

CHINA
Western Poverty Reduction Project
(Credit No 3255-CHA and Loan No 4501-CHA)

Management Response
Dated July 19, 1999
to the
Request for Inspection
Submitted to the Inspection Panel on
June 18, 1999

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ABBREVIATIONS AND ACRONYMS

BP	Bank Procedures
BIC	Bank Information Center
CAS	Country Assistance Strategy
CIEL	Center for International and Environmental Law
EA	Environmental Assessment
EAP	East Asia and Pacific Region
ED	Executive Director
EIA	Environmental Impact Assessment
EMMP	Environmental Mitigation and Monitoring Plan
ETL	Economic Threshold Level
FCPMC	Foreign Capital Project Management Center
IBRD	International Bank for Reconstruction and Development
ICT	International Campaign for Tibet
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IPDP	Indigenous Peoples Development Plan
IPM	Integrated Pest Management
ITE	Independent Team of Experts
LSA	Land Suitable for Agriculture
NGO	Nongovernmental Organization
OD	Operational Directive
OED	Operations Evaluation Department
OP	Operational Policies
PAD	Project Appraisal Document
PMO	Project Management Office
PRA	Participatory Rural Appraisals
PRC	People's Republic of China
QAG	Quality Assurance Group
RAP	Resettlement Action Plan (for Involuntary Resettlement)
RMC	Resident Mission in China
SA	Social Assessment
SDR	Special Drawing Right
SEPA	State Environmental Protection Agency
TIN	Tibet Information Network
VSIP	Voluntary Settlement Implementation Plan
WHO	World Health Organization
WWF	World Wide Fund for Nature

1. INTRODUCTION

1.1 Background and Context

Background: On June 18, 1999, Mr. Jim MacNeill, Chairman of the World Bank's Inspection Panel ("Panel") notified the Bank's President that the Panel had received a request for inspection ("Request") to investigate the World Bank's compliance with a number of its policies and procedures in the preparation of the China Western Poverty Reduction Project. A copy of the Notice of Registration and a copy of the Request were sent to the President. Bank management ("Management") was notified that it must provide the Panel no later than July 20, 1999 with written evidence that it has complied or intends to comply with relevant policies and procedures. The Chairman further stated that the subject matter the Management must deal with in a response to the Request is set out in paragraphs 3 and 4 of the "Conclusions of the Board's Second Review of the Inspection Panel."

Overview of Management Response: In accordance with the Panel's Request, Management is pleased to provide evidence demonstrating Management compliance with the relevant policies and procedures in the appraisal of the Project. The first section (Section 1) of this Management Response ("Response") provides a brief description of the Project and its objectives, the context of the Request, and Management's actions to address concerns it received prior to the filing of the Request. Section 2 presents the complaints made in the Request regarding alleged failures of the Bank to follow specified operational policies and procedures, and evidence regarding Management compliance with such policies and procedures. Further technical questions and other details are set out in the Annexes of this Response.

Context: In Management's view, the concerns raised about the Project as well as the Request have helped identify a number of issues that will receive careful attention during Project implementation. It is clear that neither staff nor Management anticipated, or were prepared for, the breadth and range of political economy issues that were raised in relation to this Project at a very late stage in processing. The level and quality of preparation and analysis for this Project were very much in line with Bank practice in applying social and environmental policies to projects in China in the context of its political and social systems. They were also in line with comparable Bank-wide practice. Staff had carefully analyzed a broad range of social and cultural issues, including carrying out a Social Assessment (SA). Notwithstanding the element of surprise and the late stage at which issues were raised, staff responded to these concerns in an open and constructive manner. Negotiations were reopened to incorporate additional actions on social and environmental aspects in the Project Appraisal Document (PAD) and the Legal Agreements.² This experience has raised the sensitivity of staff and management of the East Asia and Pacific Region (EAP) regarding concerns about issues of political economy even if these extend beyond

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- 1 Paragraph 4 of the "Second Review" states: "In its initial response to the request for inspection, Management will provide evidence that:
 - it has complied with the relevant Bank operational policies and procedures; or that
 - there are serious failures attributable exclusively to its own actions or omissions in complying, but that it intends to comply with the relevant policies and procedures; or that
 - the serious failures that may exist are exclusively attributable to the Borrower or to other factors external to the Bank; or that
 - the serious failures that may exist are attributable both to the Bank's non-compliance with the relevant operational policies and procedures and to the Borrower or other external factors."
 - 2 The Legal Agreements include the negotiated draft Development Credit Agreement and Loan Agreement with the People's Republic of China, the draft Project Agreement with Gansu Province, Inner Mongolia Autonomous Region and Qinghai Province, as well as negotiated draft supplemental letters to these agreements.

the mandate of the Bank. Management appreciates the dialog with civil society on this Project and now welcomes the opportunity to have its actions reviewed independently by the Inspection Panel.

Some issues raised in the Request pertain to concerns about the impact of the Project on indigenous peoples and minorities. However, many of these relate to political economy concerns which are beyond the scope of the Bank's operational policies and procedures. There are diverse views among staff about the extent to which such issues could or should be addressed in the Project. Debates on broad political economy issues are today part of the new openness in the Bank. However, Management considers that this Project is in compliance with OD 4.20 ("Indigenous Peoples").

Compliance: In the context of the political and economic system of China and the development goals of the Bank, it is Management's overall conclusion that staff took the steps required under relevant policies and procedures applicable to the design and appraisal of this Project. However, Management feels that some of the Project's qualitative aspects can be improved as described below.

Management is of the view that concerns pertaining to ethnic minorities could have been better anticipated and more clearly addressed in loan documentation, with greater attention and with greater clarity. Management notes that as Project implementation moves forward, social and cultural aspects will be further addressed with added resources and attention within the mandate of the Bank. However, after careful consideration, and taking into account the steps agreed with the Borrower after external concerns were first raised at the end of April 1999, it is Management's judgement that it has complied with relevant operational policies and procedures applicable to indigenous peoples' issues.

Concerns have been expressed that the Project should have been placed in environmental screening Category "A", rather than "B." Management believes that the staff fully complied with OD 4.01 in the environmental screening process for the Project. Whether to assign this particular project to Category A or Category B was a matter of judgement, rather than of compliance with the policy.

Management also notes that there was a shortcoming in the timeliness with which the Environmental Assessment (EA) report and the Resettlement Action Plan (RAP) were sent to the Bank's InfoShop in Washington, D.C., relative to Management guidance to staff in this regard.

1.2 Project Summary and Objectives

The World Bank and China have long shared the goal of alleviating chronic poverty in remote areas. This goal is affirmed in the Bank's latest Country Assistance Strategy³ (CAS) and has been at the heart of World Bank-China relations for many years. This partnership has helped to achieve significant results in China as a whole, with rural poverty being reduced from 280 million people to 42 million in the past decade, according to Chinese estimates. The Bank's role in poverty alleviation has involved working in 28 provinces, providing US \$5.5 billion for 29 ongoing agricultural and rural development projects.

Consistent with this longstanding goal, the World Bank is contributing a total of US \$160 million to the US \$312 million Western Poverty Reduction Project—US \$100 million in concessional funds from its International Development Association (IDA), and US \$60 million from the International Bank for Reconstruction and Development (IBRD). The Project, for which Bank

3 February 25, 1997.

preparation started in October 1997, covers Inner Mongolia Autonomous Region and Gansu and Qinghai Provinces, and will benefit a total of about 1.7 million people.

The Western Poverty Reduction Project is based in particular on the lessons and experiences of five⁴ other projects for which the Bank has loaned US \$714 million of a total of US \$1.4 billion for the benefit of 7.0 million people. For more details, see Annex 1, Project Background and Description.⁵

The sites in the Western Poverty Reduction Project were chosen because they contain some of China's poorest populations. In all three locations, the Project will increase incomes and productivity in both farming and off-farm activities. In all Project areas, there will be significant improvements in health services, safe water supply, electricity connections, and the quality of local roads to market. In addition, education services will be improved in the Project areas in Qinghai.

1.3 The Qinghai Component

Qinghai Province is located in western China, bordering Gansu Province, the Xinjiang-Uyghur Autonomous Region, Sichuan Province, and Tibetan Autonomous Region (Map 1).⁶ The farmers on the hillsides of eastern Qinghai are among the poorest people in the world, with incomes of about US \$70 a year per capita. The land on which they live is badly degraded and continuously becoming even more barren and eroded due to high population pressures, to the point where it can no longer sustain them. The population suffers from malnutrition, and is reliant on government welfare and money from relatives elsewhere in China to meet their needs for as much as six months of each year.

Of the three Project provinces, only Qinghai has generated considerable outside inquiry and concern in the context of the voluntary settlement program. The Qinghai Component is the subject matter of this Response. Concerns pertain to potential environmental and social impacts of moving voluntary settlers from areas in the east of the Province to the Project area in the central part of the Province. Questions have been raised about the environmental categorization of the Project, the adequacy of the EA and RAP, the quality of data obtained in the social surveys and the approach adopted in regard to minority nationalities. An important concern is the movement of non-Tibetan and non-Mongol people further west into an area which has historic significance for Tibetans and Mongols.

The Project⁷ will assist 57,775 people who have chosen to move from the extremely eroded hillsides of Datong, Huangyuan, Hualong, Xunhua, Minhe and Ping'an counties, with a population of 1.3 million, to the arid plains of Dulan County in Haixi Prefecture (a designated Mongol and Tibetan Autonomous Prefecture), about 450 kilometers further west in Qinghai Province. The 57,775 people will mainly be moved as intact villages, thus providing a more

4 Gansu-Hexi Corridor Project, Northern Irrigation Project, Shanxi Poverty Reduction Project, Southwest Poverty Reduction Project and Qinba Mountains Poverty Reduction Project. Details of all projects mentioned are available at the World Bank's Infoshop or online at www.worldbank.org.

5 See also Schedule 2 of the negotiated draft Development Credit Agreement.

6 For much of the past two thousand years, the area of the Tibetan Plateau now designated Qinghai Province has been contested by shifting populations of local nomads, Han Chinese and Tibetans. Over one thousand years ago, Tibetan control and culture gained pre-eminence in the area (which the Tibetans call "Amdo"), but its political dominance was usurped in later centuries first by Mongols, and then the Manchus. In the early 1700s, the Qing dynasty demarcated the borders of Tibet, Qinghai, Yunnan, and Sichuan, and established Qinghai as a tributary entity to the Chinese Empire under the "tusi" system.

7 Henceforth, except where the context otherwise requires, for purposes of this Response, the "Project" means the Qinghai Component as set forth in Part C of Schedule 2 to the negotiated draft Development Credit Agreement.

concentrated reduction in population pressure in the move-out sites. The Project provides benefits for those staying in the hillsides (move-out area), those moving, and those in and around the move-in (host) area. The people moving to Dulan County will receive user rights to irrigated arable land for cultivation and/or grazing, and they will receive both financial and technical support to grow crops and manage their farms. Compensation will be provided to households in the move-in area which will be affected by the settlement program, and the opportunity to join the program will be offered to all affected households, providing them with the same level of benefits as the settlers. In addition, investments for land rehabilitation will be made in the move-out area to support the remaining population. Finally, educational and health services will be provided both in and around the move-in and move-out areas through construction of culturally appropriate schools and clinics.

1.4 Context and Management Actions to Address the Subject Matter of the Request

Context: On April 27, 1999 the Tibet Information Network (TIN) published a newsletter on the Internet detailing issues and concerns about the developments proposed in the Project. This was the first indication to the Project Task Team and the Bank's East Asia and Pacific Regional Management that there was external opposition to financing by the Bank of the US \$40 million Qinghai Component of the US \$160 million loan/credit. Immediately, Bank staff contacted TIN and began an intensive dialog with them and various other nongovernmental organizations (NGOs), which continues to this day (Annex 5, Chronology of Contacts with NGOs and Other Parties Since April 17, 1999).

Within days of the TIN article and in response to mounting objections to the Component, Bank staff and Regional Management began meeting with the International Campaign for Tibet (ICT), the Center for International and Environmental Law (CIEL), and other NGOs, as well as with concerned representatives of the United States Congress, to hear their views. In addition, the Bank's President met with various NGOs on several occasions to discuss their concerns. The aim was to understand more precisely what the objections to the Project were and to see how these could be addressed, notwithstanding that Project negotiations were complete. To facilitate these discussions, the staff prepared and widely distributed a full description of the Project.

Project Refinements: Concurrent with the discussions, Bank internal reviews, including one by the Environmentally and Socially Sustainable Development Network, were made of Project compliance with the Bank's policies and procedures, particularly its safeguard policies. The reviews concluded that the Project was in compliance, although areas were identified that would benefit from additional qualitative strengthening during implementation. This, taken together with other technical concerns raised by NGOs, was discussed extensively in the Bank. A proposed outline of additional activities was prepared, and negotiations were re-opened with the Government of China. At the request of the Bank's President, a small team of senior management staff went to Beijing and Qinghai Province to make an independent assessment of the situation and the efficacy of this plan. The Supplemental Letters to the Legal Agreements (Annex 11, Supplemental Letters to the Legal Agreements) agreed with the Chinese authorities introduced a number of refinements to the Project, including:

- Assurances from the Borrower that the administrative status of the Haixi Mongol and Tibetan Autonomous Prefecture will remain unchanged as a result of the Project (Annex 11, Supplemental Letters to the Legal Agreements);
- The Pilot Program, whereby 200 households will be settled on 300 hectares of land, will be strengthened to ensure that interventions are technically sound and that the social and environmental impacts of activities are fully evaluated before full-scale settlement begins

(Annex 12, Description of the Pre-Pilot Phase and Pilot Program). The Pilot Program will be closely monitored and evaluated by Bank staff and an Independent Team of Experts (ITE). See Annex 16, Draft Terms of Reference for the Independent Team of Experts. It is anticipated that the Pilot Program will be completed within one growing season.

- A Pre-Pilot Phase to ensure adequate preparation of the Pilot Program, and to update the previous work on environmental and social issues through evaluation of existing multi-ethnic settlements adjacent to the Project area, which have a decade-long experience working with irrigated agriculture. These activities include supplementary Participatory Rural Appraisals (PRA) (Annex 15, Description of Participatory Rural Appraisals) and environmental studies (Annex 14, Description of Supplemental Environmental Studies) of the move-in (host) and move-out areas; and
- Additional investments in social services in health and education in the move-out area to assist those remaining there, and around the move-in area to support improved services for the population peripheral to the immediate Project area.

In addition to these negotiated refinements, the Chinese Government has publicly stated it will ensure free access to the Project area for outside visits including the Bank's Executive Directors (EDs), foreign diplomats and government officials, members of parliaments, and the media, before, during, and after implementation of the Project. The visitors will be allowed to have unaccompanied and unmonitored contacts with local people. An international media visit is now being planned to Qinghai for early August, 1999.

To provide adequate time for Management discussions with the NGOs, agreement with the Borrower and Qinghai on the Supplemental Letters to the Legal Agreements, and the continuation of discussions with the Bank's member countries, the Project was presented to the Board on June 24, 1999. The Board was advised of the Borrower's intention not to commence implementation of the Qinghai Component until the Panel process is completed. The Legal Agreements were revised to include a condition of disbursement for that Component under which Bank financing would be subject to the Borrower and Bank agreeing on steps necessary to implement actions, if any, arising from the decisions of the Bank pursuant to the Panel process.

1.5 On the Eligibility Requirements of the Request

The Request was submitted by the International Campaign for Tibet (ICT), Washington, D.C., as a representative of an affected party in Qinghai under the exceptional circumstances envisaged in paragraph 12 of the Resolution Establishing the Inspection Panel. The covering letter dated June 18, 1999 submitting the Request asks the Panel to keep confidential the material submitted to it "*identifying anonymity of those who have given the [ICT] the authority to represent them.*" Accordingly, Annex A ("Confidential Documents") has not been provided by the Panel to Management. Under these circumstances, Management is not in a position to submit to the Panel any facts or comments in relation to issues of eligibility of the affected party or of ICT as their representative. Management is also not able to comment on any specific direct material, adverse effects on the affected party, or corrective actions taken/needed to correct any such effects. Rather, to facilitate Panel review of this Request, Management has decided to respond in generic terms to issues raised in the Request.

2. ALLEGED NON-COMPLIANCE OF THE BANK AND MANAGEMENT RESPONSE

2.1 Overview of Claims

This section itemizes the specific claims made in the Request regarding the Bank's failure to follow its operational policies and procedures and responds to each by setting out the relevant policy objective and requirement, and procedures followed to comply with the policy. The Request raises concerns about the Project's compliance with nine different Operational Directives (ODs), Operational Policies (OPs) and Bank Procedures (BPs), which can be grouped as follows:

- *Social issues* (OD 4.20, Indigenous People, and OD 4.30, Involuntary Resettlement). These are addressed in Sections 2.2 and 2.3;
- *Environmental issues* (OD 4.01, Environmental Assessment, OP 4.04, Natural Habitats, OP 4.09, Pest Management, and OP 4.37, Safety of Dams). These are addressed in Sections 2.4 to 2.7 inclusive;
- *Administrative* (OD 10.00, Investment Lending, and OP 12.10, Retroactive Financing). These are addressed in Sections 2.8 and 2.9; and
- *Disclosure* (Compliance with the Bank's information disclosure policies which are defined in both OD 4.01, Environmental Assessment, and BP 17.50, Disclosure of Operational Information). These are addressed in Section 2.10.

The Request also covers a number of technical questions that, while falling within the general ambit of the above-mentioned policies, do not strictly relate to compliance. Nevertheless, these questions and concerns are important and, at least in some respects, provide insights into issues of compliance insofar as they address the realm of the quality of compliance with particular policy requirements. The responses to these questions plus further elaboration on some of the technical dimensions of the compliance issues are contained in a series of annexes (Annex 6 relates to issues on indigenous people, Annex 7 relates to issues on resettlement and Annex 8 relates to environmental issues).

Finally, a concern that recurs throughout the Request relates to the quality of the technical data on which the Bank's evaluation of the Project was based. The quality of the data with which the Borrower has investigated the Project will be partly apparent from review of the technical responses in the Annexes, but can be further appreciated by reference to Annex 4, List of Project Preparation Documents, which lists the 65 separate technical studies and reports that formed the basis of the Bank's evaluation of the Project.

For a comprehensive overview of the specific claims and evidence provided of compliance, and the technical questions and responses, see Annex 18, Summary Matrix of Questions.

2.2 Claim Regarding OD 4.20, Indigenous People

Some of the most prominent concerns raised in the Request pertain to the fear that the voluntary movement of non-Tibetan and non-Mongol populations into Dulan County will result in the dilution of Tibetan and Mongol cultures, threaten the continuation of pastoralism as a viable subsistence strategy and generate ethnic conflict. The Bank does not have a policy governing voluntary population movements and issues associated with ethnic demographic shifts. However, the Project includes a number of measures which address these concerns and which are discussed in section 2.2.1 below.

In addition, the Request places some of these concerns within the context of the goals and objectives and specific requirements of OD 4.20. These aspects of compliance with OD 4.20 are discussed in 2.2.2 below. For responses to technical questions and concerns not directly linked to Bank policies and procedures, see Annex 6, Indigenous Peoples.

2.2.1 General Issues

The Application of the Term “Indigenous Peoples” to Bank Financed Projects in China: In China, 55 minority nationalities are officially recognized by the Chinese Government. For purposes of OD 4.20, the Bank uses this official designation as the basis for determining the applicability of the term "indigenous peoples." The Bank's interpretation of this follows paragraphs 2 and 3 of OD 4.20 which extends the coverage of the term indigenous peoples to include “ethnic minorities.” Paragraph 4 of the OD further specifies that the Borrower country's national constitution, statutes and legislation should be consulted for guidance in this matter. In all such Chinese documents, the national minorities are recognized as peoples distinct from the “Han” majority (92 percent of the population), enjoying special legal and administrative protections. In the context of this Project, it is important to note that following this approach, not only Mongols and Tibetans come under the safeguard umbrella of the OD, but also the Hui, Salar, and Tu peoples. A judgement as to the degree of adherence to the OD must include the impacts of the Project on all such indigenous peoples.

The Request confuses these issues with its reference to “Chinese” settlers and its implication that only Mongols and Tibetans are the indigenous people covered by OD 4.20 (Request section 3.3.1). All citizens of the People's Republic of China are “Chinese.” They differ at the level of ethnicity/nationality. For this reason Bank documents refer to “the Han” or “Han Chinese” (rather than the “ethnic Chinese” or simply, “Chinese”), thus distinguishing the Han at the ethnicity/nationality level from Mongols, Tibetans, and the other minorities.

Concern: *Project will contribute to cultural diminution among the Mongols and Tibetans in the move-in areas and in Dulan County as a whole.*

Response: Project design explicitly calls for indigenous culture bolstering activities. Bilingual education and training for Mongols and Tibetans, culturally appropriate health care and pharmacologies, and full respect for religious activities and religious sites for Lamaist Buddhism, Han Chinese Buddhism, and Islam, are all planned for move-in and move-out areas.

Management recognizes that the voluntary settlement program will likely have a wider demographic and social impact beyond the immediate Project area. Given the fact that the Project will double Dulan County's officially registered local population, the Project includes measures to address the effects of such a shift. Specifically, the PAD and agreements with Qinghai call for extending benefits beyond the Project area itself to other residents of Dulan County. Other mitigating measures aim at fitting the delivery of Project services and facilities to the needs of the local host population.

Looking at *all* the peoples in Dulan County, the County—before settlement—is a majority Han county. The Project's introduction of new residents will decrease the Han presence in the County to 47.5 percent while the Mongol percentage is cut in half and the Tibetan by one-third.⁸ The major increase will be in the Hui percentage which will treble to 22.1 percent (Table A.6-1 in

⁸ The impact of the Project on the Tibetan percentage is less than that on the Mongol due to the fact that Tibetans are also being settled in Dulan County by the Project. These Tibetan farmers will join 138 other Tibetan agriculturalists who already till the soil in the immediate Project-affected area. The latter's migration into the area originated from Minhe County in the late 1980s and early 1990s.

Annex 6, Indigenous Peoples). Spatially, the Han and the Hui are and will be tightly concentrated in the area of the Project townships, leaving the bulk of the county countryside inhabited by Mongol and Tibetan herders.

The Project has been designed to: (a) support pastoralism; (b) assist efforts to provide educational instruction and training programs in Mongolian and Tibetan; (c) assist efforts to provide Mongol and Tibetan health care delivery systems (practitioners and pharmacologies) in addition to Han Chinese and Western systems; and (d) protect Mongol and Tibetan religious worship practices and sites. The Project is sensitive to the cultural patrimony and future needs of the local Mongol and Tibetan minorities. New economic opportunities will also be offered to those local Mongols and Tibetans who wish to take advantage of the Project's benefits as the local people continue to explore their evolving semi-nomadic, semi-sedentary lifestyle.

Another impact of the settlement on Dulan County will be the increase in Muslim population in the area. Religious pluralism is not, by itself, an undesirable outcome of a development project, although it is recognized that intolerance and a wide variety of conflicts are possible outcomes of such pluralist social environments. The Project design specifically recognizes the conflict flashpoints, calls for greater security to protect pastoralists and their property, raises inter-communal harmony to a Project goal, and establishes a formal grievance procedure.⁹ Pre-Pilot Phase PRAs and the Pilot Program itself, furthermore, will specifically emphasize conflict resolution and conflict avoidance strategies. In sum, the Project fully recognizes the need to protect the cultural heritage of the local Mongol and Tibetan peoples while seeking to make available to them and to the other nationalities of the area, opportunities for a better life.

Concern: *The Project endangers the continuation of pastoralism among the Mongol and Tibetan people in the move-in area thus undermining their way of life and their ethnicity.*¹⁰

Response: Extensive public consultation (Annex 9, Stakeholder Consultation Activities) identified the potential negative impacts on the herding activities of the Mongol people living in the Project area. The Project design reflects the Mongol herders' preferences for mitigation and compensation measures. The Project allows households to establish permanent housing and to gain access to desired services, while some family members continue seasonal migration patterns. This reflects a semi-nomadic lifestyle increasingly common in Qinghai and other pastoralist areas of Central Asia.

The Project has built in protection of pastoralism in the form of enhancement of pasturelands, maintenance of passage ways across the new agricultural settlements, secure access to water for the herds, and provisions for schooling compatible with a herding lifestyle. Project design also recognizes the importance of pastoralism to the continued cultural integrity not only of people in the townships where the Project will be located, but for Dulan County as a whole. The Project does not make assumptions concerning the future of pastoralism as a necessary or desirable development outcome now or in the future. It places decision-making in the hands of the herders themselves, allowing them to safeguard their livelihood yet pursue new economic ventures as well. The Project is designed like this because the herders themselves expressed their desire to be given the option to have access to farm land as well as to continue herding.

Herders in the area—like herders throughout Qinghai, Tibet, and other areas in China and Central Asia—have been gravitating towards a mixed subsistence strategy of semi-farming and semi-herding. About twelve percent of the Mongol and Tibetan rural population of Dulan County already follows this approach, while 31 percent of Tibetans (including all 276 Tibetans in the

9 A description of the grievance mechanism can be found in Annex 6, Indigenous Peoples.

10 Here it should be noted that no Tibetan herders live in the immediate Project move-in area.

Project townships) and 27 percent of Mongols are simply farmers.¹¹ Furthermore, pastoralism is not the exclusive domain of Mongols and Tibetans; one-third of Dulan's herders are Hui, Han, Salar, or Tu, and these same nationalities account for 54 percent of those following the mixed herding and farming strategy. Although the Project allows fully for the continuation of the pastoralist way of life, the herding people themselves in Dulan County are likely to continue to adjust their life strategies, a process that the Project design facilitates.

This reflects the general philosophy of OD 4.20, which advocates that indigenous peoples themselves are best situated to determine the pace and scope of change that can be considered culturally appropriate. OD 4.20 recognizes that in a nation's desire to raise its people's standard of living there is often a conflict between cultural preservation and the provision of "improved social and economic opportunities" for people (para. 7 of OD 4.20). The OD further acknowledges that "the cost is often the gradual loss of cultural differences" (para. 7 of OD 4.20). Awareness of this leads to proposals for a balanced approach between isolationist positions (favoring the preservation of existing conditions over access to development programs) and assimilationist positions (using development programs as a vehicle to accelerate economic integration and cultural assimilation).

Concern: *The Bank has not addressed the fact that the migration may result in an intensification of inter-ethnic conflict in Project areas and is criticized for inappropriately segregating nationalities.*

Response: The SA identifies conflicts between the migrants and the host population as one possible negative effect. Project design includes measures to mitigate these potential impacts, including allowing communities to settle in accordance with their expressed preferences, as intact communities from their villages of origin, ensuring new villages are designed with the objective of grouping culturally compatible communities together, and strengthening public safety to safeguard herder property through establishment of local police sub-stations and training of new and existing law enforcement officers.

The Request quotes (3.2.2) two letters attributed to Tibetans of Dulan County opposed to the Project. These letters indeed confirm much of the information gathered in the SA as they raise the same fears of conflicts with settlers that were raised in the SA's focus groups with the herders in the move-in areas. The Bank is well aware of the 1980s' history of conflicts among some of that era's settlers and the local nomad population. Therefore enhancing beneficiary participation combined with culturally appropriate conflict resolution strategies and the strengthening of public security are parts of the mitigation plan.

The Request misinterprets the reasons for separating ethnic communities in the move-in area. The establishment of such villages is at the request of most of the settlers and is particularly commonplace throughout China for Muslim groups who are especially concerned about the necessity for maintaining halal dietary customs.¹² The Koranic prohibition on pork makes the presence of non-Muslims with pigs and pork products in observant Muslim communities problematic.

11 The Mongol and Tibetan population of Dulan is 92 percent rural, that is farmers, herders, mixed farmer-herders.

12 This aspect of the Project design is also consistent with Bank policy which states that resettlement efforts should maintain, to the extent possible, pre-existing and culturally appropriate community structure and organization (para. 7, OD 4.30).

2.2.2 Issues of Compliance with OD 4.20

Claim 1: *Failure to comply with policy by not preparing a self-standing Indigenous Peoples Development Plan (IPDP), thus causing harm to the Mongol and Tibetan people in Dulan County.*

Policy Objective 1: As with all Bank ODs, OD 4.20 contains a mixture of mandatory requirements and recommended “good practice” without clear delineation between the two. Management’s 1993 decision to move from the OD to the OP/BP system was partially triggered by the need to better clarify the distinctions between what is mandatory and what is advisory. The conversion of OD 4.20 to the new OP/BP format is yet to be completed. The goal envisioned in OD 4.20 is to permit indigenous people to benefit from development projects in culturally appropriate ways, and limit the risk that indigenous peoples could be negatively affected by Bank-assisted activities. Furthermore, the strategy for addressing indigenous peoples’ issues according to the OD should be based on informed participation of the indigenous peoples, allowing the indigenous peoples to benefit from the proposed development activities through a full range of positive actions. In addition to these broadly stated policy objectives, other paragraphs of the OD provide guidance to staff on various ways to achieve the policy’s goal. The OD specifically advises against viewing its guidance as a mandatory checklist, noting that project plans should include its points only “as needed”. The OD provides for a judgment to be made regarding whether or not a self-standing IPDP would be adequate for a particular project in light of its unique circumstances or whether an IPDP approach should be integrated into the whole project.

The OD contains the following provisions on the preparation of a self standing indigenous peoples’ development plan:

- *“For an investment project that affects indigenous peoples, the Borrower should prepare an indigenous peoples development plan that is consistent with the Bank’s policy. Any project that affects indigenous peoples is expected to include components or provisions that incorporate such a plan. When the bulk of the direct project beneficiaries are indigenous people, the Bank’s concerns would be addressed by the project itself and the provisions of this OD would thus apply to the project in its entirety”* (para.13 of OD 4.20).
- *“Cases will occur, especially when dealing with the most isolated groups, where adverse impacts are unavoidable and adequate mitigation plans have not been developed. In such situations, the Bank will not appraise projects until suitable plans are developed by the Borrower and reviewed by the Bank. In other cases, indigenous people may wish to be and can be incorporated into the development process. In sum, a full range of positive actions by the Borrower must ensure that indigenous people benefit from development investments”* (para. 9, OD 4.20).

Evidence of Compliance Regarding Claim 1: In the Project area, the majority of intended beneficiaries (58 percent of those in the move-out area and 78 percent of those in the move-in area) are indigenous peoples (Table A.6-1., Annex 6, Indigenous Peoples).

The issue of whether indigenous peoples’ needs could be addressed through a self standing IPDP or whether their needs should be integrated into the Project was carefully considered and debated in the context of preparation of the Project. After reviewing the requirements of the OD and taking into account the fact that the *‘bulk of the direct project beneficiaries are indigenous peoples,’* the task team and Management concluded pursuant to the OD that for this Project, the substantive objectives of the OD should be addressed by the Project itself and the provisions of the OD would thus apply to the Project in its entirety (para. 13 of OD 4.20). The interpretation of

the majority of Bank staff specialists, within the context of this Project, was that it would be better to devise an ethnically sensitive Project which would bring benefits to the people of all ethnicities rather than separate out the majority of the population, thus mainstreaming and integrating the objectives of the OD into the Project design.¹³ Key issues that would be addressed in a stand-alone IPDP, where indigenous peoples are demographically a minority, were addressed under this approach.

A similar approach has been taken in other recent projects in China where the indigenous peoples were a majority.¹⁴ The Project design approach in addressing indigenous peoples issues is thus consistent with the OD's objectives and in line with the approach adopted for comparable projects in China and other countries¹⁵ in which the majority of beneficiaries are indigenous peoples. The decision not to have a separate IPDP did not result in a failure to address issues related to indigenous peoples; on the contrary, a more thorough approach has been to design the whole Project in accordance with OD 4.20.

Beyond the issue of compliance, Management notes that improvements to the qualitative aspects of implementation of measures under OD 4.20 will be addressed in the Pre Pilot Phase and the Pilot Program. Plans for Project implementation have been revised so as to strengthen indigenous people's benefits and to give them a greater voice in Project governance. Further indigenous peoples' input into the Project is made possible by the Pre-Pilot Phase, the Pilot Program, and the Project itself (Annex 12, Description of the Pre-Pilot Phase and the Pilot Program).

Management wishes to note that a "Summary of Indigenous Peoples Issues" for the Project is under preparation. The summary will present an overview of the indigenous peoples-related mitigation and benefits provisions presented in the Project design, including the Social Assessment (SA), the Voluntary Settlement Implementation Plan (VSIP), the Resettlement Action Plan (RAP) and the refinements adopted in May and June, 1999. The purpose of this document is to bring together all minority nationalities dimensions in Project design for external information purposes to better explain how these issues are addressed in the Project.

Claim 2: Failure to comply with the policy objective of fostering indigenous peoples' development with full respect of their dignity, human rights and cultural uniqueness.

Policy Objective 2 The OD sets the goals regarding indigenous peoples to "ensure that the development process fosters full respect for their dignity, human rights, and cultural uniqueness" (para. 6, OD 4.20) in broad terms, as a general principle. The OD continues: "More specifically, the objective at the center of this directive is to ensure that indigenous peoples do not suffer adverse effects during the development process, particularly from Bank-financed projects and that they receive culturally compatible social and economic benefits" (para. 6, OD 4.20). These objectives are intended to provide strategic context and guidance rather than to establish project specific requirements.

Evidence of Compliance Regarding Claim 2: The Project identifies people from several ethnic minorities (Hui, Mongol, Salar, Tibetan and Tu) as Project beneficiaries and Project-affected people, along with Han Chinese. The Project is not designed exclusively to alleviate poverty

13 As reflected in the negotiated draft Project Agreement, Schedule 2, Part B1 and Supplemental Letter No. 2.

14 For the Southwest Poverty Reduction Project, launched in 1995 with approximately 50 percent of the population indigenous minorities, project staff also debated among themselves and with the Borrower whether a stand-alone IPDP would be adequate or whether it would be preferable to subject the whole project to the OD and integrate the plan into the project as a whole. In the end, the project team opted for the latter approach. Similarly, the Gansu-Hexi Corridor project (launched 1996) and the Tarim Basin II project (launched 1998, with nearly 90 percent of project beneficiaries being minority nationalities) successfully adopted a similar approach to addressing OD 4.20 issues.

15 Projects in India and Indonesia in particular.

among Mongol and Tibetan communities, but includes provisions to meet their needs and protect their interests. These measures were defined in consultation with the potentially affected communities. Following the logic of the OD, Management believes these measures will help to foster dignity, human rights and cultural uniqueness as envisaged in the OD and within the prevailing country context. Some of those who take exception to the type of political system in China could take the view that these objectives cannot be met in the framework of this system. This is an issue that goes beyond any single project, or compliance with Bank policies.

The Project design reflects local preferences, as identified in extensive consultations (Annex 9, Stakeholder Consultation Activities) in both the move-out and move-in areas. It includes various activities to mitigate potential adverse social impacts and contains provisions for culturally appropriate education, training, health and credit. The Project has provided for the continuance of the social organization, religious practices and resource use of both the move-out and the move-in communities. The various measures and mitigation strategies will be further detailed through supplemental studies and additional consultation activities as the Pilot Program is prepared and implemented (Annex 12, Description of Pre-Pilot Phase and the Pilot Program and Annex 15, Description of Participatory Rural Appraisals). Following the Pilot Program, Project design and implementation will be modified as necessary to encourage successful establishment of migrant communities and optimal delivery of benefits to the move-out and move-in communities.

Claim 3: *The consultations with the local indigenous population are not credible in view of the state of civil liberties in general in China and thus their “informed participation” was not obtained.*

Policy Objective 3: Project design and implementation should include the informed participation of indigenous peoples in project interventions. Indigenous people should be consulted early in the process about potential project impacts (para. 8, OD 4.20).

Evidence of Compliance Regarding Claim 3: The Request raises two sets of questions: first, were consultations carried out as required under the Bank’s policies and procedures within the context of the country and consistent with previous practice in this regard? Second, can meaningful consultations be held in the context of the political system prevailing in China? In regard to the first question, it is Management’s judgment that consultations have been carried out as required under the OD. The second question will be addressed below.

As required by OD 4.20, Project design and the identification of the needed mitigation provisions involved an intensive public consultation exercise with the indigenous people in both the move-out and move-in areas (Annex 9, Stakeholder Consultation Activities). Consultation was carried out by means of questionnaires with members of the indigenous population at large, through meetings involving their leaders and religious notables, and by bringing into the consultation process grass-roots organizations in the Project areas¹⁶. The consultation process was based on “informed participation” of the Project’s direct stakeholders. Consultation tasks were supported by an information campaign carried out by means of mass media, posters, pamphlets, and direct communication over both out-migration and in-migration areas. The extensive and varied opinions expressed by the participants in the consultation process indicate that the information provided was broad enough to allow the expression of judgements on the potential effects of the

16 Altogether, considering meetings with local officials and residents as well as interviews, focus groups and the like, the prospective Project was discussed literally thousands of times. For example, in the move-out areas of Ping’an and Minhe Counties, every village head, neighborhood leader, village accountant and women’s federation representative was consulted. In the move-in area all the village heads (14 male and 2 female) were contacted as liaison points for their communities, representing the predominant local ethnicities (7 Tibetans, 6 Mongols, and 3 Han). All of these village level leaders are members of the grass-roots village self-management group, the village committee.

Project, and on the remedial activities needed to counter balance the Project's potential negative impacts. Stakeholders were able to criticize aspects of the Project and to provide their inputs to the design of mitigating measures.

From this data, and from the on-the-ground investigations of Bank staff, a credible portrait emerges of desperately poor people in the six move-out counties, anxious for a new chance to improve their living standards. Applications for out-migration have exceeded places in the new villages many times.¹⁷ The SA also revealed the desire for new options among the herders and farmers of the move-in area, many of whom are anxious to participate in the benefits of the Project, such as regular access to water and the opportunity to pursue a mixed herding and farming lifestyle. Other requests of the local Dulan County Project-affected beneficiaries voiced and built into Project design include grazing corridors for local Mongol herders, placement of culturally compatible groups in adjoining communities, and the establishment of ethnic cultural and religious centers.¹⁸

OD 4.20's discussion of "informed participation" refers not only to direct consultation procedures, but also to the incorporation of indigenous knowledge into project approaches. Project design follows this guideline by designing the planned health care infrastructural improvements so as to incorporate Tibetan pharmacological/health care approaches into a culturally appropriate health care system in the move-in and move-out areas as well as a series of measures to enhance indigenous access to health care training and services. Similarly, special educational opportunities for Mongol, Tibetan and other minority children have been designed (school admission preferences, special scholarships, bilingual education opportunities).

The relevant issue for OD 4.20 implementation is ascertaining by one means or another the true desires of the affected peoples. The PAD forthrightly states that the consultative process was not always smooth nor did it fulfill all best practice guidelines. At times during the social assessment process respondent confidentiality was not fully observed, and the data gathering process was less than ideal.¹⁹ Nevertheless, there is good reason to believe that the will of the move-in host population was adequately expressed. A wide variety of data-gathering techniques was used (household and individual interviews, focus groups, informal conversations, survey questionnaires) over an extended period of time and encompassing thousands of respondents. Careful cross-checking of this data by Bank staff (including review of the raw data) strengthened the judgement of Bank experts that the key social issues involved in the Project had been raised by the SA. Moreover, as part of a further data confirmation process, the Pre-Pilot Phase will entail a focused round of PRAs in the Project area, while a continuing series of consultations and a formal feedback process will be built into the Pilot Program and the Project itself (Annex 12, Description of the Pre-Pilot Phase and Pilot Program, Annex 15, Description of Participatory Rural Appraisals).

The Pre-Pilot Phase will further explore host population sentiment towards the Project with an eye towards developing additional mitigation measures, if necessary. Extensive follow-up PRAs will be conducted to monitor changing host and settler attitudes and suggestions regarding the Project. With a Pilot Program heavily emphasizing beneficiary and Project-affected people's input into decision-making, there will be further ample opportunities for people in the Project

17 Over 170,000 applications for move-out were received for 57,775 slots.

18 The credibility of these SA consultations is enhanced by cross-check with a study of the neighboring prefecture of Hainan ("Qinghai/Hainan Integrated Agricultural Development: Socio-economic and Production Systems Study"). The study, conducted for the International Fund for Agricultural Development (IFAD) in the early 1990s, determined that Tibetan herders—like herders in Haixi Prefecture's Dulan County—were interested in access to electricity, water, sanitation, health care, and opportunities for cash-generating activities.

19 One reason was the difficulty of maintaining confidentiality while administering questionnaire survey instruments to largely illiterate herders.

area to make their will known. Consultations for the initial SAs were only one step in an ongoing and developing process of consultation as people's attitudes and understanding of the Project change over time. Changes in the implementation plan now guarantee an improved, more confidential, and more reliable consultation and decision-making input process.

The second question raised by the Request was in regard to whether any meaningful consultations are possible in the political context of China. As illustrated above in the context of this Project, in Management's judgement, consultations with affected people can be effectively carried out in China as envisaged in, and for the purposes of, the policies and procedures of the Bank, that is, to facilitate effective project implementation and realization of project benefits.

Responding to Policy Guidance. The following discussion is intended to provide additional information to the Panel on how guidance in the OD has been followed in the appraisal of the Project. See also Annex 6, Indigenous Peoples.

- *“Local patterns of social organization, religious beliefs, and resource use should be taken into account in the plan's design”* (para. 14(d), OD 4.20). The SA identified the concerns of herders and would-be settlers regarding the future placement of the village communities. Past experience of religious tension in established settler communities led to the suggestion that religiously compatible communities be placed side-by-side. Thus the Muslim Hui and Salar are placed on one side of the Project area, separated from the followers of Tibetan Lamaist Buddhism—the Tu, the Mongols and the Tibetans.
- *“Development activities should support production systems that are well adapted to the needs and environment of indigenous peoples, and should help production systems under stress to attain sustainable levels”* (para. 14(e), OD 4.20). Pastoralism receives strong support in the Project design, with defined multiple grazing corridors, enhanced pastureland, and access to secure water supply for herds. Furthermore, pastoralists are given the option of building a house on Project land and participating in a semi-sedentary, semi-nomadic lifestyle (as is becoming the norm throughout the country) according to their own desires. Such a mixed subsistence strategy is anticipated to reduce pressure on what the herders themselves currently describe as an over-utilization of common natural resources.
- *“The plan should avoid creating or aggravating the dependency of indigenous peoples on Project entities. As needed, the plan should include general education and training in management skills for indigenous peoples from the onset of the Project”* (para. 14(f) OD 4.20). The host populations in the Project's move-in area are free to maintain their pre-Project lifestyles or adopt new ones according to their desire. Moreover, the Project expands the availability of formal school education and literacy as well as enhances opportunities and possibilities to participate directly in activities of the larger society. The local Mongol and Tibetan languages will also be used as appropriate in training and schooling while health services will emphasize access to indigenous medical approaches as well as to Han Chinese and Western health practices. The Project also provides training in irrigated agriculture which will potentially increase the farmers' marketable output, thus diversifying their incomes.
- *“Successful planning for indigenous peoples frequently requires long lead times, as well as arrangements for extended follow-up. Remote or neglected areas where little previous experience is available often require additional research and Pilot Programs to fine-tune development proposals”* (para. 14(g), OD 4.20). The Project has been planned for a number of years and extensive arrangements for follow-up have been designed and included in the Project. Additional research during a Pre-Pilot Phase and a Pilot Program (Annex 12, Description of Pre-Pilot Phase and Pilot Program) are planned. An independent evaluation

(Annex 16, Draft Terms of Reference for the Independent Team of Experts) of the Pilot Program's success or failure before a decision on implementing the full Project will be made.

- “Components should include an implementation schedule with benchmarks by which progress can be measured at appropriate intervals. Pilot programs are often needed to provide planning information for phasing the Project component for indigenous peoples with the main investment” (para. 15(g), OD 4.20). As stated above, a carefully designed Pilot Program, including a number of Pre-Pilot Phase studies, has been planned for this Project. Benchmark indicators for determining the success or failure of such an initial stage have been laid out in the PAD and will be further elaborated during the Pre-Pilot Phase.
- “Where traditional lands of indigenous peoples have been brought by law into the domain of the state and where it is inappropriate to convert traditional rights into those of legal ownership, alternative arrangements should be implemented to grant long-term, renewable rights of custodianship [of land tenure] and use to indigenous peoples” (para 15(c), OD 4.20). The Project carefully guards the rights of herders to their pastures and ensures that Project implementation will enhance rather than degrade pastoralism as a subsistence strategy through the upgrading of both pastureland and water access. It should be noted that the Project will provide long-term (30 year) land use rights to those households who decide to join the voluntary settlement program.

2.3 Claim Regarding OD 4.30, Involuntary Resettlement

It should be noted here that OD 4.30 applies to involuntary resettlement and does not cover voluntary settlement.

Claim: *Failure to comply with policy on Involuntary Resettlement as no adequate involuntary resettlement plan has been prepared and because the plan was not available prior to appraisal.*

Policy Objective: The overall objectives of the OD emphasize minimization of resettlement, extension of project benefits also to affected persons, and restoration and improvement of incomes and living standards. To achieve this the Borrower is required to prepare a RAP. In addition, the OD provides guidance to staff on how to address various issues related to involuntary resettlement (para. 3, OD 4.30).

Evidence of Compliance Regarding Claim: A Voluntary Settlement Implementation Plan (VSIP) and a RAP were prepared for this Project and meet the principles of the OD. The RAP covers the 4,000 individuals considered to be “involuntarily” affected (see below for details). The needs of these people have been integrated into the Project design and they also will be able to share Project benefits. In addition to full compensation, the Project provides affected people an opportunity to diversify means of livelihood and to improve living standards. The VSIP report which incorporates the RAP was made available to the affected people and received and reviewed by the Bank prior to appraisal. After appraisal, the RAP was revised so as to be presented in a separate annex to the VSIP, by incorporating the provisions relating to involuntary resettlement that were described in the VSIP. This annex was submitted to the Bank's InfoShop.

It should be noted that the settlement of the 57,775 migrants is not included in the RAP because it is voluntary,²⁰ and therefore not covered by OD 4.30. Actions related to the voluntary settlement are addressed in detail in the VSIP which spells out the special mitigation measures and Project benefits to be made available to all migrants, women, and children. The VSIP includes specific

20 About 170,000 applications for move-out were received when the program was first announced. Only 57,775 of these applicants can be accommodated in the program.

measures and guidelines for environmental protection and for the construction of the new village communities. (Annex 7, Details of the Resettlement Action Plan and the Voluntary Settlement Implementation Plan).

Responding to Policy Guidance. The text below provides additional information to the Panel on how guidance in the OD has been followed in the preparation of the Project. For more details on the RAP and the VSIP, see Annex 7, Details of the Resettlement Action Plan and the Voluntary Settlement Implementation Plan.

- *Involuntary Resettlement should be minimized or avoided to the extent possible* (para. 3(a), OD 4.30). The involuntary resettlement has very limited impacts consisting of loss of a small area of grazing land, temporary disruption of grazing routes and temporary loss of farmland. The Project will not cause any physical displacement of people, or loss of productive farmland. The parties included under the RAP amount to about 4,000 people consisting of 63 herder households (352 people) who lease poor quality grazing land for winter and spring pasture, 289 herder households (2,411 people) who use the land as seasonal transhumance route (seasonal movement), and 248 households (1,237 people) who lease farming land in an old, dilapidated irrigation system. The Project area chosen for settlement is practically uninhabited and was selected after considering other alternatives with the objective of minimizing adverse impacts on communities living around the move-in areas.
- *Resettlement Action Plan (RAP) should be developed* (para. 14, OD 4.30). A RAP has been developed to address all adverse impacts on the people living in and around the move-in area. Since the potential resettlement impact is limited in scope and some of the mitigation measures are built upon benefits provided to the new settlers, the RAP was prepared and included as part of the VSIP. The RAP describes all important requirements under the OD such as nature and extent of impacts, compensation and other mitigation measures, the legal and policy framework, entitlements of each category of impact, and participation and grievance procedures.
- *Losses should be compensated at full replacement cost* (para. 14, OD 4.30). The RAP sets out a compensation plan based on payment of full replacement cost of affected assets. Loss of grazing land will be replaced by irrigated land for forage cultivation or alternatively, if the affected herders desire, with equal area of grazing land. Disrupted grazing passage ways will be replaced by providing protected grazing routes which will provide alternative locations to pass through the Project area. Farmland will be replaced to the extent lost and affected people in the move-in area will be offered the opportunity to join the VSIP, in which case they will be eligible for the same benefits under the program on the same terms as the voluntary settlers. Additional measures include contingency arrangements, such as exemption from land lease payments and land taxes within the first three years, and provision of temporary employment opportunities as a transitional measure to maintain household incomes.
- *Incomes, income earning capacity and the living standard of the affected people should be improved* (para. 24, OD 4.30). The economic impact of loss of grazing land and changes in grazing routes is minimal and will be fully compensated. The Project offers an opportunity for improving incomes and diversifying economic activities farmers as well as to those herder families who wish to change to a sedentary or semi-sedentary way of life. The Project will also bring general improvement in rural infrastructure, greatly enhance the availability of water for both humans and livestock and improve health and educational services, all of which will benefit the affected people. It should be noted that a semi-sedentary lifestyle by choice is increasingly common among herders in the area (Annex 6, Indigenous Peoples).

- *Project planning and implementation should be done with community participation and consultations* (para. 8, OD 4.30). Extensive information dissemination, consultation and discussion took place at all stages of Project identification, preparation and planning. Information on the Project and the voluntary settlement program has been disseminated to the settlers as well as to the farmers and herders around the settlement areas. Consultations were held with all groups, and a detailed SA was carried out to determine the concerns and needs of all population groups. The key concerns identified during the SA process have been addressed in the design of the Project. The methodology of the SA comprised both formal and informal means of data collection such as structured opinion surveys and questionnaires, semi-structured interviews as well as informal discussions with a range of stakeholders including village officials, women's groups, community and religious leaders of various village/township level associations. In addition, visits by a cross selection of people who had moved out from the move-out counties many years ago, took place to tell the prospective settlers about their experiences. The SA, the VSIP and the RAP summarize the implementation measures which flowed from these consultations. See Annex 9, Stakeholder Consultation Activities for more details on the consultations and for a chronology of consultation activities.
- *Census and survey of displaced persons and assets should be carried out* (para 11, OD 4.30). Project preparation included a detailed physical survey of the affected areas, a census with a socio-economic survey of the affected people, an inventory of potential physical losses and a survey (as a part of the SA) of the affected people to elicit their attitudes and opinions about the Project. A separate survey was done of the 63 households losing leased grazing land. These surveys have provided the basis for preparation of the VSIP and the RAP (Annex 7, Details of the Resettlement Action Plan and the Voluntary Settlement Implementation Plan).
- *Clear institutional implementation responsibility should be assigned* (para. 6, OD 4.30). China has strong institutional capacity and experience in successfully carrying out large-scale resettlement programs. The overall organizational responsibility for implementing the RAP lies with the agency implementing the VSIP, that is, the Provincial Project Leading Group consisting of representatives of 20 line Government agencies and Haidong and Haixi Prefectures. The Project Leading Group is headed by the Executive Vice Governor and the Vice Governor responsible for poverty reduction. The Province has carried out a number of resettlement projects from Haidong Prefecture (the move-out area) to other locations in Qinghai. In addition, the Project Management Office (PMO) will designate personnel to ensure effective delivery of services and benefits to the affected people.
- *Accurate cost estimates and adequate budget allocations should be made* (para. 5, OD 4.30). The costs of resettlement are fully integrated into the budget of the VSIP and are based on the assumption that 61,775 people will be settled—this number includes the 4,000 persons covered by the RAP as well as the 57,775 migrants covered by the VSIP.
- *A time table should be prepared* (para. 30, OD 4.30). A detailed time-bound plan for the VSIP has been prepared, but will only be effective after the Pilot Program has been completed and assessed. Annual plans with time-bound, specific, resettlement related actions, budgets and evaluation procedures will be prepared. The VSIP requires that the people around the move-in area will be provided their entitlement described in the RAP prior to losing any of their current land use rights. The involuntary resettlement component will include a detailed time table of activities for its implementation including making replacement grazing lands available and establishing formal corridors to allow for passage of livestock through the Project area.

- *Arrangements for monitoring should be made* (para. 22, OD 4.30). Regular monitoring and supervision will help ensure that the VSIP and the RAP are implemented effectively (Annex 13, Supervision Approach). In addition, the Project will be monitored by an ITE that will consist of highly qualified, internationally recognized environmental specialists and social scientists (Annex 16, Draft Terms of Reference for the Independent Team of Experts).

2.4 Claim Regarding OD 4.01, Environmental Assessment

Claim 1: *The Project was mis-categorized into environmental screening Category B as opposed to Category A.*

Policy Requirement 1: The Project is covered under OD 4.01 as opposed to OP 4.01. The purpose of the policy “*is to improve decision making and to ensure that the project options under consideration are environmentally sound and sustainable*” (para 2, OD 4.01). Moreover, the policy calls to “*identify ways of improving projects environmentally, by preventing, minimizing, mitigating, or compensating for adverse impacts*” (para. 2, OD 4.01). The policy also notes that “*EA is a flexible procedure, which should vary in breath, depth and type of analysis depending on the project*” (para. 1, OD 4.01). In accordance with the policy, a project is classified into Category A if it “*is likely to have significant adverse impacts that may be sensitive, irreversible, and diverse*” (Annex E, para. 5, OD 4.01).

Moreover, the OD states that under Category A “*the impacts are likely to be comprehensive, broad, sector wide, or precedent-setting*” (Annex E, para. 5, OD 4.01). Alternatively, the policy states that a project is classified as Category B if it “*may have adverse environmental impacts that are less significant than Category A impacts. Few if any of these impacts are irreversible. The impacts are not sensitive, numerous, major, or diverse as Category A impacts; remedial measures can be more easily designed*” (Annex E, para. 6, OD 4.01).

Screening a project into either Category A or B requires judgement about the overall risks (type of project, location, environmental sensitivity) of the project as well as the nature and magnitude of potential impacts. How the risks and impacts are judged depends on the specific project involved. Annex E of OD 4.01 contains an “*Illustrative List*” that breaks down broad project and sector types among the three screening categories, A, B, and C.

Evidence of Compliance Regarding Claim 1: The Project was assigned to environmental screening Category B on the basis of: (a) the overall environmental risks posed by the Project; (b) types of development interventions proposed, Project location, and the environmental sensitivity of the area; (c) the nature and magnitude of potential impacts and available mitigation measures; and (d) past practice with both the classification and implementation experience of a large number of similar integrated agricultural development projects financed by the Bank in China over the last 10 years.²¹

The original environmental perspective within which the Project was viewed was heavily influenced by the scale of the proposed development in comparison to the enormous geographical context of the Qaidam Basin. The Basin has an area of approximately 257,000 square kilometers which makes it about half the size of France or five times the size of the catchment of the Great Salt Lake in Utah. The Project will involve development of less than 0.1 percent of the total land

21 Examples include the Gansu-Hexi Corridor Project, the Tarim Basin I and II Projects and Northern Irrigation Project (all of which involve irrigation development in arid and semi-arid land zones), the First and Second Loess Plateau Watershed Rehabilitation Projects, Qinba Mountain Poverty Reduction Project and the First and Second Red Soils Area Development Projects. All these projects, except Gansu-Hexi Corridor were screened as environmental Category B projects.

area of the Basin providing a reasonable basis for assuming that its regional impact potential would be very limited. The Bank's investigations indicated that the total agricultural development potential of the Basin (that is, the sum of all existing plus potential developments including the Project) amounts to only about 3,000 square kilometers, or about 1 percent of its area. This has provided further assurance that, in general terms, the Qaidam Basin is not a region that is facing or is likely to face excessive induced development pressure. The land systems in which the Project would be developed are known to be widespread in the Qaidam Basin and in other arid regions of China including Gansu, Xinjiang and Ningxia and are not under threat. As discussed further in Annex 8, Environmental Issues, the incremental direct and indirect effects of the Project on these land systems within the Qaidam Basin will be very limited.

Based on this view, it was concluded that for the purposes of OD 4.01 the potential impacts of the Project could not be considered "sensitive, irreversible,²² and diverse" nor "comprehensive, sector-wide or precedent setting." The key potential environmental impacts of the Project are site specific, such as soil erosion, flash floods, soil salinity and livestock carrying capacity. The main potential downstream impact is a minor possible change in the hydrology of saline wetlands located in the north of the Project area as a result of diversion of water from Xiangride River for irrigation purposes.²³ These types of potential environmental risks and impacts are all well known and understood and routine design and operational procedures have been developed to mitigate and monitor their effects.

In summary, it is Management's view that Bank staff interpreted the policy reasonably in assessing and mitigating the potential adverse environmental impacts of the Project (see section below) and categorizing it as Category B. To address some of the qualitative concerns expressed about the Project, the Bank has agreed with the Borrower and Qinghai that Supplemental Environmental Studies will be carried out as part of the Pre-Pilot Phase and the Pilot Program (Annex 14, Description of Supplemental Environmental Studies).

Claim 2: *As a result of the mis-categorization, an inadequate environmental assessment was done and affected people were not provided with adequate opportunities to respond.*

Policy Requirement 2: The OD requires that "project specific Environmental Assessments should cover (a) existing environmental baseline conditions; (b) potential environmental impacts, direct and indirect, including opportunities for environmental enhancement; (c) systematic environmental comparison of alternative investments, sites, technologies, and designs; (d) preventive mitigatory and compensatory measures, generally in the form of an environmental mitigation or management plan; (e) environmental management and training; and (f) environmental monitoring" (para. 4, OD 4.01). These procedures also note the need for use of consultation in preparation of studies and disclosure of documents (paras. 19-22, OD 4.01).

Evidence of Compliance Regarding Claim 2 The EA procedures that were followed for this Project are consistent with the laws and regulations of the Government of China and with Bank policies for IDA financed projects screened as environmental Category B. The procedures that were followed include: (a) establishing environmental baseline conditions; (b) identification of potential negative impacts; (c) preparation of an Environmental Mitigation and Monitoring Plan

22 The Request expresses the view that the conversion of desert land to irrigated land is irreversible. Based on OD 4.01, the impact is irreversible if it induces loss of a major habitat. Conversion of arid land with a ground cover of less than 5 percent to irrigated farmland does not impose a threat to natural habitat since principal desert habitats located in the Project area are widespread, abundant and not threatened within Qinghai and other high altitude arid regions in China, and the impacts are not therefore sensitive.

23 The impact on the saline swamps is not sensitive (per definition of OD 4.01) since these habitats are widespread and not threatened in the area. As discussed further in Annex 8, Environmental Issues, it is estimated that the Project will affect less than 0.5 percent of the area of the saline swamps.

(EMMP); and (d) development of environmental management and training programs. Although the Project documents did not fully reflect the work done on the analysis of alternatives, such an analysis was carried out during Project preparation and discussed in detail with the Bank preparation team. Alternative development options and alternative sites for settlement were considered as outlined in Annex 2, Summary Analysis of Alternatives.

Based on the expected impacts, the approach to the EA rested on three key elements: (a) preparation of a full Environmental Impact Assessment (EIA) Report for the proposed activities by local institutions in accordance with Government of China laws and regulations which include stakeholder consultation and disclosure; (b) a series of site visits by an international Bank consultant; and (c) preparation of an EMMP. The EA for the Project was conducted by the Qinghai Institute of Environmental Science which holds an “Environmental Effect Assessment Certification, Class A,” issued by the State Environmental Protection Agency (SEPA) of China (No. 936). Consultations were conducted as an element of the EA preparation process and as part of the more extensive consultations undertaken for preparation of the SA, VSIP and RAP (Annex 9, Stakeholder Consultation Activities).

The EA includes sections on Project description, the natural and social conditions in the Project area, analysis of environmental issues associated with Project implementation, environmental mitigation and monitoring measures, costs for environmental activities and a review of the public participation process used in preparation of the study. The Environmental Annex to the PAD outlines the EMMP which has been agreed with Qinghai. The EMMP also includes supplemental activities which will be undertaken by the Borrower to further strengthen the environmental analysis.

In addition to the EA report, a large number of background studies of particular relevance to the environmental design of the Project were carried out. These included: (a) a series of five soil surveys of progressively increasing resolution carried out over a two year period which provided the basis for the layout of the proposed irrigation areas in relation to land suitability for irrigation; (b) hydrological analysis to confirm water availability supplemented by a preliminary groundwater modeling study to evaluate conjunctive water use options to control water tables within the Project area and minimize impacts on groundwater levels in the saline swampy area; (c) livestock feed balance studies to provide a balance between livestock development objectives and carrying capacity within the irrigation area; (d) fuel demand analysis to ensure that household requirements could be met sustainably; and (e) preparation of an afforestation plan for the Project. Feasibility studies and a dam safety review have been prepared for the Keri Dam and improvements to the Hatu Dam. These studies include a large number of maps, tables and figures which provide a range of information and data concerning the Project area and proposed interventions. An overview of these studies is provided in Annex 4, List of Project Preparation Documents.

In summary, the approach adopted for the environmental work of this Project was consistent with and went beyond the procedures set down for a Category B project.²⁴ The environmental categorization did not result in inadequate assessment of environmental issues of substance nor did it jeopardize the ability of affected people to respond. On the contrary, the fact that the consultations were undertaken as part of the wider social surveys seemed to have provided optimum conditions for people’s participation as is evidenced by the fact that these consultations resulted in identification of certain environmental concerns and provided a basis for these concerns to be incorporated into Project design. Management believes that the detail and scope of

24 Table A.8-1. in Annex 8, Environmental Issues contains a comparison of requirements of Category A and B projects. The table also includes the processes followed for the Project.

the analysis in preparing the Project was commensurate with the potential impacts and provided a reasonable basis for environmental evaluation of the Project.

Detailed responses to the technical questions and concerns raised in the Request can be found in Annex 8, Environmental Issues.

2.5 Claim Regarding OP/BP 4.04, Natural Habitats²⁵

Claim: *Failure to comply with policy potentially causing loss of wildlife and wildlife habitat.*

Policy Requirement 1: *“The Bank does not support projects that, in the Bank’s opinion, involve the significant conversion or degradation²⁶ of critical natural habitats”* (para. 4, OP 4.04).²⁷

Evidence of Compliance Regarding Claim: As discussed in Section 2.4, the initial view of the Project in general environmental terms including the provisions regarding natural habitats, was significantly conditioned by: (a) the geographical context in which the Project was to be developed; (b) the scale of the Project within that context; and (c) the knowledge that the ecosystems concerned were widely distributed not only throughout the Qaidam Basin but also in other arid parts of China including Gansu, Xinjiang and Ningxia, and that these systems were facing no significant threat from unconstrained agricultural or other developments in either Qinghai or in China as a whole. Thus there was no reason to believe that the affected areas were critical for rare, vulnerable, migratory or endangered species, as set down in OP 4.04, nor has any contrary suggestion been made since that time. It is estimated that the Project will result in direct conversion of approximately one percent of the total fine soil land system in the Qaidam Basin and may indirectly affect groundwater levels in less than 0.5 percent of the saline/swamp land system based on the worst case assumptions underlying the groundwater model design. These do not represent significant impacts by any measure. Finally, the Project will not affect any existing or proposed nature reserves, nature conservation areas or other areas defined as critical natural habitats in the OP.

Policy Requirement 2: *“The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs”* (para. 5, OP 4.04).

Evidence of Compliance Regarding Policy Requirement 2: The Project will involve conversion of habitat and, as noted in the EA report, it also has potential to impact surrounding natural habitats. As previously mentioned and as discussed in more detail in Annex 8, Environmental Issues, the habitats which will be converted or potentially impacted by the Project are: (a) widespread throughout the Qaidam Basin and in other provinces such as Ningxia, Gansu and Xinjiang; and (b) are not under threat from development or other pressures. As mentioned above, the areas of natural habitat affected by the Project are not significant.

25 Note that quotes are from OP 4.04 as opposed to BP 4.04.

26 The OP defines significant conversion as the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Degradation is modification of a critical or other natural habitat that substantially reduces the habitat’s ability to maintain viable populations of its native species.

27 According to the OP, critical natural habitats are existing and proposed protected areas and areas recognized as protected by traditional local communities, including sites that maintain conditions vital for the viability of these protected areas. Alternatively, critical habitats include sites with known high suitability for biodiversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species.

There are no viable alternatives to the proposed development insofar as: (a) there is no significant potential to sustainably improve the livelihoods of Project participants in their home townships; and (b) once relocated, they necessarily must be accommodated on land not presently used for agriculture and, as such, must impact on natural habitats be they located at Balong or some other location on the sides of the Qaidam Basin where water is available. Management believes that the social benefits accruing to the 57,775 participants of the Project outweigh the very limited environmental costs associated with implementation of the Project.

Policy Requirement 3: *“If the Environmental Assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank”* (para. 5, OP 4.04).

Evidence of Compliance Regarding Policy Requirement 3: For the reasons previously discussed, Management does not believe that the Project will significantly convert or degrade critical natural habitats nor was this suggestion made in the EA report. Nevertheless, the Project includes several mitigation measures which are intended to reduce possible negative impacts of the Project. These include: (a) provision of adequate supplies of fuel to reduce people’s need to harvest natural resources for household energy requirements; (b) provisions to ensure adequate livestock feed balances, which are intended to reduce the need of farmers to graze stock outside the Project boundaries,²⁸ and (c) provision for environmental studies to develop a management plan for the “Balong Soak.” It should be noted that modifications were made at the preparation stage to the Project scope to reduce the area of land reclamation for irrigated agriculture in order to ensure the environmental sustainability of the development activities.

2.6 Claim Regarding OP 4.09²⁹ and BP 4.01, Pest Management

Claim: *Failure to apply World Bank Policy for Pest Management.*

Policy Requirement 1: *“In assisting Borrowers to manage pests that affect either agriculture or public health, the Bank supports a strategy that promotes the use of biological or environmental control methods. In Bank-financed projects, the Borrower addresses pest management issues in the context of the project’s Environmental Assessment”* (para. 1, OP 4.09).

Evidence of Compliance Regarding Claim 1: Qinghai addressed pest management issues in the context of the EA, which includes projections of potential pesticide applications by farmers and proposes various safeguards to mitigate any negative impacts. These include both mitigation and monitoring measures that will be undertaken by locally based units with the involvement of extension staff and farmers. The Project design includes steps to support agricultural extension services for training and dissemination of information regarding prudent use of all forms of pest management including environmental controls and agrochemical use.

The Bank does not propose to provide financial support to the Borrower or farmers for management of pests that have an impact on agriculture or public health. Qinghai has proposed that some pesticides should be included in the first crop input packages and these would be financed with its own funds. Qinghai has confirmed that any pesticides included in such packages would be restricted to World Health Organization (WHO) Classes II and III which is consistent with the approach that the Bank applies when it finances pesticide procurement. It is also anticipated that farmers will purchase pesticides using their own funds for subsequent crops. The

28 See negotiated draft Project Agreement, Schedule 2, Parts C and D.2 (c).

29 Citations are from OP 4.09 (July 1996) which was in effect when the Project Concept Review Meeting was held on April 14, 1998, although the OP was revised in December 1998 it is not, for purposes of this discussion, significantly different from the 1996 OP.

main outlets for such purchases by farmers are likely to be distribution centers run by the Plant Protection Stations which provide a level of confidence that these purchases also, will be restricted to Class II and III chemicals. Given the restricted incomes of the farmers, their focus on cultivation of non-cash crops in conjunction with livestock production, and the relatively high price of pesticides, it is expected that these expenditures will be quite limited and that more traditional control methods will be used in most instances.

Training programs on all aspects of irrigated agricultural development, including pest management, will be provided to the settlers through townships extension stations. During the Pre-Pilot Phase, a pest management specialist from the Bank will review the training materials and, as required, provide advise on their scope and content to ensure that all relevant aspects regarding usage, handling and storage of agro-chemicals are adequately covered.

Policy Requirement 2: *“In appraising a project that will involve pest management, the Bank assesses the capacity of the country’s regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. As necessary, the Bank and Borrower incorporate components into the project to strengthen such capacity”* (para. 2, OP 4.09).

Evidence of Compliance Regarding Policy Requirement 2: In 1992 the Bank undertook a regional appraisal of agrochemical usage in Asia, including China.³⁰ An update of this report was commissioned in 1998 and the first draft has been received.³¹ The 1992 review has been used as a framework document to provide background information and guidance for rural development projects throughout the Region. The findings of both the 1992 and the recently received draft update and their application to rural development projects in China are discussed further in Annex 8, Environmental Issues. The 1992 report outlined a mixed situation regarding pest management in China. Farmers were generally not well informed about the risks associated with use of pesticides. On the other hand, Plant Protection Agencies were trying to promote elements of an integrated pest management approach, but their effectiveness was limited by the scale of the problem and the limited resources available to them. The update report suggests that the situation on the ground has improved considerably in recent years but there are still challenges.

Bank experience in China and other large countries has shown that it is not feasible to address the underlying problems through individual investment projects implemented by provincial and lower level agencies. A national strategy is needed due to the rather top-down approach that still is prevalent in many forms of agricultural extension. In the interim, many Bank financed projects include provisions for dimensions of the problem that can feasibly be addressed at lower levels of government. In the case of the Project, the most practical option available, beyond the approaches included in Project design, was to include an activity that will improve the extension of pesticide handling and usage messages to minority audiences through the development of safety labels in minority languages. This is an issue also identified and being addressed in a similar manner in another project being supported by the Bank (Tarim Basin II Project) and is considered to represent a reasonable and practical, project-level contribution to a set of issues that is essentially of national dimensions.

Policy Requirement 3: *“The Bank uses various means to assess pest management in the country, including: (a) support for integrated pest management (IPM) and the safe agricultural pesticides use; (b) economic and sector work, sectoral or project-specific Environmental Assessments; (c)*

30 Jackson, G.J. (1992). "Agrochemical Usage in the Asia Region," report compiled for the Asia Regional Environment Division (ASTEN).

31 Morton, N. (1999). "Agrochemical Usage in the Asia Region;" Second Edition (first draft). Report commissioned by the Environment and Social Development Unit, East Asia and the Pacific Region, World Bank, Washington,

participatory IPM assessments; and (d) adjustment or investment projects and components aimed specifically at supporting the adoption and use of IPM” (para. 3, OP 4.09).

Evidence of Compliance Regarding Policy Requirement 3: As previously mentioned, the Bank took a regional sectoral approach to the question of agrochemicals in Asia through the 1992 regional review. IPM remains the Bank’s preferred strategy for the control of agricultural pests but it can only be supported where governments are prepared to underwrite the often substantial costs associated with implementing a fully farmer-driven approach to IPM. China is supporting IPM in rice production and the Bank is supporting IPM in cotton cultivation through the Tarim II Project. There is far from a universal consensus within the Chinese plant protection community that farmer-driven IPM in its totality is feasible and practical within the Chinese context given the hundreds of millions of farmers to be reached and the perceived food security consequences of switching to an approach about which many local experts continue to have doubts. In the absence of a consensus, the approach which has been adopted for this Project, as with many others in China, is to: (a) support Government initiatives which are broadly consistent with the IPM philosophy; and (b) take advantage of opportunities to make small, practical contributions to the overall problem of pesticide management as and when they arise.

Policy Requirement 4: *“In Bank-financed agriculture operations, pest populations are normally controlled through IPM approaches, such as biological control, cultural practices, and the development and use of crop varieties that are resistant or tolerant to the pest. The Bank may finance the purchase of pesticides when their use is justified under an IPM approach” (para. 4, OP 4.09).*

Evidence of Compliance Regarding Policy Requirement 4: The options being pursued under the Project to minimize pesticide usage include promotion of appropriate cultural practices (green manuring), floral diversity through minimum planting areas for shelter trees, and the application of the Government’s existing laws and regulations regarding the use of agrochemicals and public health and safety as they relate to storage and handling of such materials.

Policy Requirement 5: *“The procurement of any pesticide in a Bank-financed project is contingent on an assessment of the nature and degree of associated risks, taking into account the proposed use and the intended users” (para. 6, OP 4.09).*

Evidence of Compliance Regarding Policy Requirement 5: Qinghai has confirmed that any pesticides included in the input packages for the first crop would be restricted to World Health Organization (WHO) Classes II and III which is consistent with the approach that the Bank applies when it finances pesticide procurement. This will be complemented by extension services, training programs and monitoring activities to support proper selection, application, and disposal of pesticides. This will also be monitored by the ITE.

Policy Requirement 6: *“The Bank requires that any pesticides it finances be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank” (para. 7, OP 4.09).*

Evidence of Compliance Regarding Policy Requirement 6: Since the Bank will not underwrite procurement of pesticides under the Project, this provision does not apply. Nevertheless, as indicated above, Qinghai has confirmed that any pesticides included in the input packages for the first crop would be restricted to World Health Organization (WHO) Classes II and III which is consistent with the approach that the Bank applies when it finances pesticide procurement.

2.7 Claim Regarding OP 4.37, Safety of Dams

Claim: *Possible failure to follow policy concerning the Safety of Dams.*

Policy Requirement: The OP requires that: (a) the design and construction supervision of a new dam will be carried out by experienced and competent professionals (para. 2, OP 4.37); (b) the Borrower will adopt and implement certain dam safety measures for the design, construction, and operation (para. 2, OP 4.37); (c) maintenance of the dam and associated works will be subject to periodic reviews and safety inspections (para. 3(d), OP 4.37); and (d) the dam will be subject to reviews by an independent team of experts throughout investigation, design, construction and the start of operations (para. 3(a), OP 4.37).

Evidence of Compliance Regarding Claim: Management believe that the Project complies with OP 4.37. The designs for both the Keri Dam and the raising of the Hatu Dam were prepared by the Water Resources and Hydropower Design Institute of Qinghai Province which is accredited in China for the design of such structures and is hence considered to be an experienced and competent professional organization for the purposes of the OP. In this context, it should be noted that it is reported that there are about 200 dam constructions in Qinghai similar to the one to be constructed under the Project. An independent Dam Safety Review Panel, consisting of three leading Chinese experts, reviewed all relevant aspects of dam safety of Keri Dam, Hatu Dam and Tuosuo Lake including hydrology, structural stability and earthquake analysis, engineering geology at the dam site, foundations of the main dam and saddle dams, embankment material, embankment design, spillway design, dam free-board, sedimentation and the water supply structures. A dam break analysis was performed for Keri Dam and the effects of the resulting flood wave were evaluated. The Dam Safety Panel's reports and work were further reviewed by Bank specialists who concurred with the Dam Safety Panel recommendations. Fifteen reports related to various technical details have been prepared for the analysis of the dam including two comprehensive Dam Safety Reports (Annex 4, List of Project Preparation Documents). All these reports are available in the Project files. In this context, it should be noted that China has world class dams specialists experienced in hydrological, engineering, and geotechnical aspects of complex dam projects.

In order to ensure proper construction of the dams, Qinghai will employ highly qualified engineering consultants, acceptable to the Bank, to supervise construction. During the period of construction and the start of operations Qinghai will monitor and review on a periodic basis the design and construction of the dams. It has been agreed that Qinghai will continue to employ the Dam Safety Panel during this period which will conduct periodic reviews of the adequacy of the design and construction of the dams.³² An observer from the Bank will attend all meetings of the Dam Safety Panel to ensure that the Borrower follows up on the recommendations of the Dam Safety Panel.

Upon completion of the Project dams, Qinghai will prepare and implement an operational and maintenance plan, along with an emergency preparedness plan for the dams to ensure that they are operated and maintained in accordance with sound engineering practices and safety measures. The Operations and Maintenance Plan and the Emergency Preparedness Plan will be included in the design documents and then updated, as necessary, upon construction completion and/or reservoir filling. In addition, Qinghai will undertake annual inspections of the Project dams in order to identify any deficiencies in their construction design or conditions or in the quality and

32 Negotiated draft Project Agreement, Schedule 2, Part 2.

adequacy of the maintenance or methods of their operation, which may endanger their safety or the safety of downstream life, property and activities in the area.³³

2.8 Claim Regarding OD 10.00, Investment Lending

Claim: *The Project may not meet the standards for quality at entry according to OD 10.00.*

Policy Requirement: The OD states that to meet necessary conditions for the standards for quality of entry, an investment project must: (a) be consistent with the Bank's Articles of Agreement, operational policies in force and the CAS (para. 3(a), OD 10.00); (b) be anchored in country policy/sector analysis (para. 3(a), OD 10.00); (c) reflect lessons learned from the Bank's experience (para. 3(a), OD 10.00); (d) be economically justified (para. 3(b), OD 10.00); and (e) contribute to poverty reduction and sustainable economic growth (para. 3(c), OD 10.00).

Evidence of Compliance Regarding Claim: Management believes that the Project has been prepared consistent with the OD. The Project is the 30th Bank financed rural development project in China. It is based specifically on the experiences and lessons learned of the five most recent targeted poverty reduction projects in China.³⁴ The Project is fully consistent with the latest CAS³⁵ and the Bank's Rural Development Strategy.³⁶ Poverty reduction objectives will be achieved by supporting investments in environmentally sustainable agricultural and livestock development, providing basic rural infrastructure and enhancing access to basic education and health services in the poorest regions of western China, in areas where the incidence of poverty is the highest. The Project has been prepared utilizing a team of highly qualified international and domestic specialists according to Bank practice and has undergone a number of Bank internal reviews. A large number of background and feasibility studies, including economic and financial feasibility studies, have been carried out during Project preparation (Annex 4, List of Project Preparation Documents).

2.9 Claim Regarding OP 12.10, Retroactive Financing

Claim: *The Bank may not have complied with its policy on retroactive financing.*

Policy Requirement: The Bank's policy provides that retroactive financing is allowed "in exceptional circumstances, to facilitate the prompt execution of Bank-financed operations" (para. 1 of OP 12.10). Retroactive financing is allowed to cover payments made during a specified period prior to the date of the Legal Agreements, up to ten percent of the total Credit or Loan amount (para. 2(a), OP 12.10). The period of eligibility may begin after project identification has commenced, but not more than 12 months prior to the date of signing of the Legal Agreements (para. 2(a), OP 12.10).

Evidence of Compliance Regarding Claim: It should be noted that no implementation activities in Qinghai have begun. The Borrower has confirmed that, to date, no construction activities or migration of persons into the move-in site has occurred.

Management believes that the Project is in compliance with the policy on retroactive financing. Retroactive financing of SDR0.7 million (US \$1.0 million equivalent), or less than ten percent of the combined Credit and Loan amount of US \$40 million equivalent, has been provided under the

33 Negotiated draft Project Agreement, Schedule 2, Part 2.

34 Gansu-Hexi Corridor Project, Northern Irrigation Project, Qinba Mountains Poverty Reduction Project, Shanxi Poverty Reduction Project, and Southwest Poverty Reduction Project.

35 February 25, 1997.

36 Rural Development, From Vision to Action, A Sector Strategy, World Bank 1997.

Project for payments of expenditures made after January 10, 1999 to the date of the Development Credit Agreement.³⁷ Since identification commenced in 1997, the period of eligibility for retroactive financing is well within the policy requirements. This retroactive financing is available for any eligible expenditures incurred under any of the Inner Mongolia, Gansu or Qinghai Components, and is not limited to expenditures for the voluntary settlement program in Qinghai.

The Request's principal assertion however, is that by providing for retroactive financing, the Bank may have encouraged Qinghai to begin implementation of the voluntary settlement, including construction of roads and dams, prior to Project approval. Even if this were the case and implementation had already begun, it would not constitute a policy violation, as the policy simply establishes a mechanism to facilitate orderly project implementation. The OD does not dictate the timing or sequence of covered activities as long as they fall within the one year prior timeframe and equal less than ten percent of the total Credit and Loan amount.

The Legal Agreements dictate that Qinghai may not commence any migration of people to the move-in area until it has updated its SA and, on the basis of that update, its VSIP, taking into account the Bank's views on the matter.³⁸ Similarly, no disbursement of Credit and Loan proceeds for the Qinghai Component can take place until the Bank has approved the updated VSIP, and is satisfied with measures proposed by the Borrower and Qinghai to implement the Project in accordance with the decisions, if any, of the Bank arising out of the Panel's review of the Request.³⁹

2.10 Claim Regarding BP 17.50, Disclosure of Operational Information

Claim: *The Bank has not complied with its disclosure policies with respect to the Environmental Assessment (EA) and Resettlement Action Plan (RAP) thus hindering the ability of the public to evaluate the Project.*

Policy Requirement:⁴⁰ The requirements on disclosure state that for environmental screening of Category "B" IDA projects, EA and RAP reports: (a) must be made available to affected people in the borrowing country prior to appraisal; (b) must be received by the Bank prior to appraisal; and (c) are sent to the Bank's InfoShop, once officially received by the Bank.

Good Practice Guidance: Guidance provided to staff through an internal Operational Memorandum⁴¹ states that "task teams should... provide the [EA] reports to the InfoShop before the appraisal mission departs." It should be noted that this Operational Memorandum was not based on any Board-approved policy change and sought to provide good practice guidelines rather than establish a new policy requirement.

Evidence of Compliance Regarding Claim: The facts set forth in Annex 10, Details on Requirements of Disclosure Policy demonstrate that the Project is in compliance with the policy requirements, although, as stated in the PAD, good practice guidance regarding delivery of the EA and RAP to the InfoShop was not followed.

37 Negotiated draft Development Credit Agreement, Schedule 1, paragraph 3(a).

38 Negotiated draft Project Agreement, Schedule 2, Part B.1(b)(i).

39 Negotiated draft Development Credit Agreement, Schedule 1, paragraph 3(b).

40 EA disclosure requirements under this Project are governed by OD 4.01, Environmental Assessment; BP 17.50, Disclosure of Operational Information; and the Policy on Disclosure of Information (March 1994). These provisions have been more clearly described in January 1999 in OP/BP 4.01, which do not apply to this Project but contains a description of these policies.

41 October 15, 1997.

In the context of not following the “good practice guidance,” the Management would like to point out that the principal focus of the Bank’s disclosure policy is on ensuring local availability of the EA and RAP to the people who are directly affected by a project, so that their views can be integrated into the project’s design. For this reason the disclosure policy is quite specific on the timing of availability of these documents to the directly affected people. For this Project, both the EA and RAP (and the VSIP of which the RAP was a part) were made available at provincial, prefecture and county levels to Project-affected people in Qinghai prior to the appraisal date of January 26, 1999, as required by the policy. In addition, the documents were received and reviewed by the Bank prior to appraisal.

While the Management recognizes the importance of making EA and RAP documents available to the wider public at large, it would like to note that the Board-approved policy does not require a specific time frame for availability to the general public through the InfoShop. The policy implies however, that these documents should be made available at the InfoShop within a reasonably prompt period of time following their receipt by the Bank. It is the Management’s understanding that while the documents provided a sound basis for Bank appraisal of the Project, the delay in making the documents available at the InfoShop was attributable to a concern by Bank staff to ensure that the English translations of the EA and RAP be brought up to a standard where they could provide readers a meaningful basis to assess the environmental and social impacts of the Project. In retrospect, Management considers that it would have been preferable to have submitted the documents to the InfoShop, and to have submitted the improved translations when they became available. (Annex 10, Details on Requirements of Disclosure Policy and Annex 3, Chronology of Project and Loan and Credit Processing).

Management notes that the agreements obtained by the Bank with the Borrower and Qinghai ensure that the Project will benefit from additional studies and public participation prior to its commencement. Moreover, following the filing of the Request, agreement was reached with the Borrower and Qinghai, prior to Board presentation, that disbursement of IDA and IBRD funds allocated to Qinghai under the Project would be conditioned both on the Bank’s being satisfied with the update of the VSIP, and with measures proposed by the Borrower and Qinghai to implement the Project in accordance with the decisions of the Bank (if any) arising from the Panel’s review.⁴² Not only will this provide the people directly affected by the Project with additional opportunities to participate in the detailed design of the Project, but it will also give other interested parties additional time to review the EA and RAP documents and provide any additional comments for the Bank’s consideration before the Project starts. Finally, it will give the Borrower time to integrate any Bank decision resulting from the Panel’s review into the detailed design of the Project.

2.11 Conclusion

Based on the foregoing presentation, it is Management's conclusion that the steps required, under the relevant ODS, OPs, and BPs relating to social issues, environment, administration and disclosure have been met. Management recognizes, however, that some of the Project's qualitative aspects regarding ethnic minorities could have been better anticipated and addressed in the loan documentation. As Project implementation moves forward, social and environmental aspects will be further addressed within the mandate of the Bank. A shortcoming in the timeliness with which the EA and RAP were sent to the Bank's InfoShop in Washington, D.C., relative to Management guidance to staff in this regard is noted.

42 Negotiated draft Development Credit Agreement, Schedule 1, paragraph 3(b).

The consultations Management has had since external concerns were raised about the Qinghai Component have focused attention on the crucial human dimensions of the Project. Some of the specific aspects which have been strengthened include: (a) confirmation from the Borrower that the autonomous administrative status of the affected areas would not change; (b) that the Pilot Program would be enhanced as a field test of the social and environmental aspects of the Project as a whole; (c) that a Pre-Pilot Phase would be added; and (d) that additional investments in social services in both the move-out and move-in areas would be made for people beyond the specific Project boundaries.

Management sees no alternative to the migration from the move-out area to alleviate poverty given the demographic pressures and the associated environmental degradation. It is significant that even the strongest critics of the Project do not dispute the goal of seeking to help these poor people in a sustainable manner.

ANNEXES

- Annex 1. Project Background and Description
- Annex 2. Summary Analysis of Alternatives
- Annex 3. Chronology of Project and Loan and Credit Processing
- Annex 4. List of Project Preparation Documents
- Annex 5. Chronology of Contacts with NGOs and Other Parties Since April 17, 1999
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- Annex 8. Environmental Issues
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- Annex 10. Details on Requirements of Disclosure Policy
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- Annex 15. Description of Participatory Rural Appraisals
- Annex 16. Draft Terms of Reference for the Independent Team of Experts
- Annex 17. Draft Communications Plan
- Annex 18. Summary Matrix of Questions

Annex 1. Project Background and Description

This Annex provides a brief background to the Project and a description of its objectives and activities.

Background: The alleviation of absolute poverty has been at the heart of World Bank (IBRD and IDA) cooperation with China for many years. This partnership has helped to achieve significant results in China as a whole, with rural poor being reduced from 280 million to 42 million people in the past decade on a country-wide basis according to the Chinese estimates. The Bank's role has involved working in 28 provinces, providing US \$5.5 billion for twenty-nine projects (Table A.1-3. List of Ongoing Agricultural and Rural Development Projects). In recent years, World Bank support efforts have focused on targeted poverty reduction operations in remote resource-deficient areas of China where local populations have difficulty breaking the vicious circle of poverty.

The Project is fully consistent with the Bank's CAS poverty alleviation objectives, for supporting selected investments in environmentally sustainable agricultural development, providing basic rural infrastructure and enhancing access to basic education and health services in the poorest regions of western China. The Western Poverty Reduction Project draws particularly on the lessons and experiences from five recent Bank projects (US \$714 million equivalent IBRD and IDA, of US \$1.4 billion) which aim to benefit 7.0 million people. These are:

- Southwest Poverty Reduction Project (approved in 1995), benefiting 2.8 million absolute poor people in Guangxi, Guizhou, and Yunnan Provinces at a total cost of US \$486.4 million (Bank financing of US \$247.5 million). Minority nationalities, including Miao, Yao, Buyi and Zhuang, comprise half of the Project beneficiaries;
- The Gansu-Hexi Corridor Project (approved in 1996), involving a voluntary migration program to provide better land and services to 200,000 people at a total cost US \$259 million (Bank financing of US \$150 million). About 25 percent of the migrant settlers will be from minority nationalities, mostly Muslim Hui and Dongxiang;
- The Qinba Mountains Poverty Reduction Project (approved in 1997) at a total cost of US \$360 million (Bank financing of US \$180 million) assisting 2.3 million people in Sichuan and Shaanxi Provinces, and Ningxia Hui Autonomous Region. The Ningxia project has about 240,000 people, nearly 80 percent of whom are Hui minority;
- The Shanxi Poverty Alleviation Project (approved in 1996) at a total cost of US \$182.8 million, of which US \$100 million is Bank financing, to alleviate poverty in the 20 poorest counties of Yuncheng and Luliang Prefectures in Shanxi Province. The Project will raise incomes for about three million poor. No minorities are involved in the Project; and
- The Northern Irrigation Project, completed in 1998, which successfully voluntarily resettled 54,400 people and benefited an additional 15,500 farm households in Ningxia at a total cost of US \$79.4 million (Bank financing of US \$36.5 million). Most of the project beneficiaries were Hui.

Quality of the Bank's China Rural Portfolio: Rural Sector operations for China remain among the best project portfolios in the Bank. All twenty-nine Rural Sector projects under implementation are rated satisfactory, or highly satisfactory, with one project listed as potentially at risk. As of the end of FY99, only four projects in the entire China portfolio of 111 projects were rated unsatisfactory. The Annual Report on Development Effectiveness for 1997 issued by the Operations Evaluation Department (OED) ranked China first Bank-wide, in terms of performance, even adjusted for risk. In 1998, agriculture and irrigation projects comprised 35 of the 148 Bank-wide projects reviewed and four of the 20 Bank-wide closed projects that were

rated outstanding. Nineteen China projects were closed in 1998, of which five were outstanding, including two of six closed agriculture projects.

The OED database (1991-98) indicates a 69 percent success rate for Bank-wide closed projects (68 percent for agricultural projects). For China, the applicable statistics were 96 and 92 percent, respectively. The forestry and irrigation sub-sectors are among the foci of OED's ongoing China Country Assistance Review. The forestry mission, which returned to the Bank's headquarters on June 28, 1999 has not yet released its Back to Office report, but impressions are highly favorable as China is one of the few countries where forest cover is increasing.

Another OED study (1998) on involuntary resettlement cited the China Shuikou Hydroelectric Project as best practice in terms of income restoration, demonstrating what could be done to make resettlement work. A 1997 Quality Assurance Group (QAG) review of two China Poverty Alleviation projects (Southwest Poverty Reduction Project and Shanxi Poverty Reduction Project) concluded that they were fully satisfactory with several "best practice" features. A recent (1999) QAG review rated the China-Rural Sector Strategy Report as "best practice." The QAG mid-term review of the Gansu-Hexi Corridor Project rated the voluntary resettlement component as highly satisfactory.

Project Objective and Description: The World Bank is contributing a total of US \$160 million equivalent to the US \$312 million Western Poverty Reduction Project – US \$100 million equivalent in concessional funds from its IDA, and US \$60 million from IBRD. The objective of the Project is to reduce the incidence of absolute poverty in remote and inaccessible villages of Gansu and Qinghai Provinces and Inner Mongolia Autonomous Region. The Project will assist a total of about 1.7 million people in Inner Mongolia Autonomous Region (benefiting 674,000 people), Gansu (benefiting 930,000 people) and Qinghai (benefiting 57,775 people who are moving out, a large number of people who are staying in the move-out areas, 4,000 people in the move-in area, and people around the move-in area) to raise their incomes by increasing grain and livestock production. This will not only be sufficient to meet their basic needs of food and clothing but it is also hoped that it will generate a small marketable surplus for cash income. Establishment of other alternative income generation activities, improvement of basic rural infrastructure and enhanced access to social services such as health and education will further increase the living standards of the poor households.

The Project sites in the Western Poverty Reduction Project were selected because they contain some of China's poorest people. In all three locations, the Project will increase incomes and productivity in both farming and off-farming activities. There will be significant improvements in health services, in safe water supply, in the availability of electricity, and in the quality of local roads bringing local goods to market. Education services will also be improved in Project areas in Qinghai. The Project cost breakdown by Project area is presented in Table A.1-1.

Table A.1-1. Project Cost Breakdown by Project Area

Project Area	Total Cost (US \$M)	Bank Financing (US \$M)	Share of Bank Financing (%)
Qinghai	81.3	40	49
Gansu	134.8	70	52
Inner Mongolia	95.6	50	52
TOTAL	311.7	160	51

A detailed Project cost breakdown by type of activity, including contingencies, is presented in Table A.1-2 below.

Table A.1-2. Project Cost Breakdown by Activity

Activity	Indicative Costs (US \$M)	Bank- financing (US \$M)	% of Bank- Financing
Land and Household Development	141.00	85.00	53.1
Irrigation and Land Improvement	86.30	42.20	26.4
Rural Infrastructure	28.70	11.90	7.4
Rural Enterprises	13.60	6.80	4.2
Labor Mobility (Gansu only)	15.70	7.70	4.8
Voluntary Settlement (Qinghai only)	6.50	0.10	0.1
Social Services	8.70	0.00	0.0
Institutional Development and Project Management	10.60	5.70	3.6
Front-end Fee	0.60	0.60	0.4
Total Project Costs	311.70	160.00	100.00

Table A-1-3. List of Ongoing Agricultural and Rural Development Projects in China

No.	Project	Fiscal Year	Province
1	Western Poverty Reduction *	1999	Qinghai, Gansu, Inner Mongolia
2	Guanzhong Irrigation Improvement *	1999	Shaanxi
3	Second Loess Plateau Watershed Development *	1999	Shanxi, Shaanxi, Inner Mongolia, Gansu
4	Anning Valley Agricultural Development	1999	Sichuan
5	Yangtze Flood Emergency	1999	Hubei, Hunan, Jiangxi
6	Sustainable Coastal Resources Development	1998	Fujian, Jiangsu, Shandong, Liaoning
7	State Farms Commercialization	1998	Program loan
8	Tarim Basin II	1998	Xinjiang
9	Forest Development in Poor Areas	1998	Henan, Hubei, Hunan, Guangdong, Guangxi, Sichuan, Guizhou, Yunnan
10	Irrigated Agriculture Intensification II	1998	Hebei, Shandong, Henan, Jiangsu, Anhui
11	Xiaolangdi Multipurpose II	1997	Henan
12	Qinba Mountains Poverty Reduction	1997	Sichuan Shaanxi, Ningxia
13	Wanjiashai Water Trans.	1997	Shanxi
14	Heilongjiang Agricultural Development	1997	Heilongjiang
15	Animal Feed	1996	Liaoning, Beijing, Hebei, Shandong, Jiangsu, Henan, Anhui, Jiangxi, Hubei, Hunan, Guizhou, Guangxi, Hainan, Sichuan
16	Gansu Hexi Corridor	1996	Gansu
17	Seed Sector Commercialization	1996	Gansu, Sichuan, Guizhou, Hunan, Guangxi, Jiangxi, Fujian, Zhejiang, Hubei, Henan, Shanghai, Jiangsu, Shandong, Henan, Shanxi
18	Shanxi Poverty Alleviation	1996	Shanxi
19	Yangtze Basin Water Resources	1995	Hunan, Hubei
20	Southwest Poverty Reduction	1995	Guangxi, Yunnan, Guizhou
21	Loess Plateau Watershed Rehabilitation	1994	Shanxi, Gansu, Shanxi, Inner Mongolia
22	Forest Resource Development and Protection	1994	Heilongjiang, Liaoning, Shanxi, Shaanxi, Hebei, Henan, Hubei, Sichuan, Guizhou, Yunnan, Guangxi, Hunan, Guangdong, Fujian, Zhejiang, Jiangxi, Anhui,
23	Xiaolangdi Multipurpose	1994	Henan
24	Xiaolangdi Resettlement	1994	Henan
25	Songliao Plain Agricultural Development	1994	Jilin, Liaoning
26	Second Red Soils Area Development	1994	Hunan, Jiangxi, Zhejiang, Fujian, Guangxi
27	Agricultural Support Services	1993	Heilongjiang, Liaoning, Jilin, Beijing, Hunan, Shaanxi, Sichuan, Hunan, Guangxi, Shanghai, Jiangsu, Hebei, Henan, Hainan, Zhejiang, Yunnan, Fujian, Xinjiang, Guangdong, Shandong
28	Sichuan Agricultural Development	1993	Sichuan
29	Taihu Basin Flood Control	1993	Jiangsu, Zhejiang, Shanghai
30	Grain Distribution and Marketing	1993	Beijing, Sichuan, Guangxi, Henan, Hubei, Hunan, Anhui, Liaoning, Jiangxi, Jilin, Heilongjiang, Inner Mongolia

* Projects approved by the Board but not yet effective.

Annex 2. Summary Analysis of Alternatives

A. Overview

This Annex summarizes the development and site alternatives that were reviewed by Chinese authorities and discussed with Bank staff as part of the preparation process for the Project. On the basis of this process, a decision was made to voluntarily settle 57,775 persons from the move-out area in Datong, Huangyuan, Hualong, Xunhua, Minhe and Ping'an Counties in the eastern portion of the Qinghai Province to the move-in area or planned Project site in Dulan County in the east central portion of the Province.

Section B summarizes the development options that were considered, leading to selection of a program based on the concept of voluntary settlement. Section C summarizes the alternative sites that were considered for development of oasis agriculture to support the settlers. Section D summarizes the options that were considered for development of the preferred site at Balong-Xiangride. Map 2 illustrates the locations of the move-out area, move-in area and a range of alternative sites that were considered.

B. Development Alternatives

The preparation of the Project included review of a series of development alternatives to address the serious poverty and environmental degradation problems of current residents in the move-out area in eastern Qinghai Province. The key concern in evaluation of development alternatives was their ability to provide a basis for long-term reduction of poverty of the beneficiary population and decrease environmental degradation in the move-out area.

The move-out area is physically located in the transitional zone between the Loess Plateau and the Qinghai Plateau. The elevation ranges from 1,700 meters to 3,250 meters and the topography comprises deep valleys separated by very steep hills. Hillsides comprise between 60 percent and 85 percent of the land, depending on local conditions, and more than one third of the land being farmed has slopes in excess of 25°. Average rainfall is in the range 320-520 millimeters per year, solar radiation is very high and average temperatures fall in the range of 3.0-8.6°C. Water resources are ample in the valleys but very limited on the slopes and hilltops due to geological and soil conditions. As a result, human drinking water for these areas is derived from rainfall storage cisterns dug into the ground, water supplies for farm animals are very limited and irrigation is impossible.

The hilly areas, from which the settlers originate, are very eroded. About 75 percent of Ping'an County is classified as eroded. About 50 percent of that eroded area is classified as suffering high to extremely high erosion. To add to the difficulties imposed by the lack of water, the area is also subject to severe and worsening weather disasters including drought, high winds and periodic flash floods as a result of intense rainfall events, the impact of which is worsened by the widespread deforestation throughout the area.

The options described below were considered in addition to the selected option of reducing population pressure and environmental degradation in the move-out area through voluntary settlement.

No Action Alternative: The No Action Alternative was reviewed by the National Government, Provincial Government and the Bank and found unacceptable since it would result in continued poverty and environmental degradation in the move-out areas stemming from limited economic opportunities and serious degradation of land resources. The National and Provincial Poverty

Reduction Programs have been designed to specifically target these types of areas and to provide support for beneficiaries to lift themselves out of poverty through access to improved lands, better infrastructure and increased access to health services and education.

Intensification of Agriculture in the Move-Out Areas: The potential for intensification of agriculture in the move-out areas was reviewed as part of the Project preparation process. This was not found to be technically feasible due to very poor conditions for establishment of terraces in these areas because of heavy erosion, steep slopes and depleted soils. The same conditions also reduced the scope for diversification of agricultural production systems such as introduction of major new crops and/or expanded production of livestock and poultry. While some scope for these activities was identified,⁴³ it was deemed insufficient to meet the needs of a large population; they will instead be taken up as measures to enhance the livelihoods and incomes of those who remain in the move-out areas.

Alternative Employment Schemes in the Move-out Areas: Possibilities were reviewed for alternative employment generation schemes in the move-out areas that would allow persons currently employed in agriculture or unemployed to obtain local employment in small scale and/or micro-enterprises. Again, these interventions were assessed as having limited scope and forming an inadequate basis for a substantial poverty reduction strategy.

Benefits From Voluntary Settlement. The participants in the voluntary settlement program originate predominantly from the hillside areas where people have the greatest difficulty in maintaining a sustainable livelihood and reducing their poverty because of the limiting environmental conditions. The population density in these areas tends to be below the average for entire administrative units due to the lower carrying capacity, as opposed to the higher population densities that are possible on the valley bottoms because of water availability.

The more steeply sloping land, generally slopes greater than 25°, vacated by settlers will eventually be retired from production after it is established that the concerned settlers wish to stay in their new homes. It will be rehabilitated for purposes such as catchment protection, which will have associated benefits that include reduced erosion and increased water retention. Less steeply sloping land to be rehabilitated will be redistributed to people remaining in the move-out areas. This will increase their land holdings, thus providing a better chance of pursuing a more environmentally and economically sustainable lifestyle. Thus, while the population reduction effects of the proposed Project may not be substantial in terms of the total population of the six participating counties, they are considerable in allowing for environmental improvements for the populations living in the most marginal areas.

C. Site Alternatives

Having determined that a voluntary settlement strategy would best meet the Government's poverty alleviation and environmental objectives, the next group of alternatives related to the identification of sites suitable for development of a sustainable agricultural system to support the settlers. The two most critical factors impinging on site selection are:

- Water must be available to support irrigated agriculture. It would not be feasible to base the development on a rainfed agricultural system due to the generally low rainfalls throughout the

43 Australian Aid, IFAD and the World Food Program have provided assistance to Qinghai in counties where there is potential for development *in situ* but these have been very small scale programs capitalizing on local opportunities where they were available and generally have not been able to deal with the underlying problem of over-population of upland areas which results in serious environmental degradation.

Province, the large per capita areas of land required to survive sustainably under rainfed conditions and the fact that rangelands throughout the Province are already under considerable stress due to over-stocking; and

- Soils must have physical and chemical characteristics suitable for irrigated agricultural development; the main requirements are good physical characteristics (loams, sandy loams, loamy sands), low to moderate salt content (generally less than 5 percent) and reasonable nutrient status (particularly organic matter content).

The next most important criteria were:

- To the extent possible, the development site should not be permanently occupied or subject to substantial usage rights;
- The proposed developments should have minimal direct and indirect adverse environmental and social impacts;
- Basic infrastructure, particularly electricity, should be available or within reasonable proximity to reduce development costs;
- Access to the site(s) should be reasonable and include all weather access roads; and
- Overall development costs should be acceptable.

Alternative Sites Reviewed : The first two criteria defined four alternative development areas located in the two main hydrological basins of the Province; the Yellow River Basin (one potential development area) and the Qaidam Basin (three potential development areas).

- *Yellow River/Gonghe Basin*. The potential development area is referred to as the *Gonghe Basin*; it is actually a sub-basin of the Yellow River and is located approximately 150 kilometers to the immediate west of the move-out area. The sub-basin has an area of about 13,800 square kilometers falling within three counties: Gonghe, Guinan and Xinghai. It is divided into northern and southern sections by the Yellow River itself which loops through the area.
- *Qaidam Basin*. The Qaidam Basin runs diagonally, southeast-northwest, through the center of Qinghai and has a total area of about 257,000 square kilometers. It is one of the driest areas in China, having average annual rainfall in the order of 20–200 millimeters and annual evaporation rates in the order of 2,200–3,200 millimeters. The main source of water in the Basin is runoff from the mountains that form the northern and southern boundaries of the Basin. Only about 3,000 square kilometers, or 1 percent of the Basin, is potentially suitable for agricultural development.⁴⁴ Of this, approximately 474 square kilometers have been developed. All potential development areas are located on the piedmont slopes at the foot of the surrounding mountain ranges. The three alternative development areas are:
 - ◇ *East Qaidam Basin* – there are two potential development areas in Dulan and Wulan Counties which are located about 450 kilometers west of the move-out area;
 - ◇ *West Qaidam Basin* – there are two potential development areas located in the vicinity of the Narim Gol River (also referred to as the Nalinggele River), approximately 600 kilometers west of the move-out area; and
 - ◇ *North Qaidam Basin* – there are two potential development areas located at widely separated locations on the northern side of the Basin and about 800 kilometers west-northwest of the move-out area.

44 The vast majority of the Basin comprises either steep mountain or low-lying saline swampy land, neither of which has potential for agricultural development.

The features of the alternative areas are outlined below and the physical features of all four are summarized in Table A.2-1. Review of these three sites resulted in the selection of the Xiangride-Balong District in the east of Haixi Prefecture in the East Qaidam Basin to serve as the Project area since it had significant development advantages over the other two alternative areas. Preliminary review indicated that the proposed sites in the North Qaidam Basin had very limited development potential and were not further examined in detail.

Gonghe Basin. The Gonghe Basin extends over a distance of about 210 kilometers and is divided into two sections by the Yellow River; the Talatan in the northwest and Mugetan in the southeast. Together these areas contain about 175,000 hectares of land suitable for reclamation, of which 600 hectares is Class I land (best suited), 27,000 hectares is Class II land, and 147,000 hectares is Class III land. The best concentration of land suitable for development is in the Talatan, which contains a total of about 73,000 hectares of potentially developable land located in a reasonably compact area measuring about 50 kilometers east-west and 60 kilometers north-south. The current population of the area is about 20,000 people of whom slightly more than 50 percent (11,468) are minorities, principally Tibetans. The main advantages of this area are:

- Average annual rainfall is relatively high (250–330 mm) which suggests that irrigation water demands per unit of developed area would be potentially lower than at comparable sites in the Qaidam Basin;
- The area is the closest of the four alternatives to the move-out area, which would reduce relocation costs;
- The area is quite close to the provincial capital, Xining (less than 100 kilometers away) which would provide a good outlet for produce; and,
- The area is reasonably well served with basic infrastructure.

Against this are the following disadvantages:

- *Grazing Leases.* All of the land suitable for development is already the subject of grazing leases. Due to the relatively high rainfall, Talatan provides good grazing grounds in the winter and spring and the entire area has been contracted to existing herders. For the Project to proceed, there would have to be substantial revocation of leases and a considerable proportion of the total investment would have to be devoted to compensating the affected people in an acceptable way.
- *Environmental Constraints.* The area is already subject to quite severe desertification due to both natural (high wind speeds) and anthropogenic (over-stocking) causes. Data prepared by the Lanzhou Desert Institute of the Chinese Academy of Sciences show that about 20 percent of the region is already affected by desertification, 40 percent is under heavy desertification pressure while an additional 31 percent has desertification potential. Drifting sands and dunes are spreading in the region at a rate of about 500 hectares per year. Large-scale desertification started in the 1980s due predominantly to increasing grazing pressure. Control measures include gradual control of grazing pressures combined with other actions to promote reestablishment of ground cover. The Project could increase population pressures and run counter to these objectives. Another contributing factor to the land degradation problem is that soils throughout the area are light and quite sandy which also means that they are not ideally suited for irrigation.
- *High Development Costs.* The main source of surface water is the Yellow River but it is difficult to utilize due to the fact that it is confined to deep valleys about 500-600 meters below the general ground surface. The underground water resources are also deep. Irrigation development would require construction of a medium size reservoir about 90 kilometers

away, near the existing Longyangxia Power Station. A ten stage lift pumping system would be required to get water from the reservoir to the development site. The total cost for development of the irrigation system would be in the order of RMB 1.16 billion (US \$6,300/hectare) with an annual operating cost of around RMB 20 million, making the development unacceptably expensive.

East Qaidam Basin. This area has a total of 112,000 hectares of land suitable for agricultural development of which 8,000 hectares is in Wulan County and 104,000 hectares is in Dulan County, predominantly in the Xiangride-Balong area.

The advantages of the East Qaidam Basin are:

- There are ample water resources available;
- Soils in the Gobi piedmont areas have good development potential with reasonable structure, moisture holding capacity and organic matter content and there is evidence from existing developed areas that grain (wheat) yields of as much as 7 tons per hectare can be achieved. Saline and sodic soils are present although salinities are generally acceptable (predominantly less than 5 percent);
- A substantial highway runs through the area so access is good;
- Reasonable proximity to the Dulan County capital (Xiangride Town) provides a potential outlet for produce;
- There has been previous successful oasis development in the area which indicates that the proposed developments are technically feasible; and
- There is a reasonable level of infrastructure development in the area.

The major disadvantages include:

- The sites are nearly twice the distance from the move-out area as the site in Gonghe so relocation costs will be higher; and
- It has less easy access to produce outlets in either Xining or Golmud (the major population centers in the Qaidam Basin) in comparison to the Gonghe and West Qaidam sites respectively.

The choice between the two options in the East Qaidam favors the Balong-Xiangride area in Dulan County due to the greater availability of suitable land.

West Qaidam Basin. This area has a total of 44,000 hectares of land that is suitable for agricultural development, located in two separate areas known as Zaohuo and Wutumeiren. Neither of these areas is particularly attractive for development. The main disadvantages are:

- Approximately two-thirds of the area is covered by soils with salt content greater than 5 percent, which will require several years of leaching before cultivation can commence, significantly increasing development costs and risks;
- The water source (the Narim Gol River) is approximately 100 kilometers away so water delivery costs will be high. The estimated cost of the water conveyance and storage facilities is in the order of RMB 700 million;
- There is no power supply and road access is poor; and
- The site is very remote from the move-out area.

Against these disadvantages, there are no obvious advantages.

North Qaidam Basin. This region has a total of 34,000 hectares of land suitable for development but it is widely scattered and there are virtually no consolidated areas suitable for the scale of development envisaged. The largest consolidated area is at Dachaidan Zhen (28,000 hectares) and the next largest is at Lenghu Zhen (6,000 hectares). Apart from lacking the scale necessary to justify the development, the area also suffers from lack of infrastructure and extreme distance from the move-out area.

Preferred Development Option. Of the four possible development areas, the final decision rests on a comparison between a development in Gonghe and a development at Xiangride-Balong in the East Qaidam Basin:

- Gonghe is favored by its closer proximity to the move-out area, closer proximity to a major population center such as Xining, infrastructure availability and its better climate. It is disadvantaged by the fact that all suitable development areas are already being used for grazing purposes, the high cost of water resources development and the already existing environmental problems in the area; and
- A development at Xiangride-Balong is favored by the availability of adequate water and soil resources, infrastructure availability and its comparatively low development cost. It is disadvantaged by its greater distance from the move-out area and less favorable access to produce markets.

Clearly, the balance favors a development at Xiangride-Balong.

D. Development Options Within the Balong-Xiangride Area

Development options within the preferred site are quite constrained, as they are at all locations throughout the Basin. The major concern is to minimize the cost of water supply, which can be achieved by locating the development area as close to the Xiangride River as possible. However, this objective is governed by the location of soils that are optimally suited to irrigation development in terms of structure and chemical composition and which occur in sufficient areas to justify the cost of delivering the water. An extensive soil mapping program indicated that the soils meeting these criteria were located predominantly in the Balong area, the center of which is located about 70 kilometers from the Xiangride River. Nevertheless, consideration of the availability of soil resources was the main factor that led to a reduction in the scale of the proposed development in terms of both development area, which was reduced from 26,000 hectares to 19,000 hectares, and the number of people to be accommodated, which was reduced from nearly 100,000 people to less than 60,000 people.

Within the context of the aggregated soil resources available for development, the area of land to be developed is substantially governed by the availability of water to service the irrigated area while maintaining an acceptable riparian flow in the Xiangride to satisfy downstream uses. Within that context, there is also a wide range of options as to the balance proposed between the use of surface water and groundwater. Five options were evaluated using mathematical modeling techniques,⁴⁵ ranging from total reliance on groundwater (requiring no reservoir construction) to total reliance on surface water (requiring no borehole development). The recommended option involved a balanced (conjunctive use) approach intended to provide an optimum balance among three considerations: meeting water demands, preventing secondary salinization (by controlling the level of the groundwater table) and minimizing changes to water tables in the swampy areas north of the irrigation area.

45 Dong, X. Preliminary Study and Report on Analysis Result of Groundwater Modeling for Balong. Report prepared by Xinjiang Agricultural University, October 1998, 22 pp. Plus maps, Annexes.

Table A.2-1. Physical Evaluation of Three Alternative Development Sites

Area	Districts Involved	Population-Density	Land Suitable for Agriculture (LSA) and Physical/Chemical Parameters for Soil	Elevation (M)	Frost free (day)	Sunshine hours	Annual aver. Temp C	Annual Precipitation (mm)	Annual Evaporation (mm)	Water resources	Annual Aggregate Tem. (degree >=50 C	Cost100M. Yuan
Gonghe Basin	Gonghe County, Talatan Area	6.7	Total area: 350,000mu, of which 55% : 2-3% organic content <1% salt content 16% : 1-2% 29% : >2%	2600-3200	100	2727.6-2944	1.8-3.4	250-330	1450-1914	Yellow River water	2056	11.6
East Qaidam Basin	Dulan County, Balong, Xiaoxiatan, Yikegaoli, Hatu Areas	1	Organic content: 167,900mu>10g/kg 144,000mu<5g/kg Salt content: 0.9% of land>7% 0.6% of land =5-7% 11% of land=2-5% 3.65%=1.5-2% 83.7% < 1.5%	2750-3200	104-127	2954-3227	3.1-4.4	50-200	2285-2850	6.228 x 108m ³	1849.7	7.39
West Qaidam Basin	Golmud County - Geermu, Big/Small Zaohuo, Wutu-meiren Areas	0.9	Total area:1.014M.mu, 348,000mu in Geermu(cultivated) 666,000mu in Big/small Zaohuo and Wutumeiren; Organic content of 666,000mu: 399,600mu<5g/kg, 266,000mu=5-10g/kg; Salt content:199,800mu<5%, 466,200>5%. Type of soil: seriously salinized	2750-2900	98-129	3092.6-3267.8	2.3-4.4	25.2-40.7	2720.8-2742.9	Annual Average runoff - 10.34 x 108m ³	1997	10.5
North Qaidam Basin	Xiao Chaidan, Yuka, Mahai, Huahaizi, Lenghu basin, Alar	0.6-0.75	Total area: 515,000mu Organic content: 240,000mu>5g/kg 275,000mu<5g/kg Salt content: 326,000mu>3% 189,000mu<3%	2730-3150	90-130	above 3200	1.1-2.6	17.6-82.8	2186-3200	(3.398-4.449) x 108m ³	1728-911	14.6

Annex 3. Chronology of Project and Loan and Credit Processing

Project Entered the Lending Program	December 1996
Identification Mission	October 4-24, 1997
Technical Mission	February 8-28, 1998
PCD Review Meeting	April 14, 1998
Preparation Mission	May 24-June 15, 1998
Pre-Appraisal Mission	October 3-24, 1998
Decision Meeting	December 17, 1998
Authorization for Pre-Appraisal Follow-up	December 17, 1998
Pre-Appraisal Follow-up Mission	January 10-26, 1999
Appraisal (the Pre-Appraisal was upgraded to an Appraisal Mission by EAP Regional Management)	January 26, 1999
Negotiations	April 12-16, 1999
Negotiations were reopened on:	May 28, 1999 and June 23, 1999
Board Approval	June 24, 1999

Annex 4. List of Project Preparation Documents

Series #	Documents – Property of the Government of China	Prepared Documents			
		English	Prepared	Chinese	Prepared
1	Collection of Service Agreements for Technical Consultation for Pilot Program			x	Jan., 1999
2	Implementation Plan for Pilot Program (Education Component)	x	Jan., 1999	x	Jan., 1999
3	Soil Type and Distribution for Pilot Program in Qingshuihe Area	x	Jan., 1999	x	Jan., 1999
4	Model Construction Implementation Plan (Main Document)	x	Jan., 1999	x	Jan., 1999
5	The Pilot Engineering for the Agricultural Development and Poverty Reduction Project in Xiangride-Balong, Qinghai (Annex Forms)	x	Jan., 1999	x	Jan., 1999
6	Tentative Design of Further Step for the Pilot Engineering of the Agricultural Development and Poverty Reduction Project in Xiangride-Balong.	x	Jan., 1999	x	Jan., 1999
7	Project Implementation Plan	x	June, 1999	x	Oct., 1998
8	Agricultural Applied Technique Demonstration and Diffusion	x	Jan., 1999	x	Jan., 1999
9	Report on Implementation Plan for Voluntary Migration Settlement	x	Revised in May 1999	x	Feb., 1999
10	Detailed Implementation Plan for Education Component			x	Jan., 1999
11	Agricultural Production Market Analysis Plan	x	Oct., 1998	x	Sept., 1998
12	Implementation Plan of Villages and Small Towns Construction	x	Jan., 1999	x	Jan., 1999
13	Selection of “move-out” Areas and Beneficiaries	x	Jan., 1999	x	Jan., 1999
14	Voluntary Settlement Policy Framework and Action Plan	x	Jan., 1999	x	Jan., 1999
15	Agricultural Engineering Implementation Plan	x	Oct., 1998	x	Jan., 1999
16	Social Assessment Report	x	Mar., 1999	x	Jan., 1999
17	The Details of Executing Plan for Forestation Project	x	Jan., 1999	x	Jan., 1999
18	Overall Plan for Project Implementation			x	Dec., 1998
19	Land Resources Assessment Report			x	Jan., 1999
20	Report on the Analysis of the Balance between Livestock and Feed Availability in Project Area	x	Jan., 1999	x	Jan., 1999
21	Implementation Details for Poverty Alleviation Project in Balong and Xiangride Area (Livestock)	x	Jan., 1999	x	Jan., 1999
22	Plan of Examining the Project about Agricultural Development of Balong, Xiangride of Qinghai Province	x	Jan., 1999	x	Jan., 1999
23	Plan of Procurement Methods for Goods			x	
24	The Regulations of Financial Management	x	Oct., 1998	x	Jan., 1999
25	Purchase Management Policy	x	Jan., 1999	x	Jan., 1999
26	Management and Operating Mechanism Outline	x	Jan., 1999	x	Jan., 1999
27	Main Monitoring and Survey Target	x	Jan., 1999	x	Jan., 1999
28	Project Background	x	Jan., 1999	x	Jan., 1999
29	Temporary Regulation on the Small Scale Loan Managing for Xiangride Balong Agriculture Development Project by ABC	x	no date	x	no date
30	Environmental Protection Management and Environmental Mitigation and Monitoring Plan			x	Oct., 1998
31	The detail of Executing Plan of Rural Enterprise Development	x	Aug., 1998	x	Aug., 1998
32	Rural Enterprises of Small Scale Processing	x	Oct., 1998	x	Oct., 1998
33	Feasibility Study Report on Keri Reservoir - Project Geological Investigation Report	x	Dec., 1998	x	Dec., 1998
34	Investigation Outlines for Pilot Program of Hydrology and Geology			x	Dec., 1998
35	Report on Hydrology and Geology			x	Dec., 1998
36	Investigation Outlines for Hydrology and Geology			x	Dec., 1998
37	Investigation Report on Project Geology			x	Dec., 1998
38	Project Feasibility Study Report			x	Dec., 1998
39	Summary of Basic Data			x	Dec., 1998
40	Feasibility Study Report on Keri Reservoir			x	Dec., 1998
41	Feasibility Study Report on Tuosuo Lake Water Headworks			x	Dec., 1998

Series #	Documents – Property of the Government of China	Prepared Documents			
		English	Prepared	Chinese	Prepared
42	Ground Water Model Research Report	x	Dec., 1998	x	Dec., 1998
43	Required Materials and Prices			x	Dec., 1998
44	Typical Design			x	Dec., 1998
45	Technical Norms			x	Dec., 1998
46	Cost Estimate, Technical Assistance and Training Plan			x	Dec., 1998
47	Feasibility Study Report on Irrigation and Rural Infrastructure			x	Dec., 1998
48	Report on Hydrology and Balance Analysis for Water Resources Supply and Demand			x	Dec., 1998
49	Feasibility Study Report in Crop Plantation	x	Dec., 1998	x	Dec., 1998
50	Feasibility Study Report of Forestation	x	Jan., 1999	x	Jan., 1999
51	Feasibility Study Report of Forage Production and Animal Raising Sub-project	x	Jan., 1999	x	Jan., 1999
52	Monitoring and Evaluation Components Report on Feasibility Study	x	Jan., 1999	x	Jan., 1999
53	Environmental Impact Assessment (EIA) for the Agricultural Development and Poverty Reduction Project in Xiangride-Balong, Qinghai	x	June., 1999	x	Oct., 1998
54	Feasibility Study Report on Rural Enterprise Component			x	Sept., 1998
55	A Feasibility Research Report on the Specific Project of Education	x	Jan., 1999	x	Jan., 1999
56	The Implementation Details of the Specific Project of Education	x	Jan., 1999	x	Sept., 1998
57	Report on the Assessment of Agricultural Suitability of Barren Land in Balong-Xiangride Area	x	Dec., 1998	x	Nov., 1998
58	Sectional Drawing of Hydrology and Geology in Project Area			x	Dec., 1998
59	Feasibility Report for Health Part	x	Mar., 1999	x	Mar., 1999
60	Implementation Plan for Health Component			x	Oct., 1998
61	Letter on Relations between Project Area and Xiangride Farm (by Qinghai People's Government)			x	Feb., 1998
62	Re: State Prison Farm in Qinghai (by Gao Hongbin, Director Gender, State Council Leading Group Office for Poverty Alleviation and Development)	x	Mar., 1999		
63	Report on Water Leakage of River Section (12 km)			x	Dec., 1998
64	Dam Safety Review [Part 1]	x	Sept., 1998	x	Jan., 1999
65	Dam Safety Review (2) [Part 2]	x	Jan., 1999	x	Jan., 1999

Series #	Documents – Property of the World Bank	Prepared	Prepared By
1	Project Appraisal Report	June, 1999	Project Team
2	Livestock and Feed Development	Oct., 1998	Dennis P. Sheehy (Consultant)
3	Pilot Survey of 600 Poor Households in Northwestern China	Sept., 1997	General Organization of Rural Social-Economic Survey of State Statistical Bureau of China
4	Report on Progress of Evaluation of the Suitability for Irrigation of Xiangride-Balong Area, Qinghai Province	Sept., 1998	W.L.Zhang, X.K.Bao & S.Y.Tian (Consultants)
5	Progress Report on the Assessment of the Suitability for Irrigation of Land in the Qaidam Basin	Aug., 1998	A.E.A. Schumacher (Consultant)
6	Soil Types Distribution Map of Xiangride-Balong Area for Pilot	Jan., 1999	A.E.A. Schumacher (Consultant)
7	Rural Enterprise Component (Qinghai)	Jan., 1999	Christer Cronberg (Consultant)
8	Qinghai Province: Project Appraisal Document - Crop Production, Forestry, Training and Applied Research	Oct., 1998	Vincent Ashworth (Consultant)

Annex 5. Chronology of Contacts with NGOs and Other Parties Since April 17, 1999

DATE	EVENT
17 April	Petros Aklilu (Sector Manager for Middle East and North Africa Rural Development, Water and Environment Department, formerly of East Asia Rural Development and Natural Resources Sector Unit) returns a phone call to Kate Saunders of Tibet Information Network (TIN), London about her questions on the Project.
27 April	Geoffrey Fox (Sector Director for East Asia and Pacific Rural Development and Natural Resources Sector Unit), has phone conversation with Mr. Nam Nguyen, as background for an article he said he was preparing on China.
28 April	Peter Stephens (Principal External Affairs Officer for External Affairs Regional Operations) contacts TIN via an intermediary.
29 April	Weiguo Zhou (Consultant for East Asia and Pacific Rural Development and Natural Resources) has phone conversation with Australian Broadcasting Corporation.
30 April	Mark Wilson (Sector Manager for East Asia and Pacific Rural Development and Natural Resources Sector Unit), has phone conversation with Kate Saunders of TIN; Peter Stephens also speaks on the phone separately with Kate Saunders.
1 May	James D. Wolfensohn (World Bank President) meets with Mary Beth Markey from the Bank Information Center (BIC) and Bhuchung Tsering from International Campaign for Tibet (ICT).
6 May	Mark Wilson has second phone call to TIN; faxes demographic tables to TIN.
7 May	Mark Wilson, Geoffrey Fox, Peter Stephens, John Donaldson (External Affairs Counselor for External Affairs Part 1 Relations Division), Carolyn Reynolds (Communications Officer for External Affairs Part 1 Relations Division), Lucy Oh (Junior Communications Associate for East Asia and Pacific Regional Services Account), Mark Wilson, and Weiguo Zhou meet with members of United States Congress, and later with United States Executive Director's (ED) office, Treasury Department, and State Department. Geoffrey Fox, Peter Stephens and Mark Wilson meet with Chinese alternate ED.
13 May	Peter Stephens makes phone call to ICT; also calls Italian and Australian EDs' offices to offer assistance on replying to letters/faxes.
14 May	Mark Wilson makes third phone call to TIN with Geoffrey Fox and Petros Aklilu, to explore options and obtain names of Tibetan supporters with whom Bank staff and Management could meet.
17 May	Joe Wood (former Vice President, South Asia Region, World Bank, assisting NGOs) calls Mark Wilson.

- 18 May EDs' offices start to call Julian Schweitzer (Director, Strategy and Operations for East Asia and Pacific Office of the Regional Vice President), Geoffrey Fox, and Mark Wilson about phone, fax and letter campaign.
- 19 May Geoffrey Fox has phone conversation with Gabriel Lafitte, Australia Tibet Council.
- 19 May Julian Schweitzer meets with ICT.
- 20 May ICT and Environmental Defense Fund meet with: Julian Schweitzer, Geoffrey Fox, Peter Stephens, Sari Söderström (Senior Economist for East Asia and Pacific Rural Development and Natural Resources Sector Unit), Petros Aklilu, Weiguo Zhou, Mark Wilson, Nicolette DeWitt (Principal Counsel for East Asia and Pacific Legal Department), Greg Guldin (Consultant for the Bank), Patricia Brereton-Miller (Operations Officer for China Headquarters Unit), and Rob Crooks (Senior Environmental Specialist for East Asia and Pacific Environment and Social Development Sector Unit).
- 20 May Dow Jones Network piece appears on Dalai Lama letter to James D. Wolfensohn.
- 20 May Geoffrey Fox talks on the phone with Gabriel Lafitte.
- Between 20 May and mid-June Geoffrey Fox receives approximately 15 phone calls at his private residence from NGOs, media and other parties.
- 21 May Geoffrey Fox talks on the phone with ICT.
- 21 May Rob Crooks talks on the phone with ICT.
- 24 May Julian Schweitzer meets with Lodi Gyari (advisor to the Dalai Lama), Mary Beth Markey, Bhuchung Tsering, Geoffrey Fox, Petros Aklilu, and Peter Stephens.
- 26 May Center for International Environmental Law (CIEL) meets with Ian Johnson (Vice President and Head of Network for Environmentally and Socially Sustainable Development) and Kathryn McPhail (Senior Social Scientist for Social Development Department).
- 26 May Geoffrey Fox speaks with R. Bhuchwong of ICT.
- 28 May Peter Stephens has call with ICT.
- 2 June Peter Stephens meets with ICT.
- 8 June ICT, the Milarepa Fund, and Students for Free Tibet meet with Peter Stephens and Carolyn Reynolds.
- 10 June Peter Stephens has phone conversation with Kate Saunders of TIN in reference to their update newsletter;
- 10 June Sari Söderström and Weiguo Zhou have a phone conversation with Kate Saunders of TIN on technical questions.
- 10 June Julian Schweitzer has phone conversation with Kate Saunders of TIN about his mission to Qinghai. He is quoted in an update TIN newsletter.

- 16 June Carolyn Reynolds calls Dana Clark (CIEL) and ICT.
- 17 June Julian Schweitzer meets with Tibetan NGOs with Geoffrey Fox, Petros Aklilu, Peter Stephens, and Sari Söderström.
- 17 June Jean-Michel Severino (Regional Vice President for East Asia and the Pacific) meets with ICT, CIEL, BIC, US Tibet Committee and Tibetans in exile from Qinghai Province.
- 18 June James D. Wolfensohn meets with Dana Clark (CIEL), John Ackerley and Bhuchung Tsering (ICT); Carolyn Reynolds and Peter Stephens hold conversations with Milarepa.
- 18 June Geoffrey Fox has phone conversation with Heidi Young (Tibetan Youth).
- 23 June James D. Wolfensohn meets with Dana Clark (CIEL), John Ackerley and Bhuchung Tsering (ICT).
- 24 June Peter Stephens briefs ICT and TIN on Board decision; faxes press statement. Jean-Michel Severino has phone conversation with John Ackerley (ICT).
- 24 June James D. Wolfensohn has phone conversation with Adam Yauch (Beastie Boys).
- 25 June Jean-Michel Severino, Sari Söderström, Stephen Lintner (Lead Specialist for Environment Department), Carolyn Reynolds, Peter Stephens, Caroline Anstey (Chief of Media Relations for Media Division), and John Clark (Principal Social Scientist for East Asia Environment and Social Development Sector Unit) hold impromptu meeting with demonstrators from Students for Free Tibet, CIEL, and BIC after demonstration outside Bank. James D. Wolfensohn joins meeting for 45 minutes.
- 1 July Jean-Michel Severino and staff meet with representatives of ICT and CIEL.
- July Various contacts between ICT and CIEL and Peter Stephens and Carolyn Reynolds.

Annex 6. Indigenous Peoples

This Annex responds to the additional questions and concerns raised in the Request regarding indigenous peoples issues, not directly linked to Bank policies and procedures.

Concern: *The appropriate spatial unit for the Project area should be Dulan County.*

Response: A basic objective of OD 4.20 is to safeguard the social, economic and cultural welfare of indigenous peoples affected by projects financed by the Bank. As the spatial distribution of indigenous peoples most often exceeds the area affected by a particular project, safeguarding the welfare of affected communities requires attention to the specific context of the project area. To extend the area of relevance to all of Dulan County would create a spatial unit with an area the size of Denmark. To consider all the people of Dulan County as affected would distort planning and divert attention and limited resources away from those most directly affected by the Project.

At the same time, Management recognizes the validity of considering the wider social and demographic context of Bank projects. Given the fact that the Project will double the County's officially registered local population, the PAD and agreements with Qinghai Province called for extending benefits beyond the Project area itself to other residents of Dulan County. Other mitigating measures aim at fitting the delivery of Project services and facilities to the needs of the local host population.

Definition of the Project area differs depending on the purpose of the Project component. For the purposes of the move-in area of the voluntary settlement program, the area is defined as the Zongjia and Balong areas of Dulan County.⁴⁶ The greatest potential social and environmental impacts attributable to the Project are confined to the area of Xiangride and Balong townships. These impacts were identified through technical analysis and means of consultation with potentially affected communities. Nevertheless, the Project addresses wider concerns of poverty alleviation and benefits for indigenous peoples throughout Dulan County and the move-out areas, and therefore includes a much broader definition of the Project area for the purposes of the land and household development, and health and education components.⁴⁷

Concern: *Population transfer will cause Haixi Mongol and Tibetan Autonomous Prefecture to lose its Mongol and/or Tibetan autonomous status due to ethnic demographic dilution.*

Response: The Bank has received assurances from the Borrower that the administrative status of the Haixi Mongol and Tibetan Autonomous Prefecture will remain unchanged as a result of the Project (Annex 11, Supplemental Letters to the Legal Agreements). Overall, the ethnic demographic shifts in the Prefecture caused by the Project are relatively slight: combined Mongol and Tibetan percentages of Haixi's population will decline from 18.7 percent (7.6 percent and 11.1 percent respectively) to 16.8 percent (6.5 percent and 10.3 percent). Table A.6-1. presents details on the ethnic composition of the Project beneficiaries and Project-affected people both in the move-out and in the move-in area as well as the nationality distribution at the relevant administrative levels. Under Chinese law, there is no specific population level that will automatically trigger the loss by an autonomous area of its autonomous status. It should be noted that the Project will transform Dulan County, currently an area with a Han majority of the local population, to a minorities predominant area (52.5 percent will be non-Han). Furthermore, as a county within a Mongol and Tibetan Autonomous Prefecture, all the special rights and privileges reserved to Mongols and Tibetans under that autonomous prefectural status apply, and will continue to apply to all Mongols and Tibetans living in the County, including those Tibetans to be settled in Dulan as a result of the voluntary settlement program supported by the Project.

46 See negotiated draft Development Credit Agreement, Schedule 2, Part C(5) and Section 1.02(5).

47 See negotiated draft Development Credit Agreement, Schedule 2, Part C(1), C(6), and C(7), and Section 1.02(q).

Table A.6-1. Details on the Ethnic Composition in Project Areas

	Total	Han	Hui	Mongol	Salar	Tibetan	Tu	Other Minority
MOVE-IN AREA								
<i>Population Before Settlement</i>								
Qinghai Province								
Number	4,956,000	2,836,000	719,600	83,000	86,200	1,034,300	186,800	10,100
% of Total		57.2%	14.5%	1.7%	1.7%	20.9%	3.8%	0.2%
Project Specific Area								
Number	4,000	886	178	2,796		138	2	
% of Total		22.2%	4.5%	69.9%		3.5%	0.1%	
Project Townships								
Number	5,736	2,111	185	3,137		276	2	25
% of Total		36.8%	3.2%	54.7%		4.8%	0.0%	0.4%
Dulan County								
Number	52,669	27,977	3,800	7,401	787	11,952	513	239
% of Total		53.1%	7.2%	14.1%	1.5%	22.7%	1.0%	0.5%
Haixi Prefecture								
Number	316,000	236,918	12,377	24,158	1,563	35,035	3,961	1,988
% of Total		75.0%	3.9%	7.6%	0.5%	11.1%	1.3%	0.6%
<i>Population After Settlement</i>								
Qinghai Province								
Number	4,956,000	2,836,000	719,600	83,000	86,200	1,034,300	186,800	10,100
% of Total		57.2%	14.5%	1.7%	1.7%	20.9%	3.8%	0.2%
Project Specific Area								
Number	61,775	25,343	20,746	2,796	3,853	3,604	5,433	
% of Total		41.0%	33.6%	4.5%	6.2%	5.8%	8.8%	
Project Townships								
Number	63,511	26,568	20,753	3,137	3,853	3,742	5,433	25
% of Total		41.8%	32.7%	4.9%	6.1%	5.9%	8.6%	0.0%
Dulan County								
Number	110,444	52,434	24,368	7,401	4,640	15,418	5,944	239
% of Total		47.5%	22.1%	6.7%	4.2%	14.0%	5.4%	0.2%
Haixi Prefecture								
Number	373,775	261,375	32,945	24,158	5,416	38,501	9,392	1,988
% of Total		69.9%	8.8%	6.5%	1.4%	10.3%	2.5%	0.5%
<i>Population Change Before/After Settlement</i>								
Qinghai Province								
Number	0	0	0	0	0	0	0	0
% of Total	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Project Specific Area								
Number	57,775	24,457	20,568	0	3,853	3,466	5,431	0
% of Total	94%	18.9%	29.1%	-65.4%	6.2%	2.4%	8.7%	0.0%
Project Townships								
Number	57,775	24,457	20,568	0	3,853	3,466	5,431	0
% of Total	91%	5.0%	29.5%	-49.8%	6.1%	1.1%	8.5%	-0.4%
Dulan County								
Number	57,775	24,457	20,568	0	3,853	3,466	5,431	0
% of Total	52%	-5.6%	14.8%	-7.4%	2.7%	-8.7%	4.4%	-0.2%
Haixi Prefecture								
Number	57,775	24,457	20,568	0	3,853	3,466	5,431	0
% of Total	15%	-5.0%	4.9%	-1.2%	1.0%	-0.8%	1.3%	-0.1%
MOVE-OUT AREA								
6 Moving-out Counties (Before Settlement)								
Number	1,333,484	649,679	398,633	4,969	75,101	124,842	78,579	1,681
% of Total		48.7%	29.9%	0.4%	5.6%	9.4%	5.9%	0.1%
6 Moving-out Counties (After Settlement)								
Number	1,275,709	625,222	378,065	4,969	71,248	121,376	73,148	1,681
% of Total		49.0%	29.6%	0.4%	5.6%	9.5%	5.7%	0.1%
Selected Settlers								
Number	57,775	24,457	20,568		3,853	3,466	5,431	
% of Total		42.3%	35.6%		6.7%	6.0%	9.4%	

Concern: No “independent” or international monitoring agency will be involved in the monitoring of the Project.

Response: OD 4.20 does not require independent monitoring capacities and only recommends them when “the institutions responsible for indigenous populations have weak management history.” (para. 15(h) of OD 4.20) China does have an administrative structure dedicated to minority nationalities’ affairs, ranging from the central government level, to the provincial and prefectural levels. The OD does not mention “international” monitoring in any fashion. Nevertheless, the Bank has agreed with the Borrower and Qinghai to have such independent international monitoring. The Project will be monitored by an ITE composed of highly qualified independent experts selected by the Borrower and acceptable to the Bank (Annex 16, Draft Terms of Reference for the Independent Team of Experts).⁴⁸

Concern: No assessment has been made of the legal status of Mongols and Tibetans and their access to the legal system.

Response: Project documents provide a description of the laws guaranteeing special status to indigenous people, including Mongols and Tibetans. These statutes provide Mongols and Tibetans, together with the other indigenous people in the Project areas, access to preferential support and special rights including the: (a) right to be led by their own leaders, (b) right to be judged by magistrates of the same nationality, (c) freedom of religious worship, (d) right to have access to schools providing curricula in their native languages, and (e) right of access to the land they use for production. In addition, the Project has been designed in such a way as to provide all Project-affected people, including all indigenous peoples, with administrative arrangements that will enable them to be heard if they feel adversely affected by the Project.

A grievance process has been designed and announced to Project-affected people. All Project beneficiaries and Project-affected people will have access to a consultation and grievance mechanism to address their concerns in regard to the Project in general, and particularly in the case of land acquisition where farmers may feel unsatisfied with compensations or if conflicts arise between farmers and herders. Complaints and grievances can be raised and reported to the higher level PMOs, the land management authorities, and the external, independent monitoring groups. In addition, beneficiaries and stakeholders have the right to raise any questions directly to local government and provincial authorities, including the right to file lawsuits. All complaints, both oral and written, will be recorded, including resolution and the time of resolution. External monitoring reports will include a summary of grievances received, if any, and the manner in which they were resolved. Project supervision will pay close attention to the proper functioning and use of the grievance system. In this context, it should be noted that the Request’s concern regarding systemic issues related to judicial access by different minority nationalities are beyond the scope of this Project.

Concern: The Bank lacks information on trends in government policies and institutions dealing with indigenous peoples.

Response: The Bank has undertaken studies on various indigenous people, as well as on the legal framework to address minorities issues in China. The studies highlight areas of ethnic vulnerability, including economic (correlation between poverty and ethnicity), demographic (influx of migrants into ethnic minority areas), environmental (particularly as regards resources in ethnic minority areas), education (exclusion from indigenous peoples’ own cultures and history) and gender (rural minority women are the most vulnerable of the vulnerable).

48 As reflected in the draft Project Agreement, Schedule 2, Part J.5.

A study entitled “Legal Research on Indigenous People in the PRC” was completed in August 1997. The study reviews legal foundations for the economic system in Qinghai (section 5.7); education, science, culture, and family planning in the Province (section 6.7); as well as policies on spoken and written language usage in Qinghai (section 7.6), resource conservation and environmental protection (section 8.6), and on religious questions (section 9.6). The Project Team had familiarized themselves with these studies and lessons learned are taken into account in the design of this Project.

Concern: *The identification and development of mitigating activities has been insufficient.*

Response: The PAD provides information on the various mitigating activities, including education, training, health, and credit provisions for indigenous peoples affected by the Project. These provisions and mitigation approaches will be further detailed by means of additional technical studies and consultation activities during the Pre-Pilot Phase, the Pilot Program, and the Project itself. Following the Pilot Program, Project design will be reviewed and, if needed, modified. Further technical studies, social assessment activities and consultations will be carried out to plan in detail the establishment of the migrant communities and the provision of Project benefits to the host communities.

The OD 4.20 calls for “a full range of positive actions by the Borrower [to] ensure that indigenous people benefit from development investments” (para. 9, OD 4.20). The Project design goes to great lengths to ensure that services and opportunities are available to all populations, including the indigenous majority. These include access to health care, schools, credit, water, and farmland in the move-in areas and for the host Mongol herder population.

Concern: *The Government lacks the social, technical and legal skills to interact with indigenous peoples.*

Response: One of the Project preparation agencies, the Qinghai Plateau Geography Research Institute, is an important academic institution of Qinghai Province with extensive research experience in areas inhabited by Mongol and Tibetan populations. Headed by a Mongol, the Institute’s multiethnic staff includes sociologists with vast research experience among the indigenous peoples of Qinghai. In addition, the Government’s agencies charged with responsibilities for minority nationalities affairs are very knowledgeable of the legal protections provided to these people in autonomous areas. Furthermore, the Bank also relied on the skills of its own social scientists and a highly regarded professor of social sciences from Gansu Province for an independent analysis and guidance to the local investigating teams. In addition, local institutions will be strengthened under the Project through training and technical assistance in monitoring and evaluating the Project’s impact on poverty reduction and the environment.

Concern: *The Bank has failed to factor the lack of NGO capacity into Project analysis.*

Response: Project preparation has taken advantage of the collaboration of civil society organizations and village self-management committees. Though these organizations may not completely fit the conventional definition given to the term NGO, they are the closest approximation in the Chinese context to the type of organization which according to para. 14(c), OD 4.20 should be involved in the preparation of projects affecting indigenous people. This consideration, furthermore, applies to all Bank projects in China.

Concern: *The Bank has failed to provide baseline data including accurate up-to-date maps and aerial photographs of the area of Project influence and the areas inhabited by indigenous people as required by OD 4.20.*

Response: Detailed baseline data on ethnic minorities was collected and used in Project design. OD 4.20 does not require such maps to be prepared but instead suggests that their use might be

helpful (“as needed”). During Project preparation a number of maps indicating the location of the main development areas to be established by the Project and of the grazing corridors utilized by the Mongol pastoralists were drawn, including a forestry planning map. More detailed maps will be prepared for the Pilot Program when the initial settlement area is developed and the distribution of people and ethnic groups for each new village set. The Project has also utilized a set of aerial photographs of Project areas identifying the location of infrastructure and cultivation areas to be developed.

Annex 7. Details of the Resettlement Action Plan and the Voluntary Settlement Implementation Plan

This Annex provides more details on the RAP and the VSIP and responds to some technical questions raised in the Request.

The RAP: The voluntary settlement involves development of 19,200 hectares of land. Most of this land is uninhabited and barren, but it also includes small grazing and agricultural areas. The direct impacts of the Project and the compensation plan are given in the following matrix.

<u>Impact</u>	<u>Compensation plan</u>
Loss of 1,333 ha of grazing land, under contractual lease agreements from townships, used by 63 households (352 persons) of herders as winter and spring pastures. The loss amounts to 17 percent of their total contracted pastures and 2.5 percent of the total available pastures.	As desired by affected herders, they will be given a total of 117 ha of irrigated land for forage cultivation (average 0.33 ha per person). They can also opt for grazing land equal to the area lost or joining the voluntary settlement program, on the same terms as the migrants.
Disruption of seasonal transhumance (migration) routes between winter and spring pastures used by 289 Mongol herder households (2,411 persons).	There will be three new protected passageways through the Project area. The herders also have the option of joining the voluntary settlement program, on the same terms as the migrants.
Disruption of agricultural activities on land under an old, dilapidated irrigation system. 248 farmer households (1,237 persons) will be affected.	The old irrigation system will be integrated into the new irrigation system with assured water. They will also receive land to raise their per capita holdings to a maximum of 0.31 ha.

The RAP was prepared after extensive consultation with affected groups and according to their expressed choices. All of the affected herder households have expressed their desire to join the VSIP, in which case they will receive, in addition to the irrigated land: (a) a house plot measuring 0.04 hectares free of charge in a compact new village site with all basic amenities; (b) a direct rehabilitation allowance of 850 Yuan per person; and (c) exemption from land lease charges and taxes for the first three years (except for the farmers who are already settled). The villages will be established according to preferred community/ethnic group affiliations.

The PMO will have the overall responsibility of implementing the settlement program and a special officer designated by the PMO will have the responsibility of ensuring effective delivery of services and benefits to the affected households. The settlement activities will begin only after the Pilot VSIP program is complete and has demonstrated its feasibility. The resettlement program will be monitored by an external monitoring agency. The costs of resettlement activities are fully integrated with the cost of the VSIP.

Details of the RAP: The RAP is not as long as many other involuntary resettlement plans because the resettlement related impacts in this Project are limited. The terms of OD 4.30 are designed with displacement of whole communities in mind, where preparation and planning has to be very detailed. In this Project, there is no physical displacement or involuntary relocation. The direct impacts are limited to loss of a small area of leased grazing land and temporary disruption of grazing routes. The RAP proposes measures to mitigate those impacts, achieving the OD's objectives. The fundamental objective of the OD is to ensure that the population displaced by a project receives benefits from it and that incomes and living standards are improved, or at least restored. All those who are to be adversely affected by loss of grazing land or disruption of grazing routes are offered replacement resources, as well as the opportunity to obtain the benefits on the same terms as voluntary migrants. Based on the sample survey, all surveyed people have expressed their choice of participating under the voluntary settlement program because they expect higher and diversified incomes, and improved living standards as a result.

“Time-Bound Plan:” Though the timing of the specific activities in the RAP is undated, the plan is “time-bound.” Exact dates cannot be established for particular activities precisely because the plan makes those activities contingent on satisfactory completion of earlier requirements. None of the Project activities that generate involuntary resettlement-related impacts can occur, for example, until the Pilot Program demonstrates the feasibility of the whole activity (settlement). Subsequently, annual work plans are to be submitted to, and accepted by, the Bank in order to manage the pace and scope of the Project, including settlement-related impacts.

Incorporation of Affected People’s Concerns in Project Design: The main concerns expressed during consultations were (a) increased pressure on fuel wood sources and vegetation; (b) public security (cattle theft); (c) land acquisition concerns; and (d) need for improved social infrastructure and services for the local population. All these concerns have been taken into account while preparing the VSIP and the RAP. The Project will make special arrangements for enhanced supply of coal from a nearby mine and alternative fuels, and for improved public security, and will establish special ethnic minority language schools and culturally appropriate health clinics. Based on the sample survey, all of the affected people also expressed the desire to join the VSIP. Accordingly, the RAP gives the affected people the option of joining the program. Project budget allocation has been made on the assumption that all affected people may join the program. The popularity of the VSIP program among farmers in the move-out counties can be seen in the large numbers of people who have applied to be selected to migrate. Th 57,775 settlers were selected from over 170,000 applicants. Spots have been restricted in the new villages only to the poorest households, combined with other selection criteria, enabling Project personnel to select the 34 percent of applicants sufficient to fill all Project settler rosters.

The Voluntary Settlement Implementation Plan: The VSIP details the provisions made both for the selection of the voluntary migrants and for the new communities planned for the Project move-in area. It gives the criteria for county, village, and household selection, which emphasize absolute poverty as well as the ability to effectively participate in the Project. The VSIP analyzes the environmental, economic, social, and cultural characteristics of the six move-out counties and sets forth strategies to restore those areas ecologically. The VSIP then goes on to present a portrait of the new settlement area, which:

- Outlines attitudes, hopes, and expectations of the potential migrants regarding their new home area,
- Analyzes the needs and adaptability of the settlers,
- Provides a detailed land use plan, including a timetable for construction of Project-related buildings and infrastructure,
- Projects finances for the Project area,
- Lays out the anticipated natural resources and energy use pattern,
- Estimates the economic, social, and ecological benefits of the Project,
- Provides guidelines for ensuring minority nationalities interests are protected,
- Describes effort to include women in Project design and spells out special gender-based mitigation and enhancement efforts,
- Puts forward the outlines of the educational and training programs planned for the settlement,
- Advocates a comprehensive community and security management plan, and
- Recommends the use of various indicators for Project evaluation.

Lastly, the VSIP sets out specific implementation recommendations considered essential for a successful voluntary settlement effort.

Annex 8. Environmental Issues

Environmental Category Screening: Given the geographical context within which the Project was to be developed, it was assigned to environmental screening Category B because the range of potential environmental impacts posed by the Project components were judged to be less sensitive and diverse than those required for a Category A Project. This assignment was also in accordance with past classification practices for a large number of similar integrated development projects financed by the Bank in China over the last 10 years. Activities to be supported in Qinghai and the other two Project Provinces are generally well tried and have been proven not only in projects developed and financed by the Government of China but also in projects in which the Bank has previously been or is presently involved. These projects, all of which, except the Gansu-Hexi Corridor, were screened as environmental Category B, include:

- The Gansu-Hexi Corridor Project, the Tarim Basin I and II Projects and Northern Irrigation Projects—all of which involve irrigation development in arid and semi-arid land zones and three of which involve voluntary settlement programs very similar to that in Qinghai;⁴⁹ and
- The First and Second Loess Plateau Watershed Projects, Qinba Mountain Poverty Reduction Project and the First and Second Red Soils Area Development Projects.

From a technical perspective, the potential impacts of this Project were not considered to meet the categorization criteria for screening Category A, as set down in OD 4.01. In addition, the potential impacts that exist are well known and understood, with routine design and operational procedures in existence for mitigating and monitoring their effects, in accordance with additional considerations for Category B projects set out in OD 4.01.

Table A.8-1 presents a comparative summary of the processing and reporting requirements for Category A and B projects as set down in OD 4.01, and compares these with the processes followed and reports prepared for the Western Poverty Reduction Project in general and the Qinghai Component in particular. The table shows that the processing of the Project is consistent with the requirements of a Category A project, and that the only differences between Category A and B projects come in the analysis of alternatives and in the latter stages of processing relating to disclosure procedures. The content of EA documents differed from Category A documents mainly in three respects:

- The EA reports did not include a presentation of alternatives, although as noted in the table and Annex 2, Summary Analysis of Alternatives, various alternatives were considered, some of which are summarized in the PAD; others are detailed in the various technical reports;
- The EA reports were limited in the presentation of baseline data, particularly as it related to issues that were not considered to be priorities to be addressed in the environmental management procedures; and
- No Executive Summary of the EA was prepared.

⁴⁹ The Gansu-Hexi Corridor Project involves voluntary settlement of approximately 200,000 people.

Table A.8-1. Comparison of the Process and Preparation of Documentation Between Category A and B Projects and the Western Poverty Reduction Project

OD 4.01 Requirement	Category A	Category B	Approach Followed	Notes/Comments
Process/Procedures (Annex D)				
Consult with regional environment unit on key environmental issues	Required	Required	This was done (first comments received in March, 1998).	
Agree on screening category	Required	Required	Agreement reached prior to the PCD meeting.	
Screening category included in IEPS (now the PCD)	Required	Required	Done	
Prepare TOR for EA	Required	Not required	Done	Initial draft EA reports prepared prior to the identification mission were reviewed by an international consultant to the Bank who then and subsequently worked with the three counterpart research institutes to deepen the analysis of agreed priority matters (such as soil capability distribution in Qinghai). This work was done in close consultation with the Regional Environmental Unit.
Bank Staff or consultant environmental specialist to do field visit to review TORs	Recommended	Not required	Done	As is the practice in China, where project preparation may commence many months if not years before entry into the Bank's pipeline, EA preparation had commenced prior to arrival of the first identification mission. The role of the international environmental consultant, who was a member of the Bank's preparation team, was to review the work program and discuss with the various institutes the scope of additional work required to address key issues.
Borrower to be provided with relevant information on content requirements for Project Specific EA Report	Recommended	Not required	Done	All Bank OD/OPs have been translated into Chinese and are circulated to provincial agencies participating in Bank projects. Similarly, all environmental institutes holding Chinese Category A licenses, which are the only ones authorized to prepare EAs for foreign-funded projects, are required to be fully conversant with Bank EA requirements.
Public consultation	Required	Not required	Done	Carried out as part of EA process for all three Project components including the Qinghai Component complemented by consultations for SA, VSIP and RAP.

OD 4.01 Requirement	Category A	Category B	Approach Followed	Notes/Comments
EA should form part of overall feasibility study	Recommended	No specific requirement although by inference this is recommended	There was feedback between the environmental work and Project design.	The Bank's preparation team insisted that the findings of the environmental studies be taken into account in Project design and feedback occurred in several aspects relating to the design of the Qinghai Component, including the scale of area to be developed for irrigation (the area was reduced in response to supplementary soil surveys which were carried out on the advice of the Bank's environmental consultant), surface water/groundwater balance and livestock management procedures.
For projects with potentially significant adverse impacts, retain independent environmental experts	Recommended	Not required	Done	The EA for the Qinghai Component was prepared by an Institute that is not connected with the line agencies who will implement the Project.
EA for a major project typically should take 6 – 18 months	Observation	Observation	The elapsed time for EA preparation was 16 months.	The Chinese EA team was mobilized in September 1997. The Bank's environmental consultant reviewed their initial reports at the beginning of 1998. The final draft EA report was completed in January 1999.
Circulate EA summary with FEPS (now Draft PAD)	Required	Not required	Done.	The EA documents were circulated prior to circulation of the PAD.
Full year of baseline data required for some types of projects	Recommended but not mandatory	Not required	The EA relied heavily on available baseline data collected by Chinese institutes on a variety of issues.	
Submit EA (or other relevant) report prior to departure of appraisal mission	Required	Required for IDA Category B	Done	The draft EAs were submitted prior to departure of the appraisal mission.
Task manager, with assistance of Regional Environmental Unit, assesses the EA report	Required	Required	Done	EA reports were all reviewed prior to the Decision Meeting. A major topic of discussion at the meeting arose from review of the EA. Information contained in the EA reports relating to livestock management was the main reason that the subsequent mission was not approved as an appraisal mission pending receipt of additional information.
EA summary circulated in English to EDs when the EA report is received	Required	Not required	Not circulated (see Notes/Comments)	EA summary was not circulated although an Environmental Annex was included in the PAD.

OD 4.01 Requirement	Category A	Category B	Approach Followed	Notes/Comments
Findings of the EA are summarized in the SAR (now PAD) and an Environmental Annex is also included	Required	Not required (see note)	Done	For Category B projects, OD 4.01 has no specific requirements as noted but BP 17.50 requires that the “environmental analysis” for IDA-funded Category B projects (provided it results in a separate report) should be treated essentially the same as for an EA for a Category A project.
Environmental Documentation				
Executive Summary	Required	Not required	Not produced (see Notes/Comments).	An environmental evaluation was produced and included as an annex to the PAD.
Policy, legal, administrative framework	Required	Not required	Included	
Project description	Required	Not required	Included	
Baseline Data	Required	Not required	Included (see Notes/Comments).	The data that were presented related to the priority issues that had previously been agreed on. The data presentation was not as wide-ranging or detailed as would normally be included in an EA to fully satisfy Category A requirements.
Analysis of Environmental Impacts	Required	Required	Done in abbreviated form	A review of potential impacts and a comparative ranking of different types of impacts were included in the EA. Because the Project was rated as Category B and the main environmental issues were well known and understood, the focus of the reporting was on development of monitoring and mitigation measures rather than quantifying impacts.
Analysis of alternatives	Required	Not required	Not presented (see Notes/Comments).	Various Project alternatives were reviewed during Project identification and preparation and various options are outlined in the feasibility studies. These were not summarized in the EA reports because the Project was being processed as a Category B project. A summary of the alternatives considered is provided in <u>Annex 2, Summary of Analysis of Alternatives</u> .
Environmental Mitigation and Monitoring Plan (EMMP)	Required	Recommended	Provided	Apart from design guidelines to reduce environmental risks, the EMMP includes provision for monitoring of aspects related to livestock feed availability, downstream impacts, impacts of potential rural enterprises, land reclamation activities and agrochemical usage and further research into potential indirect impacts of the proposed development.

OD 4.01 Requirement	Category A	Category B	Approach Followed	Notes/Comments
Annexes:				
List of preparers	Recommended	Not required	Provided	The EA was prepared by the Qinghai Institute of Environmental Science which holds a Class A Environmental Effect Certification issued by the SEPA. The preparation team comprised 13 specialists, all of whom also have Class A authorizations.
References	Recommended	Not required	Limited presentation	
Record of consultations	Recommended	Not required	Provided	The EA report included a summary of the environmental issues which were raised during the public consultation process.
Data Tables	Recommended	Not required	Provided	The data presented mainly related to the small number of environmental issues which the analysts considered to be significant. As is often the case for a Category B analysis, the report did not present the large volume of technical data which was available in other feasibility study reports.
List of associated reports	Recommended	Not required	Not provided	Although many associated reports were not included in the EA, they are presented in <u>Annex 4, List of Project Preparation Documents</u> .

Concerns and Questions as Itemized in the Request

Concern: *The Project contains at least seven different components that fall within OD 4.01's list of Category A projects.*

Response: This concern refers to the "Illustrative List" in Annex E, "Environmental Screening", of OD 4.01. Paragraph 4 of Annex E states: "*Bank and international experience shows that certain types of projects in certain sectors or of certain types are normally best classified as illustrated below. These examples are only illustrative; they are by no means exhaustive.*"

In addition to the "Illustrative List", Annex E of OD 4.01 also details the threshold between Category A and B Projects (see above) – Category A having impacts that *'are likely to be comprehensive, broad, sector-wide, or precedent-setting'* and Category B having *"adverse environmental impacts that are less significant than Category A impacts,"* few of which are irreversible. Annex E is, therefore, designed to be used as a tool to help the Project Team determine the extent of EA required based on the actual components and specific setting of a particular project. This way of using Annex E as guidance for staff, rather than a mandatory checklist, is confirmed by past practice. Two examples illustrate this:

- The list includes involuntary resettlement. The Bank's recently completed resettlement review concluded that of 299 projects involving resettlement which were investigated, 36 percent were rated as Category A (45 percent in the Bank's East Asia and Pacific Region-EAP), 47 percent were rated as Category B (48 percent in EAP) and the remainder were rated as Category C, D or "To Be Determined."
- The list also includes dams. The EAP portfolio currently includes 17 projects involving construction of dams of various sizes and types. Of these, ten were rated Category A, the others were rated Category B. The judgements on the screening category of each of these projects were made on the particular merits of each case. Table A.8-2 below illustrates that the factor that consistently distinguishes the A and B projects has not been the presence or absence of a dam, or the height of the dam, but the area of the reservoir, which is often directly proportional to the environmental and social impacts. Category A projects have tended to have reservoirs measuring in the thousands to tens of thousands of hectares and the Category B projects have tended to have reservoir areas in the order of tens or hundreds of hectares. Other factors have of course come into play,⁵⁰ but the connection between reservoir area and environmental category is quite clear:

50 For example, in the case of the Gansu Hexi Corridor Project, the A rating depended not only on the size of the dam but also: (a) the fact that some surface waters in the vicinity of the project were suffering from industrial pollution which potentially threatened the viability of the project; and (b) the new land development area was upstream and potentially threatened the water quality of an existing reservoir which was the sole source of irrigation water for an area of 10,000 hectares of already developed land.

Table A.8-2. Characteristics of Dams in the EAP Lending Portfolio

Project	Dam Height (m)	Area (ha.)
Category A		
CHINA: Ertan I and II	240	10,000
CHINA: Yangtze Basin Water Resources	180	10,000+
CHINA: Xiaolangdi I and II	154	27,000
CHINA: Baise Multipurpose	130	13,000
CHINA: Shuikou II	101	9,300
CHINA: Tianhuangping Pumped Storage*	72/95	30/30
CHINA: Tongbai Pumped Storage*	68	79/45
CHINA: Daguangba Hainan	60	9,900
CHINA: Gansu Hexi Corridor	55	1,200
LAO PDR: Nam Theun 2	50	45,000
Category B		
CHINA: Anning Valley	60	88
CHINA: Western Poverty Reduction	40	127
CHINA: Tarim Basin II	20	500
CHINA: Loess Plateau 1 and 2	10 –20	15-30
CHINA: Shanxi Poverty	10 – 20	<30

* The main environmental issue with the pumped storage systems was the public safety implications of rapid rise and fall of the reservoirs.

Concern: *Mis-categorization deprives local communities of their right to full and complete information and the ability of the public to have meaningful consultation on the Project.*

Response: Social surveys were carried out as part of the planning of the voluntary settlement program and these surveys included questions on respondents’ opinions regarding the environmental dimensions of the Project. Statistically these samples were ample: 1,458 questionnaires were distributed in the six move-out counties (a 0.5 percent sample of the population of 1,333,000 people), and 120 questionnaires were distributed in the move-in area (a one percent sample of the 24,210 people living in the five Project related townships).

There was widespread “advertisements” of the settlement program in the move-out area and about 170,000 applications for migration were received for less than available 58,000 spots. Information dissemination techniques included radio and television broadcasts, videos, use of township public address systems (one of the most common methods of communication in rural China), blackboard presentations and presentations by people who had participated in previous settlement programs regarding their experiences.

Consultation in the move-in area was done through the use of key informant questionnaires supplemented by household interviews of herders. The main focus of the work was to assess participants’ attitudes to the proposed Project, seek their views on what effects the Project might have on the local social situation and gather their opinions and suggestions regarding the Project design. Preparation of the EA also included visits to farmer households and use of a questionnaire which complemented the activities outlined above. For more details, see Annex 9, Stakeholder Consultation Activities.

In compliance with the Bank's disclosure policies, the EA documents were made available to the public in Qinghai prior to Project appraisal by placement of the EA reports in the offices of the Provincial, Prefectural and County PMOs.

Concern: *Mis-categorization limited consideration of alternatives.*

Response: Alternatives have been considered at several levels although these were not set out in the EA reports because it is not a requirement of the Chinese legislation nor is it required under the Bank's procedures for processing of an environmental Category B project. Alternatives have been considered in terms of both development options and potential sites for voluntary resettlement. A review of alternatives is summarized in Annex 2, Summary of Analysis of Alternatives, which includes information developed by Provincial Authorities as part of the planning process. Map 2 provides a series of alternative sites considered during Project preparation for voluntary settlement activities.

Concern: *Mis-categorization deprives Bank decision-makers of the ability to make an informed decision about whether to approve this Project.*

Response: The environmental issues and potential risks associated with the various Project activities have been clearly noted in the Project documentation distributed and made available to the Bank's Executive Directors.⁵¹ The PAD includes a detailed 23-page Environmental Annex that provides a summarized assessment of the environmental issues in all three participating Provinces, sets out the details of the proposed EMMP and specifies proposed supplemental activities to be carried out for detailed design of the various Project activities. The Environmental Annex and the EA reports have also been made available to the public and provided to Executive Directors who requested copies. Special briefing sessions on environmental issues associated with the Project, including the Qinghai Component, were also provided for the Executive Directors, on a group and individual basis, prior to the presentation of the Project to the Board of Directors for their approval.

Concern: *Mis-categorization of the Project has resulted in a failure to assess the significant risks and potentially devastating environmental and social impacts of the Project.*

Response: The approach to the work related to the EA rested on three key elements: (a) preparation of an Environmental Impact Assessment Report for proposed activities by a local institution in accordance with Government of China laws and regulations which included consultation and disclosure; (b) a series of site visits by an independent international consultant; and (c) preparation of an EMMP. While there are environmental and developmental risks associated with the proposed development; such risks apply to all rural developments in climatically severe areas in all countries. These risks are identified in the EA and clearly highlighted in the Environmental Annex to the PAD. A large number of complementary studies concerning water, soils, grazing, forestry and other issues were also prepared and used in evaluation of potential environmental impacts (Annex 4, List of Project Preparation Documents). It should be kept in mind that this type of development has been successfully undertaken widely throughout China, in many cases with Bank support. This information was also supplemented by experience derived from the adjacent irrigated area in the Qaidam basin which has been operating for around 15 years. In addition, the Pre-Pilot Phase and Pilot Program, which include supplementary environmental and social studies, provide an opportunity for modifications and adjustments to the Project detailed design.

51 The Request actually cites a number of italicized phrases from the Environmental Annex of the PAD to support its case. These phrases were italicized to draw them to the attention of the Bank's decision-makers and ensure that these factors were taken into account in their consideration of the Project.

Other Concerns: The Request specifies a number of issues that it claims have not been addressed in the preparation of the Project. More specifically regarding:

- *Impact of construction of dams on water resources.* The Project will finance the construction of Keri Dam, which is located 28 kilometers from the Xiangride River. Keri Dam will create an off-river reservoir, supplied through a diversion structure on the river, for storing water and releasing it for irrigation. A 59 kilometer main canal originating at the dam will bring irrigation supplies from the reservoir to Balong Irrigation Sub-district (14,700 hectares), and part of the Qingshuihe Irrigation Sub-district (1,660 hectares). The dam will be 40 meters high with a crest length of 391 meters. There will be two saddle dams, also sand-and-rock-filled, the left with a height of 21 meters and a crest length of 135 meters and the right with a height of 26 meters and a crest length of 480 meters. A 10 meter high masonry gravity dam with a 5 meter wide spillway will be provided for flood discharge. The dam will provide an effective 23 million cubic meters of off-river storage for additional flow regulation and irrigation release at the beginning of the planting season in March. The area of the reservoir is about 127 hectares and all but a small section (7 hectares) at the upper end is desert. The 7 hectare area is used for intermittent agriculture by farmers living further up the valley side, who will receive compensation for their loss of lands.

The Project will also support renovations to the existing Hatu Dam, by raising the dam wall one meter and treating the floor of the reservoir to reduce leakage, which will result in a small increase in the area of the reservoir. This dam functions as a reservoir in exactly the same way as the planned Keri Dam.

The analysis of impact on water resources of the dams was based on mathematical modeling studies which were undertaken to optimize various water management considerations including the desire to minimize impacts on the saline swampy area. The EA report highlights the possibility that abstraction of water for the Project could come at the expense of water supplies in the saline swampy area. The recommended development option takes into account the objective to minimize this impact and the Project design includes provision for additional investigation to improve the accuracy of the analysis for final detailed design. In addition, the EMMP includes provision for supplemental studies to be undertaken to complement the earlier groundwater study recommendations. These studies will provide a basis for possibly enhancing ecological values in the swampy area by studying all factors impinging on its ecological status and seeking to develop and implement an improved management approach. The monitoring program assumes an iterative process through which water management procedures and the mix of groundwater and surface water will be adjusted to minimize impacts.

Regarding water availability, the average annual Project demand will be about 181 million cubic meters (Mcm) of which about 113 Mcm will be drawn from the Xiangride River. The remainder will be derived from flows in six ephemeral rivers near Balong and conjunctively used groundwater. The average annual flow in the Xiangride River is about 395 Mcm of which 282 Mcm will continue to flow in the river after the demands of the proposed Project have been met. Of this, about 115 Mcm will be abstracted for urban use and further downstream to supply the Xiangride State Farm (which is already consuming this water) leaving an average of 167 Mcm for other consumptive uses including maintenance of ecological conditions in the channel and downstream swamps. Overall, the Project will consume about 4 percent of the total annual inflow to the Qaidam Basin (4,292 Mcm). Nearly 60 percent of the total annual inflow to the Basin either percolates into the groundwater or is lost to evaporation.

- *Impacts of irrigation and intensification of agriculture on the ecosystem and water resources.* Specific questions raised in the Request are: (a) what is the mineralogy of the source water;

(b) is the soil porous enough to leach out salts faster than they accumulate; (c) who will provide the continuous monitoring of soil and groundwater salinity and effects on non-crop species; (d) what institutional expertise is locally available or to be developed; and (e) are there plans to engage the settlers in participatory monitoring and how will such monitoring be sustained?

(a) *What is the mineralogy of the source water?* The surface water is melt-water from snow and rainfall in the mountains forming the southern rim of the Qaidam Basin. The groundwater is also derived from this source. Most of the numerous ephemeral/seasonal rivers flowing out of the southern rim of the basin percolate into the ground and flow northwards as groundwater, resurfacing in the saline swamps north of the proposed irrigation area. Groundwater was tested at four locations in the Project area and the quality was uniformly high; total dissolved solids were generally around 500 mg/l, which is about half the relevant national standard and highly suitable for irrigation purposes. Although Na⁺ levels were slightly elevated, arsenic levels were all less than 0.01 mg/l (less than 20 percent of the national standard) and nitrates were exceptionally low (generally less than 1 mg/l which is less than 5 percent of the national standard). Surface water was also tested in the Xiangride, Hatu, Yikequang and Qingshuihe Rivers and in all cases was found to be of good quality with low levels of organic pollution and suspended solids.

(b) *Is the soil porous enough to leach out salts faster than they accumulate?* The soils in the piedmont zone vary depending on their distance from the mountains and the degree of alluvial sorting to which they have been subject. They range from water washed gravels and sands on the higher areas, grading into finer textured soils on the lower slopes, and very fine soils, predominantly clays, in the saline swampy areas⁵². The shape of the irrigation area is determined by the distribution of fine to medium textured deposits which are best suited for irrigated agriculture development. These are located in the transition zone between the gravels and sands of the piedmont and the clays of the saline swampy areas and have been surveyed in great detail as part of preparation of the Project.⁵³ The dominant soil type in the proposed irrigation area is a gray-brown desert soil which ranges in texture from sandy, through sandy-loam to loam. All the textural classes are sufficiently well drained and fertile to support irrigated agriculture although the sandy-loam gray-brown desert soils are the best. Other soils which have been classified as suitable for irrigated agriculture include desert aeolian sands and steppe solonchaks. The latter are the only soils, outside the saline swampy area dominated by “bog” solonchaks, that are characterized by significant clay accumulation and they tend to occur on the margin between the transitional zone and the saline swampy area. The boundaries of the proposed irrigation area are defined by the distribution of the soils which have drainage and chemical characteristics suitable for irrigated agriculture. Chinese specialists and Bank staff anticipate that the soil is sufficiently porous to leach out salts faster than they accumulate provided water is applied in a proper manner.

(c) *Who will provide the continuous monitoring of soil and groundwater salinity and effects on non-crop species?* Monitoring of groundwater levels and quality will be the responsibility of Dulan Water Conservancy Bureau. The effects on non-crop species will

52 Due to the aeolian (wind-blown) origins of most of the soil materials deposited in the lower components of the Qaidam landscape, they tend to be composed principally of very fine sands and silts, with rather limited amounts of clay.

53 Yi, Q. and Lei Chan (1998). Report on the Assessment of Agricultural Suitability of Barren Land in Balong-Xiangride Area. Report prepared by the Qinghai Agricultural Engineering Institute. The report summarizes the results of five soil surveys carried out over the 1996-1998 period during which 720 soil profiles and 200 check profiles were investigated and 1,315 soil samples were collected for chemical analysis.

- be based on a baseline survey to be carried out during the detailed design and construction phases and re-surveyed periodically (every two or three years) by a suitably qualified Research Institute or University to be identified by the PMO. The surveys will continue until a new groundwater equilibrium is established—probably after about 10 years, based on the projections contained in the groundwater modeling study.
- (d) *What institutional expertise is locally available or will be developed?* For water quality and groundwater level monitoring, the capacity already exists within the County Water Conservancy Bureau. For monitoring of indirect effects such as impacts on vegetation distribution and abundance, it will be necessary to use consultants from Provincial Universities or Institutes of the Chinese Academy of Sciences.
- (e) *Are there plans to engage the settlers in participatory monitoring and how will such monitoring be sustained?* There is no plan to engage the settlers in participatory monitoring. This is due to the fact that the majority of issues which need to be examined require scientifically based data collection and analysis which will be undertaken by specialized organizations and institutes. Local residents will be surveyed as an element of the performance review of the Project concerning their views on environmental and natural resource trends.

Concern: *The long term effects of irrigation on groundwater levels in the Project site and surrounding areas has not been adequately considered.*

Response: The proposed activities under the Qinghai Component have been designed on the basis of the findings and recommendations of a water modeling study prepared by Xinjiang Agricultural University.⁵⁴ The groundwater model was run into the future to allow for prediction of establishment of a new groundwater equilibrium. The model predicted that this situation will be achieved in about 10 years after which time there is no further anticipated change in the model projections. The purpose of the model was to compare development options (most importantly, the balance between the use of ground and surface water) and, within the framework of the model, to recommend an optimum solution which will permit three main objectives to be achieved: (a) to meet the required irrigation water needs; (b) to prevent salinization of the Project area by controlling the water table; and (c) to minimize impacts on the saline swampy area to the north of the site. The conjunctive use proposal developed from application of the model is considered to provide the optimum balance between these three objectives. The modeling exercise is the beginning rather than the end of a design and management process; it should be followed up on a permanent basis by constant monitoring and adjustment of the management regime in response to monitoring results.

Concern: *The issue of water sustainability has not been properly addressed.*

Response: In light of the limited expertise of the settlers with irrigated agriculture, the overall management of the water system will not be solely or even primarily the responsibility of the farmers. The Provincial Department of Water Conservancy will establish the Xiangride Water Conservancy Administration for management of the bulk water supply system, and the County Water Conservancy Bureau will be responsible for: (a) water scheduling at the lower levels in the system; (b) monitoring of surface water and groundwater quality; and (c) in association with the County Agriculture Bureau, training of farmers in irrigated agricultural techniques. Some indication of the potential for successfully developing sustainable irrigated agriculture in the region is provided by the approximately 11,000 people who are currently practicing this form of agriculture in the County already, all of whom have converted from other forms of agriculture.

54 Dong, X. (1998). Preliminary Study and Report on Analysis Result of Groundwater Modeling for Balong Report prepared by Xinjiang Agricultural University, October 1998, 22 pp. Plus maps, Annexes.

Concern: *The proposal to promote green manuring and crop rotation will be undercut by relying on use of fertilizers and pesticides.*

Response: The benefits of green manuring and crop rotation are not undercut by the use of inputs such as fertilizers and pesticides. As discussed further below, the Bank will not finance procurement of pesticides but the Government will use its own funds to finance a first crop input package for settlers which will include pesticides and it is likely that farmers will use their own funds to purchase such inputs for subsequent crops, as noted in the EA Report.

It has to be kept in mind that the main cash-producing component of the farm models developed for evaluating the financial viability of the Project will be livestock production; crop production will primarily be used to meet basic household needs and to provide livestock feed. Given that crop production will not primarily be a major source of cash income, it is reasonable to assume that farmers will tend to under-invest in crop production and hence under-utilize rather than over-utilize fertilizers and other inputs; this is the pattern elsewhere in China and throughout the developing world in general. It should also be emphasized that there was substantial discussion between the Bank's consultants and the local experts on the subject of appropriate fertilizer applications. The staff of the Qinghai Soil and Fertilizer Institute are cooperating closely with the National Institute that is actively promoting balanced fertilizer use. Regarding potential use of pesticides, the crops expected to be grown will be primarily grains (wheat and barley), forage crops and cash crops such as potatoes, rape, onions, garlic, etc., none of which are major targets of heavy pesticide applications by subsistence farmers. Cash crops such as rice and cotton, which tend to be associated with heavy use of pesticides in China, will not be grown.

Concern: *Land in the transit corridors may not be able to withstand heavy foot and animal traffic.*

Response: Limited evaluation of the design of the herding corridors was undertaken at the Project preparation stage. In response to the Request, further analysis was carried out and indeed, the likely stocking rate of these corridors as presently designed (50 meters wide) may be in the order of an equivalent of 2 sheep per hectare per year which may be too high to be sustainable in the long term. Since it will be difficult to widen the corridors after the Project is developed, this issue will be studied in more detail during the Pilot Program to confirm the analysis that has been done so far, and if required, modify the corridor design. Based on the current analysis, the preferred solution to the problem will be to increase the design width for the corridors to about 100 meters. The final decision needs to take into account the likely stocking rate but also the need to reduce wind erosion hazards (a wider corridor, all other things being equal, increases the wind erosion risk).

Concern: *Occasional high water flows would probably carry tons of sediment into the irrigation system causing silting of irrigation canals.*

Response: This is a common phenomenon throughout agricultural oases in China which rely on snowmelt for water supply. The flows can be erratic and unpredictable and the designs of all infrastructure in such areas, not only irrigation systems, reflect these risks. This explains the otherwise incongruous earthen bunds leading to oversized cross-drains on roads, railways, irrigation canals, etc. which parallel the mountain ranges in many desert areas throughout China. In short, the risk is well recognized and there are standard engineering design procedures for ameliorating it. It is also well recognized that special maintenance activities need to be undertaken when events occur that cause heavy siltation. This issue was identified as a possible problem in the Balong area on the basis of the surface flow patterns that are evident on the ground and in the satellite imagery that was used for Project planning. Allowance has been made in the engineering design for floodways to conduct flash floods around the irrigated areas and protect them from damage.

Concern: *Risk of desertification is not adequately addressed.*

Response: The technical work which underlies the Project design was almost exclusively focused on reducing this risk to acceptable levels. The water balance and groundwater modeling studies provide the basis for determining that sufficient water exists and for optimizing the balance of use between ground and surface sources. Soil surveys have established that the soils are suitable for sustainable agricultural development and identified those pockets of saline/sodic soils which will require extra attention. The farm models/livestock feed balances have established that the settlers' requirements for food and fiber for survival plus a production surplus for sale can actually be met. Recommendations were also made for clearing and leveling strips of land perpendicular to the prevailing wind during land development in order to minimize wind fetch and the potential for erosion. It has also been recommended that no land development be done during the windy period of the year (April–May) to further reduce risks.

However, in response to concerns, it has been agreed that the Pre-Pilot Phase of the Project will be used to carry out additional research on the impacts of the existing adjacent settlements on ecological systems outside the Project development areas to provide a quantified response to the questions raised and, as required, to provide a basis for defining additional safeguards. The proposed study will be based on comparison of plant distribution and abundance at various distances from existing settled areas and a “control” area well removed from any human influence (Annex 14, Description of Supplemental Environmental Studies).

Concern: *Irrigation will increase the salinity of the Project area.*

Response: There are saline and sodic soils in the Project area as there are in virtually all arid and semi-arid areas. The scale of the Project was reduced during the design phase to decrease the incidence of such soils but still there are pockets of varying salinity throughout the Project area, totaling about 3,500 hectares (20 percent of the development area) in all, of which 95 percent comprises soils of low to moderate salinity. The problem of saline soils is not uncommon in China; there are well understood procedures and capacity to address the problem and to support sustainable agriculture on such soils. Fifteen years of experience in an adjacent irrigated area with very similar soil and water conditions strongly suggests that significant problems are unlikely to be encountered. Nevertheless, and as emphasized in the PAD, this does represent a risk and it is essential that: (a) the results of soil mapping be taken into account during final detailed design and layout of the irrigation and drainage system; (b) adequate water quantities be scheduled for leaching during the early land reclamation phase; (c) farmers be adequately trained in how to manage such soils including green manuring strategies to improve soil structure; and (d) agricultural technicians monitor soil conditions carefully to ensure that early action is taken if salinization or sodification of treated areas occurs. These risks have been identified and addressed comprehensively throughout central and western China in Bank-financed projects as well as those financed solely by the Government. The Supplemental Environmental Studies include an element to review the management of saline and sodic soils. These issues will also be reviewed by the ITE.

Concern: *Local and migratory birds as well as other wildlife could be adversely affected by pesticides in water and prey species. Massive bird kills are not uncommon where pesticides are used.*

Response: It is not anticipated that development and operation of the irrigation system in the Project area will result in significant adverse impacts on local and migratory birds or other wildlife from pesticides in water or in prey species. The type of agricultural system planned to be implemented in the Project area does not include crops, such as rice and cotton, that have traditionally been subject worldwide to high level uses of pesticides. In contrast, it is a system that should be successful with low-input agriculture which will include green manuring and focus

on the production of grains (wheat and highland barley), forage crops and cash crops such as potatoes, rape, onions, garlic, etc., none of which are major targets of heavy pesticide applications by subsistence farmers. In addition, indirect impacts from the use of pesticides will be monitored under the Project and confirmed by the ITE.

Concern: *Failure to assess environmental impacts of the involuntary resettlement and resulting doubling of population in the move-in area.*

Response: OD 4.01 refers to the effects of involuntary resettlement. No one will be involuntarily resettled under the Project although some herders will lose their grazing leases covering an area of 1,300 hectares within the Balong Irrigation District and will be compensated with land to be irrigated under the Project as well as land for establishment of houses. On balance, it is considered likely that the environmental impact of replacing uncontrolled grazing of desert land by grazing on improved irrigated forage crops will be beneficial.

As to the wider question of the impact of increasing the population of Dulan County, the Request's statement that the current population of the move-in area is appropriate to the carrying capacity of the land is correct only if it is assumed that the statement applies to the carrying capacity of the unimproved land, that is, the "natural" carrying capacity. Within the five townships comprising the Project move-in area, 63 percent of the population (15,296 people) is categorized as farmers, and crop production accounts for about 67 percent of the total value of agricultural production. Since crop production cannot be undertaken in the Project move-in area or Dulan County as a whole without irrigation, the "natural" carrying capacity of the land has to be adjusted to reflect the impact of irrigation.

The Project will support measures, through introduction of irrigated agriculture with improved crop and livestock production systems, to increase the carrying capacity of lands developed in the move-in area. All studies carried out in the preparation of the Project aim to ensure proper balance between population increase and irrigated carrying capacity of the land. The voluntary settlement is defined by this assessment of carrying capacity and the area of land to be developed for agriculture was downscaled to address this concern. There is ample evidence from China and elsewhere that properly designed, operated and maintained irrigation and drainage systems can provide sustainable production of food and fiber for local populations.

Concern: *Environmental impacts of induced development over the long term have not been considered.*

Response: The Project will not support exploitation of minerals and fossil fuels. The Project is intended to provide an improved life for the participants, the great bulk of their production continuing to be for own-consumption rather than for off-site sale. To the extent that the beneficiaries produce saleable surpluses, it is anticipated that these will be sold locally within the Project area, maybe in Xiangride town, due to the transport disadvantage the farmers will suffer in comparison to farmers located on the outskirts of the main population center in the region, Golmud (which is located some 170 kilometers west of Balong). The surplus which will be generated from the Qinghai Component will not be sufficient to support large scale induced development and measures have been included within the Project design to control informal migration of settlers into the Project area.

Concern: *Failure to provide for Environmental Monitoring and Mitigation Measures.*

Response: Comprehensive environmental and monitoring measures over and above those which are incorporated into other aspects of Project design, management and monitoring are set out in Annex 12 to the PAD. In addition to formal design guidelines to reduce environmental risks, the EMMP includes provision for monitoring of aspects related to livestock feed availability, downstream impacts, impacts of potential rural enterprises, land reclamation activities and

agrochemical usage and further research into potential indirect impacts of the proposed development. In addition, the ITE will conduct regular reviews of the implementation of the provisions of the EMMP.

Concern: *The Project will destroy a fragile ecosystem which has evolved over thousands of years under harsh environmental conditions.*

Response: The Project will result in conversion of a natural habitat to irrigated land. However, the natural habitats affected are not “critical” and the conversion is not considered to be “significant” within the meaning of these terms as defined in OP 4.04, Natural Habitats.⁵⁵

The Project involves development of 19,000 hectares of land for irrigation which amounts to approximately 0.1 percent of the Qaidam Basin as a whole. Literature reviews and site surveys indicate that there are three major ecosystems in and around the proposed development area: Gobi plain, transitional zone and saline swamp. The details are as follows:

- Ecosystem 1: Gobi plain
Major community: Xerophytes (desert plants)
Dominant or common plants: *Haloxylon ammodendron*, *Ephedra przewalskii*, *Calligonum mongolicum*, *Nitraria spp.*, *Tamarix elongata*.
- Ecosystem 2: Transitional zone
Major community: Meadow (*Achnatherum splendens* community)
Dominant or common plants: *Achnatherum splendens*, *Bromus sp.*, *Calamagrostis pseudophragmites*, *Poa annua*, *Melilotus suaveolens*, *Oxytropis falcata*, *Glycyrrhiza uralensis*, *Scosonera divaricata*, *Artemisia pectinata*, *A. subdigitata*, *Clematis tangutica*.
- Ecosystem 3: Saline swamp
Major community: Halophytes (salt tolerant plants)
Dominant or common plants: *Hippuris vulgaris*, *Heleocharis atropurpurea*, *Scirpus pumilus*, *Youngia paleacea*, *Triglochin maritimum*, *Batrachium trichophyllum*, *Myriophyllum verticillatum*.

According to information provided by the Institute of Botany of the Chinese Academy of Sciences, these three ecosystems are widely distributed, not only in Qinghai, but also in other arid regions of China including Xinjiang, Gansu and Ningxia. The species mentioned above are common species throughout these areas.

The status of the Project area as a possible critical natural habitat hinges on: (a) whether it is a critical area for rare, vulnerable, migratory or endangered species; and (b) whether it is located in a protected area or an area vital to the viability of such an area.

The assessment regarding (a) was based on the geographical context of the Project which included the size of the Project in relation to the area of the Qaidam Basin as a whole (the Project will occupy less than 0.5 percent of the Basin). The fact that the ecosystems concerned were widely distributed not only throughout the Qaidam Basin but also in other arid parts of China including Gansu, Xinjiang and Ningxia Provinces, and the understanding gained from work in similar ecosystems in other provinces and reference to standard publications on the subject which are usually consulted during the early stages of Project preparation (such as the Biodiversity

55 The Policy specifies that the Bank will not support projects which will result in significant conversion or degradation of critical natural habitats (CNH) which are defined as: (a) sites that are critical for rare, vulnerable, migratory or endangered species; or, (b) existing protected areas, areas vital to the viability of protected areas, or areas recognized as protected by traditional communities. Significant conversion is defined as the elimination or severe diminution of a natural habitat.

Review of China), all of which indicated that these systems were facing no significant threat from unconstrained agricultural or other developments in either Qinghai or in China as a whole. Thus there was no reason to believe that the affected areas were critical for rare, vulnerable, migratory or endangered species, as set down in the policy, nor has any contrary suggestion been made since that time.

As to the impact of the Project on the main land systems (which are essentially surrogates for the ecosystems), the estimated area of the fine soil land systems within the Qaidam Basin is in the order of 27,400 square kilometers of which the Project will account for approximately one percent. The total area of lake bed/saline swampy areas in the Basin is approximately 38,000 square kilometers. The groundwater model indicated that the Project could affect groundwater levels over an area of about 180 square kilometers which represents less than 0.5 percent of the total.⁵⁶ It is considered that such proportionally small areas would not be critical to the integrity of the overall habitats concerned.

Regarding potential impacts of the Project on more formally defined critical natural habitats such as designated conservation areas, a standard approach was followed as for all rural development projects in China. "A Biodiversity Review of China"⁵⁷ was consulted, a draft list of such conservation areas was prepared and provided to the Task Team and the team was requested to ensure that the environmental experts working on EA preparation made an assessment as to whether Project components or activities in any of the three provinces would be located or undertaken in or near any existing or proposed nature reserves, nature conservation areas or other areas defined as critical natural habitats in the OP. This was done and it was determined that the nearest such location in Qinghai is Qinghai Lake, about 250 kilometers away and outside the Qaidam Basin.

Given the conclusion that the affected areas are natural habitats but not critical, the OP permits conversion subject to certain conditions. The first condition is that there is no feasible alternative to the proposed development. As discussed elsewhere, the fundamental environmental problem in Qinghai is that the population exceeds the carrying capacity of the land. The preferred option is to introduce technological improvements to increase the productive capacity of the land but, in the move out counties, this is generally not feasible unless steps can be taken to reduce population pressure at the same time. The only humane method of reducing the pressure is to provide at least some people with the opportunity to move to other areas where there is better hope of developing a more sustainable lifestyle. In an arid region such as Qinghai, the only areas which provide such an opportunity are areas where water is available, such as Balong. Since it would be inequitable and counterproductive to displace people already established in the move-in area, the only option is to develop irrigated agriculture on presently uncultivated land which means that there is no option but to convert a natural habitat to an irrigated agricultural habitat.

A second requirement is that such conversion should not be "significant". As previously discussed, the level of direct and potential indirect impacts on the ecosystems concerned is proportionally very small (less than 1 percent in both cases) and is not considered to meet the "significance" test.

56 The area potentially affected by water table draw down is based on the assumption that this effect would be registered over a distance of 4.5 kilometers north of the irrigation area along a length of about 40 kilometers, as predicted by the mathematical model. According to the groundwater consultant who participated in Project preparation on behalf of the Bank, the major effect is expected to be registered in a strip about one kilometer wide; that is, covering an area of about 40 square kilometers. The natural annual groundwater fluctuation in this area, to which existing plants are adapted, is believed to be in the order of 1.5-2.0 meters.

57 Carey, G. (ed.) (1996). A Biodiversity Review of China, World Wide Fund for Nature International, Hong Kong.

The OP includes other conditions governing the conversion of natural habitats including the development and application of suitable mitigation measures. These are addressed in the responses to the following claims.

Concern: *The Project would cause loss of wildlife and wildlife habitats.*

Response: This concern is a subset of the previous consideration. The status of the species is dependent on the status of the habitats. As previously discussed, it has been determined that the habitats which would be affected were not significant. The Project will occupy an extremely small percentage of the total land available and, given the extremely low primary productivity of desert ecosystems and the wide ranges required of most terrestrial wildlife to survive, it is similarly considered that the incremental effect of the Project on such wildlife will also be insignificant. To the extent that some herders choose to adopt a more sedentary lifestyle based on production of irrigated fodder within the boundaries of the proposed scheme, the Project may even reduce competition for range land resources which may act to the benefit of some wildlife.

The Project includes a component to study land management issues in the area north of the proposed development area to improve understanding of the factors affecting it and provide a basis for moving towards development of an improved range management system that takes account of all relevant environmental and social considerations.

Concern: *The Project does not provide mitigation measures to avoid habitat loss.*

Response: The OP requires that suitable mitigation measures be included if significant conversion of a natural habitat is proposed. As previously discussed, it is not considered that the level of conversion proposed is significant. Nevertheless, the Project includes a number of mitigation measures, as follows:

- The physical size of the Project was reduced to improve the potential sustainability of the development consistent with the availability of soil and water resources—in doing so, loss of natural habitat was also reduced;
- The conjunctive water use program was designed, *inter alia*, to minimize the impacts of the development on the groundwater table in the saline swampy area, which in turn minimizes impacts on the habitat and hence on the wildlife dependent on that habitat;
- The Project includes measures (for example, provision of adequate fuel supplies) to reduce the likelihood of settlers harvesting natural resources from outside the boundaries of the Project area. This is intended to reduce impacts on natural habitat and wildlife resources;
- The Project includes provisions for monitoring groundwater levels and vegetation cover in the saline/swampy areas north of the Project site that could potentially be indirectly affected by the Project; and
- The Project includes provision for a study of the ecological relationship in this same area to improve understanding of the ecological system and provide for the development of a management plan.

Finally, the advisory capacity which will be available through the ITE plus routine supervision by Bank staff will provide further opportunities to monitor and respond to observed changes in the field.

Concern: *The Project does not provide a plan for creation of environmental off-sets or compensation areas.*

Response: Creation of environmental offsets and compensation areas is one of a series of alternative “*Appropriate conservation and mitigation measures...*” defined in Annex A of OP 4.04 (paragraph e). The measures selected “... *depend on the ecological characteristics of the*

given site...” The creation of offsets or compensation areas is not appropriate to the proposed development since the ecosystems affected are widespread throughout central and western China and are not threatened by development. Nonetheless, the Qinghai Component includes provisions for preparation and implementation of a management plan for the Balong Soak which is the main area of ecological interest in the immediate Project area.

Use of Pesticides: The Borrower has addressed pest management issues in the context of the EA, as required, and proposed various safeguards to address the issue.⁵⁸ It is understood that these projections, like the projections made for fertilizer application levels, are based on the application levels recommend by the Agricultural Extension Service County Plant Protection Department once pest populations exceed levels triggering spraying advice by the Department. It should be noted that China has established a pest monitoring and forecasting system for certain crops which provides a basis for Plant Protection Departments advising farmers when pest levels are approaching Economic Threshold Levels (ETL) beyond which it is advised that approved pesticides be applied. The system is intended to discourage farmers from “calendar spraying” and is consistent with the concepts promoted under an IPM approach.⁵⁹

Concern: *Inadequate assessment of the country’s capacity and regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management.*

Response: The Bank undertook a regional appraisal of agrochemical usage in Asia, including China, in 1992.⁶⁰ This report is currently being updated and the first draft was recently completed. The 1992 report noted that the substantially illiterate farming population in China relies on a limited range of agrochemicals available in local shops and is primarily interested in the “knock down” effect of these chemicals rather than issues such as their effects on non-target populations or the health and safety effects associated with their use. On the other hand, it also noted that the extension services are keen to promote “do no harm” cultivation, which is akin to organic farming and, within that context, they are trying to develop IPM programs and other approaches which reduce pesticide applications. Techniques in use include strategic spraying as an alternative to calendar spraying, development and promotion of selective pesticides (for example, *Bacillus thuringiensis* which is widely used in China), and direct application of chemicals as an alternative to spraying (for example in seed treatments).

The current update,⁶¹ although only at first draft stage, suggests that the plant protection system and the situation on the ground have improved considerably since the earlier review. It notes, for example, that the levels of agricultural education and numbers of agricultural extension staff in China are amongst the highest in the world, the pesticide regulatory system is well developed, and large numbers of farmers have been trained in safe use and are using up to date protection methods. Nevertheless, it finds that there are lingering problems, particularly with respect to regulatory effectiveness and residual ignorance of vast numbers of farmers about safe handling and use. In short, it can reasonably be said that the pest management system in China, in many ways, is admirable in comparison to many if not all other developing countries but it also has specific features which need improvement.

58 It should be noted that many of the construction and operational stage mitigation measures set down in Table 5-1 of the EA report are covered by the provisions of existing laws and regulations.

59 To clarify terminology, the OP (July 1996) defines IPM as being a mix of pest control practices that seek to avoid excessive use of chemicals. It involves managing pests rather than seeking to eradicate them, relying to the extent possible on non-chemical control measures and selecting and applying pesticides so as to minimize adverse effects.

60 Jackson, G.J. (1992). Agrochemical Usage in the Asia Region, report compiled for the Asia Regional Environment Division (ASTEN), World Bank, Washington.

61 Morton, N. (1999). Agrochemical Usage in the Asia Region: 2nd Edition (First Draft) Report commissioned by the Environment and Social Development Unit, East Asia and Pacific Region, World Bank, Washington.

Bank experience in China and other large countries has shown that it is not feasible to address the underlying problems through individual investment projects implemented by provincial and lower level agencies and that a national approach is needed due to the rather top-down approach that is still taken to many forms of agricultural extension. In the interim, many Bank financed projects include measures to address dimensions of the problem which can feasibly be handled at lower levels of government. In the case of the Western Poverty Reduction Project, the most practical option available, beyond the approaches included in the Project design, was to include an activity which would improve the extension of pesticide handling and usage messages to minority audiences through the development of safety labels in minority languages. This is an issue that has become apparent in another project being supported by the Bank (Tarim Basin II Project) and is considered to represent a reasonable and practical, project-level contribution to a set of issues which is essentially of national dimensions.

Concern: *The Project does not present a safe pest management plan such as an Integrated Pest Management (IPM) Approach.*

Response: IPM remains the Bank's preferred strategy for the control of agricultural pests but it can only be supported for crops where governments are prepared to underwrite the often substantial costs associated with implementing a fully farmer-driven approach to IPM.

China is supporting IPM in rice and the Bank is supporting IPM in cotton through the Tarim II Project. Nevertheless, there is far from a universal consensus within the Chinese plant protection community that farmer-driven IPM in its totality is feasible and practical within the Chinese context given the hundreds of millions of farmers to be reached and the perceived food security consequences⁶² of switching to an approach about which many local experts continue to have doubts. In the absence of a complete consensus, the approach which has been adopted on the Western Poverty Reduction Project, as with many others in China, is to: (a) support Government initiatives which are broadly consistent with the IPM philosophy; and (b) take advantage of opportunities to make small, practical contributions to the overall problem of pesticide management as and when they arise. This is the approach that has been followed on the Western Poverty Project.

Concern: *The Project fails to reduce farmers' reliance on chemical pesticides.*

Response: The best way to reduce farmers' reliance on chemical pesticides is through education and support for the existing Government procedures which are intended to achieve that objective. The Project will support the agricultural extension service in training and dissemination of existing information regarding the prudent use and storage of agrochemicals including measures for protection of human health and emergency treatment techniques. The content of all farm training programs is developed by the County level extension stations based standard materials provided by the higher levels of government. Training is delivered by the township level stations which are closest to the farmers. During the Pre-Pilot Phase, a pest management specialist from the Bank will review the training materials on pest management in light of the agreed list of chemicals (e.g. WHO Class II and III pesticides) proposed to be included in the first crop input package and, as necessary, provide advice on the scope and content of the training materials necessary to adequately inform farmers about judicious use of these materials including storage and handling.

62 These are described as perceptions because, in the long run, a more integrated approach to pest management is likely to improve rather than reduce food security. The real problem is that people tend to trust the systems they know and be wary of systems they don't know.

Concern: *The Project documents contain contradictory statements regarding pesticide procurement.*

Response: As stated in the PAD, Bank funds will not be used for procurement of pesticides. The PAD also noted that first crop input packages which would be supplied to farmers could include pesticides but it did not clarify that the Borrower would finance this using its own funds and this may be the source of the confusion. Although the Bank is not financing pesticides, it should be noted that Qinghai has confirmed it will include only WHO Class II and III pesticides in the first crop inputs package, which is consistent with the approach applied by the Bank when it finances pesticide procurement.

Concern: *The Project violates BP 4.01, Annex E for Pest Management.*

Response: The new version of the World Bank's guidelines for EA in the form of OP/BP/GP 4.01 only applies to projects which reached the PCD stage after March 11, 1999 and hence it does not apply to the Project. The Project was prepared in accordance with OD 4.01 and, consistent with the provisions of Annex A (a), the potential for increased usage of both fertilizers and pesticides was addressed in the EA report. Nevertheless, and as mentioned above, the Qinghai Government has agreed that any pesticides included in the first crop input packages will be restricted to WHO Class II and III products, which is consistent with the pesticide screening provisions that are set down in Annex C of BP 4.01.

Concern: *Failure to assess impact of pesticides on human health and ecosystems and wildlife.*

Response: There is no requirement in the Bank's policies or directives to assess such impacts on a case-by-case basis. Instead, the Bank's guidelines for pesticide procurement require that the Bank finance only pesticides falling within the WHO's Classes II and III, which are chemicals of relatively low toxicity and half life, considered to represent limited threats to humans or non-target animals. In this particular Project, while the Bank will not finance procurement of pesticides, and the Borrower has agreed to restrict pesticides it supplies to these two classes. Finally, it is expected that application levels of pesticides under the Project, whether included in the first crop input packages or secured for subsequent crops by farmers using their own funds, will be very low given the general subsistence nature of the crop production systems included in the farm models. In addition, training will be provided by extension agents to farmers to promote the safe use and storage of agrochemicals. There is no reason to believe that these will represent any significant off-site risk to animals or humans.

Concern: *The Project does not include a pesticide monitoring plan.*

Response: The Project will include measures for monitoring use of agricultural chemicals, including pesticides, as a routine element of the supervision work program of the PMO, Bank and the ITE. This will include the review of use patterns with local authorities and farmers to check on general trends in the context of the agricultural production system and from an environmental perspective. Bank supervision missions may also offer advice to the Borrower regarding the types of pesticides being considered for inclusion in the first crop input packages and the tailoring of farmer training programs depending on the types of chemicals being considered. The EMMP includes monitoring progress of extension and training programs; pesticide use patterns, including frequency and types of accidents; measures adopted for storage; and monitoring input levels, including pesticides, in a random sample of plots and comparison with the relevant national standard (GB-4285-84). Detailed field-based chemical and biological monitoring of agrochemical uses is not proposed for the Project due to the low projected use of these materials and the types of chemicals to be used.

Concern: *The Project does not provide a proposal for education or training of ecologically based pest management.*

Response: The Project design includes steps to support agricultural extension services in training and dissemination of information regarding the prudent use of all forms of pest management including environmental control and agrochemicals. The Project also includes a special program for the labeling of agricultural chemicals, including pesticides, in minority languages. This activity will include special measures by extension agents to reach out to these groups to support proper use of these materials and promotion of measures for safe application, secure storage and emergency procedures in the case of accidents.

Annex 9. Stakeholder Consultation Activities

Adequate Consultations: Extensive information dissemination, consultation and discussion took place both in the move-out and move-in areas at early stages of Project identification and preparation. Specific actions taken in the move-in area include: (a) public meetings at county, township and village level to explain the context and content of the Project; (b) distribution of booklets, handbills, wall posters, etc. in all affected areas; (c) radio and television media campaign; (d) meetings and discussions with community and religious leaders; and (e) a participatory SA. The issues that were discussed during these meetings and campaigns included context and content of the agricultural program, the voluntary settlement component and environmental and social impacts and risks, and resettlement and compensation plans. During the preparation phase (1997), about 300 scientists and technicians in 14 technical units (agricultural, geographic, water resources, environmental, etc.) worked in the move-in area, and a wide range of exchanges between the scientists and the local people were arranged by the Provincial PMO and its local offices.

To ensure that the concerns of the local communities in the Project move-in area were appropriately addressed and fully reflected in the Project design, the dissemination of information regarding the proposed design and discussion of possible negative impacts started early in the Project preparation stage, well before the formal stakeholders' consultations were carried out under the SA survey. In May 1996 when the provincial government of Qinghai decided to prepare the voluntary resettlement program, people including representatives of local farmers and herdsmen in the move-in areas were informed about the Project and discussions were held regarding the possible environmental and social impacts of the program.

Starting in March 1997, Project preparation activities were carried out both in the move-out and move-in areas. Besides dissemination of Project information through administrative channels, the PMO also organized Project information dissemination meetings on the ground attended by 1,096 local people, and investigated the local socio-economic situations. In May 1997 a large public meeting was organized in Balong township to disseminate additional Project information. In addition discussions were carried out with selected herder households in the northern part of Balong township to elicit their opinions on the migration movement and their expected compensation requests for any losses caused by the settlement program.

The SA provided the opportunity for more intensive consultation with all sections of the affected communities. The methodology included both formal and informal means such as structured opinion surveys and questionnaires, semi-structured interviews as well as informal discussions with a range of stakeholders that included village officials, women's groups, and community and religious leaders of various village/township level associations. Additional discussions were carried out by Bank staff with selected herder households in the Project area to elicit their opinions on the migration movement and their expected compensation requests for any losses caused by the settlement program. Preparation of the EA also included visits to farmer households and use of a questionnaire.

Influence in Project Design: The consultations carried out under the SA provided an opportunity both to continue detailed investigation for the Project feasibility studies and to conduct detailed Project information dissemination, through two-way communication with local community leaders, religious elders, herdsmen and farmers about the possible impacts the Project will bring about to local society. The discussions revealed that the local communities were well aware of the potential negative impacts of the Project, such as possible problems related to fuel wood availability, pressure on vegetation, public security, and issues related to land acquisition. Controversial aspects and major concerns were thoroughly discussed during these consultations and people were given a chance to express their views and attitudes towards the Project. Results

of the stakeholders' consultations were thoroughly analyzed and when the SA team discussed these issues with the consulted groups again, the stakeholders demonstrated a good understanding of and confidence in the answers that were built into the Project design in general, and the VSIP and RAP in particular.

Environmental and Social Mitigation Measures in Project Design: The SA surveys revealed that all individuals surveyed during the consultations were worried about the possible environmental degradation in the Project area and 9 percent surveyed opposed the influx of migrants for fear of increasing thefts of livestock as experienced with earlier migrants; this demonstrated that the local communities were well aware and informed about the possible impacts of the Project. Moreover, a large majority of respondents (97 percent) felt that the Project would take adequate steps to mitigate any negative impacts. The SA identifies the safeguards and compensation mechanisms that will avoid social unrest in the Project move-in area. The Project documentation identifies the key environmental risks, and mitigation and environmental monitoring measures with their associated costs, and specifies implementation responsibilities. Mitigation measures to avoid possible land and water degradation are described in detail in the EMMP and reflected in the Project design.

Presence of Chinese Officials:⁶³ The stakeholders' consultations were carried out in the presence of specialists of the local technical units (agricultural, geographic, water resources, environmental, etc.) who will also participate in Project implementation activities. The presence of the officials did not appear to significantly inhibit expressions of opinion since nine percent of the local population surveyed in the Project move-in area expressed their resistance to the settlement of migrants in the area, 29 percent "welcomed" the settlers and 62 percent were "neutral."

Access to Documentation: All Project related documentation (SA, EA, and the VSIP which includes the RAP) was available to Project-affected people in Chinese in Qinghai in October 1998. Revised versions were continuously made available to the affected people as they were updated.

Bank Role: The Bank provided input to the design of the questionnaires as well as detailed comments on the draft SA. In addition, separate interviews were carried out by Bank staff to randomly verify some of the SA findings. Bank staff also visited adjacent villages and townships to form their opinion of the environmental and social issues.

63 In China a large majority of people work in the public sector. However, distinction should be made between government officials with executive power and technical specialists from research institutes, universities, etc.

Table A.9-1. Stakeholder Consultation Activities

Social Assessment Team Activities					Bank Involvement and Review		
Activities	Time	Staff	Local People Involved	Methodology	Staff	Time	Methodology
Background activities in Project information and investigation: Socio-economic baseline information collection and Project information and with local consultation in the counties of the eastern area of Qinghai, the proposed move-out area	04/97 - 05/97	Poverty alleviation authorities on township, county, and provincial levels (mobilizing and sending 152 local officials and 62 Project information/ investigation groups to 788 villages)	About 315,000 people (70% of total local population in the 48 move-out townships) involved in 3,940 various meetings and interviews	Township meetings, community conferences, door-to-door visits, wall posters, broadcasts			
General social and economic investigation in the move-out and move-in areas especially for planning the voluntary settlement program	08/97- 10/97	Qinghai Research Institute of Plateau Geography (QRIPG)	5,018 people involved in 311 group meetings, and 4,100 farm households interviewed	Semi-structured group meetings, extensive individual and household interviews			
Desk review of socio-economic baseline data of move-out area collected by PMO and local authorities through participatory poverty assessment; design of field investigation	11/97- 12/97	Economists Da Mingxin, Wu Jianhai, Ding Changsheng from QRIPG		Statistic breakdown and categorization	Petros Aklilu, Zongcheng Lin	Identification assistance mission, October 1997	Social Assessment instruction
Fieldwork and sample survey among the resident nationalities in the move-out area	01/98- 02/98	Messrs. Da, Wu, and Ding Leading 32 people	Primary stakeholder: 1458 farm households, 6% of the total local population in 48 townships in 6 counties	Participatory Rural Appraisal, random sample survey, beneficiary needs assessment	Petros Aklilu, Concepcion Esperanza Del Castillo	Project Concept Document, Peer Review Comments, April 1998	Conceptual confirmation, reviewer comments

Social Assessment Team Activities					Bank Involvement and Review		
Activities	Time	Staff	Local People Involved	Methodology	Staff	Time	Methodology
Fieldwork and sample survey among the resident nationalities in the move-in area	05/98-06/98	Same as above	Primary stakeholder: 239 herdsman/farmer households, 5% of the local population of 4 townships and 1 town in Dulan County	Local people consultation, random sample survey, questionnaire			
Sample survey and consultation of other stakeholders	06/98-07/98	Same as above	65 agencies/units in government and local societies	Interviews and questionnaire (170 copies: 34 on the provincial level, 66 in the move-out area, and 70 in the move-in area)	Zongcheng Lin, Professor Zhang Zhiliang (local consultant)	Preparation Assistance Mission, 06/98	Document review, discussion, and field visit
Data processing and analysis	08/98-09/98	Same as above	61 households in the move-out and move-in areas	Social analysis (non-random sample survey), statistic breakdown	Zongcheng Lin	08/98-09/98	Assistance through communication at RMC
SA and VSIP documentation and reporting	09/98-10/98	Same as above			Yvonne Ying, HQ consultant	09/11/98-10/03/98	Inspection and assistance of SA analysis and reporting
Further consultation with, document disclosure to, and feedback from the target people in the move-out and move-in areas	10/98-11/98	SA team and PMOs at different levels	Among the selected settlers and people in move-out and move-in areas	Households interviews and group meetings for discussion of the document contents	Petros Aklilu, Zongcheng Lin, Zhang Zhiliang	Pre-appraisal Mission, 10/98	Discussion meetings, field visit, and review and comments on SA report
Investigation of Project impact on Zongjia and Balong township, especially on the 63 directly affected Mongolian herdsman households	10/98-11/98	Messrs. Da, Wu and their team	Local population of the two townships, 4000 people identified	Face-to-face and household interviews, group meetings	Concepcion Esperanza Del Castillo, Nicolette Dewitt	11/98-12/98	Review and comments on SA and VSIP documents
Revision of SA and VSIP documents	12/98-01/99	Same as above		Discussion and communication with RMC	Petros Aklilu	Appraisal Mission, 01/99	Review SA/VSIP reports

Social Assessment Team Activities					Bank Involvement and Review		
Activities	Time	Staff	Local People Involved	Methodology	Staff	Time	Methodology
Submission of SA and VSIP documents, including RAP, for pre-appraisal mission (upgraded later to Appraisal).	01/99-02/99	Same as above		Discussion and communication with RMC	Zongcheng Lin	01/99-02/99	Assistance through communication at RMC
Revision of SA and VSIP Documents					Lanfranco Blanchetti-Revelli, Nicolette Dewitt	02/99-03/99	Review and comments on SA and VSIP documents
Finalization of SA and VSIP documents.	03/99-04/99	SA team and PMO		Cooperation and incorporation	Petros Aklilu, Zhengxuan Zhu, Zongcheng Lin	02/99-03/99	Assistance through communication at RMC and HQ

Environmental Assessment Team Activities				State Environmental Protection Agency Instruction and Review			Bank Instruction and Review		
Activities	Time	Staff	Methodology	Staff	Time	Methodology	Staff	Time	Methodology
EIA assigned (EIA team set up)	9/10/1997	EIA Team headed by Mr. Ma Shizhen, an Environment Specialist		Natural Department, SEPA	9-10/1997				
Investigation of current situation of natural environment, social environment, water quality environment, wildlife and public participation	9/18-10/21/97	Same as Above	On-site sampling, lab analysis, 120 copies of questionnaire distributed (104 copies returned), 159 farmer households visited						
Visit of the World Bank's Identification Mission	7/10-10/11/1997	EIA Team and Environment Specialist from the World Bank Mission					Zhang Yutian	10/08/97-10/11/97	Informal meeting

<u>Environmental Assessment Team Activities</u>				<u>State Environmental Protection Agency Instruction and Review</u>			<u>Bank Instruction and Review</u>		
Activities	Time	Staff	Methodology	Staff	Time	Methodology	Staff	Time	Methodology
Water quality analysis, ecological and wildlife studies and preparation of EIA.	11-12/1998	EIA Team	Lab analysis, collecting results, materials and editing						
Visit of the World Bank's Technical Mission	2/20-2/27/98	EIA Team	Informal discussions and on-site visit				Alex Schumacher	02/20/98-02/27/98	Informal meeting and exchange of ideas. Preparation of terms of reference for EA studies and report formats. Review of land suitability criteria for irrigation.
Review of EIA outlines	3/22-3/27/98			SEPA, national and Qinghai experts		Meeting and field visit			
SEPA's approval of EIA outlines	5/8/98					Review			
On-site supplemental visit	6-7/98	EIA Team	Field sampling and on-site observation						
EIA technical plan and instruction for task assignment	8/6-8/16/98	EIA Team and Mr. Schumacher	Informal discussion				Alex Schumacher	08/6/98-08/16/98	Informal meeting and discussion
Investigation in "move-out" area of natural environment, social environment, and ecology	9/98	EIA Team	Field sampling and material collection						
Preparation of EIA report, collecting feasibility study report (FSR) and discussion with professionals of various disciplines	3-9/98	EIA Team and agencies responsible for FSRs	Stage by stage centralized preparation and discussion	SEPA	3/8/98	Expert instruction and comments	Alex Schumacher	03/98-08/98	Informal meeting and discussion
Visit of the World Bank's Pre-appraisal Mission	10/16-10/23/98	EIA Team and the World Bank Mission	Meeting and discussion				Alex Schumacher	10/16/98-10/23/98	Meeting and discussion

<u>Environmental Assessment Team Activities</u>				<u>State Environmental Protection Agency Instruction and Review</u>			<u>Bank Instruction and Review</u>		
Activities	Time	Staff	Methodology	Staff	Time	Methodology	Staff	Time	Methodology
Revision of EIA Report	10/17- 10/30/98	EIA Team							
SEPA's review of EIA Report (approved in principle)	12/4/98	CAS's Geography Institute, China Agricultural University, Natural Resources Investigation Association and experts from Qinghai				Meeting			
SEPA's second review of EIA Report (approved formally)	1/12/99	Same as Above				Meeting			
Visit of the World Bank's Pre- appraisal Follow-up Mission (upgraded to Appraisal later)	1/19- 1/23/99	EIA Team and the World Bank Mission	Meeting				Alex Schumacher	1/19- 1/23/99	Informal meeting and discussion

Annex 10. Details on Requirements of Disclosure Policy

Policy Requirement	Relevant Facts of Bank's Actions
When the EA for a Category B IDA project results in a separate report, the EA report and a RAP must be made available to affected people in the borrowing country prior to appraisal.	<p>The EA report first became publicly available to Project-affected people in Chinese in Qinghai (at provincial, prefectural and county levels) as of November, 1998.</p> <p>The VSIP, which incorporated the RAP, was available to Project-affected people in Chinese in Qinghai as of January 23, 1999.⁶⁴</p>
The EA report and the RAP must be received by the Bank prior to appraisal.	<p>The draft EA and VSIP reports, which incorporated the RAP, were initially received by the Bank in October 1998, following which a Decision Meeting was held, on December 17, 1998. A follow-up pre-appraisal mission visited Qinghai from January 19-23, 1999, during which time an updated EA and VSIP were received by the Bank. These updated versions were found satisfactory after review in the field and at Headquarters, prior to January 26, 1999. The mission was upgraded to an appraisal mission on January 26, 1999, while the team was still in the field, after issues identified during the Decision Meeting were satisfactorily addressed.⁶⁵ See Annex 3, Chronology of Project and Loan and Credit Processing.</p>
Once officially received by the Bank, the EA Report and the RAP are sent to the Bank's InfoShop. ⁶⁶	<p>After the wrap up meeting held in Beijing on January 26, 1999, the Task Team Leader did not return to Headquarters until February 1999. A consultant was engaged by the Bank to upgrade the English translation of the EA report to a level adequate to provide a basis for meaningful consultation by interested parties. When this was completed, an English translation of the report was sent to the InfoShop on June 2, 1999. Similarly, the RAP annex of the VSIP was revised and distributed to the InfoShop on June 2.</p>

64 Although preparation of a SA is not a mandatory Bank requirement and its disclosure is not covered by the Bank's disclosure requirements, a SA was prepared for the Project and made available to the Project-affected people at the same time as the VSIP.

65 For the purposes of disclosure policy, January 26, 1999 is to be treated as the appraisal date. Although the PAD refers to January 10, 1999 as the appraisal date for the purposes of setting a cut-off date for retroactive financing, a review of the facts reveals that this was not the date when appraisal began, but rather the date on which the follow-up pre-appraisal mission arrived in the Borrower's country. The mission proceeded first to Gansu and Inner Mongolia, and last to Qinghai. The mission returned to Beijing for the wrap up meeting, which was held on January 26, 1999.

66 Responding to concerns about inadequate implementation of disclosure policy (particularly availability of EAs at the InfoShop and updating of Project Information Documents), an Operational Memorandum dated October 15, 1997, "Implementation of the Bank's Disclosure Policy" was issued. The Operational Memorandum states that when the Bank receives EA reports for Category A projects and IDA-financed Category B projects, teams are advised that they "should check to make sure that they have been made available at a public place in-country, so that affected groups and local NGOs have access to them. Task teams should then provide the reports to the InfoShop before the appraisal mission departs." The Operational Memorandum was not based on any change of policy but was intended to provide guidance to staff.

Annex 11. Supplemental Letters to the Legal Agreements

Annex 12. Description of the Pre-Pilot Phase and Pilot Program

The Pre-Pilot Phase: The main objectives of the Pre-Pilot Phase are (a) to expand on the previous environmental and social assessments in light of the issues raised by outside parties; (b) to prepare a detailed social implementation plan for the Pilot Program; and (c) to adjust the environmental aspects of the Pilot Program as necessary. A special element of the Pre-Pilot Phase will be environmental and social evaluations of the experience to date from the two existing settlements in the move-in area, which are based on irrigated agriculture. Activities to be carried out during the Pre-Pilot Phase include:

- *Supplemental Environmental Studies:* The Pre-Pilot Phase will include a series of Supplemental Environmental Studies which will complement the investigations already undertaken in the EA for the Project. These studies will provide for further field-based evaluation of issues that were identified as qualitative concerns during discussion and review of the Project. Three groups of Supplementary Environmental Studies will be done to support preparation of the final design and implementation of the Project. These include: (a) Group 1–Detailed Project Design and Implementation Studies; (b) Group 2 –Ecological Studies; and (c) Group 3–Supplementary Field Reviews (Annex 14, Description of Supplemental Environmental Studies).
- *Participatory Rural Appraisals (PRA):* The Pre-Pilot Phase will involve on-site PRAs of both the move-out and move-in areas. These investigations will focus on expanding the SA conducted earlier in light of the discussions held since then. Inter-ethnic relations, minority rights, confidential expressions of attitudes towards the Project, and suggestions for its improvement will highlight the PRA team’s interests.

For the move-in area, the PRAs will canvas existing communities around the Project area, including nearby multi-ethnic settlements. The PRAs will also work with the local herding population of Mongol and Tibetan herders. Such data will be gathered so as to prepare for the Pilot Program. The immediate Project area’s previous experience with settlement, ethnic interaction, and adjustment to local conditions will thus be brought to bear directly on the preparation of the Pilot Program (and thus the Project) with an eye towards mitigating potential problems and increasing benefits to all Project-affected people. A PRA will also be carried out for the move-out area to ascertain expectations and concerns of those selected to become settlers since their performance in their new social and physical environment is crucial to the Project’s chances of success (Annex 15, Description of Participatory Rural Appraisals).

The Pilot Program: The settlement will be preceded by a Pilot Program which will see people from 200 households move into a 300 hectare area. It is anticipated that the duration of the Pilot Program will cover on full growing season. The main objective of the Pilot Program is to determine how to improve the design of the voluntary settlement effort so as to increase the chances for success of the Project as a whole. This will be accomplished by conducting a test of the efficacy of the planned settlement approach and irrigation and drainage infrastructure on a trial-run basis. Both social services (educational, health care, training, grievance procedures) and infrastructure investments (water supply, electricity, infrastructural supports) will be put into place at a scaled-down level during this phase. The elements of the EMMP will be tested. Details of the Pilot Program will greatly depend on the outcome of the various Pre-Pilot Phase activities and it is likely that the following indicators for Pilot Program success will be incorporated into Pilot Program design:

- High degree of inter-ethnic cooperation and lack of serious conflicts;
- Extensive cross-cultural tolerance, particularly in religious matters;
- Continued viability of both farming and herding strategies with little conflict between them;
- Construction of infrastructural elements continues according to plan without encountering significant problems or delays;
- Villages receive adequate water, electricity, and other infrastructural supports;
- Villages have access to adequate and culturally appropriate social services (schools, health care, credit, agricultural training, cultural enrichment);
- Project beneficiaries from the move-out areas consider the selection process ethnically equitable and efficient;
- Local governments and cadres from both the move-out and move-in areas collaborate to smooth the transition for host population in the move-in area, migrants, and future migrants;
- Monitoring programs for social and environmental aspects of the Project are field tested and personnel trained to undertake these tasks;
- Environmental mitigation measures for land and water resources are demonstrated and actions initiated to limit indirect impacts to hydrology, grazing lands, and the Balong Soak; and
- Migrants are on a path to develop opportunities to earn incomes sufficient to sustain them during the early years post-settlement and to gradually raise their living standards.

The Pilot Program will thus test the proposed interventions at the field level with the participation of Project beneficiaries. This will create a demonstration area that could later be used as a training site for Project participants and provide an opportunity to show types of irrigation layout, village infrastructure, schools, clinics, agricultural techniques, and land management practices that will be promoted by the Project. The Pilot Program will include participatory evaluation techniques to provide input from a representative range of parties in the Project area. The Pilot Program will also seek to ensure that minority nationality needs are met.

Experimenting with techniques for participant input during Project implementation will be a major concern during the Pilot Program since stakeholder buy-in to the Project is crucial to its success. The Pilot Program will thus try out participatory techniques for invoking beneficiary input into decision-making and Project management. Three key channels for feedback during the Project itself will be field-tested:

- *Village-wide meetings*: These community-based gatherings are the local communication vehicle for interaction between the PMO and the local farmers and herders. At all stages in the Project PMO personnel will participate in villagers' meetings when requested to talk with the beneficiaries and Project-affected people;
- *Direct Interviews*: Discussions will be held at regular intervals with Project-affected households to solicit suggestions and comments on Project implementation;
- *Five percent Tracking Sample*: A semi-annual 5 percent population tracking procedure will be developed for the quarterly Progress Reports. These reports will permit adjustments in Project implementation throughout Project life.

Particular care will also be taken to incorporate women's input into decision-making. The Pre-Pilot PRAs will focus on devising culturally appropriate strategies to ensure a gender balance in

beneficiary input into Project decision-making. In addition, these preliminary phases will explore the advisability of setting up ongoing Project-Affected People's Advisory Councils composed of representatives of local herders, farmers, and other interested parties to relay immediate feedback and input to the PMO and the Bank. It is planned that the full-scale Project will be implemented in a phased manner which will allow for a continuous assessment of the economic, environmental and social aspects of the Project so that adjustments can be made over time.

Annex 13. Supervision Approach

Team Composition: The implementation of the Project will be supervised by a Bank team consisting of senior staff from headquarters and the Resident Mission in China (RMC). A Project Team Leader from headquarters and a Project Anchor in the RMC will be jointly responsible for overall coordination of the team's work. Recognizing the complexity of the Project and the sensitivity of the issues involved, it is anticipated that the Project will need significant supervision effort, especially during the initial years when considerable input will be required for all aspects of the Project. The core Project supervision team will include experienced environmental and social specialists who will supervise these aspects of the Project. In addition, reviews of the Project's environmental and social aspects will be carried out on a regular basis by an ITE consisting of recognized international experts in environmental management and social sciences (Annex 16, Draft Terms of Reference for the Independent Team of Experts).

Mission Approach: The Team Leader will delegate various tasks to the sectoral teams responsible for supervising specific Project implementation activities. It is anticipated that two or more formal supervision missions will take place during each of the first and second years, complemented by sector specific interim missions as well as frequent field visits by the RMC. The purpose of the interim missions is to follow up on implementation of actions agreed during the semi-annual supervision missions. Special attention during supervision missions will be given to the implementation of the VSIP and the RAP and to the sociological and technical aspects of the entire settlement process. The functioning of the grievance mechanism will be monitored, modified and/or redesigned if deemed necessary. The missions will also review implementation of the EMMP. A mid-term review will be conducted to evaluate Project progress and the environmental and social impacts of the VSIP and the RAP.

Counterparts and Beneficiaries: The Foreign Capital Project Management Center (FCPMC) of the Leading Group for Poverty Reduction and Development of the State Council, in collaboration with the Provincial and County PMOs, will be responsible for supervising the Project's overall implementation progress. FCPMC will carry out its own annual on-site supervision in addition to participating in Bank supervision missions. During Project launch the Bank will review the move-out and move-in County PMOs' staffing and work plans, as immediate readiness of these offices is critical for successful implementation of the Project.

In order to improve the efficiency of Project supervision missions, the Bank will request that prior to each mission, the Provincial PMO prepare a detailed Project information package which provides information about Project implementation progress since the last supervision mission, including monitoring of specific performance indicators for environmental and social issues, procurement and disbursement of funds and compliance with loan and credit conditions. The Project information package will be prepared according to a detailed questionnaire developed by the Bank's Project Team, and will be submitted to the Bank's Sector Management for review prior to the supervision mission. Supervision input will be requested from beneficiaries through focus groups and PRAs.

Monitoring and Reporting Arrangements: During the first supervision mission, a Project monitoring system will be established that will form the basis for producing Quarterly Progress Reports by the Provincial PMO which will include sections on environmental and social aspects. The outline and format of the Quarterly Progress Report will be developed and agreed during the Project launch workshop. Technical agencies will monitor implementation of Project activities under their respective sector. Findings of on-site monitoring activities, including problems identified and corrective actions required, will be included in the quarterly progress reports.

To gauge progress during the implementation of the Project, a core set of Project monitoring indicators were agreed with the Borrower and Qinghai at negotiations. The environmental and social indicators will be reviewed during the Pre-Pilot Phase and revised if necessary. Monitoring of Project performance indicators will provide additional input for objective assessment of Project implementation progress and give timely signals when problems emerge. The current key performance indicators are identified in Annex 1 of the PAD.

Annex 14. Description of Supplemental Environmental Studies

This Annex provides draft Terms of Reference (TOR) and brief descriptions of the various Supplemental Environmental Studies to be carried out. Some of these studies are included in the appraised Project design and estimated costs have been included in the overall Project cost estimates. Others have been added to enhance the final design and implementation of the Project as a result of qualitative concerns raised about the Project. The objective of these additional proposed studies is to provide a higher level of confidence among interested parties regarding the scope of potential environmental impacts and the adequacy of either currently proposed mitigation and monitoring measures or, if indicated by the results of the supplementary studies, an expanded range of such measures. These studies will be undertaken as an element of the Pre-Pilot Phase of the Project.

Scope of Work

It is anticipated that the Supplemental Environmental Studies will be conducted jointly by independent international specialists and local experts working as members of interdisciplinary teams. All documents will be made available to the public, consistent with the EA procedures of the World Bank. Executive Summaries will be prepared in Chinese, English, Mongolian and Tibetan while the Technical Reports and Main Report will be prepared in Chinese and English.

There is a total of eight proposed study activities which fall within three groups, as follows:⁶⁷

Group 1 - Detailed Project Design and Implementation Studies

- 1.1: Detailed design of the conjunctive water use program and development of ground and surface water monitoring plans.*
- 1.2: Detailed soil mapping, irrigation system layout, development of soil monitoring program and farmer training programs.
- 1.3: Strengthening pesticide management within minority communities.*

Group 2 - Ecological Studies

- 2.1: Assessment of ecological impacts of existing settlements and specification of range management safeguards.
- 2.2: Ecological and land use surveys of the Balong Soak.*

Group 3 - Supplementary Field Reviews

- 3.1: Environmental review of existing settlements and irrigated perimeters in the Project area.
- 3.2: Environmental review of water systems.
- 3.3 Cultural resource survey.

Individual descriptions of these studies are provided in Attachment A.

Definition of the Affected Area: The Supplemental Environmental Studies will focus their efforts on the move-in areas in Dulan County and immediately adjacent areas that may be affected. In the Inception Report, the Study Team, on the basis of field visits and a consultation process, will propose areas to be used for analysis of direct and indirect potential impacts for each

⁶⁷ Studies already included in the Project design are marked with an asterisk.

Supplemental Environmental Study. These zones of influence will provide a geographic framework for conducting the analysis. They will be reviewed and approved by Chinese authorities and the World Bank.

Priority Activity: Given the importance of this Activity (3-1) for preparation of the Pilot Program, the Study Team will give priority to a field-based environmental review of Xinglong and Yarihatu, the two existing settlements in the Project area that are based on irrigated agriculture. This review will include an evaluation of the direct and indirect environmental impacts associated with construction, operation and maintenance of these settlements and their associated infrastructure. Analysis of direct impacts will include: environmental aspects of land and water development; reliability and quality of water supply; management and drainage of soils, including management of saline and sodic conditions; crop production and protection; issues related to the maintenance of canal and drain systems; impacts from road and electrical infrastructure; management of liquid and solid wastes from settlements; and human and livestock disease patterns. The review of indirect impacts from these settlements and their associated agricultural operations will include those on surface and groundwater, impacts on herders and grazing lands; impacts on land use adjacent to the settlements and irrigated perimeters and impacts on local ecosystems and their fauna and flora.

Structure of the Final Report

The timing of these studies will be variable and each study activity will result in separate Technical Reports which will be provided as Annexes to the Main Report. It is planned that a Main Report be prepared to provide a consolidated overview of the findings and recommendations of the whole program, which will provide a basis for the release of all the findings to interested parties. The Main Report will include the following elements:

- *Executive Summary;*
- *Main Report:* Supplemental Environmental Studies for the Qinghai Component of the Western Poverty Reduction Project:
 - ◇ A brief description of the Qinghai Component of the Western Poverty Reduction Project;
 - ◇ A table to describe the key Project elements;
 - ◇ A map showing the locations of key Project elements;
 - ◇ The findings and recommendations of the Supplemental Environmental Studies in a narrative and table format;
 - ◇ Proposals for strengthening the EMMP to further refine and target measures to be taken;
 - ◇ A summary of proposed actions and their costs;
 - ◇ A proposed time schedule for undertaking selected actions in the context of the Project and as complementary activities; and
- *Annexes:*
 - ◇ List of Preparers;
 - ◇ Bibliography;
 - ◇ List of Persons Contacted;
 - ◇ Technical Reports from Individual Studies;
 - ◇ Other Technical Annexes as Appropriate.

Key Tasks

Introduction: The Study Team will prepare a series of complementary studies that will include an overall summary, cost estimate, implementation schedule and supplemental monitoring program. In preparing the report the Study Team will undertake a number of tasks. These key tasks are outlined below.

Executive Summary: The Study Team will develop a concise Executive Summary providing an overview of the findings and recommendations of the Individual Supplemental Environmental Studies. The Executive Summary will make use of tables for the presentation of information on findings, recommended actions and projected costs for proposed measures. The Executive Summary will be prepared in Chinese, English, Mongolian and Tibetan.

Main Report: The Study Team will prepare a Main Report that includes a brief overview of the objectives and key elements of the Project. This will be accompanied by a summary table and map. The Main Report will provide a comprehensive presentation on the scope of the Project, the findings and recommendations of the Studies, an overview of the recommendations, an analysis of their costs and a schedule for their implementation. Key topics to be evaluated are described in Attachment A. The Main Report will be prepared in Chinese and English with Annexes as appropriate.

Field Surveys: As appropriate, the Study Team will undertake field-based surveys to provide additional data, support the analysis of potential impacts and establish a further technical basis for the design of management and monitoring actions. The Study Team will supplement the findings of field surveys with materials from archives and consultations with researchers and the potentially affected population. In preparing the report the Study Team will make use of photographs and drawings to provide the public with an understanding of environmental conditions, status of natural resources and potential impacts. Copies of all individual Supplementary Environmental Studies will be provided as Annexes to the Main Report in Chinese and English.

Strengthening the EMMP: The Study Team will make proposals to strengthen the EMMP to reflect the findings and recommendations from the Studies. These proposals will identify cost effective mitigation measures that can be adopted to enhance the approved EMMP. The proposed mitigation measures should include information on which parties may be responsible for their implementation.

Strengthening the EMMP: The Study Team will make proposals to strengthen the EMMP to reflect the findings and recommendations of the Studies. These proposals will focus on methods that can be implemented by local authorities in a cost effective and reliable manner. Recommendations should be made which identify institutional strengthening and human resources development actions that may be required to implement the proposed monitoring activities.

Consultation and Interactive Review Process: The Study Team will use a participatory approach, including surveys, interviews and public meetings to discuss with stakeholders and beneficiaries their knowledge and views concerning the environmental issues under examination. Representatives of Government agencies, academic and applied research institutes, community leaders and religious elders will be queried. Meetings will be held with representatives of Hui, Mongol, Salar, Tibetan and Tu minorities. An interactive review process, based on small group meetings, will be conducted to support review of the Draft Reports for individual studies and

Final Main Report. These meetings will provide a feedback mechanism for parties that might not be inclined to provide written comments on the findings and recommendations of these studies.

Overall Summary of Recommendations and Evaluation of Costs: Based on the findings and recommendations of the Supplemental Environmental Studies, the Study Team will prepare an overall summary of the recommendations which will propose selected actions to be taken to enhance the final design, implementation and monitoring of the Project. This will be complemented by an evaluation of costs for the proposed actions. Proposals will also be made for integration of these actions into the implementation schedule.

Reports

The Study Team will submit to the Government of China and the World Bank an Inception Report, Draft Main Report and Final Main Report. The Study Team will prepare a proposed distribution list for the Draft and Final Reports that will be submitted to the Borrower and the Bank for review and approval. The Study Team will provide multiple copies of the Executive Summary (in Chinese, English, Mongolian and Tibetan) and the Final Main Report (in Chinese and English) to the Qinghai Provincial Management Office for distribution to the appropriate locations in the Project area. The Qinghai Provincial Management Office will provide multiple copies of these documents, in all languages, to the Leading Group for Poverty Reduction and Development of the State Council and the Bank.

Institutional Arrangements

The Supplemental Environmental Studies will be coordinated with the Qinghai Provincial Management Office at the provincial level and the County Management Office at the Dulan County level. In addition, contact will be maintained with the Project Team Leader at World Bank Headquarters in Washington D.C., and the Project Anchor at the Resident Mission of the World Bank in Beijing.

List of Attachments

Attachment A. Descriptions of Individual Supplemental Environmental Studies

Attachment A

Descriptions of Supplemental Environmental Studies

Supplemental Environmental Studies: Group 1 - Detailed Project Design and Implementation Studies

Study 1.1: Detailed design of the conjunctive water use program and development of ground and surface water monitoring plan.

Study 1.2: Detailed soil mapping, irrigation system layout, development of soil monitoring program and farmer training programs.

Study 1.3: Strengthening pesticide management within minority communities.

Supplemental Environmental Studies: Group 2 - Ecological Studies

Study 2.1: Assessment of ecological impacts of existing settlements and specification of range management safeguards.

Study 2.2: Ecological and land use surveys of the Balong Soak.

Supplemental Environmental Studies: Group 3 - Supplementary Field Reviews

Study 3.1: Environmental review of existing settlements and irrigated perimeters in the Project area.

Study 3.2: Environmental review of water systems.

Study 3.3: Cultural resource survey.

Group 1: Detailed Project Design and Implementation Studies

1.1 Detailed Design of the Conjunctive Water Use Program and Development of Ground and Surface Water Monitoring Plans

Background: Groundwater modeling undertaken to date for the Qinghai Component was carried out at the feasibility level (1:50,000 scale). To support the detailed design process, the scale of analysis needs to be increased to about 1:25,000 for the whole area and additional pump testing is required. Ground and surface water monitoring systems also need to be designed and specified. An improved baseline needs to be established for groundwater levels within the development area and in the swampy area north of the site to be developed for irrigation.

Objective of Proposed Work: The work is intended to improve the accuracy of the groundwater model, provide a basis for detailed design of the groundwater component and establish a monitoring system to define current baseline conditions, monitor future changes in groundwater levels and quality and provide a basis for adjusting the conjunctive use program as required.

Scope of Work: The Study Team will undertake the following tasks:

- Review the existing Groundwater Modeling Report, Hydrogeology Report of Water Supply Feasibility Demonstration in the Project Area, Field Water Supply Hydrogeology Exploration Report, South Qaidam Basin Geology-Hydrogeology Report and the results of additional field work done as part of the groundwater modeling report;
- Collate relevant topographical, geological and hydrological maps and plans as required;
- Based on the preceding, identify a suitable site and supervise installation of a large diameter borehole of approximately 60–80 meters depth with associated observation wells for testing both the unconfined and confined aquifers. Pump and falling head tests will be carried out to further refine hydrogeologic parameters used in the model;
- Undertake field tests to verify the assumptions regarding canal and field efficiencies used in the model (data from Haixizhou were used, local data should be generated);
- On the basis of the preceding data, re-run the model and refine the wellfield locations, designs and specifications;
- Design and prepare specifications for a groundwater monitoring program (water levels and groundwater quality) encompassing both the proposed irrigation areas and the saline swampy area within the spatial limits of the model; and
- Prepare manuals/handbooks for use by the Provincial and County Water Resources Bureau in further application of the model, monitoring and management of the Project.

1.2 Detailed Soil Mapping, Irrigation System Layout, Development of Soil Monitoring Program and Farmer Training Programs

Background: Five soil surveys of the proposed development site have already been completed which provide a considerable level of detailed knowledge of site soil capability and distribution. This work needs to be extended to cater for the detailed design and implementation phases of the Project. In response to concerns expressed regarding the capacity of settlers to manage saline and

sodic soils, the scope of work has been extended to strengthen the farmer training programs as they relate to sustainable use of saline and sodic soils.

Objective of Proposed Work: The objective is to extend the work completed to date to the detailed design level and also to provide a basis for long term sustainable use of site soils through monitoring and farmer training.

Scope of Work: The Study Team will undertake the following tasks:

- Review the soils mapping program conducted to date by Chinese specialists, including special studies which were done at the request of the World Bank to further refine knowledge of these conditions in the Project area;
- As required, make recommendations regarding additional field studies/analyses required to provide the level of detail necessary to support detailed design of the irrigation system including water scheduling;
- Examine the proposed designs for the irrigation and drainage systems including land preparation and leveling, water application methods and drainage techniques;
- Evaluate planned activities for preparation of soils for agriculture with a special emphasis on the leaching processes to be used to reduce salt and sodic conditions;
- Assess the proposed cropping and water application plans for the irrigated perimeters with a special emphasis on the adequacy of planned measures to maintain soil fertility in areas with saline and sodic soils;
- Based on the above, prepare detailed design guidelines for use by the irrigation engineers;
- Develop and specify a soil monitoring program to be implemented by the County Agricultural Extension Service to monitor changes in soil properties over time and provide a basis for overall sustainable management of the soil resource; and
- Prepare a farmer training program regarding sustainable management of saline and sodic soils at the farm level and provide relevant training for trainers from the County and Township Extension staff.

1.3 Strengthening Pesticide Management within Minority Communities

Background: There already exists a comprehensive program of pesticide regulation, applied research, extension, education and monitoring carried out through local Plant Protection Bureaus and Plant Protection Stations in China. Experience in other minority areas suggests that more could be done to improve the effectiveness of these programs amongst minority communities.

Objective of Proposed Work: The objective of this activity is to strengthen existing programs in the Project area through development of training materials, training of trainers, conduct of training programs, preparation and dissemination of information in popular formats and provision of improved pesticide labeling in local minority languages including Mongolian and Tibetan.

Scope of Work: The Study Team will undertake a series of complementary activities to support the improved local management of pesticides within the Project area and to provide a model that can be used in other areas of China. In undertaking this work the Study Team will conduct the following activities:

- Review existing training materials for pesticide application, handling and storage for technical compliance with existing State Government guidelines and recommendations and, as required, prepare a schedule of recommendations for upgrading these materials to meet the prescribed standards;
- Undertake surveys within existing communities in the Xiangride-Balong area to assess awareness of pesticide application, handling and storage guidelines and, to the extent that awareness is low, prepare a pesticide awareness development program to be implemented on a small scale in existing communities during the Pilot Program of the Project, with a view to scaling up implementation for the whole Project;
- Design and conduct programs for the “training of trainers” which are directed to extension personnel who will be working with minority populations in the Project area;
- Conduct and evaluate “model” training programs with participation of extension specialists, personnel trained as trainers and farmers from the Project area. Following testing of model programs, proceed with development of standardized training programs with training materials in minority languages; and
- Design and implement a public awareness and outreach program that makes due provision for the cultural diversity within the area and for optimizing delivery of knowledge to the different communities, including production of pesticide safety usage labels in minority languages.

Group 2: Ecological Studies

2.1 Assessment of Ecological Impacts of Existing Settlements and Strengthening of Relevant Project Safeguards

Background: Concern has been expressed that development of additional irrigation at Balong will have adverse impacts on surrounding natural habitats.

Objective of Proposed Work: The objective is to evaluate this concern through field surveys of habitats surrounding existing irrigation areas in the Xiangride-Balong area and, to the extent that adverse impacts are identified, to formulate monitoring actions and safeguards to reduce impacts during Project implementation, and to develop and deliver training/awareness raising activities.

Scope of Work: The Study Team will undertake the following tasks:

- Undertake flora surveys (diversity and abundance) along transects radiating outwards from two existing settlements, covering the three main habitat types found in the area (Gobi desert communities, transitional meadow communities and saline swamp communities);
- Undertake similar surveys in three “control” areas (one for each ecological community) that are sufficiently removed from existing settlements as to be substantially unaffected;
- Subject to the findings of the surveys and, in particular, if significant differences are detected between the “affected” and “control” areas, carry out a program of interviews in each settlement to identify the ways in which inhabitants use the surrounding areas; what activities they undertake there and with what frequency, with a view to finding connections between peoples’ behaviors and observed ecological changes in the field;
- Where changes are detected sufficient to justify ameliorative action, develop monitoring and management guidelines, including public awareness materials, cost estimates, assignment of responsibilities and a schedule to cover the implementation phase of the Project; and
- Present the results of the research work to relevant township and County officials including staff of the PMOs, Animal Husbandry Bureaus and Agricultural Extension Stations as a basis for proceeding to implementation of the proposed monitoring and safeguard activities.

2.2 Ecological and Land Use Surveys of the Balong Soak⁶⁸

Background: The Project includes extensive monitoring of vegetation cover and groundwater of the Balong Soak to gauge potential impacts. The Project is designed to minimize induced changes in groundwater levels and vegetation cover in the saline swampy area to the north of the proposed irrigation area. The most critical need from a Project monitoring point of view is to compile an ecological baseline against which changes induced by the Project can be gauged. There is also an opportunity to supplement this work in order to extend knowledge of all the factors impinging on sustainable management of the area and, to the extent possible, develop guidelines intended to improve such management. The objective of the work is to provide insights into the management problems being encountered throughout similar areas in Dulan County and to assist the Government to identify feasible and practical options for management of these resources.

68 The term Balong Soak refers to the area within which the Project has potential to alter current groundwater levels according to the groundwater model. It covers an area of approximately 450 square kilometers paralleling the Balong irrigation district.

Objective of Proposed Work: The proposed work is intended to:

- Establish a baseline, including a detailed map, from which potential ecological changes induced by the Project can be measured;
- Supplement this work with other surveys to identify existing pressures on the area, including potential hydrological issues. Currently the main pressure is believed to be uncontrolled grazing by itinerant herders; and
- Prepare suggestions on management and development options designed to support environmentally sustainable use of the area in the future.

Scope of Work: The area in which the work will be carried out covers approximately 500 square kilometers of land lying adjacent to the proposed Babng irrigation area and extending 10 kilometers north, into the saline swampy area. The Study Team will:

- Undertake a comprehensive review of literature regarding past field studies both in the area north of Balong and in similar ecological systems throughout western China;
- Compile and analyze air photographs, satellite images, other remote sensing data and maps covering the proposed site;
- Design and implement a flora and fauna monitoring system covering the area which will provide a valid baseline against which potential changes induced by the Project can be gauged (the program will need to be designed in consultation with the hydrologists designing the groundwater monitoring system);
- Prepare an inventory of beneficial uses of the area including use for livestock production, habitat values and significance and others;
- Based on field observations including visits to relatively unutilized “control” areas, the Study Team will assess and prioritize existing sources of change being induced within the ecosystem (such as over-grazing) and prepare a report as to the nature of these sources of change and possibilities for control. This will be discussed with officials of township and County Animal Husbandry Bureaus prior to proceeding to the next stage; and
- Subject to the findings and conclusions of the preceding analysis (that is, to the extent that livestock management is identified as a significant issue), the consultants will undertake a program of interviews with herders and other users of the area to assess their usage patterns and practices as they relate to the ecological health of the system, their needs and objectives, and their ideas as to options available for long term management and protection of the area.

Group 3: Supplementary Field Reviews

3.1 Environmental Review of Existing Settlements and Irrigated Perimeters in the Project Area

Background: A field-based environmental review of the existing settlements and irrigated perimeters in the Project area will be undertaken. The focus of the efforts will be on the experience from the villages of Xinglong and Yarihatu, which were established in the 1980s and are based on recently developed irrigated agriculture. The environmental review will be complemented by a social review of the same settlements and the adjacent populations.

Objective of Proposed Work: This work is intended to provide the personnel responsible for preparation and implementation of the Pilot Program and the Main Project with an understanding of the experience gained from the design, implementation and operation of Xinglong and Yarihatu and their irrigated agriculture. The findings and recommendations from this study will be used to support the final design and implementation of the Project.

Scope of Work: The Study Team will undertake the following tasks:

- Evaluate the direct and indirect impacts associated with construction, operation and maintenance of these settlements and their associated infrastructure;
- Analyze direct environmental impacts, including:
 - ◇ Environmental aspects of land and water development;
 - ◇ Reliability and quality of water supply;
 - ◇ Management and drainage of soils, including management of saline and sodic conditions;
 - ◇ Crop production and protection;
 - ◇ Issues related to the maintenance of canal and drain systems;
 - ◇ Impacts from road and electrical infrastructure;
 - ◇ Management of liquid and solid wastes from settlements; and
 - ◇ Human and livestock disease patterns;
- Review indirect impacts from these settlements and their associated agricultural operations:
 - ◇ Impacts on surface and groundwater conditions;
 - ◇ Impacts on herders and grazing lands;
 - ◇ Impacts on land use adjacent to the settlements and irrigated perimeters; and
 - ◇ Impacts on ecosystems, including their fauna and flora; and
- Prepare an analysis of trends, identify “lessons learned” and propose recommendations that can be used in the final design and implementation of the Project.

3.2 Environmental Review of Water Systems

Background: Concerns have been raised about the potential adverse environmental impacts associated with the construction, operation and maintenance of the water supply, irrigation and drainage infrastructure to be financed under the Project. These concerns have included the

impacts associated with the construction and operation of Keri Dam and the irrigation and drainage perimeters to be developed under the Project.

Objective of Proposed Work: The objective is to undertake a supplemental field-based examination of current physical, biological and social conditions in the areas that will potentially be directly or indirectly affected by the construction and operation of the water supply, irrigation and drainage infrastructure supported by the Project. This will include a review of potential impacts and identification of additional environmental mitigation and monitoring measures to be included in the final design and implementation plan for the Project.

Scope of Work: The Study Team will undertake the following tasks:

- A field review of the proposed Keri Dam and its associated reservoir. This will include review of locations that may be used as quarries and borrow areas. The review should examine the entire area that will be covered by creation and operation of the reservoir.
- A field review of the area that will be in the alignment for the supply and discharge canals which will be constructed to convey water to and from Keri Dam;
- A field review of the area that will be covered with water as a result of the 1-meter increase in the crest of the Hatu Dam. The review should also examine the locations that may be used as quarries and borrow areas;
- A field review of the areas that will be developed through provision of irrigation and drainage infrastructure, land-leveling operations and other interventions involving irrigated agriculture;
- A field review of sites adjacent to the irrigated areas that will be developed for housing, educational facilities and health facilities under the Project; and
- Prepare a report, building on the earlier EIA and complementary technical studies, that identifies potential environmental impacts, proposes mitigation measures and outlines recommended monitoring activities.

3.3 Cultural Resource Survey

Background: In order to support the detailed design process, a Cultural Resource Survey will be conducted as part of the Supplemental Environmental Studies. This will expand the scope of the survey previously undertaken by the Qinghai Provincial Research Institute for Cultural Relics and Archaeology. It will review archaeological and historical sites; religious and sacred sites; tombs, graveyards and burials; and other items of cultural significance.

Objective: The objective of the Cultural Resource Survey is to provide a field-based evaluation of potential impacts, alternatives, available mitigation measures and proposed monitoring actions associated with cultural resources in the areas which will be potentially affected by construction and land use conversion activities under the Qinghai Component of the Project.

Scope of Work: The Study Team will undertake the following tasks:

- Survey areas to be affected by the Keri Dam and Reservoir and the raising of the Hatu Dam;
- Survey the major canals linking Keri Dam with the river and irrigation perimeters;

- Survey the areas proposed for development of irrigated perimeters, their drainage works and areas to be developed for housing and services;
- Prepare a summary of the results of the survey findings which provides information in cultural resources and potential issues organized in a manner which follows the key construction and land conversion activities to be undertaken by the Project;
- Prepare a mitigation and monitoring plan for cultural resources which includes the use of “archaeological chance find procedures” also known as a “watching brief;” and
- Present an estimated budget and schedule for proposed mitigation and monitoring measures. This will include the costs for mitigation measures already identified by Chinese archaeological authorities.

Annex 15. Description of Participatory Rural Appraisals

Objectives

The main objectives of the Participatory Rural Appraisals (PRA) are: (a) to apply the lessons learned from similar settlement experiences taking place in an area adjacent to the Project move-in area; (b) to understand in much greater detail the needs and desires of both the future settlers from the move-out areas and the herders in the move-in area; and (c) to continue an ongoing process of careful Project oversight and implementation to strengthen the design of the Project's Pilot Program and the main Project itself. To this end, both qualitative and quantitative information will be used to examine the effects of migration on the livelihood and cultural wellbeing of the host population and migrant communities in the move-in area.

Participatory Rural Appraisal Sites and Communities

Existing Move-in Area Settlements: In March 1987, Xinglong Administrative Village was established in Dulan County's Balong Township, one of the two townships also selected for the Project. At that time, 248 impoverished households with 1,237 people settled on 249 hectares of land. The experiences of this 12-year old settlement is important since the villages selected for the study have conditions similar to those in the Project. In both villages an ethnically mixed population of Han, Hui, and Tibetan farmers moves into a largely Mongol and Tibetan pastoralist area.

Move-in Area Herders: The Project area is also home to approximately 3,000 Mongol and Tibetan herders. One group of 63 households will be directly affected by Project use of some of their pastureland. Another group of 289 households will need to pass through Project land to access their grazing lands.

Move-out Area: It is anticipated that three villages in one or two counties will be selected for the PRA study. These villages will be selected on the basis of nationality (one Hui, one Han and one Tibetan) and with an eye towards understanding their social characteristics prior to out-migration and settler expectations and desires for their new lives. Those already selected as settlers-to-be will be the focus of this PRA.

Methodology

Techniques: In-depth interviews and stratified focus groups (structured by age, gender, nationality, and occupation) will be the main sources of data used in the analysis. The confidentiality of the informants should be maintained at all times. The interviews and focus groups will be supplemented by cross-sectional village level statistics collected by the authorities.

Composition and Qualifications of the PRA Team: The PRA team will be mostly comprised of specialists familiar with ethnicity in China and competent in one or more of the languages used by the nationalities of the Project area (Mongolian, Mandarin, and Tibetan).

Scope of Work

- Through an analysis of the currently existing farming and herding communities and their previous interaction, the PRA team will assess potential sensitivities and tensions (economic,

social, and environmental) that may arise when settler farmers from different “ethnic” nationalities are relocated into an area of mixed herding and farming. They will suggest possible mitigation strategies to be tested by the Pilot Program. In addition, they will assess perceptions of both the migration process and of changes in the quality of life pre- and post-move for both settlers and hosts.

- The PRA team will issue a report on its studies. Part of this report will include suggestions as to which villages will take part in the Pilot Program. In addition, the PRA team will ensure that the lessons of the PRA are included in the implementation plan for the Pilot Program, including suggestions for detailing the Pilot Program’s objectives, design, timeframe, and methods and criteria for evaluation; and
- The PRA team will coordinate its efforts with the work of the ITE who will review the Pilot Program.

Annex 16. Draft Terms of Reference for the Independent Team of Experts

Introduction: The Borrower and the Bank have agreed to establish an Independent Team of Experts (ITE) to provide advice on the implementation of the Qinghai Component of the Western Poverty Reduction Project. The ITE will work as an independent group and provide its comments and recommendations directly to the leadership of the Leading Group for Poverty Reduction and Development of the State Council, leadership of the Qinghai Provincial Leading Group Office and the Bank. Administrative and logistical support for the ITE will be provided by the Qinghai Provincial Project Management Office (PMO) which will assign a senior staff member to serve as the regular contact point.

Team Membership: The ITE will consist of three members, one of whom will serve as the chairperson, including: (a) an environmental specialist with knowledge of land and water management; and (b) two social scientists with expertise in resettlement and minority people. The panel chairperson will have the authority to appoint short-term specialists, as may be required, for specific assignments. The chairperson and members of the ITE, which would include international and local experts, will be employed by the Borrower and be acceptable to the Bank. They would be selected on the basis of their professional knowledge, academic qualifications, practical experience with development and proven ability to work as members of an interdisciplinary team.

Mode of Operation: The ITE will review the implementation of environmental and social aspects of the Component at least twice a year during the first two years of Project implementation and annually during the remainder of the implementation period. The Chairperson may request additional reviews if determined to be necessary for effective management of the Project. The ITE will establish the schedule for these reviews in coordination with the PMO. The reviews will be conducted in the Project area in Qinghai Province and may also require visits to Beijing and other various locations within China to meet with Government representatives, Project consultants, and other experts. The ITE members may request meetings with any parties they deem necessary to effectively conduct their work.

Scope of Activities: The ITE will provide support for all phases of the Project including the Pilot Program. Special attention will be given to:

- *Pilot Program Implementation.* The ITE will conduct field reviews during the implementation of the Pilot Program to assess the results of this activity. It will focus on both direct and indirect environmental and social impacts. Emphasis will be given to assessment of the potential for moving to full scale implementation of the Qinghai Component; and
- *Full-Scale Implementation.* If a decision is made to proceed with full-scale implementation on the basis of the Pilot Program, the ITE will provide independent review of the entire implementation phase of the Qinghai Component. In this process, the ITE will provide overviews of the progress of the Qinghai Component in addressing environmental and social issues and make recommendations to enhance implementation, suggest modifications and propose the testing of innovations.

Key Tasks: On the basis of broad based consultations and site visits, the ITE will provide independent review and advice concerning the following:

- Implementation of the Pilot Program, including the incorporation of environmental and social studies into the Project;

- Implementation of the EMMP for the Project;
- Implementation of actions for minority peoples;
- Implementation of the VSIP;
- Implementation of the RAP for the Project;
- Implementation of information activities in the move-out and move-in areas as part of the public information program;
- Unanticipated environmental, social and public information aspects of the Component which may arise during the implementation phase; and
- Review of terms of reference for environmental and social activities to be supported under the Component, upon request of Chinese authorities and the Bank.

Reporting: The ITE will prepare a report of its findings for each review. Briefings will also be provided to local government and affected parties at representative locations in the move-out and move-in areas. Detailed briefings will be given at the end of each review to: (a) Qinghai Provincial Leading Group; (b) the Leading Group for Poverty Reduction and Development of the State Council; and (c) the Resident Mission of the Bank. The reports of the ITE will provide an overview of the status of environmental and social issues, identify concerns that need to be addressed, and make recommendations for further actions.

Annex 17. Draft Communications Plan

Targeting the Affected People: The Project Task Team will explore various types of community groups, both formal and informal, which could be contact points and vehicles for dissemination of information, beyond the formal channels. These people and groups will be contacted when information is updated, often coinciding with supervision missions, and provided with materials to ensure the widest access to information. At the Project sites, both in the move-in and move-out areas, public information and outreach programs will be undertaken in Chinese and minority languages. Representatives of the PMO at various levels will create and distribute periodic progress reports on the Pre-Pilot Phase, Pilot Program and implementation of the overall Project. All written material will be available in the relevant local languages. Cassette tapes and portable tape recorders will also be available in several locations and provided to selected community groups—with recordings made in all languages—to ensure that all affected people have equal access to information.

Similarly, during supervision missions and visits to the site, the Project Task Team members will make themselves available to the local radio, television, and print media. This could be done as a public briefing, allowing residents in the area to attend along with members of the press. Information on the logistics of the briefings will be available well in advance to give people as much chance to attend as possible. Similarly, notices for the briefings should be available from a variety of sources and languages, including notices in the local media and through informal networks. The purpose is to convey information in a variety of formats and languages, to reach the widest group of affected people possible.

Targeting the International NGOs: To keep international NGOs regularly informed of the progress of the Pilot Program and later of the Project itself, the Bank will establish an online discussion group in the form of an email list service. A list service is a relatively simple, inexpensive way to hold electronic “meetings” or “conferences.” Essentially, it is the same idea as an email mailing list, with a few additions—like an archive of messages that anyone in the list can access, for example—it is a very simple way for people with basic email access to share information and discuss an issue. The supervision team will post regular updates on the Project on the list service. Individuals interested in the Project can register for the list service through the World Bank’s website. The list service discussion will be supplemented by a series of live briefings in Washington, and elsewhere, depending on demand.

In order to communicate with the larger NGO community and civil society audiences monitoring the Project, the Bank will make every effort to release as much information as possible on the progress of the Project to the media as well as to the public through the Bank’s website.

Annex 18. Summary Matrix of Questions

Claims and Concerns	Management Response
Bank Policy or Procedure Cited: OD 4.20 INDIGENOUS PEOPLE	
<ul style="list-style-type: none"> The Project will contribute to cultural diminution among the Mongols and Tibetans in the move-in areas. 	<p>Project design explicitly calls for indigenous culture bolstering activities. Bilingual education and training for Mongols and Tibetans, culturally appropriate health care and pharmacologies, and full respect for religious activities and religious sites of Lamaist Buddhism, Han Chinese Buddhism, and Islam, are all planned for both move-in and move-out areas.</p>
<ul style="list-style-type: none"> The Project endangers the continuation of pastoralism among the Mongol and Tibetan people in the move-in area. 	<p>The Project allows nomadic Mongol herders to establish permanent housing and to gain access to desired social services, while some family members continue seasonal migration patterns. This reflects a semi-nomadic lifestyle increasingly common in Qinghai, Tibet, and other areas in China and Central Asia. The SA for this Project shows that while the affected minority nationals value their heritage and cultural practices, they also desire access to schools, health clinics, and opportunities to improve their standard of living. The Project will thus promote a balanced development approach which is consistent with the preferences of many of the indigenous people living in the Project area.</p>
<ul style="list-style-type: none"> The Bank has not addressed the fact that the migration may result in an intensification of inter-ethnic conflicts in Project areas and is criticized for inappropriately segregating nationalities. 	<p>The Project design includes measures to mitigate potential inter-ethnic conflicts by allowing communities to settle in accordance with their expressed preferences, as intact communities from their villages of origin; ensuring that new villages are designed with the objective of grouping culturally compatible nationality communities together; establishing a formal grievance procedure; and strengthening public safety to safeguard herder property through establishment of local police sub-stations and people's courts, and training of new and existing law enforcement officers.</p> <p>The Request misinterprets the reasons for separating ethnic communities in the move-in area. The establishment of such villages is at the request of most of the settlers, expressed through the SA survey, and is particularly common throughout China for Muslim groups who are especially concerned about the necessity for maintaining halal dietary customs.</p>
<p><i>Failure to comply with policy by not preparing a self-standing Indigenous Peoples Development Plan (IPDP), thus causing harm to the Mongol and Tibetan people in Dulan County.</i></p>	<p>Whether a self-standing IPDP is adequate for a particular project or whether the IPDP should be integrated into the entire framework of the Project design is a matter of judgement. Since the majority of intended beneficiaries in the Qinghai Project area are indigenous people (58 percent and 78 percent in the move-out and move-in area respectively) the latter approach was followed (see section 2.2 and Annex 6, Indigenous People). Indigenous peoples-related mitigation and benefits provisions are integrated in the project design, including the VSIP, the RAP and the Pilot Program.</p>
<p><i>Failure to comply with the policy objective of fostering indigenous peoples' development with full respect of their dignity, human rights and cultural uniqueness.</i></p>	<p>The Project identifies people from several ethnic minorities (Hui, Mongol, Salar, Tibetan, and Tu) as indigenous people Project beneficiaries, along with Han Chinese. The Project is not designed exclusively to alleviate poverty among Mongol and Tibetan communities, although it includes clear provisions to meet their needs and protect their interests. Following the logic of the OD, Management believes these provisions will help to foster dignity, human rights and cultural uniqueness as envisaged in the OD and within the prevailing country context.</p>
<p><i>The consultations with the local indigenous population are not credible in view of the state of civil liberties in general in China and thus their "informed participation" was not obtained.</i></p>	<p>Project design and the identification of the needed mitigation provisions involved an intensive public consultation exercise with the indigenous people in both the move-out and move-in areas (Annex 9, Stakeholder Consultation Activities). The consultation process was based on "informed participation" of the Project's direct stakeholders. OD 4.20's discussion of "informed participation" refers not only to direct consultation procedures, but also to the incorporation of indigenous knowledge into project approaches. Project design follows this guideline by providing culturally appropriate educational and health care services in the move-in and move-out areas. Management believes that consultations with affected people can be effectively carried out in China in a way to facilitate effective project implementation and realization of project benefits.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> The appropriate spatial unit for the Project area should be Dulan County. 	<p>OD 4.20 is silent on the spatial units to be considered. Since the main goal of the Project is poverty alleviation, safeguarding the welfare of affected communities requires focusing attention on the spatial units on which the potential social and environmental impacts are directly attributable. In that sense the appropriate spatial unit of Project area would include the area of Xiangride and Balong townships in Dulan County. Nevertheless, the Project addresses wider concerns of poverty alleviation and benefits for indigenous peoples throughout Dulan County and the move-out areas, and therefore includes a much broader definition of the Project area for the purposes of the land and household development, and health and education components</p>
<ul style="list-style-type: none"> Population transfer will cause Haixi Mongol and Tibetan Autonomous Prefecture to lose its Mongol and/or Tibetan autonomous status due to ethnic demographic dilution. 	<p>The Bank has received assurances from the Borrower that the autonomous status of the prefecture would not change (Annex 11, Supplemental Letters to the Legal Agreements). Dulan County will continue to provide autonomous protection and benefits for its Mongol and Tibetan population.</p>
<ul style="list-style-type: none"> No “independent” or international monitoring agency will be involved in the monitoring of the Project. 	<p>Although OD 4.20 does not require independent monitoring or an international monitoring agency, the Bank has agreed with the Borrower and Qinghai that the Project will be monitored by an Independent Team of Experts (ITE) composed of highly qualified international experts selected by the Government of China and acceptable to the Bank (see Annex 16, Draft Terms of Reference for the Independent Team of Experts).</p>
<ul style="list-style-type: none"> No assessment has been made of the legal status of Mongols and Tibetans and their access to the legal system. 	<p>Project documents provide a description of the laws guaranteeing special status to indigenous people, including Mongols and Tibetans. These status provide Mongols and Tibetans, together with other indigenous people in the Project areas, access to preferential support programs and various special rights. The Project has been designed in such a way as to provide all Project-affected people, including indigenous people, with an adequate administrative arrangement that will enable them to be heard if they feel adversely affected by the Project.</p>
<ul style="list-style-type: none"> The Bank lacks information on trends in government policies and institutions dealing with indigenous peoples. 	<p>The Bank has undertaken studies on various indigenous people issues within China, including those with respect to Government policies. These studies highlight areas of ethnic vulnerability, including economic (correlation between poverty and ethnicity), demographic (influx of migrants into ethnic minority areas), environmental (particularly as regards resources in ethnic minority areas), education (exclusion from indigenous peoples’ own cultures and history) and gender (rural minority women are the most vulnerable of the vulnerable). A legal study of minority issues in China, including Qinghai, was also conducted.</p>
<ul style="list-style-type: none"> The identification and development of mitigating activities has been insufficient. 	<p>The Project design includes various mitigation activities including education, training, health, credit, and legal assistance provisions for indigenous peoples affected by the Project. Following the Pilot Program, the Project design will be re-evaluated and, if needed, modified. Further technical studies, social assessment activities and consultations will be carried out during the Pre-Pilot Phase and Pilot Program to plan in detail both the establishment of the migrant communities and the provision of Project benefits to the host communities.</p>
<ul style="list-style-type: none"> The Government lacks the social, technical and legal skills to interact with indigenous peoples. 	<p>One of the Project preparation agencies, the Qinghai Plateau Geography Institute, is an important academic institution of Qinghai Province with extensive research experience in areas inhabited by Mongol and Tibetan populations. The Borrower also has a well-established administrative structure of nationalities organizations. In addition, the Bank used not only Chinese institutions for its social investigations for this Project but also relied on the skills of its own social scientists for an independent analysis and to provide guidance to the Chinese investigating teams.</p>
<ul style="list-style-type: none"> The Bank has failed to factor the lack of NGO capacity into Project analysis. 	<p>Project preparation has taken advantage of the collaboration of civil society organizations and village self-management committees. Although these organizations may not fit completely the definition given to the term NGO elsewhere, they are the closest approximation in the Chinese context to the type of organization which according to OD. 4.20 (14c) should be involved in the preparation of projects affecting indigenous people.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> The Bank has failed to provide baseline data including accurate up-to-date maps and aerial photographs of the area of Project influence and the areas inhabited by indigenous people as required by OD 4.20. 	<p>OD 4.20 does not require such maps to be gathered but instead suggests that their use might be helpful. During Project preparation a number of maps, including aerial ones, indicating the location of the main development areas to be established by the Project and of the grazing corridors utilized by the Mongol pastoralists were drawn. A forestry planning map was also prepared. More detailed maps will be prepared for the Pilot Program when the initial settlement area is developed and the distribution of people and ethnic groups for each new village set.</p>
Bank Policy or Procedure Cited: OD 4.30, INVOLUNTARY RESETTLEMENT	
<p><i>Failure to comply with policy on Involuntary Resettlement as no adequate involuntary resettlement plan has been prepared and because the plan was not available prior to appraisal.</i></p>	<p>A VSIP and a RAP were prepared for this Project and meet the principles of the OD. The RAP covers the 4,000 individuals considered to be “involuntarily resettled.” The VSIP covers the 57,775 <i>voluntary</i> settlers. The needs of affected people have been integrated into the Project design and they also will be able to share Project benefits. In addition to full compensation, the Project provides affected people an opportunity to diversify means of livelihood and to improve living standards (see Annex 7, Details of the Resettlement Action Plan and the Voluntary Settlement Implementation Plan).</p> <p>A RAP has been developed to address all adverse impacts on the people living around the move-in area. Since the potential resettlement impact is limited in scope, a plan which addresses basic mitigation measures was prepared and included as part of the VSIP. The VSIP was made available to the affected people and received and reviewed by the Bank prior to appraisal. After appraisal, the RAP was revised into a separate document by incorporating the provisions relating to involuntary resettlement that were described in the VSIP, and was submitted to the Bank’s InfoShop.</p>
Bank Policy or Procedure Cited: OD 4.01 AND BP 4.01, ENVIRONMENTAL ASSESSMENT	
<p><i>The Project was mis-categorized into environmental screening Category B as opposed to Category A.</i></p> <p>Specifics cited include:</p>	<p>The Project was assigned to environmental screening Category “B” on the basis of the range of potential environmental risks and impacts posed by Project components and in accordance with past practice with classification of a large number of similar integrated agricultural development projects financed by the Bank in China over the last 10 years. The potential impacts of the Project were not considered to be “sensitive, irreversible, and diverse” nor “comprehensive, sector-wide or precedent setting”. The potential environmental impacts and relevant risks are all well known and understood and routine design and operational procedures exist to mitigate and monitor their effects.</p>
<ul style="list-style-type: none"> The Project contains at least seven different components that fall within the OD’s list of Category A projects. 	<p>The relevant section of the OD is Annex E, “Illustrative List.” The list is illustrative, and the final decision on screening category needs also to take into account the nature and significance of the potential impacts and the context in which the project will be implemented.</p>
<p><i>As a result of this mis-categorization, an inadequate environmental assessment was done.</i></p> <p>Specifics cited include:</p>	<p>The EA procedures that were followed for this Project are consistent with the laws and regulations of the Government of China and with Bank policies for IDA-financed projects screened as environmental Category B (For comparison between EA requirements for Category A and IDA Category B projects see Annex 8, Table A.8-1). The approach to the EA rested on three key elements: (a) preparation of a full Environmental Impact Assessment (EIA) Report for the proposed activities by local institutions in accordance with Government of China laws and regulations which include stakeholder consultation and disclosure; (b) a series of site visits by an international Bank consultant; and (c) preparation of the EMMP. Management believes that the Project’s environmental assessment and other environmental analyses were commensurate with the expected impacts.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> Mis-categorization deprives local communities of their right to full and complete information and the ability of the public to have meaningful consultation on the Project. 	<p>Social surveys were carried out as part of the planning of the voluntary settlement program and these surveys included questions on respondents' opinions regarding the environmental dimensions of the Project (see Annex 9, Stakeholder Consultation Activities). In compliance with the Bank's disclosure policies, the EA documents were made available to the public in Qinghai prior to Project appraisal by placement of the EA reports in the offices of the Provincial, Prefectural and County PMOs.</p>
<ul style="list-style-type: none"> Mis-categorization limited consideration of alternatives. 	<p>Analysis of alternatives was not presented in the EA because it was not required under the Bank's procedures for processing of an environmental Category B project. However, alternatives have been considered at several levels (see Annex 2, Summary Analysis of Alternatives).</p>
<ul style="list-style-type: none"> Mis-categorization deprives Bank decision-makers of the ability to make an informed decision about whether to approve this Project. 	<p>The environmental issues and potential risks associated with the various Project activities have been clearly noted in the Project documentation distributed and available to the Bank's Executive Directors (EDs). The PAD includes a detailed Environmental Annex that summarizes the assessment of the environmental issues in all three participating provinces, sets out the details of the proposed EMMP and specifies proposed supplemental activities to be carried out for detailed design of the various Project activities. The specific EA reports have also been provided to EDs who requested copies. In addition, EDs had special briefing sessions on environmental issues associated with the Project, including the Qinghai Component, on a group and individual basis, prior to the presentation of the Project to the Board of Directors for their approval.</p>
<ul style="list-style-type: none"> Mis-categorization of the Project has resulted in a failure to assess the significant risks and potentially devastating environmental and social impacts of the Project. 	<p>Based on the work completed so far, Management does not believe that this concern is warranted. Management recognizes that there are environmental and development risks associated with the proposed development; such risks apply to all rural developments in climatically severe areas in all countries. These risks are identified in the EA Report and clearly highlighted in the Environmental Annex to the PAD. A large number of complementary studies concerning water, soils, grazing, forestry and other issues were also prepared and used in evaluation of potential environmental impacts (Annex 4, List of Project Preparation Documents). Detailed questions regarding specific environmental impacts and risks of the Project are answered in section "Other concerns" of Annex 8, Environmental Issues of the Response.</p>
<ul style="list-style-type: none"> The long term effects of irrigation on groundwater levels in the Project site and surrounding areas has not been adequately considered. 	<p>The groundwater model, prepared in December 1998 as part of the Project planning process, predicted that a "steady state" groundwater equilibrium will be achieved in about 10 years after which there is no further change in the model projections. The purpose of the model was to compare development options and to recommend an optimum solution which will permit three main objectives to be achieved: (a) to meet the required irrigation water needs; (b) to prevent salinization of the Project area by controlling the water table; and (c) to minimize impacts on the saline swampy area to the north of the site.</p>
<ul style="list-style-type: none"> The issue of water sustainability has not been properly addressed. 	<p>In light of the limited expertise of the settlers with irrigated agriculture, the overall management of the water system will not be the responsibility of the farmers. The Provincial Department of Water Conservancy will establish the Xiangride Water Conservancy Administration for management of the bulk water supply system, and the County Water Conservancy Bureau will be responsible for: (a) water scheduling at the lower levels in the system; (b) monitoring of water and groundwater quality; and (c) in association with the County Agriculture Bureau, training of farmers in irrigated agricultural techniques.</p>
<ul style="list-style-type: none"> The proposal to promote green manuring and crop rotation will be undercut by relying on use of fertilizers and pesticides. 	<p>The benefits of green manuring and crop rotation are not undercut by the use of inputs such as fertilizers and pesticides. The main cash-producing component of the farm models developed for evaluating the financial viability of the Project will be livestock production; crop production will primarily be used to meet basic household needs and to provide livestock feed. It should also be emphasized that there was substantial discussion between the Bank's consultants and the local experts on the subject of appropriate fertilizer applications. Regarding potential use of pesticides, the crops expected to be grown will be primarily grains (wheat and barley), forage crops and cash crops such as potatoes, rape, onions, garlic, etc., none of which are major targets of heavy pesticide applications by subsistence farmers. Cash crops such as rice and cotton, which tend to be associated with heavy use of pesticides in China, will not be grown.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> Land in the transit corridors may not be able to withstand heavy foot and animal traffic. 	<p>Limited evaluation of the design of the herding corridors was undertaken at the Project preparation stage. Additional analysis undertaken in response to the concern expressed on this matter suggests that the theoretical stocking rate in the corridors (two sheep per ha.) may be higher than desirable (one sheep per ha.). The issue will be studied in more detail during the Pilot Program to confirm the analysis that has been done so far, and if required, the corridor design will be modified. Based on the current analysis, the preferred solution to the problem would be to increase the design width for the corridors to about 100 meters. The final decision needs to take into account the likely stocking rate but also the need to reduce wind erosion hazards (a wider corridor, all other things being equal, increases the wind erosion risk).</p>
<ul style="list-style-type: none"> Occasional high water flows will probably carry tons of sediment into the irrigation system causing silting of irrigation canals. 	<p>This is a common phenomenon throughout agricultural oases in China, which rely on snowmelt for water supply. The risk is well recognized and there are standard engineering design procedures for ameliorating it. It is also well recognized that special maintenance activities need to be undertaken when such events occur which cause heavy siltation. This issue was identified as a possible problem in the Balong area on the basis of the surface flow patterns that are evident on the ground and in the satellite imagery that was used for Project planning. Allowance has been made in the engineering design for floodways to conduct flash floods around the irrigated areas and protect them from damage.</p>
<ul style="list-style-type: none"> Risk of desertification is not adequately addressed. 	<p>The technical work that underlies the Project design was heavily focused on reducing this risk to acceptable levels. It has been agreed that the Pre-Pilot Phase of the Project will be used to carry out supplemental studies on the impacts of the existing adjacent settlements on ecological systems outside the Project development areas to provide a quantified response to the questions raised and, as required, to provide a basis for defining additional safeguards (see Annex 14, Description of Supplemental Environmental Studies).</p>
<ul style="list-style-type: none"> Irrigation will increase the salinity of the Project area. 	<p>There are saline and sodic soils in the Project area as there are in virtually all arid and semi-arid areas. The scale of the Project was reduced during the design phase to reduce the incidence of such soils. The problem of saline soils is not uncommon in China and the Project design includes mitigation for addressing this management concern and for supporting sustainable agriculture upon these soil types. Additional soil surveys will be carried out during the final detailed design and layout of irrigation systems. Monitoring will be carried out during Project implementation to ensure that early action is taken if salinization or sodification of treated areas occurs.</p>
<ul style="list-style-type: none"> Local and migratory birds as well as other wildlife could be adversely affected by pesticides in water and prey species. Massive bird kills are not uncommon where pesticides are used. 	<p>It is not anticipated that development and operation of the irrigation system in the Project area will result in significant adverse impacts on local and migratory birds or other wildlife from pesticides in water or in prey species. The type of agricultural system planned to be implemented in the Project area does not include types of crops, such as rice and cotton, that have traditionally been subject to high level pesticide use. On the contrary, the system should be successful with low-input agriculture which includes green manuring and a focus on the production of grains, forage crops and cash crops such as potatoes, rape seed, onions, garlic, etc., none of which are major targets of heavy pesticide applications by subsistence farmers.</p>
<ul style="list-style-type: none"> Failure to assess environmental impacts of the involuntary resettlement and resulting doubling of population in the move-in area. 	<p>No people will be involuntarily resettled under the Project, although some herders will lose their grazing leases and will be compensated with land to be irrigated under the Project. On balance, it is considered likely that the impact of replacing uncontrolled grazing of desert land by grazing on improved irrigated forage crops will be environmentally beneficial. It should be also noted that while the current “natural” carrying capacity of the un-irrigated land in the Project area may be optimal with respect to present population levels, carrying capacity of irrigated land will be sufficient to support a much larger population after the voluntary resettlement is completed.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> Environmental impacts of induced development over the long term have not been considered. 	<p>The Project will not support exploitation of minerals and fossil fuels. The Project is basically intended to provide an improved life for the participants, the great bulk of their production continuing to be for own-consumption rather than for off-site sale. To the extent that the beneficiaries produce saleable surpluses, it is anticipated that these will be sold locally within the Project area, maybe in Xiangride town, due to high transport cost to major population centers such as Golmud. The surplus which will be generated from the Qinghai Component will not be sufficient to support large scale induced development and measures have been included within the Project design to control informal migration of settlers into the Project area.</p>
<ul style="list-style-type: none"> Failure to provide for environmental monitoring and mitigation measures. 	<p>Comprehensive environmental and monitoring measures over and above those which are incorporated into other aspects of Project design, management and monitoring are set out in Annex 12 to the PAD. Apart from design guidelines to reduce environmental risks, the EMMP includes provision for monitoring of aspects related to livestock feed availability, downstream impacts, impacts of potential rural enterprises, land reclamation activities and agrochemical usage and for further research into potential indirect impacts of the proposed development.</p>
Bank Policy or Procedure Cited: OP/BP 4.04, NATURAL HABITATS	
<p><i>Failure to comply with policy potentially causing loss of wildlife and wildlife habitat.</i></p> <p>Specific concerns cited include:</p>	<p>The conversion of arid land to irrigated farmland at the scale proposed does not impose a threat to natural habitats in the area. The principal desert habitats located in the Project area are widespread, abundant and not threatened within Qinghai and other high altitude, arid regions of China and the impacts are not therefore significant.</p>
<ul style="list-style-type: none"> The Project will destroy a fragile ecosystem that has evolved over thousands of years under harsh environmental conditions. 	<p>The Project will result in conversion of a natural habitat to irrigated land. However, the natural habitat affected is not “critical” and the conversion is not considered to be “significant” within the meaning of these terms as defined in OP 4.04, Natural Habitats. The major desert ecosystems in the Project area (such as Gobi plain, transitional zone, and saline swamps) are widely distributed, not only in Qinghai, but also in other arid regions of China. In terms of potential impacts on critical natural habitats, it was established that there were no existing or proposed nature reserves or other nature conservation areas in or near the proposed development areas. Given that the affected areas are natural habitats but not critical, Management believes that the OP permits conversion which is insignificant in its nature.</p>
<ul style="list-style-type: none"> The Project does not provide mitigation measures to avoid habitat loss. 	<p>The OP requires that suitable mitigation measures should be included if significant conversion of natural habitat is proposed. As previously discussed, it is not considered that the level of conversion proposed is significant. Nevertheless, the Project includes a number of mitigation measures which are presented in <u>Annex 8, Environmental Issues</u> of the Response.</p>
<ul style="list-style-type: none"> The Project does not provide a plan for creation of environmental off-sets or compensation areas. 	<p>The creation of offsets or compensation areas is not appropriate to the proposed development since the ecosystems affected are widespread throughout central and western China and are not threatened by development. Nonetheless, the Qinghai Component includes provisions for preparation and implementation of a management plan for the Balong Soak, which is the main area of ecological interest in the Project area.</p>
Bank Policy or Procedure Cited: OP 4.09 AND BP 4.01, PEST MANAGEMENT	
<p><i>Failure to apply World Bank Policy for Pest Management.</i></p> <p>Specifics cited include:</p>	<p>The Bank does not propose to provide financial support to the Borrower or farmers for management of pests that have an impact on agricultural or public health. The Government has proposed that some pesticides should be included in the first crop input packages and these will be financed with the Government’s own funds. The Borrower has agreed that any pesticides in such packages would be restricted to World Health Organization (WHO) classes II and III. It is also anticipated that farmers will purchase pesticides using their own funds for subsequent crops. The Borrower has addressed pest management issues in the context of the environmental assessment, as required, and proposed various safeguards to support prudent and safe use of pesticides.</p>

Claims and Concerns	Management Response
<ul style="list-style-type: none"> Inadequate assessment of the country's capacity and regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. 	<p>In 1992 the Bank undertook a regional appraisal of agrochemical usage in Asia, including China. This report is currently being updated and the first draft was recently completed. The Report found that the pest management system in China, in many ways, is admirable in comparison to many other developing countries while it also has specific features that require improvement. The update found that although farmers still lack knowledge about pest management and about techniques to minimize pesticide use, there are without doubt very significant improvements in parts of certain cropping areas. Large numbers of farmers have been trained in safe use of pesticides and are using up to date methods of crop protection. The update noted that the levels of agricultural education and the numbers of extension staff in China are reportedly some of the highest levels in the world, and the quality and quantity of research in IPM is also very high.</p>
<ul style="list-style-type: none"> The Project does not present a safe pest management plan such as the Integrated Pest Management (IPM) approach. 	<p>IPM remains the Bank's preferred strategy for the control of agricultural pests but it can only be supported for crops where governments are prepared to underwrite the often substantial costs associated with implementing a fully farmer-driven approach to IPM. China is already supporting IPM in rice and cotton. There is far from a universal consensus within the Chinese plant protection community that farmer-driven IPM in its totality is feasible and practical within the Chinese context given the hundreds of millions of farmers to be reached and the food security consequences. In the absence of a complete consensus, the approach which has been adopted in the Project is to: (a) support Government initiatives which are broadly consistent with the IPM philosophy; and (b) take advantage of opportunities to make small, practical contributions to the overall problem of pesticide management as and when they arise.</p>
<ul style="list-style-type: none"> The Project fails to reduce farmers' reliance on chemical pesticides. 	<p>The best way to reduce farmers' reliance on chemical pesticides is through education and support for the existing government procedures which are intended to achieve that objective. The Project will support the agricultural extension service in training and dissemination of existing information regarding the prudent use of all forms of agrochemicals.</p>
<ul style="list-style-type: none"> The Project documents contain contradictory statements regarding pesticide procurement. 	<p>Bank funds will not be used for procurement of pesticides. However, the Government proposes to use its own funds to finance first crop input packages which may include pesticides. The Borrower has agreed that any pesticides in such packages would be restricted to World Health Organization (WHO) classes II and III. Thereafter, farmers may use their own funds to procure inputs including pesticides for subsequent crops.</p>
<ul style="list-style-type: none"> The Project violates BP 4.01, Annex E for Pest Management. 	<p>OP/BP/GP 4.01 only applies to projects that reached the PCD stage after March 11, 1999 and hence it does not apply to the Project. The Project was prepared in accordance with OD 4.01 and consistent with the provisions of Annex A (a) the potential for increased usage of both fertilizers and pesticides was addressed in the EA report.</p>
<ul style="list-style-type: none"> Failure to assess impact of pesticides on human health and ecosystems and wildlife. 	<p>There is no requirement in the Bank's policies or directives to assess such impacts on a case-by-case basis. However, a pest management specialist will work with the Provincial Government during the pre-pilot stage to agree on a list of chemicals which may be procured using the Government's own funds. The application level of pesticides under the Project by farmers using their own funds is expected to be very low given the generally subsistence nature of crop production systems. In addition, training will be provided by extension agents to farmers to promote the safe use and storage of agrochemicals.</p>
<ul style="list-style-type: none"> The Project does not include a pesticide monitoring plan. 	<p>The Project will include measures for monitoring use of agricultural chemicals, including pesticides, as a routine element of the supervision work program. This will include the review of use patterns with local authorities and farmers to check on general usage trends in the context of the agricultural production system and from an environmental perspective. Detailed field-based chemical and biological monitoring of agricultural chemical uses is not proposed for the Project as the application levels are expected to be low.</p>
<ul style="list-style-type: none"> The Project does not provide proposal for education or training of ecologically based pest management. 	<p>The Project design includes steps to support agricultural extension services in training and dissemination of existing information regarding the prudent use of all forms of agrochemicals. This is complemented by support for labeling of pesticide in minority languages.</p>

Claims and Concerns	Management Response
Bank Policy or Procedure Cited: OP 4.37, SAFETY OF DAMS	
<i>Possible failure to follow policy concerning the Safety of Dams. No specifics cited.</i>	The Project fully complies with the OP. An independent Dam Safety Review Panel has reviewed all relevant safety aspects of Keri Dam and Hatu Dam. The Panel's reports and work were further reviewed by a Bank specialist who concurred with the Panel recommendations. It has been agreed that Qinghai will continue to employ the Dam Safety Panel, which will include the Bank specialist as an observer, during the construction and start of operations; it will conduct periodic reviews of the adequacy of the design and construction of the dams. Upon completion of the Project dams, Qinghai will undertake annual inspections of the Project dams in order to identify any deficiencies in their construction design or conditions or in the quality and adequacy of the maintenance or methods of their operation.
Bank Policy or Procedure Cited: OD 10.00, INVESTMENT LENDING	
<i>The Project may not meet the standards for quality at entry.</i> No specific concerns cited.	The Project is consistent with the OD. It is based specifically on the lessons and experiences of the five most recent targeted poverty reduction projects in China, is fully consistent with the CAS and the Bank's Rural Development Strategy. A large number of background and feasibility studies, including economic and financial feasibility studies, have been carried out during Project preparation. The Project will contribute to poverty reduction in the poorest regions of western China.
Bank Policy or Procedure Cited: OD 12.10, RETROACTIVE FINANCING	
<i>The Bank may not have complied with its policy on retroactive financing. Specific concern is:</i>	Management believes that the Project is in compliance with the policy on retroactive financing. Retroactive financing of US \$1.0 million, or less than ten percent of the combined Credit and Loan amount of US \$40 million equivalent, has been provided under the Project for payments of expenditures made after January 10, 1999 to the date of the Development Credit Agreement. Since identification commenced in 1997, the period of eligibility for retroactive financing is well within the policy requirements.
<ul style="list-style-type: none"> • The Bank may have encouraged the Borrower to begin implementation of the voluntary settlement by providing retroactive financing. 	The Borrower has confirmed that no funds will be used for implementation of the Qinghai Component until it has updated the SA, VSIP, including the RAP taking into account the views of the Bank and Inspection Panel.
Bank Policy or Procedure Cited: BP 17.50, DISCLOSURE OF OPERATIONAL INFORMATION	
<i>The Bank has not complied with its disclosure policies with respect to the Environmental Assessment (EA) and Resettlement Action Plan (RAP), thus hindering the ability of the public to evaluate the Project.</i> Specifics cited include:	The Bank is in compliance with the policy requirements, although good practice guidance regarding delivery of the EA and RAP to the InfoShop was not followed.
<ul style="list-style-type: none"> • Failure to make information publicly available at the Bank's InfoShop before appraisal. 	The EA and RAP were made available in the InfoShop on June 2, 1999. The Project is in compliance with the policy requirements, although good practice guidance regarding delivery of the EA and RAP to the InfoShop was not followed.

Claims and Concerns	Management Response
<ul style="list-style-type: none"> • Possible failure to make information available to affected communities. 	<p>The EA and VSIP (with the RAP as an annex) were made available in Chinese at provincial, prefecture and county levels to the affected people in Qinghai prior to the appraisal date of January 26, 1999, which is in compliance with the policy.</p>
<ul style="list-style-type: none"> • Failure to make the Voluntary Settlement Implementation Plan public. 	<p>The VSIP was available to Project-affected people but not in the Bank's InfoShop. The document is not covered by the Bank's disclosure policies and is a Government of China document. The RAP was made available in the Info Shop on June 2, 1999.</p>