

ASIAN DEVELOPMENT BANK

JFPR: BHU 37031

**PROPOSED GRANT ASSISTANCE
(Financed by the Japan Fund for Poverty Reduction)**

TO

BHUTAN

FOR

IMPROVING THE WELL- BEING OF ROAD WORKERS

August 2005

CURRENCY EQUIVALENTS

(as of 30 June 2005)

Currency Unit	–	ngultrum (Nu)
Nu1.00	=	\$0.023
\$1.00	=	Nu43.45

ABBREVIATIONS

ADB	–	Asian Development Bank
BHU	–	basic health unit
DADM	–	Department of Aid and Debt Management
DBA	–	Department of Budget and Accounts
DOR	–	Department of Roads
EA	–	executing agency
HIV/AIDS	–	human immunodeficiency virus/acquired immunodeficiency syndrome
IA	–	implementing agency
IECH	–	Information Education and Communication on Health
JFPR	–	Japan Fund for Poverty Reduction
MOE	–	Ministry of Education
MOH	–	Ministry of Health
MOWHS	–	Ministry of Works and Human Settlement
NWF	–	National Work Force
O&M	–	operations and maintenance
PMU	–	project management unit
RAA	–	Royal Audit Authority
RIP	–	Road Improvement Project
RMA	–	Royal Monetary Authority
STD	–	sexually transmitted disease

NOTE

- (i) The fiscal year of the Government and its agencies ends on 30 June.
- (ii) In this report, "\$" refers to US dollars.

This report was prepared by H. Yamaguchi.

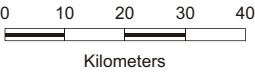
B H U T A N

IMPROVING THE WELL-BEING OF ROAD WORKERS

PEOPLE'S REPUBLIC OF CHINA

INDIA

INDIA



- + Sites for Health Awareness Campaigns
 - ▤ Low-Cost Dormitory for Road Worker's Schoolchildren
 - ▤ Renovation of Road Workers' Dwellings
 - Solar Power to Road Workers' Housing
 - ▾ Sites for Water and Sanitation Facilities
 - National Capital
 - District Capital
 - City/Town
 - National Highway
 - - - District Boundary
 - International Boundary
- Boundaries are not necessarily authoritative.



**JAPAN FUND FOR POVERTY REDUCTION (JFPR)
JFPR GRANT PROPOSAL**

I. Basic Data

Name of Proposed Activity	Improving the Well-Being of Road Workers
Country	Bhutan
Grant Amount Requested	\$500,000
Regional Grant	No
Grant Type	Capacity building

II. Grant Development Objectives and Expected Key Performance Indicators

<p>Grant Development Objectives:</p> <p>The project goal is to reduce poverty among road workers and their children, one of the most vulnerable groups in the country, through provision of appropriate basic needs. More specifically, it aims to provide (i) increased awareness on health issues and improved first-aid services, thereby improving the health of road workers, particularly women and children, and increasing labor productivity in road improvement projects; (ii) improved living conditions for road workers including women and children to ensure better quality of life; and (iii) improved access to school and training opportunities.</p> <p>It aims to fulfill these objectives through (i) implementation of health education programs, including training-of-trainers as road health workers; (ii) provision of improved shelter, water and sanitation facilities; and (iii) provision of access to school-shelter for road workers' children in the vicinity of primary schools.</p>
<p>Expected Key Performance Indicators:</p> <ol style="list-style-type: none"> 1. 4,083 Department of Roads (DOR) road workers, including women and children, to have increased awareness on basic health and sanitation 2. Improved housing and improved sanitation and water for DOR road workers 3. 30 solar power units for 60 dwellings of road workers (1 unit for 2 dwellings) to directly help improve living conditions and reduce poverty by enabling road workers, both men and women, to generate additional income through weaving, knitting, and carpentry works 4. Improved road workers' access to education and health services 5. Higher school attendance and improved performance of road workers' schoolchildren, at least 50% of whom are female.

III. Grant Categories of Expenditure, Amounts, and Percentage of Expenditures

Category	Amount of Grant Allocated in \$	Percentage of Expenditures
1. Civil Works	300,200	60.0
2. Equipment, Hardware, and Materials	111,850	22.4
3. Consumable Supplies	1,650	0.3
4. Training/Workshops/Public Campaigns	29,000	5.8
5. Consulting Services	27,000	5.4
6. Project Management	7,300	1.5
7. Contingencies	23,000	4.6
TOTAL	500,000	100.0

JAPAN FUND FOR POVERTY REDUCTION
JFPR Grant Proposal
Background Information

A. Other Data

Date of Submission of Application	1 June 2005
Project Officer	Hiroaki Yamaguchi, Transport Specialist
Project Officer's Division, E-mail, Phone	Transport and Communications Division, hyamaguchi@adb.org, (632) 632-6630
Other Staff Who Will Need Access to Edit/Review the Report	Sri Widowati, Senior Project Specialist Madhumita D. Gupta, Social Development Specialist Lee Ming Tai, Consultant
Sector	Health, nutrition, and social protection
Themes	Inclusive social development, Gender and development
Targeting Classification	Targeted intervention
Name of Associated ADB-Financed Operation	L1763-BHU: Road Improvement Project
Executing Agency	Department of Roads, Ministry of Works and Human Settlement, Royal Government of Bhutan
Grant Implementing Agency	Department of Roads, Ministry of Works and Human Settlement, Royal Government of Bhutan Project Implementation Unit Tel: (0975) 2323117 Fax: (0975) 2325675

B. Details of the Proposed Grant**1. Description of Components, Monitorable Deliverables/Outcomes, and Implementation Timetable**

Component 1	
Component Name	Improve Basic Health Services for the Road Workers
Cost (\$)	\$59,000 [excluding contingencies]
Subcomponent 1a	Training/Workshop on Basic Health (\$11,000)
Component Description	<p>Item</p> <ul style="list-style-type: none"> - Train 60 selected road workers (both men and women) on basic health and first aid to become health workers. <p>Location</p> <ul style="list-style-type: none"> - The 60 trainees will be selected from the 26 units in 8 field divisions of DOR (Lingmithang, Lobesa, Phuentsholing, Sarpang, Thimphu, Trashigang, Trongsa, and Zhemgang). - Aim to train at least 1–2 persons for each unit. <p>Component Details</p> <ul style="list-style-type: none"> - Selection of the 60 road workers for training by DOR. Mostly women road workers with basic education/school leavers will be selected to be trained as road health workers. They have to be committed and interested to be health workers. - Two weeks training will be provided for the selected 60 road workers in two batches of 30 trainees each. - The course content and the training materials will be as per the training standards set by the Ministry of Health (MOH) including maternal and child health care and nutrition and occupational health safety. - Four resource persons will be hired to conduct the training with the assistance of health personnel at the dzongkhags (districts).

	<ul style="list-style-type: none"> – A 1-week refresher course will be conducted for the trained road health workers in the second year. – The trained road workers will be available in the camps and at work sites to look after fellow road workers during times of emergencies. – Training will also be provided to manage situations when problems are beyond their capacity. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> – DOR will request MOH to conduct the training. Four resource persons will conduct the training with the assistance of health personnel at the districts. – MOH staff will coordinate the logistics arrangements for the training. – Trained road workers will be then placed under their respective assistant engineers. <p>Training Cost</p> <ul style="list-style-type: none"> – The cost of the proposed training covers training materials, food, and lodging for the trainees. For one batch of 30 trainees (15 days for the first training and 7 days for the refresher training), the cost is estimated at \$5,500.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> – Sixty road workers (both male and female) trained as road health workers providing health care to coworkers and children. – Improved health services to road workers.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – In the first year, training will be conducted for 15 days exclusive of travel time. – In the second year, a refresher course of 7 days will be provided for the trained 60 road health workers. – 22 days (15 days in the first year and 7 days in the second year)
Subcomponent 1b	Provision of Essential Equipment for Basic Health Services (\$30,000)
Component Description	<p>Item</p> <ul style="list-style-type: none"> – Provision of essential equipment for basic health services, including awareness campaign described in subcomponent 1. <p>Location</p> <ul style="list-style-type: none"> – The equipment will be distributed to all 26 units in the 8 field divisions of DOR. <p>Component Details</p> <ul style="list-style-type: none"> – 300 sets of first-aid boxes and 150 stretchers. The trained road workers providing health care will take care of the supplies. – 8 TV sets with VCRS, 8 generators, 8 tape recorders, 1 videocamera, 26 wardrobes. – The project management unit (PMU) of DOR will procure and supply the equipment in accordance with ADB's <i>Guidelines for Procurement</i>. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> – DOR staff led by the PMU will assist in installing equipment. – Road health workers will be trained on operation and maintenance (O&M) of the equipment.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> – 300 sets of first-aid boxes, 150 stretchers, 8 TV sets with VCRS, 8 generators, 8 tape recorders, 1 video camera, and 26 wardrobes made available at the field divisions and units. – Increased awareness and improved health condition of road workers. – Workers able to treat minor injuries at work sites with the first-aid box and training.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – First-aid kits and other equipment will be purchased in the beginning of the first year before the awareness campaign. – The purchase and supply will take 2 months.

Subcomponent 1c	Health Awareness Campaign (\$18,000)
Component Description	<p>Item</p> <ul style="list-style-type: none"> – Conduct health awareness campaigns targeting 4,083 road workers maintained by DOR. <p>Location</p> <ul style="list-style-type: none"> – All 8 field divisions (Lingmithang, Lobesa, Phuentsholing, Sarpang, Thimphu, Trashigang, Trongsa, Zhemgang) of DOR. <p>Component Details</p> <ul style="list-style-type: none"> – The campaign will cover awareness on basic hygiene to sexually transmitted diseases (STDs) and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), including maternal and child health and nutrition, and occupational health safety. – DOR will organize the campaign in consultation with MOH. – MOH will be requested to prepare a detailed action plan for the campaign. – One-day campaign will be conducted in all the 26 units of 8 field divisions in the first and second years. – Voluntary testing for STDs/AIDS and distribution of condoms as a preventive measure. – Health personnel from the concerned districts' health services (hospitals, basic health unit [BHUs]) will assist in carrying out the campaign for road workers in different field divisions. – The campaign will coincide with global health-related events. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> – DOR staff led by PMU will coordinate with health personnel from district health services (hospitals, BHUs) in implementing the health awareness campaign.
Monitored Deliverables/Outputs	<ul style="list-style-type: none"> – 4,083 road workers and their dependents will be aware of basic health and hygiene.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – The awareness campaign will be conducted in the first year and second year. – 2 days (1-day campaign during the first and second years).

Component 2	
Component Name	Improve Housing Condition of the Road Workers
Cost (\$)	\$205,700 [excluding contingencies]
Subcomponent 2a	Improvement/Renovation of Road Workers' Shelter (\$79,000)
Component Description	<p>Item</p> <ul style="list-style-type: none"> – Renovation and improvement of 50 road workers' dwellings <p>Location</p> <ul style="list-style-type: none"> – Renovation of dwellings will be undertaken in 6 field divisions of DOR [Trongsa (11 dwellings), Thimphu (10), Zhemgang (10), Lobesa (8), Phuentsholing (6), and Sarpang (5)]. – Repair works will be carried in selected camps where conditions are very bad. <p>Component details</p> <ul style="list-style-type: none"> – Improvement will include minor work such as changing of floor planks, windows, and doors; plastering; repairing roofs; repairing drains, etc. Some camps will be fenced to ensure security of workers and their children. – As per the estimate, DOR will procure materials for the renovation.

	<p>Operation and Management</p> <ul style="list-style-type: none"> - Maintenance work will be taken up departmentally with supervision by engineers from the respective field divisions. - Labor for the repair will be contributed by the road workers. Maintenance of the dwellings will be the responsibility of the beneficiaries. - 24 dwellings will be renovated in year 1, and the remaining 26 will be renovated in year 2. <p>Cost</p> <ul style="list-style-type: none"> - The average maintenance cost per unit is Nu66,000 (\$1,580) based on the estimates of DOR.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> - 50 road workers' dwellings renovated and improved. - Improved living conditions for the road workers.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> - This activity will be completed over a period of 24 months. - In the first year, improvement works at Trongsa (11 dwellings), Lobesa (8), and Sarpang (5) field divisions. - In the second year, improvement works at Thimphu (10 dwellings), Zhemgang (10), and Phuentsholing (6) field divisions.
Subcomponent 2b	Provision and Maintenance of 30 Solar Power Units to 60 dwellings (\$51,700)
Component Description	<p>Item</p> <ul style="list-style-type: none"> - Provision of 30 solar power units to 60 dwellings of road workers (1 unit for 2 dwellings) at high-altitude locations. <p>Location</p> <ul style="list-style-type: none"> - 60 dwellings of road workers at high-altitude locations with isolated camps like Gayzamchu, Namling, Sengor, Thrimshingla, and Yotongla. - This will not require any voluntary donation of land. <p>Component details</p> <ul style="list-style-type: none"> - Appropriate solar power units will be procured and installed by DOR at the identified high-altitude sites. - Each solar power unit will serve 2 dwellings. <p>Cost</p> <ul style="list-style-type: none"> - The average cost per camp is estimated at Nu70,000 for 8 bulbs including installation charges. Maintenance cost of Nu6,500 per unit has been included in the estimates. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> - DOR will procure and install the solar units under the supervision of site engineers. - Road workers will be trained on O&M of the units.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> - 60 dwellings of the road workers at high-altitude, isolated sites will be provided with solar power. - Improved living conditions for road workers. - Additional income-generating activities for women. - Savings on kerosene costs.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> - This activity will be completed over 12 months in the first year.
Subcomponent 2c	Provision of Water and Sanitation (\$75,000)
Component Description	<p>Item</p> <ul style="list-style-type: none"> - Provision of water and sanitation for 50 dwellings of road workers, including construction of 8 water supply schemes and 44 latrines.

	<p>Locations</p> <ul style="list-style-type: none"> – Zhemgang (21 dwellings), Lobesa (8), Trongsa (6), Thimphu (5), Lingmithang (3), Phuentsholing (3), Sarpang (2), and Trashigang (2). – Water and sanitation will be provided in camps where water supply is scarce, dirty, from a temporary source; and camps with higher number of beneficiaries with children. – This will not require any voluntary donation of land. <p>Component Details</p> <ul style="list-style-type: none"> – All works will be done by DOR with supervision from the field division engineers. – The cost of a standard-size latrine is Nu50,000 (\$1,100). For water supply, the cost varies from camp to camp. The estimate per dwelling totals \$1,500. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> – The field divisions of DOR will implement the activity. – The beneficiaries will provide labor.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> – 50 dwellings will have access to water and sanitation facilities through the provision of 44 new latrines and 8 water supply schemes. – Improved living conditions—sanitation and hygiene of the road workers – Improved health conditions through reduction in waterborne diseases
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – The activity will be completed over 24 months. – Major activities include preparation of detailed estimates, procurement and collection of materials, and execution of work at the site. – In the first year, 26 dwellings will be covered in Lobesa (8 dwellings), Trongsa (6), Thimphu (5), Lingmithang (3), Sarpang (2), and Trashigang (2). – In the second year, 24 dwellings will be covered in Zhemgang (21 dwellings) and Phuentsholing (3).

Component 3	
Component Name	Construction of Dormitory for Road Workers' Schoolchildren
Cost (\$)	\$170,200 [excluding contingencies]
Component Description	<p>Item</p> <ul style="list-style-type: none"> – Construction of two double-story school dormitories. <p>Location</p> <ul style="list-style-type: none"> – One dormitory will be located at Sengor and Lingmithang, and the other at Nobding and Lobesa. – The two locations were selected since they have many dwellings and school-going children. The sites are appropriately located near schools and health centers. DOR has its own land for the construction of the dormitories. The sites are presently not occupied. – Children who live within 5–10 km (2–3 hours walking distance one way) from school will be selected to stay in the dormitory. <p>Component Details</p> <ul style="list-style-type: none"> – Each dormitory will be designed for a capacity of 60 students. – Each will have separate rooms for boys and girls, dining room, kitchen, and a store. Toilets and bathrooms will be constructed outside and will be connected to the water supply. – Basic furniture will be provided. – Food and firewood will be arranged by the parents.

	<p>Construction</p> <ul style="list-style-type: none"> – Construction work will be contracted out and will be supervised by the field division of DOR. <p>Operation and Management Staff</p> <ul style="list-style-type: none"> – Initially, DOR will request the Ministry of Education to appoint one of the schoolteachers as a hostel warden with free accommodation as an incentive to the teachers. Also, DOR will train selected school leavers to serve as hostel wardens. – Two hostel wardens for the two dormitories will be provided free accommodation. – Two cooks per dormitory will be appointed from among the road workers. – The facility will be maintained by road workers with the help of DOR. – DOR will work out guidelines and maintenance schedules for the dormitories. – Parents and students will be responsible for cleaning up the surroundings of the dormitories. <p>Admission</p> <ul style="list-style-type: none"> – Selection criteria for those eligible to be boarding students will be the distance from the camp to the school. Priority will be given to those whose camp is more than 5 kilometers (km) away but within a certain radius from the school, e.g., within 10 km. – DOR will develop selection criteria for admission to the dormitory. <p>Cost</p> <ul style="list-style-type: none"> – Cost per unit is estimated at Nu3.825 million (including toilets and bathrooms).
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Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> – Construction of 2 double-story school dormitories for road workers' schoolchildren. – Increased school attendance of road workers' children.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – Construction of both dormitories will start and be completed during the first year. <p>Major Activities</p> <ul style="list-style-type: none"> – Preparation and finalization of drawings and designs (from 1st to 2nd month) – Selection and appointment of contractors for construction (from 3rd month) – Construction work (from 4th to 9th month) – Appointment of staff—hostel warden, cooks(10th month) – Selection of eligible schoolchildren for dormitories (from 11th to 12th month)

Component 4	
Component Name	Administration, Support Costs and Independent Monitoring and Poverty Assessment Study
Cost (\$)	\$42,100 [excluding contingencies]
Subcomponent 4a	Administration Support (\$15,100)
Component Description	<ul style="list-style-type: none"> – Operational support for the project (PMU). – Strengthening the capacity of the PMU to administer and manage the project by employing office assistants. – Purchase of office equipment—computers, photocopier, furniture, and consumables.

Monitorable Deliverables/ Outputs	<ul style="list-style-type: none"> – Equipped PMU office. – Increased efficiency and effectiveness of the PMU.
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – Support for project administration will continue during the entire project life. – 24 months.
Subcomponent 4b	Consulting Services [Project Management, Poverty Assessment Study and Independent Monitoring] (\$27,000)
Component Description	<ul style="list-style-type: none"> – Financial support for consulting services for poverty impact assessment. – Provide overall project implementation assistance and capacity building for the PMU. – Finalize a grant implementation manual for the project. – Conduct a baseline survey. – Train solar power beneficiaries on income-generating activities such as knitting, crafts, etc. – Conduct annual impact monitoring surveys (for 2 years). – The Executing Agency (EA) will select the domestic consultants, applying ADB's <i>Guidelines on the Use of Consultants</i>.
Monitorable Deliverables/Outputs	<ul style="list-style-type: none"> – Grant implementation manual – Baseline survey report – Annual impact monitoring reports (for 2 years) – Poverty Impact Assessment Report of JFPR on poverty reduction
Implementation of Major Activities: Number of months for grant activities	<ul style="list-style-type: none"> – Capacity building for the PMU and assistance to project management (1 month) – Baseline (2 months) – Annual monitoring (3 months for 2 years)

2. Financing Plan for Proposed Project to be Supported by JFPR

Source of Finance	Amount (\$)
JFPR	500,000
Government	122,000
Other Sources (communities)	30,000
Total	652,000

3. Genesis

1. The Government of Bhutan has addressed a wide range of poverty issues broadly through the expansion of social services, rural development and income-generating activities, from which a vast majority of the population have benefited. The national development targets as reflected in the Ninth Five-Year Plan and Bhutan 2020 closely match the Millennium Development Goals, and as such stand as a testimony of a strong government commitment to socioeconomic development, which ensures that people not only live above the poverty line but also enjoy better quality of life. The Government is in a Poverty Reduction Partnership Agreement where it has committed itself to the attainment of international development goals as enunciated in the World Summit for Social Development Declaration in 1995.

2. The national poverty line, which represents the amount that a person should consume (in real terms) to be considered as non-poor, has been established at Nu740.36 per month. Given this poverty line, it is estimated that 31.7% of the population of the country is poor. The poor make up only 4.2% of the urban population but 38.3% of the rural population. Inequalities are relatively high, with the richest 20% of the population consuming almost 8 times more than the poorest 20%. School attendance in the rural areas is considerably lower. The proportion of children aged 13–19 years attending school is 46% in the rural areas and 77% in the urban areas.¹

3. The socioeconomic well-being of Bhutan is related to an effective and sustainable road transport network, as no other modes of transport are available to move people and goods. The extreme geographic conditions and mountainous terrain pose challenges to the provision of transport links and to its necessary maintenance. To sustain the existing road network, DOR maintains a national workforce of about 4,083 road workers, out of whom 46% are women. Most road workers have insufficient land or other income-generating sources, and support large families under poor living conditions. Learning opportunities, employment avenues, and awareness on health and hygiene are limited, particularly among women and girls. Lack of basic social infrastructure—particularly education, health—lack of electricity, and access to markets emerge as critical concerns of road workers. They are among the most vulnerable groups in the country. Inadequate attention has been paid to maternal and child health except for the immunization program of the health department. Provision for occupational health safety is minimal, particularly for women and children. There is also a risk of STDs, including HIV/AIDS.

4. Although DOR provides dwellings for road workers, 64% of the dwellings do not have any sanitation facilities and only 28% have clean water. A large number of road workers live in temporary dwellings that do not provide proper shelter during the monsoon and winter. Special attention is necessary to improve the well-being of road workers and their children, particularly through better access to schools and health services, water and sanitation, and additional income-generating opportunities.

5. The Asian Development Bank (ADB) has been providing support to the road sector in Bhutan since 1983. The most recent support, the Road Improvement Project (RIP),² is for resurfacing the east-west highway. One of the objectives of the RIP is to reduce poverty by enhancing employment opportunities for the poor and improving access to health, education, and other social services. The JFPR proposal will supplement the objective of the RIP by providing support for road workers who will maintain the road network. The assistance is timely as the RIP is expected to be completed in 2005. This report is based on the findings and understanding reached during participatory assessments and two workshops with all key stakeholders on the objectives and scope of the project.

¹ National Statistics Bureau. 2004. *Poverty Analysis Report*. Bhutan.

² ADB. 2000. *Report and Recommendation of the President to the Board of Directors on Proposed Loan to the Kingdom of Bhutan for the Road Improvement Project*. Manila. (Loan 1763, approved on 3 October 2000). During loan processing, a study of women road workers financed under ADB. 2000. *Technical Assistance to the Kingdom of Bhutan for the Gender and Development*. Manila (TA5889-BHU) was conducted.

4. Innovation

6. The JFPR project has the following innovative features. It will
- (i) improve road workers' access to education and health services and enable poor households to invest in human capital through education and training;
 - (ii) ensure community participation by involving beneficiaries in key decisions of identifying, planning, and designing the project component;
 - (iii) help improve the quality of life of the road workers' children in the long term;
 - (iv) develop community involvement mechanisms through cost sharing, maintenance, and training of the groups; and
 - (v) provide solar power to road workers' dwellings on a pilot basis.

5. Sustainability

7. Promoting the well-being of road workers and their children, in conjunction with the RIP, will enable them to reduce their vulnerability on a sustainable basis. Human capital is the primary asset of the poor. Its development is of fundamental importance in reducing poverty. Investment in health and education services and training road workers and their children will have a sustainable impact on reducing poverty. Without access to primary health care, basic education, and other essential social services, the poor, particularly women and their children, will have little opportunity to improve their economic status or to participate fully in the society.

8. The project provides an initiative on health and sanitation awareness and road workers' training on health practices. Efforts will be made in close collaboration with MOH to sustain and further build on the initiative. The beneficiary communities and DOR will work closely on the maintenance and use of the new dwellings, solar power units, and the dormitories for road workers' children. The project consultant and the executing agency will develop procedures for maintenance of road workers' dwellings and dormitories for their schoolchildren, involving the beneficiary communities. DOR will provide in-kind contributions as required such as cement, and road workers will provide labor, which will be released from the daily maintenance work when provided. The project will work in close collaboration with the Department of Education (DOE) in managing the dormitories, e.g., DOE's provision of a teacher as dormitory warden. Parents of the boarders will also contribute to the maintenance of the dormitories.

6. Participatory Approach

9. The Project is designed explicitly to increase the participation of beneficiaries in identifying needs and participating in implementation with the aim of making project activities more relevant and sustainable. With the responsibility for identifying, implementing, and supervising the project activities, road workers, particularly women, will be better prepared to involve themselves in future development activities. A stakeholder workshop, organized during the preparation of the project proposal, provided a good opportunity for all stakeholders to participate and discuss the project cycle, such as the project design and implementation. The project, in consultation with DOR, will also give ownership to the beneficiaries to maintain some of the project provisions such as water and sanitation, equipment for basic services, dormitory for road workers' schoolchildren, etc. The project can serve as a model of participatory processes, demonstrating to government agencies and other intermediaries the feasibility and utility of participatory approaches.

**Primary and Other Stakeholders, Including Any Nongovernment Organization (NGO),
Especially Japanese NGOs, and Brief Description of Their Involvement**

Stakeholders	Roles and Involvement
Road Workers (NWF)	<ul style="list-style-type: none"> – The National Work Force (NWF) forms the main labor force of the Department of Roads (DOR). There are about 4,083 NWF road workers in Bhutan. They live in about 600 dwelling camps, which are scattered all over the country along the highways and roads maintained by DOR. – The NWF road workers are the direct beneficiaries of the project. – The plight of these road workers such as their illiteracy, landlessness, lack of resource or property, lowest levels of incomes, large families, lack of other employment opportunities, reduced access to facilities, harsh working conditions, and low level of living conditions have already been mentioned. These combined factors make the road workers one of the most economically vulnerable groups in the country. – As project beneficiaries, they will participate in planning, designing, and implementing the project activities.
Department of Roads	<ul style="list-style-type: none"> – DOR is the employer of the NWF road workers. DOR recruits road workers, identifies the location of their dwelling camps, provides housing, implements their welfare activities, and is generally responsible for the workers. – DOR undertakes regular maintenance/restoration needs for the different roads with priority accorded to the national highways. – DOR is the Executing Agency (EA) of the project, and will be responsible for overall management and implementation of the project.
Ministry of Health (MOH)	<ul style="list-style-type: none"> – MOH is responsible for planning, implementing, and monitoring health care activities in collaboration with the districts. Basic health care in Bhutan is free. – Health services are delivered through a four-tiered network of a national referral hospital, regional referral hospitals, district hospitals, and basic health units (BHU). BHU at the primary level caters to about 1,500–5,000 people and is staffed by a health assistant, auxiliary nurse midwife, and basic health worker (BHW). – Each BHU has about 3–6 outreach clinics (ORC). – Trained village health workers assist the staffs of BHUs in the delivery of health services to villages. – The reported main constraints to effective delivery of health care activities are scarcity of adequately skilled personnel, scattered population and rugged terrain, and limited resources/facilities. – In this project, MOH will support and cooperate with DOR in implementing the health component of the project.
Information Education and Communication on Health (IECH), MOH	<ul style="list-style-type: none"> – The IECH Bureau was established to spearhead health campaigns and promote awareness on health issues among the public at large. – The IECH Bureau has conducted numerous public health campaigns such as health and sanitation, safe drinking water, communicable diseases, iodine deficiency, maternal and child care, population control and family planning, drug abuse, STD and AIDS, and tobacco use, among others. – The IECH Bureau develops and produces videotapes, audiocassettes, pamphlets, posters, booklets, and newsletters on public health issues and distributes them free of charge to all corners of the country. – Through the network of BHUs around the country, the IECH Bureau has been successful in disseminating information on health issues and promoting awareness. – It is the responsibility of the IECH Bureau, with assistance from BHUs, to promote birth control and family planning.

Stakeholders	Roles and Involvement
	<ul style="list-style-type: none"> - DOR and the IECH Bureau will have to work closely to ensure that road workers receive health messages and assistance. - The health awareness campaign component of the project will be implemented in close collaboration with the IECH Bureau.
Dzongkhag (District) Admin	<ul style="list-style-type: none"> - The <i>dzongkhag</i> as the organizational unit is responsible for overseeing all development activities within its jurisdiction over <i>dungkhags</i>, <i>geogs</i>, and villages. - It facilitates implementation of health care activities through its district hospitals and BHUs. - Health programs are planned and monitored at the district level through medical officers who also supervise BHU. - Health awareness at the day-to-day level is disseminated by BHUs, which form the health support line of the country. - The health staff of the district and <i>geogs</i> will be involved in the awareness campaign and health services for road workers.
Ministry of Education (MOE)	<ul style="list-style-type: none"> - MOE is responsible for implementing the education program at the national level. - Education services are delivered through primary, secondary, and high schools throughout the country. - The district education officer coordinates and implements the education program at the district level. - In this project, MOE will support and cooperate with DOR in managing the dormitories constructed for the road workers' schoolchildren.

7. Coordination

10. To ensure effective dissemination of the project's results and coordination with other projects and government policies, the project will be overseen by a national-level project steering committee (PSC). The committee will have representatives from key stakeholders: Ministry of Works and Human Settlement, MOH, Ministry of Finance, Department of Power, MOE, and project beneficiaries. The exact composition of the committee will be determined during project inception. The head of the PMU will be a member of the committee.

11. Funding agencies active in the country such as Swiss Agency for Development and Cooperation (SDC)/Helvetas, United Nations Development Programme (UNDP), Netherlands Development Organization (SNV), and Japan International Cooperation Agency (JICA) have been consulted to discuss possible areas of cooperation and coordination. The proposed project components and activities are intended to complement, not duplicate, the efforts of development partners.

8. Detailed Cost Table

12. The JFPR fund flow arrangements are in Appendix 1 and the detailed cost estimates table, including the summary costs table, is in Appendix 2.

C. Linkage to ADB Strategy and ADB-Financed Operations

1. Linkage to ADB Strategy

Document	Document Number	Date of Last Discussion	Objective(s)
Bhutan: Country Assistance Plan (2000–2002)	none	December 1999	The Project will help achieve CAP objectives including poverty reduction and empowerment of women.

2. Linkage to Specific ADB-Financed Operation

Project Name	Road Improvement Project
Project Number	L1763-BHU
Date of Board Approval	3 October 2000
Loan Amount	\$9.6 million

3. Project's Development Objective

13. The development objectives of the project are to

- (i) promote private sector participation and assist in developing domestic contracting and consulting industries by introducing a pilot contractor and equipment leasing scheme;
- (ii) reduce poverty by enhancing employment opportunities for the poor and improving access to health, education, and other social services; and
- (iii) improve governance by providing institutional support to DOR.

14. The Project will undertake improvements in the east-west highway, include resurfacing, construction of line drainage, and slope protection works. The project objectives are consistent with the Government's priorities for road sector development.

4. Project's Main Components

15. The main components of the project are as follows:

- (i) resurfacing about 380 kilometers (km) on the east-west highway using mechanized techniques in an environmentally sound manner and incorporating all related drainage works;
- (ii) improving slope to preserve the existing national highway network;
- (iii) implementing a pilot contractor and equipment leasing scheme for domestic contractors to participate in the project; and
- (iv) providing consulting services for design and supervision of civil works and for institutional support.

5. Rationale for Grant Funding versus ADB Lending

16. These activities cannot be financed under the RIP, which finances only road resurfacing, improved slope stability, and consulting services. Through the JFPR grant, the project will be

able to enhance DOR's capacity to respond to the needs of the poor and vulnerable road workers and improve their well-being. It will also strengthen partnerships among road workers, government agencies, and the private sector. The grant fund will be critical in designing models for future working relations among stakeholders in their efforts to reduce poverty in Bhutan.

D. Implementation of the Proposed Grant

1. Name of the Implementing Agency

Implementing Agency (IA)	<ul style="list-style-type: none"> (i) The Department of Roads (DOR) under the Ministry of Works and Human Settlement (MOWHS) will be the Executing Agency (EA) for the project. (ii) The execution of the project will be guided by the National Execution Manual of the Government (Ministry of Finance). (iii) A project management unit (PMU) will be set up to manage project implementation. The PMU will be located in Thimphu under DOR and will be responsible for implementing the project as well as for monitoring its implementation. It will be headed by a project coordinator/director who will be appointed by DOR. The PMU will report on project progress to MOWHS and ADB as an observer. (iv) For coordination and management, DOR will set up a project steering committee with representatives from MOWHS, MOH, Ministry of Finance, Department of Power, MOE and project beneficiaries. The steering committee will meet at least twice a year to discuss project implementation and linkages with the counterpart project. The committee will approve an annual work plan and budget, review progress, guide the project, and provide policy support. ADB will participate as an observer during the meeting, if necessary. (v) The project will be implemented in a 3-year period.
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2. Risks Affecting Grant Implementation

Type of Risk	Brief Description	Measure to Mitigate the Risk
Delayed release of funds	Delay in release of funds may affect timely execution of planned activities.	ADB and the Government should ensure timely fund flow.
Project duration	Delay in procurement and consultant selection may lead to delay in overall project implementation.	All efforts should be made to meet the projected time frame. A consultant will be engaged to facilitate and expedite implementation.

3. Monitoring and Evaluation

Key Performance Indicator	Reporting Mechanism	Plan and Timetable for M&E
Basic housing and living conditions of the road workers improved and maintained with community participation	Progress report on the project Domestic consultant reports on monitoring EA reports	Annual report on the project Annual participatory self-evaluation by communities, facilitated by domestic consultant
The majority of road workers including women and children aware of basic health and sanitation, their quality of life improved	Domestic consultant reports on monitoring Progress report of the project	Annual report on the project Six-monthly reporting by EA and domestic consultant

Key Performance Indicator	Reporting Mechanism	Plan and Timetable for M&E
The majority of road workers and family members, particularly women, have been trained of maternal and child health care	Domestic consultant reports on monitoring	Annual report on the project Six-monthly reporting by the EA and domestic consultant
Occupational safety measures are in place	Domestic consultant reports on monitoring	Annual report on the project Six-monthly reporting by the EA and domestic consultant
Increased percentage of road workers' children enrolled in school, at least 50% of whom are female	Domestic consultant reports on monitoring	Annual report on the project Six-monthly reporting by the EA and domestic consultant

4. Estimated Disbursement Schedule

Fiscal Year (FY)	Amount (\$)
FY2005	100,000
FY2006	250,000
FY2007	150,000
Total Disbursements	500,000

Appendix 1: Fund Flow Arrangements

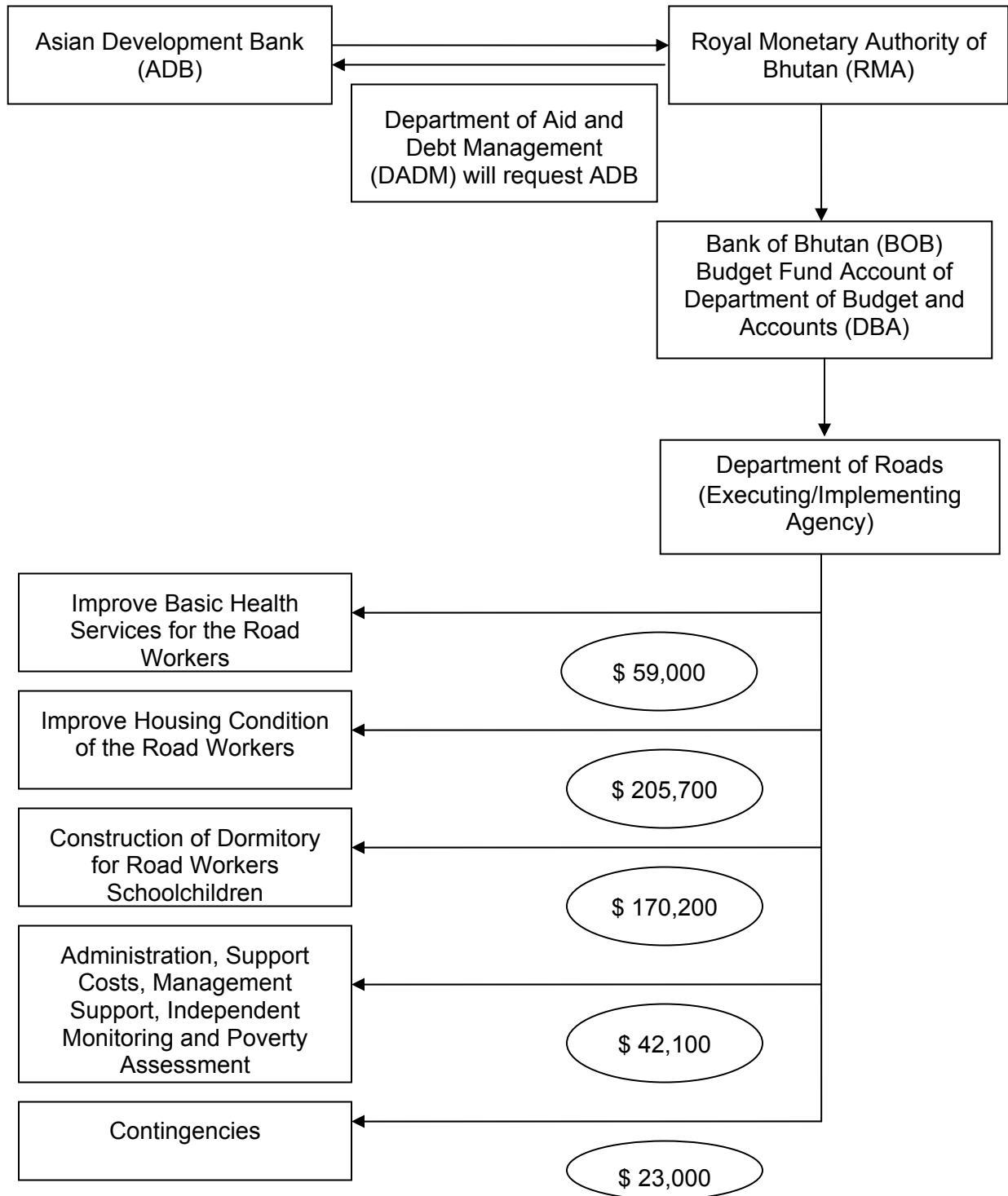
Appendix 2: Cost Estimates

Appendix 3: Implementation Arrangements

Appendix 4: Outline Terms of Reference for Consulting Services—Domestic Consultants

Appendix 5: Summary Poverty Reduction and Social Strategy

FUND FLOW ARRANGEMENTS



COST ESTIMATES

Table A2.1: Detailed Cost Estimates by Component (\$)

Supplies and Services Rendered	Costs (\$)				Contributions				
	Unit	Quantity	Cost Per Unit	Total Amount	JFPR		Government	Other Donors	Communities
					Amount (\$)	Method of Procurement	Amount (\$)	Amount (\$)	Amount (\$)
Component 1. Health Awareness and Education			Subtotal:	66,800	59,000		7,800	0	0
1.1 Equipment, Furniture, and Furnishing			Subtotal	30,000	30,000				
1.1.1 Stretchers	no.	150	6.60	990	990	LCB	0	0	0
1.1.2 First-Aid Kits	no.	300	33.33	9,999	9,999	LCB	0	0	0
1.1.3 Wardrobe	no.	26	66.66	1,734	1,734	LCB	0	0	0
1.1.4 TV with VCR 29"	no.	8	933	7,464	7,464	LCB	0	0	0
1.1.5 Tape recorder	no.	8	116	928	928	DP			
1.1.6 Video Camera	no.	1	1778	1,778	1,778	LCB	0	0	0
1.1.7 Generator	no.	8	888.5	7,108	7,108	LCB	0	0	0
							0	0	0
1.2 Training, Workshops, Seminars			Subtotal	29,000	29,000		0	0	0
1.2.1 DSA for Trainees		60x15	5.50	4,950	4,950				
1.2.2 Hall Hire	day	10	66.67	667	667	DP	0	0	0
1.2.3 Hire of Resource Persons	day	4x15	15.55	933	933	DP	0	0	0
1.2.4 Working Lunch	no.	70x10	5.55	3,885	3,885	DP	0	0	0
1.2.5 Supplies (training)	no.	60	9.25	600	600	DP	0	0	0
1.2.6 Supplies and Materials (campaign)	no.	4,083	1.1	4491	4491	DP	0	0	0
1.2.7 Working Lunch (campaign)	no.	4,083	3.3	13,474	13,474	DP	0	0	0
1.3 Management and Coordination			Subtotal	7,800	0	-	7,800	0	0
1.3.2 Travel and Per Diem	Lump sum	-	0	3,900	0	-	3,900	0	0
1.3.4 Operational Costs	Lump sum	-	0	3,900	0	-	3,900	0	0
Component 2. Road Workers Dwellings, Water and Sanitation			Subtotal:	307,700	205,700		77,000	0	25,000
2.1 Civil Works			Subtotal	179,000	154,000				25,000
2.1.1 Renovation of Dwellings	no.	50	1,880	94,000	79,000	LCB	0	0	15,000
2.1.2 Construction of Latrines	no.	44	1,227	54,000	49,000	LCB	0	0	5,000
2.1.3 Drinking Water Supply	no.	8	3,875	31,000	26,000	LCB	0	0	5,000

Supplies and Services Rendered	Costs (\$)				Contributions				
	Unit	Quantity	Cost Per Unit	Total Amount	JFPR		Government	Other Donors	Communities
					Amount (\$)	Method of Procurement	Amount (\$)	Amount (\$)	Amount (\$)
2.2 Equipment, Furniture and Furnishing			Subtotal	51,700	51,700		0	0	0
2.2.1 Purchase of Solar Power Units	no.	30	1,556	46,700	46,700	LCB	0	0	0
2.2.2 Maintenance of Solar Units	no.	30	167	5,000	5,000	LCB	0	0	0
2.3 Management and Coordination			Subtotal	77,000	0		77,000	0	0
2.3.1 Staff Salary	Lump sum	-	0	38,000	0		38,000	0	0
2.3.2 Travel and Per Diem	Lump sum	-	0	32,000	0		32,000		
2.3.4 Operational Costs	Lump sum	-	0	7,000	0		7,000	0	

Component 3. Construction of Dormitory for Road Workers School Children			Subtotal	194,700	170,200		19,500	0	5,000
3.1 Civil Works			Subtotal	151,200	146,200		0	0	5,000
3.1.1 Construction of Dorms	Unit	2	69,150	138,300	133,300	LCB	0	0	5,000
3.1.2 Site Development	Unit	2	3,300	6,600	6,600	LCB	0	0	0
3.1.3 Solar Power Units (including maintenance)	no.	4	1,575	6,300	6,300	LCB	0	0	0
3.2 Furniture and Equipment			Subtotal	24,000	24,000		0	0	0
3.2.1 Beds		60	55	3,300	3,300	LCB	0	0	0
3.2.2 Cupboards		60	90	5,400	5,400	LCB	0	0	0
3.2.3 Mattress/Blanket/Pillow		60	120	7,200	7,200	LCB	0	0	0
3.2.4 Study Table (twin type)		30	50	1,500	1,500	LCB	0	0	0
3.2.5 Chairs		60	20	1,200	1,200	LCB	0	0	0
3.2.6 Dining Table		8	105	840	840	DP	0	0	0
3.2.7 Bench		16	60	960	960	DP	0	0	0
3.2.8 Rack		4	100	400	400	DP	0	0	0
3.2.9 Cooking Utensils		20	60	1,200	1,200	LCB	0	0	0
3.2.10 Consumables/Miscellaneous	Lump sum	-	-	1000	1000	DP	0	0	0
3.2.11 Transportation Costs	Lump sum	-	-	1000	1000	DP	0	0	0
							0	0	
3.3 Management and Coordination			Subtotal	19,500	0		19,500	0	0
3.3.1 Staff Salary (cooks)	Lump sum	-	-	9,600	0	-	9,600	0	0
3.3.2 Travel and Per Diem	Lump sum	-	-	8,100	0	-	8,100	0	0
3.3.3 Operational Costs	Lump sum	-	-	1,800	0	-	1,800	0	0

Supplies and Services Rendered	Costs (\$)				Contributions				
	Unit	Quantity	Cost Per Unit	Total Amount	JFPR		Government	Other Donors	Communities
					Amount (\$)	Method of Procurement	Amount (\$)	Amount (\$)	Amount (\$)
Component 4. Project Management and Administration			Subtotal	59,800	42,100		17,700	0	0
4.1 Equipment, Furniture, Furnishing			Subtotal	7,800	7,800			0	0
4.1.1 Desktop Computers	no.	3	1,000	3,000	3,000	LCB	0	0	0
4.1.2 Photocopier	no.	1	1556	1,556	1,556	LCB	0	0	0
4.1.3 Digital Camera	no.	1	650	650	650	DP	0	0	0
4.1.4 Color Printer	no.	1	667	667	667	DP	0	0	0
4.1.5 Wardrobe	no.	2	56	112	112	DP	0	0	0
4.1.6 Furniture	no.	5	113	565	565	DP	0	0	0
4.1.7 Supplies and Consumables (office)	Lump sum	-	-	600	600	DP	0	0	0
4.1.8 Goods and Consumable Supplies	Lump sum	-	-	650	650	DP	0	0	0
4.2 Consulting Services			Subtotal	27,000	27,000		0	0	0
4.2.1 Poverty Impact Assessment	Person-month	6.75	4,000	27,000	27,000	QCBS	0	0	0
4.3 Management and Coordination			Subtotal	25,000	7,300		17,700	0	0
4.3.1 Staff Salary		1	-	16,850	5,050	-	11,800	0	0
4.3.2 Travel, Per Diem			-	6,800	1,600	-	5,200	0	0
4.3.3 Operational Costs				1,350	650	-	700		
4.4 Other Project Inputs			Subtotal	0	0		0	0	0
Components 1 to 4 = Subtotal			Subtotal	629,000	477,000		122,000		30,000
Contingency (Max 4.6% of Total JFPR Contribution)				23,000	23,000		0	0	0
Total Project Cost				652,000	500,000		122,000		30,000

DP= direct purchase, JFPR = Japan Fund for Poverty Reduction, LCB = local competitive bidding, QCBS = quality and cost-based selection.
Source: Asian Development Bank estimates.

Table A2.2: Summary Costs

Project Inputs	Component 1	Component 2	Component 3	Component 4a	Component 4b	Contingency (\$)	Subtotal (\$)	%
	Health Awareness (\$)	Dwellings Water and Sanitation Facility (\$)	School-children's Dormitory (\$)	Project Management and Administration (\$)	Consulting Services (\$)			
1. Civil Works (incl. technical surveys and designs, and supervision of construction)		154,000	146,200				300,200	60.0
2. Equipment, Hardware, and Materials (e.g., power tools, wind turbines, pico/micro hydropower generators, postharvest and cold storage materials, communications, audiovisual equipment, furniture, etc.)	30,000	51,700	23,000	7,150			111,850	22.4
3. Consumable Supplies (e.g., packaging material, hardware and tools for training purposes, training manuals and textbooks, basic training supplies, operation and maintenance [O&M] basic kits, stationery, etc.)			1,000	650			1,650	0.3
4. Training, Workshops, Seminars, Public Campaigns (e.g., resource persons, technical training specialists, community mobilizers and organizers, venue rental, travel, food and accommodation for participants, and other related costs)	29,000						29,000	5.8
5. Consulting Services (e.g., for surveys, assessments, technical specialists, advisers, etc., including related costs such as travel, accommodation, and per diem)					27,000		27,000	5.4
6. Project Management (including management of the Project Implementation Unit and the specific components, wages for staff, per diem for government staff and local volunteers, office equipment, rental, O&M, and recurrent costs)				7,300			7,300	1.5
7. Contingencies (0-10% of total estimated grant fund)						23,000	23,000	4.6
Subtotal JFPR-Financed	59,000	205,700	170,200	15,100	27,000	23,000	500,000	
Government Contribution (e.g., salaries for government counterparts, provision of project office, land acquisition for buildings and constructions, participation in workshops/meetings)	7,800	77,000	19,500	17,700			122,000	
Community's Contributions (e.g., participation in all training and community development, land development, and in-kind labor contribution through food for work)		25,000	5,000				30,000	
Total Project Costs	66,800	307,700	194,700	32,800	27,000	23,000	652,000	

Note: Use of contingencies requires prior approval from ADB.

Source: Asian Development Bank estimates.

IMPLEMENTATION ARRANGEMENTS

A. The Executing Agency and Implementing Agencies

1. The Department of Roads (DOR) under the Ministry of Works and Human Settlement (MOWHS) will be the Executing Agency. Implementing agencies (IAs) will consist of the project management unit (PMU), field divisions of DOR, district administration, health units, and project beneficiaries. Execution of the project will be guided by the National Execution Manual of the Royal Government of Bhutan (Ministry of Finance).

B. Grant Organization and Management

2. The PMU, under the guidance of DOR, MOWHS, will (i) implement, coordinate, and monitor all activities in each project component; and (ii) be responsible for close monitoring of activities and expenses incurred by the project.

3. The PMU will be set up to manage project implementation (Figure A3). The PMU will be located in Thimphu under DOR and will be headed by a project coordinator/director who will be appointed by DOR. The PMU will oversee and facilitate project implementation as well as monitor it. The PMU will report on the project's progress to MOWHS and the Asian Development Bank (ADB).

4. For coordination and management, DOR will set up a project steering committee with representatives from the Ministry of Health (MOH) and Ministry of Finance (MOF). ADB will participate as an observer. The committee will meet at least twice a year to discuss project implementation and linkages with the counterpart project. The committee will approve the annual work plan and budget, review progress, guide the project, and provide policy support.

C. Participatory Approach

5. The Project is designed explicitly to increase the participation of beneficiaries in identifying and managing micro projects with the aim of making project activities more relevant and sustainable. Giving road workers, particularly women, the responsibility for developing their ability to identifying, implementing, and supervising micro projects will better prepare them to get involved in future development activities. The project can serve as a model for participatory processes, demonstrating to government agencies and other intermediaries the feasibility and utility of participatory approaches.

6. Communities have been and will be continually consulted to gauge their interest, concerns, suggestions, and commitment to ensure project ownership and involvement in designing and implementing the project. During appraisal, a community development specialist was engaged to facilitate meetings with civil society groups, communities, and residents of the project areas in western Bhutan. A consultative workshop was conducted during appraisal, hosted jointly by ADB and DOR. Through workshops and meetings, the project will encourage continuous dialogue and consultation during implementation.

D. Coordination with Other Funding Agencies

7. Funding agencies active in the country such as Swiss Agency for Development and Cooperation (SDC)/Helvetas, United Nations Development Programme (UNDP), Netherlands Development Organization (SNV), and Japan International Cooperation Agency (JICA) have been consulted to discuss possible areas of cooperation and coordination. The proposed project components and activities are intended to complement, not duplicate, the efforts of development partners.

E. Implementation Schedule

8. The Project is to be implemented over 3 years. Preparatory activities encompass preparation of the Grant Implementation Memorandum (GIM), mobilization of the PMU and support staff, and engagement and mobilization of the consultants. Project preparation is expected to start in early 2006 and to be completed by December 2007, with full cooperation of the participating communities.

F. Procurement

9. Any procurement under the JFPR project will follow ADB's *Guidelines for Procurement*. To be procured are civil works packages and WMC equipment, including furniture, computers, solar power units, etc. The majority of the items are equipment, civil works, and consumable supplies. Procurement will utilize local competitive bidding (LCB) and direct purchase and community participation. No international competitive bidding is envisaged. Contract packages costing up to \$10,000 will be awarded by the IA, while those above \$10,000 will need prior clearance from ADB. The IA will procure goods and services (as would be stipulated in the IA's setup and work plan) in consultation with ADB.

G. Consulting Services

10. An individual consultant will be hired to monitor the impact of the project interventions in component 4 on the well-being of road workers. ADB will engage the consultant in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the selection and engagement of domestic consultants. The terms of reference for consulting services are in Appendix 4. The consultant will be engaged to provide the required inputs for 6.75 person-months spread over the implementation period. The consultant should have expertise in urban community development that includes community organizing, community health and sanitation and the use of appropriate low-technology solutions, community mobilization and participatory approach, and popular communication and education (for the design/planning of health and sanitation awareness campaigns at the community level).

H. Disbursement

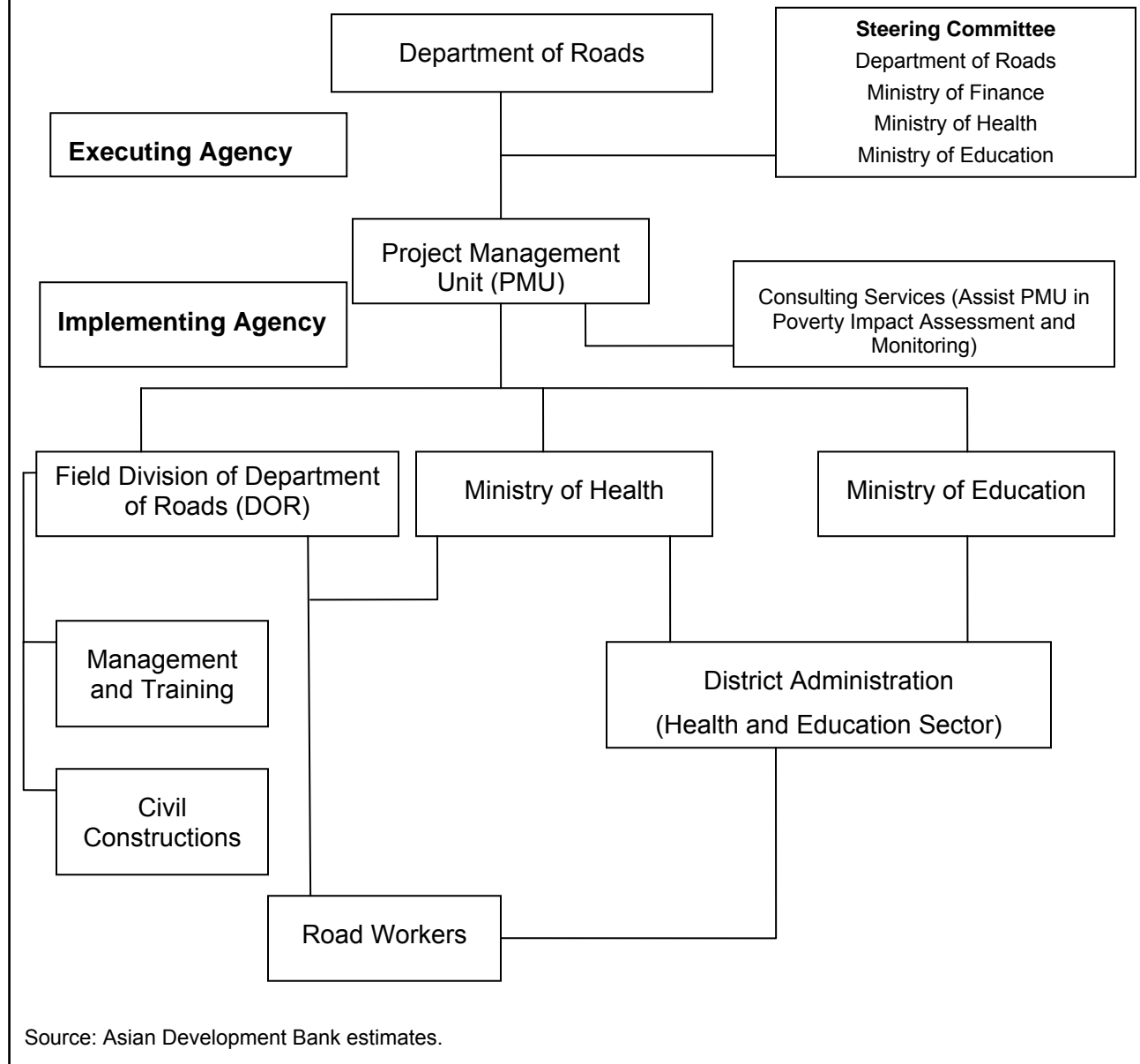
11. The Department of Aid and Debt Management (DADM) will request ADB to release funds and will credit the requested amount in the Royal Government Budget Account Fund maintained by the Royal Monetary Authority (RMA) in Bhutan. When RMA receives a request for release of funds from DADM, RMA will write to the Bank of Bhutan (BOB) to credit the said amount in the Budget Account Fund of the Department of Budget and Accounts (DBA). DADM will then write to DBA to release the fund to the EA. These steps will be followed for every release requested. The accounts of the project will be audited every year by the Royal

Audit Authority (RAA) as per Government rules. RAA is independent of the EA and the reports submitted for ADB-financed projects are always found in order.

12. Except as ADB may otherwise agree, the Borrower will establish immediately after the date of effectiveness, an imprest account at RMA. The imprest account will be established, managed, replenished and liquidated in accordance with ADB's *Loan Disbursement Handbook*, and detailed arrangements agreed upon by the Borrower and ADB. The amount to be deposited into the imprest account will not exceed the equivalent of \$250,000 or 3 months estimated expenditures whichever is less. The statement of expenditures procedure may be used for reimbursing eligible expenditures and liquidating advances provided into the imprest account each individual payment transaction not exceeding the equivalent of \$20,000, in accordance with the ADB's *Loan Disbursement Handbook*. As confirmed by the Government of Japan, use of the interest earned on the JFPR imprest account requires ADB's prior approval. Any unutilized interest earned on JFPR imprest account should be returned to the JFPR account maintained at ADB, upon the completion of the JFPR project and before the closing of the JFPR account.

13. The Executing/Implementing Agency shall (i) maintain, or cause to be maintained, separate accounts for the JFPR Project; (ii) have such accounts and related financial statements audited annually, in accordance with appropriate auditing standards consistently applied, by independent auditors acceptable to ADB; (iii) furnish to ADB as soon as available but in any event not later than 9 months after the end of the fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto, including the auditor's opinion on the use of the JFPR funds as well as on the use of the imprest account and statement of expenditures provided under the Project, all in English language; and (iv) furnish to ADB such other information concerning such accounts and financial statements and the audit thereof as ADB shall from time to time reasonably request.

Figure A3: Implementation Arrangements



OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES DOMESTIC CONSULTANTS

A. Background

1. Improving road infrastructure is an important objective of the Government of Bhutan. The Asian Development Bank (ADB) approved the Road Improvement Project in 2000 to promote private sector participation, reduce poverty by enhancing employment opportunities, and improve governance by providing institutional support to the Department of Roads (DOR). A Japan Fund for Poverty Reduction (JFPR) project grant has been allocated for improving the well-being of road workers, particularly reducing poverty among women road workers.

2. The JFPR grant is in support of innovative poverty reduction and social development activities to reduce poverty in ADB's developing member countries. JFPR grants complement ADB-financed operations and programs compatible with the development objectives of the Country Strategy and Program (CSP) or poverty reduction elements of sector strategies.

B. Purpose

3. The main purpose of impact monitoring is to document changes on the well-being of road workers as a result of the project interventions. Monitoring will also help build baseline data for future impact studies. A project implementation manual guides the implementation of the JFPR grant project. Assessing poverty impact is an important component of the project. The project has been prepared using participatory processes. In particular, emphasis is given to the following aspects:

- (i) Project impact on poverty rather than merely project outputs is monitored.
- (ii) How do the poorer sections of the community benefit?
- (iii) What is the impact on women and children?
- (iv) Are there adverse impacts on vulnerable households?

C. Objectives

4. The study will assess any short-term impact of the project on poverty reduction through changes occurring in living conditions, access to welfare services (health and education), and reducing the vulnerability of the poor and enhancing their participation in the project. The monitoring exercise should take into account before-and-after scenarios with project intervention.

D. Scope of work

5. The task of the consultants are as follows:

- (i) Finalize a grant implementation manual (GIM) for the project through consultation with the PMU/IA, in view of ADB's procedural requirements and fund flow arrangement.
- (ii) Help formulate specific work plans for the project based on central and provincial level consultation meetings in the initial JFPR project area.
- (iii) Assist the PMU/IA in developing detailed criteria for selecting project beneficiaries, in view of the specific local characteristics of the concerned areas.

- (iv) Assist the PMU/IA in establishing and preparing the necessary documents on appropriate procedures for procurement and disbursement for the project in accordance with ADB's guidelines.
- (v) Assist the PMU/IA in overall management and supervision of all project components.
- (vi) Prepare the monitoring framework in consultation with DOR and other key stakeholders. Include in the framework a list of indicators/issues to be covered (both qualitative and quantitative), methodology for data collection, and schedule of execution. Taking the findings from social assessment already carried out as a starting point, stratify the target groups, and use as the basis for deciding on the number and type of households to be covered by the sample household study. The study should particularly cover various impacts such as improvement in living conditions, awareness and improvement on health, access to education, and changes beginning to happen. A format and framework for the proposed study details will be part of the inception report. The report should be presented, discussed, and agreed upon with key stakeholders.
- (vii) Carry out a baseline survey and prepare baseline data for comparative analysis by accessing secondary data sources and also the primary data collected during the baseline survey. Output from this task would be the baseline data report.
- (viii) Conduct annual monitoring surveys toward the end of the first year and toward the end of the second year/after the end of the project. Collect data from project areas in accordance with the requirements of the agreed-upon monitoring framework using participatory and household survey methodologies. During the first round of visit, it is essential to discuss the monitoring framework with communities, incorporate their suggestions, and involve them in the participatory monitoring process. In the next round, the community should be able to report on these to the consultants.
- (ix) Prepare a monitoring report on poverty impact at the levels of key activities, outputs and outcomes. The report should present major findings, lessons learned, and remedial/supportive actions needed. The report should be presented to key stakeholders, discussed, and finalized.
- (x) Additional tasks follow:
 - (a) Play a lead role in mobilizing the beneficiaries to initiate income-generating activities.
 - (b) Enhance community participation in sanitation efforts in the communities and student housing.

E. Methodology

6. As noted earlier, the methodology will include stakeholders participation and household surveys. The emphasis is on participatory monitoring involving user groups and key stakeholders. The monitoring plan must be in tune with the implementation plan.

7. The consultant will use secondary data gathered through previous surveys on road workers. The field surveys (baseline and the monitoring) will include PRA exercises, interviews with road workers particularly the poor and other vulnerable groups including women and children. The study will include focus group discussions with different economic and social groups. Discussions will be carried out with the project contractors, project management staff and others. Similar discussions will be held with officials of the district administration (health and education sectors).

F. Study duration

8. The consultants will assist the PMU in the initial setting up and overall management of the project (1 person-month), baseline survey (2 person-months), and annual monitoring surveys for 2 years (3 person-months).

G. Reporting

9. The consultant will submit the following reports:
- (i) inception report within 4 weeks of assigning the work,
 - (ii) baseline data report within 10 weeks of commencement,
 - (iii) first annual monitoring report by the beginning of year 2, and
 - (iv) second and final consolidated monitoring report immediately after year 2 of the project.

H. Cost Estimates

10. The estimated cost of the JFPR consulting services is \$27,000 covering remuneration, per diem, domestic travel, communications, and reporting. Summary cost estimates (Table A4.1) and a detailed budget breakdown (Table A4.2) are presented next:

Table A4.1: Cost Estimates (\$)

	Unit	Quantity	Unit Cost	Total Cost
A. Domestic Consultants (Poverty Assessment Specialist)				
1. Remuneration	Month	4.00	4,085	16,340
2. Per Diem				
a. Field visits	Night	90	50	4,500
b. Travel	Night	90	40	3,600
B. Miscellaneous Administration Costs				1,000
C. Communications, Reports, and Documents				1,560
Total				27,000

Table A4.2: Budget Breakdown

a. Remuneration						
	Quantity	Unit Cost		\$		
Month	4.00	4,085		16,340		
Total				16,340		
b. Per Diem						
	No. of Days			Total No. of Days	Rate per Day	Total Amount
	Beginning of Project	End of Year 1	End of Year 2			
Baseline Survey	30	-	-	30	50	1,500
Annual Monitoring	-	30	30	60	50	3,000
Total				90	50	4,500
c. Transport						
Four-Wheel Drive Vehicle		Total No. of Days		Rate per Day		\$
Rent 1 vehicle		90		40		3,600
Total						3,600
d. Other Expenditures						
Activity	\$		Remarks			
Administrative Cost	1,000		Lump sum			
Communications and Reports	1,560		Lump sum			
Total	2,560					

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis? <input checked="" type="checkbox"/> Yes	Is the sector identified as a national priority in country poverty partnership agreement? <input checked="" type="checkbox"/> Yes
<p>Contribution of the sector or subsector to reduce poverty in Bhutan:</p> <p>The country strategy and program for Bhutan identified infrastructure development particularly improvement of road systems and providing access to rural areas as a key requirement for poverty reduction. National highways and district and feeder or farm roads form the main types of roads in Bhutan. The construction of roads began with the inception of planned development. The total road network measures about 3,370 kilometers (km). The Government aims to develop a sustainable and regionally balanced road network that is safe, convenient, and economical to use. Improved road infrastructure will improve access to remote parts of the country and facilitate the delivery of health, educational, agricultural, and other social services to those areas. The construction of roads has led to increased spatial mobility of passengers and goods, and has activated the flow of capital, technologies, and trade, agriculture, and consumption behavior. Improvement of the road infrastructure will greatly contribute to poverty reduction.</p>	

B. Poverty Analysis

Targeting Classification: Targeted intervention

<p>What type of poverty analysis is needed?</p> <p>Road workers are vulnerable groups with poor living conditions coupled with food shortages and limited financial resources. Poverty to some of the workers is the lack of a steady source of income to support one's family; to others, it is poor living conditions and shortage of food. As in most cases, hunger and poverty affect women disproportionately. Even in the camps, women have to meet the family needs with whatever they have.</p> <p>The impact of the project on poverty reduction could be assessed through regular monitoring during and after the project: assessment of their living condition, improvement on the status of health and hygiene, awareness on health, children's education, etc. The social assessment carried out in 2001 should provide a good baseline against which the impact on poverty could be measured. A poverty impact study should be carried at the end of year 2 of the project.</p>
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C. Participation Process

Is there a stakeholder analysis? <input checked="" type="checkbox"/> Yes
Is there a participation strategy? <input checked="" type="checkbox"/> Yes

D. Gender Development

<p>Strategy to maximize impacts on women:</p> <p>The social assessment reports state that women road workers constitute about 46% of the workforce. From the focused group discussions and surveys, the following situation on women road workers emerges. Women constitute a very significant proportion of the road workers. People from different districts live together in harmony and no restrictions were seen to prevent social contacts and marriage. The women are from rural landless or poor households. Physical strain at work coupled with undiminished domestic drudgery renders women weak and sick.</p>
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Female heads of households are those who are divorced. Their husbands have abandoned them with many children. They are the poorest and most vulnerable to poverty. In their cases, household survival depends on the income/earning potential of the women herself and her children. Most women road workers are illiterate. Learning opportunities, employment avenues, and awareness are limited for girls in the camps. Distance to school from camps is one of the major constraints, particularly to girl children. Many girls are kept at home to look after the younger ones and to provide income as road worker through child labor. Access to health care centers is difficult since the basic health units (BHUs) are very far. Therefore, whenever there is an emergency or sudden sickness, it is almost impossible to reach the health centers without a ready transport. Poverty is closely allied to nutritional situation at different times in life. Due to lack of a proper water supply, women have to fetch water over long distances. Women and young children are observed to devote considerable time to collecting fuelwood and fetching water.

- Drudgery for women in firewood collection, fetching water, and cooking should be reduced through provision of solar power and drinking water in the camps.
- Campaigns for awareness on health and family planning (birth control) will be targeted to women road workers.
- Occupational health and safety standards in workplaces will benefit the women road workers.
- Provision of low-cost dormitories and renovation of dwellings will improve the living conditions of women and schoolchildren.

Has an output been prepared? No

E. Social Safeguards and other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input checked="" type="checkbox"/> None	Land acquisition will not be required and the proposed activities will not displace people. The Department of Roads (DOR) has the land for dormitories, and the site is not occupied at present.	<input checked="" type="checkbox"/> None
Affordability	<input checked="" type="checkbox"/> None	There will be no affordability issues, as the project is designed to improve the living conditions of road workers.	<input checked="" type="checkbox"/> No
Labor	<input checked="" type="checkbox"/> None	No job loss will occur. The project is expected to generate employment opportunities for local communities during the construction phase, thereby offering employment opportunities for men and women.	<input checked="" type="checkbox"/> No
Indigenous Peoples	<input checked="" type="checkbox"/> None	The project will have no adverse impact on indigenous people or their cultural identity.	<input checked="" type="checkbox"/> No
Other Risks and/or Vulnerabilities	<input checked="" type="checkbox"/> None	No other risks or vulnerabilities are foreseen.	<input checked="" type="checkbox"/> No