the Indus River²⁹. The Requester initially estimated that about 30,000 people were facing similar problems

from the distributaries and FFCs; however, their recent estimates

<u>exceeds 50,000 affected persons.</u> The major concern of the Requesters was the lack of official enumeration and documentation with regard to the affected population, and nature and extent of damages.

3. Cross-drainage structures are too high for the floodwater to pass, and subsequently causes flooding in the western side.

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²⁹ According to Mr. Gadi, however, there are two distributaries extended to Indus River. Information suggests that corruption and effort to benefit certain non-local individuals located in the riverine belt are associated with such variation of design.



Above and below: entry to the super-passage is too high for floodwater to go over.





FCC disconnected by the Highway.



Disconnected FCC on the east side of the Highway. It is obvious that it has never contained water. Marks made by bulldozers are still present.

Cross drainage structures (super-passages and siphons) are constructed where the FCCs intersect with the main canal or Indus Highway which runs parallel to the main canal in the command area. They are designed to let the floodwater go over or under the canal and highway; however, it was obvious that the entryways to the cross-drainages were too high for the floodwater to enter. As a result, floodwater, which is shallow and fast, is deflected at the entry of the structure and floods back the western side of the main canal and highway. Although it was not flooding season, floodwater was still pooled near the structure during my visit. Requesters believe, furthermore, the size and locations of some cross-drainage structures are inappropriate or wrong due to inaccuracies in the flooding study.

Most surprisingly, <u>four FCCs</u> are <u>disconnected by the Indus Highway</u>; the <u>cross-drainage structures are not provided at, at least, 9 intersections of the FCCs and the <u>Highway</u>. Consequently, the west side of the highway in the command area is flooded. Acting Chief Engineer of</u>

WAPDA explained that half of the total budget has been transferred to the National Highway Authority for the construction of the cross-drainage structures, which coincides with the claims made in the Management Response to the Inspection Request. However, a year and a half has passed without any action taken since such intention was first indicated. Furthermore, the additional cost of Rs. 2.5 billion for the construction of the cross-drainage structures at those intersections raises serious questions as to the economic viability of the project, although the additional cost is not included in the project cost of CRBIP.

4. Severe Restriction of Mobility due to lack of Bridges over FCCs and Distribution Canals.



Men crossing FCCs in water. It will not be possible when the floodwater is flowing.



FCCs intersecting the Highway at same level.



Men crossing a deep distributary.



Villagers' ad hoc arrangem ent. There is no bridge in visible range.

All villagers complained that their mobility is severely restricted due to the lack of bridges over FCCs and distributaries. FCCs and distributaries average 10-15 km long; however, there are no bridges over the FCCs besides at one point where the FCCs intersects the highway. Moreover, bridges are not provided at more than five intersections; therefore, the floodwater simply flows over the Highway rendering the road useless during the flood seasons.

Similarly, there are only a small number of bridges over the distributaries and most of those bridges are too narrow for the use of a vehicle. Therefore, local communities' access to various facilities, such as: schools, hospitals, markets, and graveyards, are severely limited.

Before the construction of the FCCs, floods came and disappeared in average of 6 to 8 hours, which continued for 3-4 months a year. Although it was not flooding season, floodwater was still present in many FCCs during my visit. I have observed people wading across FCCs and distribution canals in water; however, it is not possible during the

monsoon season due to the high speed of floodwater. Such situations especially disadvantage women, children, elderly and sick.

5. Distributaries are often too deep and minor distributaries are dysfunctional without farmers to block the water to raise its level up or use petroleum-operated pumping systems.

Distributaries are often too deep to transfer canal water to minor distributaries (minors). Such inadequacies require the farmers to either raise the water level through creating temporary





Top left: blockage to work the minor.

Top right: distribution canal far below the level of farmland. Sump pumping is used for irrigation.

Bottom: breaching from blockage.

blockages or use sump pumps. According to the Requester, this design problem is extensive and could be found in a majority of the distribution canals; at least 50% of the outlets to the minors will not work without blockage, and approximately 37,000 acres of the

command area depends on sump-pumping (400 acres is irrigated per a pump). These design problems



create serious suspicions about the official projection of the total command area and economic returns of the project.

<u>Problems</u> associated with blockage are: i) breaching which damages nearby settlements, crops and embankment of the

distributaries; ii) conflicts between communities upstream and downstream; and iii) the fact that blockage is illegal. Concerns regarding sump-pumping are: i) high operation cost due to the consumption of petroleum; ii) insufficiency as an irrigation system; and iii) that the operation of sump-pumping often requires bribery to governmental officials.

6. Inadequacy and erosion of Flood Protection Embankments raise serious concerns for the safety of villages around the FCCs.



Cracks were present in almost all embankments

There are 3 kinds of flood protection embankments; they are: i) embankments of FCCs; ii) embankment constructed around the villages endangered by flooding on the west side of the main canal; and iii) embankments on the right side of the main canal, which is constructed to ensure the safety of the main canal from flooding on the west side. The erosion, apparent in all types of embankments, indicates an insufficient and inadequate compaction and lack of operation and maintenance of these structures. It is expected that the low quality of construction, lack of operation and maintenance, and high silt deposition will inevitably render the embankments useless and dangerous to settlements, crops and other livelihood assets. Such concern was also raised by the ADB consultants.

Lack of drainage in the embankment around the endangered villages is a critical issue. Rainwater pooled within the village causes problems of mobility, sanitation and water borne diseases, and floodwater could drown the villagers if the embankment fails. One affectee at the village of Sokkar said that the embankment would have failed during a flood last year if contractors, who were there by chance, did not use their machinery to repair the embankment that was being destroyed. Furthermore, the height and slope of the embankment is too high for the elderly, women and children; and thus, creates problems concerning mobility. Villagers also complained that high visibility from the top of the embankment, which is used as a road, deprives privacy, and is especially problematic for women.







Left: Embankments around the village of Ketehrey Vala.

Middle: View of the village from the embankment. Villagers complained about lack of privacy.

Right: View of the embankment from the village level.

7. Operations and Maintenance (O&M) is insufficient and inadequate. Furthermore, attempts to transfer the burden to farmers have been made by the ADB Management.

As I have described, <u>design failures and poor quality of construction require continuous</u> and immense O&M for many aspects, such as: FCCs being filled with silt and thriving vegetation, breaching of the distributaries and the main canal³⁰, erosion of and silt deposition near the flood protection embankments, and subsequent damages on the main canal, Indus Highway, agricultural land, and villages.

Although the CRBIP already entails very high annual O&M costs, however, <u>O&M cost and flood damages as calculated in Economic Internal Return Rate (EIRR) in the loan document has taken a minimalist view and is much lower than what is needed for the <u>actual situation</u>. Mr. Gadi also pointed out that the budget for O&M has not yet been fully allocated by the government because of on-going conflict between WAPDA and provincial irrigation departments.</u>

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³⁰ According to the Acting-Chief Engineer, WAPDA, breaching of the main canal was observed in October 2002 due to poor quality of construction.

According to the Requesters, furthermore, during the Chashma Stakeholders Dialogue process, ADB Management attempted to <u>eliminate the irrigation subsidies and thus transfer the</u>

<u>O&M responsibilities to farmers</u> through inclusion and implementation of the institutional irrigation reforms in the CRBIP under the National Drainage Programme (NDP). The Requesters said that this would be unjust because high O&M costs in the CRBIP are the result of the wrong design choices and farmers should not be penalized by bearing those costs³¹. They also expressed their concern that the GRSC could be once again used to achieve this purpose.

B. Land acquisition, compensation, and other social and cultural problems

8. Problems regarding land acquisition and its compensation:

8a. Land acquisition process was conducted illegally, and began before notifying the affectees: it is confirmed with Mr. Baqir Shah, Land Collector, Punjab Revenue Department, that land acquisition (construction of the project) began in 1995 while funds for compensation were allocated in November 1999, and the formal process of notification started in December 2001. He agreed that **the process of the land acquisition violates national law** even under the emergency situation as stipulated in the laws, which still requires the notification before acquisition.

8b. Documentation process of the land acquisition has been arbitrary, and the comprehensiveness and accuracy of the land records are highly questionable: according to Mr. Shah, the records for 70% of the 4,000 acres acquired has been prepared in Punjab province so far; and that approximately 32,000 land acquisition cases in 80 villages have been recorded. However, cases in more than 100 villages have not yet been recorded or acknowledged, according to Mr. Gadi. Some villagers also complained that the acquisition of their land has been denied by the Revenue Department, and that the records are inaccurate. Mr. Gadi suggested that one reason for the inaccurate land record is the lack of land consolidation in many areas. Land records could be easily manipulated in such situations.

Moreover, <u>miscalculations of land acquisition have recently been found.</u> Previously, it was notified that about 13,000 acres of land was acquired in Punjab Province; the latest figure is,

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³¹ It was also demanded by the Requesters that resettlement and land acquisition framework of the NDP should be applied in the CRBIP if the ADB decides to implement irrigation institutional reforms in the CRBIP.

however, 9,000 acres of land. Mr. Shah confirmed that such failure was due to WAPDA's miscalculation of width of the main canal. This situation indicates that <u>the land acquisition</u> <u>process and its documentation is totally arbitrary, and that there are neither proper land</u> records nor enumeration of affectees.

8c. Villagers demand for "land to land" compensation has been ignored: most of the affectees, especially vulnerable and disadvantaged social groups, demand land for land. Mr. Gadi believes that the resettlement guidelines and land acquisition guidelines required for the NDP are applicable in the CRBIP because of supplementary financing through directing NDP loan proceeds to the CRBIP. Furthermore, it was told to the ADB Board at the time of supplementary financing in 1999 that relocation arrangements were being made. However, there has been no resettlement plan for affectees, and the commitment with the Board has not been honored by the ADB Management.

It should also be noted that a <u>vast area of state land is available in the Chashma area</u>. According to the Requesters, the state land is expected to be allotted to the military, civil bureaucracy and local landlords. It is important to note that the proposal by the ADB staff a few years ago to use state land for resettlement purpose was overturned by the decision to use the state land in the D.I. Khan district for a eucalyptus plantation under the ADB funded project called Forestry Sector Project³².

8d. Land and asset valuation for compensation is substantially below the current market rate: all of the villagers complained that <u>land and assets valuation is about tenth to half of the market rate</u>. According to the requester, the low rate of land stems from the fact that the Revenue Department has determined the price based on the average of the land transaction in the past 7 to 8 years. However, such a method is flawed because i) it <u>violates ADB policy</u> which requires the consultation of the affectees in valuation of land and assets; ii) the <u>price of land has been under reported</u> by the local communities in attempts to reduce the transition fee and thus does not accurately reflect the actual price of land; and iii) an <u>increase of land price due to this project is not reflected in the valuation</u>.

8e. Payment of compensation has been significantly delayed, and corruption of government officials has further hindered the affectees from receiving compensation and redress: according to Mr. Shah, awards for 4,000 acres worth Rs. 120 million have been

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Requesters further noted that conservation of fast depleting indigenous medicinal and fruit plant species, as well as well being of the people affected by CRBIP, was not taken into account at all in this decision.

completed. He claimed that the delay of compensation payment is due to his predecessor, and the lack of timely deposition of funds by WAPDA. Such delay in payment is critical for affectees who are already suffering from poverty and project-induced vulnerabilities, such as: loss of agricultural land and opportunities, and damages from flooding. Furthermore, all of the villagers complained that a large amount of bribery is asked by the staff of Punjab Revenue Department for payment of compensation; poor and disadvantaged social groups (women, villagers living in geographically remote areas, etc) cannot afford bribery and thus have not received payment³³.

9. Compensation is not considered for losses of opportunities, land, and assets described below:

- destructions caused by flooding, such as: housing, lands, crops, trees, agricultural opportunities, etc;
- excavation of land and borrowing of top soil for the construction of the main canal, distributaries and FCCs; and subsequent loss of agricultural opportunities because the deprivation of top soil rendered the land incapable of cultivation;
- land used for construction of flood protection embankment around some villages; and
- loss of commercial opportunities for tube wells and other investments.

10. In-migration of the Pashto-speaking group has increased ethnic tension in the Chashma area, and conflict resulted in a murder and the injury of 5 people in mid March.

According to the Requester, local communities of Chashma area is Siraki speaking, and is politically and socially different from the in-migrating Pashto speaking group from tribal belt and Afghanistan. Pashto speaking group from these areas are well funded by smuggling, and their in-migration has increase availability of weaponry and deteriorated law and order in the area. This in-migration was also facilitated by the construction of the Indus Highway. Combined together, these two projects pose the threat of population imbalances and heightening conflicts between local communities and in-migrants. Local press reported that in mid March conflicts arose between more than 100 people of the Pashto and Siraki groups over an occupation of land. As a result, 5 people were injured and 1 was killed. This event however requires further investigation.

revenue staff. Big and middle landowners are usually capable to play this role. Mr. Gadi clarified with Mr. Shah that Requesters and their affiliated NGOs has/will not facilitate the compensation process because it is very much corruption ridden as well as a response to several fraud attempts made using the names of the Requesters and their organizations.

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³³ According to Mr. Gadi, this widespread corruption in land compensation in fact has led to the recent creation of new middlemen groups who facilitate in describing legal and administrative process of giving corruption and networking the helpless affectees with the relevant land

11. Inequality is broadened between the command area and non-command area, as well as landowners and tenants.



Apparent differences between the eastern side of the main canal (command area) and the western side (non-command area) were observed. Although many villagers complained that they have become poor due to land acquisition without compensation and recurrent damages to their agricultural land and villages, some of the command areas gained and maintained access to a certain extent to water. However, non-command area, some of which were fertile through hill torrent irrigation prior to the construction of CRBIP, is now deprived of access to water and suffers from continuous flooding due to ill-designed FCCs and the cross-drainage structures. Demands of the local communities suffering from flooding in the non-command area for relocation to the east side of the main canal has been continuously ignored, thus further impoverishment awaits them. Furthermore, villagers complained that unemployment due to higher access to water, and shift from tenancy to leasing of land have increased class gap between landowners and landless tenants.

12. Women are marginalized; they are neither informed nor participating in decision-making.



There is a strict cultural segregation between women and men, and women have little access to public domain and public interest affairs. Women were never present at any of the meetings of 7 villages, and separate meetings with women had to be arranged³⁴. A male villager indicated that men do not inform women about the

³⁴ For account on interview with women, please refer to Section III. Description of Villages, 5. Village Kandi Walla.

<u>project</u>. Obtaining water for domestic use is a task of women, and they travel 5 to 6 km to bring water from D.G. Khan Canal at Village Kandi Walla.

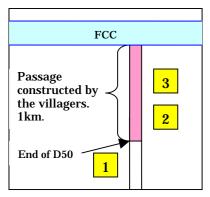
13. Widespread corruption among the government officials and project administration: as in the case of compensation process for land acquisition, the requesters believes that this project is very much corrupt ridden and a number of irregularities are involved in the project administration, including contract administration and some of these irregularities has been remained the subject of an official investigation. For example, an affectee at the village of Katehrey Vala pointed out that although the WAPDA report states that Rs. 2 million was allocated for the construction of the flood protection embankment around the village, only Rs. 1.5 million was shown on the contract record. The affectee assumed that one of the reasons for the inadequacy of the embankment was due to the misappropriation of budget by the WAPDA official. Another example is the two distributaries that are extended to the Indus River while others terminate at the riverine belt. According to the Requester, such variety of design is associated with corruption and effort to benefit certain non-local individuals located in the riverine belt. One villager suggested that generally 50% of the commissions are misappropriated by Nazims and every person in the government. Such corruption hinders delivering of compensation and remedies, and disadvantages the marginalized affectees who cannot afford bribery.

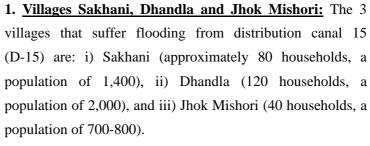
III. Description of Villages:

CRBIP-induced vulnerabilities and some of the demands of the local communities

Following is the account of visits to 7 villages.

A. Villages in Riverine Belt







Meeting with villagers.

● Damages caused by Flooding: <u>D-15</u> ends approximately 1km before the FCC and 3 kilometers before the Indus River, and floods the area whenever operated. Villagers said that the schedule for operation of D-5 is determined by Provincial Power and Irrigation Department who do so without consulting or informing the villagers. Since the initial flooding 3 years ago, flooding has caused

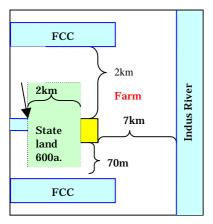
loss of productive agriculture land, the <u>destruction of crops</u>, <u>housing</u>, <u>restriction of mobility (i.e. to hospital, graveyards)</u>, <u>water logging and water borne diseases</u>. According to the villagers, 10 people were suffering from malaria, which is a 3-4% increase.

- **Dysfunctional minor distribution canals (minors):** blockages by the villages upstream to work the minors have been a cause of further irregularity in water flow of D-15, and promotes conflict between villages upstream and downstream. Blockages also cause breaching of D-50 and damage farmland.
- **Burden on community:** according to the villagers, the Revenue Department of WAPDA has documented the flooding damages, but no compensation has been paid. To cope with the project induced vulnerabilities, villagers have constructed embankment along D-50, bridges, a pond, and a temporary passage from the end of the D-50 to manage and channel the free flowing water to the nearby FCC. It cost them approximately Rs. 300,000 and more than 25 acres of land worth Rs. 0.5 million; however, they did not receive any support from the project side.

• Land acquisition/compensation: valuation of land and assets decided by the official is Rs. 72,000/acre, which was less than half of the Market price (Rs. 200,000/acre). Villagers complained that such decisions are made without consulting the affectees, and that the land collector required a bribe for increasing the value and payment of compensation.

• Demands:

- 1) <u>Proper extension of D-50 to FCC with appropriate embankment.</u> The alignment of the passage and minor distribution system constructed by the villages are not proper, causes land erosion, and is not sufficient for a large flood. Proper extension would not only solve flooding and land erosion, but also increase the command area.
- 2) <u>Improvement of design failures</u>, such as inadequate embankment and the depth of D50. Quality and height of the existing embankments around D-50 shall be improved and raised. To solve breaching and conflicts with villages upstream, the bottom of D50 should be raised to allow water to be conveyed to minors without blockages.





- 2. <u>Village Lashari</u> (a population of 2,000) is suffering from D-27, which terminates before reaching the Indus River. One man claimed that <u>villagers have became poorer after the construction of canal due to recurrent damage to crops</u>. The village is located adjacent to the 600 acres of State Land.
- Damages caused by flooding: approximately a hundred acres (not including the state land) has been flooded by surplus water from D-27. Flooding has caused loss of agricultural land, destruction of crops and housing, and restriction of mobility. Furthermore, there are only a few bridges over D-27 and no bridges over FCCs.
- **Dysfunctional minors:** according to the villagers, approximately 1,500 acres along D-27 suffer from dysfunctional minors. Minors are worked by blockage,

causing breaching and conflicts between communities upstream and downstream.

• Land acquisition/compensation: approximately 60 acres was acquired for both FCCs north and south from the villagers. <u>Valuation of land and assets is Rs. 35,000/acre, which is the second se</u>

about a third of the market price (Rs. 100,000/acre), and bribe of Rs. 7,000/acre is asked by the Land Collector. Only one villager so far has received compensation; others could not afford the bribe. The villagers consider that they should be allotted the state land adjacent to the village for compensation. During the last few years, the villagers have tried to encroach upon the state land but a police case was registered against them and some of the villagers had to spend few days in jail.

Demands:

- 1) Extension of D27 for approximately 9 km to Indus River.
- 2) Land for land (possibly the state land adjacent to the village) compensation.



Meeting with villagers.



Men monitoring floodwater on the embankment around the village constructed by villagers.

- 3. <u>Village Morjhangi</u> (a population of 5,000) <u>appeared like an island floating in surplus water from the distribution canal, which terminates before the village. Villagers mourned that the <u>village will submerge in water if the distribution canal continues to operate for few more days.</u></u>
- Damages caused by Flooding: According to a villager, the village was flooded twice in the last 12 months extensively for 1.5km from the end of the distribution canal for the last 8 months. I have observed that some portion of the flooded area was starting to smell like swage, and was causing damage to housing and crops.
- **Burden on community:** villagers have attempted to channel the free flowing canal water away from their agricultural land and settlement; however, the landowner refused to donate the land necessary or allowed water to be directed toward his land. It should be noted that WAPDA offers no compensation for land acquired for this purpose. I observed that an embankment was constructed by the villagers around the villages, and men were continuously monitoring the free flowing canal water from the top of the embankment. "If I keep eye on the house, crops are destroyed," said a villager walking around to monitor his land.

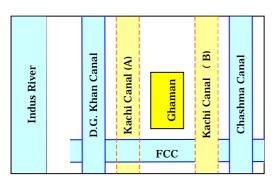


View from the embankment. Village appears like an island.

In response to the villagers concerns, WAPDA officials have told the villagers that the area has already been flood prone; however, villagers claimed that it had never been flooded before 1995. WAPDA also argued that the distribution canal should not be connected to the Indus River because river water will flood back the distribution canal. However, Mr. Gadi believes that an investigation should be conducted to explore the possibility for extending the distribution canal since several barrages on the River have already greatly reduced the mass and force of the river water. He noted that it should be however done with comprehensive and full consultation of the

villages.

• Land acquisition/Compensation: Mr. Abdul Hameed claimed that his land was acquired for the construction of the main canal; however, valuation of his land and assets were Rs. 18,000/acre while market price for his land is Rs. 50,000 /acre. Furthermore, the land collector has asked for a bribe of 20,000/acre for payment of compensation. He has not been compensated.



4. <u>Village Ghaman</u> (a population of 10,000) is located between D.G. Khan Canal and Chashma Canal, and new Kacchi Canal is planned to be constructed at either location A or B (see left). Villagers plan to lay in front of the bulldozers to protest the construction of the new canal, as they are worried about additional destruction and suffering³⁵.

• Restriction on mobility: there is no bridge available over the FCC, and it puts sever restrictions on the villagers' mobility and access to the town of Shadan Lund where all public facilities, such as education, health institutions, and markets are situated. The FCC is filled year-around since not only floodwater but also excessive canal water is diverted to the FCC.

³⁵ In the case of Kachhi canal, emergency situation of the Land Acquisition Act has been also imposed and villagers are not consulted at all.

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Meeting with villagers.

- **Dysfunctional minors:** blockages to work the minors have been causing breaching of distribution canal 53 (D-53), which causes damage to farm land.
- Suspicion of shortage of water from Chashma Canal: because the village is located at the tail end of the main canal and the D-53, the villagers are suspicious about the availability of the water from the Chashma canal. It is

important to note that the villagers have been dependent on water from D.G. Khan Canal and their access to the facility of lifting the water of D.G. Khan Canal will be taken away upon construction of the new Kacchi Canal.

• Land acquisition/Compensation: villagers estimate that at least 1,500 acres were acquired for D-53 and FCCS from the villagers. Valuation of the land and other assets were Rs. 30,000/acre, which is about a tenth of the market price, Rs. 200,000/acre. Bribery was asked for payment of compensation, and no villagers have yet received compensation.

Demands

- 1) Construction of bridges over the FCC.
- 2) Compensation of land before the construction of Kacchi canal.
- 3) Halt on the construction of the Kacchi Canal. There has been no consultation with the villagers over the construction of the Kacchi Canal, and the villagers are not informed about its design.



Meeting with villagers.

- **5.** <u>Village Kandi Walla</u> is located at southern end of the CRBIP command area.
- Restriction of mobility: similar to the situation in the village of Ghaman, water drained from the main canal and floodwater fills the FCC. Villagers' mobility and access to facilities are restricted due to the lack of bridges.
- **Dysfunctional minors:** blockages to work the minors have been causing a breach of the distribution canal 53 (D-53) and thus damage the farmland.

• Loss of access to drinking water: drinking water scheme of the CRBIP was planed to replace the tube-well based community system for drinking water supply; therefore, the community mobilization is now lost and government funded electricity to operate the well has stopped. However, water supply from the canal is inconsistent and unreliable, and villagers are forced to bring water from D.G. Khan Canal from 5-6 km away.

Lack of compensation for:

- 1) Land acquisition: roughly 200 acres were acquired from the villagers for the construction of the FCC and main canal. <u>Land and asset valuation by WAPDA (Rs. 10,000-15,000/acre) is about a tenth of the market price</u> (Rs. 120,000/acre). No consultation was conducted in pricing of the land.
- <u>2) Excavation:</u> top soil was taken by WAPDA from the farm land for the construction of the embankment, and it has rendered the land agriculturally useless and opportunities for 2 crops per season were lost. No compensation has been paid, and the uneven surface of land, due to excavation, has not been leveled despite of villagers repeated request to the Project Director.
- 3) Loss of commercial opportunities for tube wells: <u>tube wells lost their commercial values</u> <u>due to water from the canal; however, compensation is not considered by WAPDA.</u> Tube wells were installed for commercial purpose (to sell water to land owners, etc.) in 90's, and cost of construction per a well was Rs. 70,000.
- Change in labor practice and subsequent broadening of inequality: villagers complained that <u>unemployment due to higher access to water and shift from tenancy to leasing of land have increased class gap between landowners and landless tenants.</u>
- Changes in environment: villagers noted changes in environment, such as: vegetation and birds migrating, and suspected such changes are due to deforestation, irrigation patterns, and landscape changes due to excavation.
- Marginalization of women: separate meeting with women was arranged due to <u>a strict</u> <u>cultural segregation between women and men, and women have little access to public domain and public interest affairs. A male villager indicated that men do not communicate with women about negative impacts of the project. During the interview, women said, "we are happy about the canal" as they have been told by male villagers that they will be gaining access to water to wash clothes. Women told me that they could not tell me anything further in the presence of a male translator, who was the husband of one of the women at the meeting.</u>

• Demands:

- 1) Compensation for all kinds of land and asset losses
- 2) Construction of bridges over the FCC
- 3) Remove design flaws of minors
- 3) Improve quality of construction
- 4) Construction of cemented pond to store canal water, and pump structures to distribute drinking water to houses.

B. Villages on the west side of the main canal



6. <u>Village Ketehrey Vala</u> was expected to be submerged in water 3 years ago by large flood owing to the failure of the cross-drainage structure. This village is the only village that opted for flood protection embankments during the resettlement survey report prepared in February 2001. <u>Villagers complained that the embankment is not a fundamental solution to the flooding problem since their agricultural land still suffers from flooding</u>, as well as other problems with the embankment.

- Corruption and lack of consultation upon the construction of the embankment: flood protection embankment is constructed very close to the village despite of the villagers' demand that the embankment be at least 400m away from the village. Villagers were not consulted by the project authorities regarding the design of the embankment. One villager complained that they would have rejected the embankment option if they had known that their demand will not be met. Villagers assume that the reduction of embankment size is due to misappropriation of funds by the WAPDA official³⁶.
- Lack of drainage: there is <u>no outlet for water</u> in the embankment around the village. Pooled rainwater causes problems with sanitation and water-born diseases such as Malaria. Likewise, if the bound is breached, <u>floodwater will remain within the embankment and it will be fatal for the villagers</u>.
- Deprivation of privacy: Villagers complained about high visibility from the top of the

³⁶ For further detail, please refer to II. 13. Widespread corruption among the government officials and project administration.

protection bunds, which is higher than houses and used as a road. Such <u>deprivation of</u> <u>privacy is especially problematic for women</u>. Villagers also complained that they are not able to see outside of the village, and commented: "we live in a jail everyday."

• **Restriction of mobility**: the embankment is <u>too high for elderly, children, and animals to climb</u>. It is higher than housing, and the slope of the embankment is high.

Demands

1) Relocation to the Eastern side of the main canal, or broaden the embankments by at least 400m.

7. Village Sokkar (a population of 10,000) is also surrounded by flood protection embankment. In 2001, the village was flooded thrice and 80 houses were demolished. The following account is based on informal interviews with several villagers.

- Corruption and lack of consultation for construction of the embankment: despite demands by the local NGOs at the Stakeholders' Dialogue to spend at least 10 to 15 days for consultation to build consensus among the villagers, decision to proceed with the embankment and its design was decided among the ADB Management, the tribal chief of the village, and about 10 villagers, according to the Management Response to the initial complaint. It should be noted that 30 to 40 households are outside of the embankment around the village, thus more vulnerable to flooding than before the construction of the embankment. A villager stated: "nobody will listen to the voices of the poor." Another suggested corruption among governmental officials.
- Inadequacy and erosion of embankments: Similar to Katehrey Vala, there is <u>no outlet to drain water</u> from the embankment. A villager said that <u>hill torrent last year almost breached</u> the embankment. Floodwater would have invaded the village if the contractors were not present by chance with machinery and able to strengthen the embankment. He further noted that <u>3 flood streams meet near the village</u>, and the massive amount of flood water and silt load of the combined flood streams could breach the embankment and drawn the villagers at any moment. Furthermore, continuous silt deposition by flooding outside the embankment will render the embankment increasingly ineffective while the village remains at the same level.
- Deprivation of privacy: villagers noted that raising the height of the embankment to cope

with flooding is not desirable because it would further increase the visibility of the village.

• Land acquisition/Compensation: a villager complained that the Revenue department denied acquisition of certain land. Furthermore, no compensation has been paid for the damages due to flooding³⁷, or for land taken for the main canal, FCCs and the embankment around the villages.

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³⁷ This village was flooded thrice in 2001. About 80 houses were demolished and the villagers suffered heavy loss of assets. They were however not compensated for loss of housing and assets.