

Community Empowerment Initiative

A. Scope

The three subcomponents of the community empowerment initiative component are: (i) sustainable rehabilitation and maintenance of rural feeder roads in one selected subdistrict, (ii) HIV/AIDS¹ prevention and road safety programs along the project roads, and (iii) monitoring employment targets for women.

1. Subcomponent A: Sustainable Rehabilitation and Maintenance of Rural Feeder Roads

This subcomponent aims to empower local communities to ensure community-based, labor-intensive, and sustainable rehabilitation and maintenance of rural feeder roads in a selected subdistrict along the project road. It will support an integrated approach to community empowerment, and contribute to (i) reducing travel time; (ii) supporting basic needs for water supply, energy, and food security; (iii) ensuring uninterrupted access to basic social services (health care and education) and markets where local farmers can sell their products; (iv) promoting income-generating opportunities; and (v) ensuring the mitigation of HIV/AIDS and road safety risks associated with road construction.

¹ HIV/AIDS = human immunodeficiency syndrome/acquired immunodeficiency syndrome.

The subcomponent will support:

- participatory and gender-inclusive identification and selection of rural feeder roads to be rehabilitated under the project;
- training people in local communities (focusing on the poor, veterans, other disaffected stakeholder groups, and youth) on labor-intensive road rehabilitation and maintenance, combined with management and business skills transfer;
- training women (with focus on widows and women who are household heads) in bioengineering activities and agricultural extension services, combined with literacy, food nutrition, reproductive health and HIV/AIDS prevention, road safety management, and business skills transfer;
- rehabilitation of selected rural feeder roads that are required to directly connect to the project trunk roads; and
- design of gender-inclusive modalities to ensure sustainable maintenance of rehabilitated feeder roads.

Specific features of the subcomponent include:

- Consulting with the Ministry of Public Works (Timor-Leste)/ Project Management Unit (MPW/PMU) and relevant central and district government agencies on the proposed subdistrict community empowerment initiatives.
- Selecting rural feeder roads to be rehabilitated from among those connecting rural communities to the main project roads to be rehabilitated or maintained under the other two project components.²
- Ensuring that quality road engineering assessment and detailed design for the rehabilitation of the rural feeder roads are carried out by recruiting national and/or international engineering consultants, as needed.
- Ensuring the effective involvement of women and women's groups in the consultative process for identifying and selecting rural feeder roads to be rehabilitated under the project.
- Ensuring that vulnerable groups (veterans, the poor, youth, widows, and women heads of households, and other disaffected stakeholders)

² The selection procedures, actual selection, and length of the feeder roads will be done by mutual understanding between the international nongovernment organization and the Asian Development Bank.

are targeted for the skills transfer activities to be funded under the project.

- Organizing training and labor skills transfer activities so that they are appropriately timed and sequenced with the rural communities' involvement in project activities.

2. Subcomponent B: HIV/AIDS Prevention and Road Safety

The international nongovernment organization (INGO) that will provide consulting services for the community empowerment initiative component would provide a broad range of HIV/AIDS and road safety awareness programs to target high-risk groups (e.g., local construction workers, long-distance drivers, and women in the construction campsites and corridors of influence). The programs will include: (i) publication of information, education, and communication materials on HIV/AIDS and reproductive health for illiterate communities; (ii) behavior-change communication on HIV/AIDS and reproductive health, including family planning; (iii) socioculturally sensitive condom awareness and availability in construction camps and corridors of influence; and (iv) dissemination of educational and advisory materials on road safety. Emphasis would be given to women's effective involvement in the design and implementation of the program.

The Government of Timor-Leste's commitment to ensure effective participation of construction workers at campsites in the HIV/AIDS prevention and road safety program to be funded under the project was covenanted in the Assurances section of the grant document (Chapter IV, Box 13).

3. Subcomponent C: Monitoring of Employment Targets for Women

In line with the project goal of promoting increased access by women to opportunities provided by road rehabilitation and maintenance, the INGO—in coordination with MPW/PMU—will be responsible for monitoring achievement of employment targets for women. This will encourage public works contractors to increase the percentage of women workers to 30% of wage laborers (including at least 75% women laborers for bioengineering activities). The Government of Timor-Leste's commitment

to ensure the enforcement of specific employment targets for women is covenanted in the Assurances of the grant document.

B. Monitoring Indicators

The community empowerment initiative component would be monitored based on the following indicators:

- inclusion of women's, veterans' and other disaffected stakeholder groups' in identifying and selecting rural feeder roads;
- achievement of employment targets for women workers;
- visits to health-care facilities and local markets;
- acquired labor skills in bioengineering activities, feeder roads built, and agricultural extension;
- acquired knowledge of (i) literacy, nutrition, reproductive health, and HIV/AIDS prevention; (ii) road safety, management, and business skills; and (iii) gender-inclusive modalities for sustainable maintenance of rural feeder roads.

Specific indicators will be established by mutual understanding between the INGO and the PMU, along with conditions that would enable the INGO to achieve the targets set through the indicators within the timeframe of the project and agreed-upon final budget.

C. Implementation

Consulting services will be provided during the 2 years of project implementation by an INGO with expertise in community-based and labor-intensive infrastructure development and service delivery in the project area.³ The integrated approach to community empowerment—connecting isolated communities to main roads, primary facilities, and markets, while providing skills necessary for economic activities and raising awareness on health- and safety-related issues—will bring significant benefits to participating communities as a whole, building upon extensive experience and demonstrated success of INGOs working in a selected district.

³ The option of recruiting a domestic NGO instead of an INGO to implement the community empowerment component was initially considered. However, consultations with the umbrella organizations for, and actual meetings with Timor-Leste NGOs revealed that the domestic NGOs were not yet ready to take the lead in implementing this initiative. Most of them are very small, relatively newly founded organizations, and thus, lacked the experience needed to carry out the initiative. They also did not possess sufficient financial and human resources.

Based on consultations conducted by the ADB fact-finding mission and feasibility study team, CARE Timor-Leste was recruited as the implementing INGO by direct selection.⁴ Drawing upon its extensive experience and lessons learned from its successful implementation of the Road Maintenance Program in Bangladesh (Chapter I, Section B), CARE will adhere to the following strategic considerations during the project implementation:

- formal and agreed-upon coordination and consultation mechanism with MPW/PMU, central and district/local governments, and other stakeholders;
- formation of a Project Advisory Committee consisting of key members from government and communities to provide overall guidance and direction to the project;
- selection of feeder roads among those connecting to the main project roads in a demand-responsive manner;
- engineering designs for rehabilitation and maintenance of feeder roads in a practical and cost-effective manner; and
- transparency and accountability in selecting poor and vulnerable communities and ensuring effective involvement of women and women-headed households, war veterans, youth, the poor, and other vulnerable groups, as identified, in all phases of the project design and implementation.

Broadly, the community empowerment initiative was designed in such a way that CARE would be required to affiliate with domestic NGOs. Establishing such working relationships will provide excellent capacity-building opportunities for the domestic NGOs. This is expected to contribute to successful provision of similar initiatives to local communities by helping the country develop a pool of more capable domestic NGOs.

⁴ CARE was recruited through direct selection methods based on the following criteria: (i) long-term presence and credibility in working with local communities in districts adjacent to the project roads; (ii) demonstrated track record of involvement in community-based and labor-intensive infrastructure development and service delivery; (iii) involvement in promoting socioculturally sensitive HIV/AIDS and socially transmitted infection prevention and road safety in the project road areas; (iv) extensive experience in working with and strengthening the capacity of local NGOs in the project area; and (v) expertise in the proposed areas of agricultural extension services, food nutrition issues, and rural development in general.

Indicators for Ranking Districts for Survey Locations

A. Poverty Incidence/Concentration of the Poor

Since the social and poverty analysis components of the project emphasize achieving poverty reduction, the indicator showing the concentration of the poor is critical. The team identified the degree of food shortage (food security indicator)¹ as a proxy for poverty incidence. The data are available at the suco (village) and district levels.



Daily market in Maliana, Bobonaro District

The district-level data are reported as the percentage of sucos reporting families without sufficient food for at least 1 month out of the year. The average numbers of families with food security for the districts vary from as high as 39% of families in the Dili District to 10% in the Cova Lima District (Table A2.1).

¹ Data from: Technical Assistance 3512-TIM: Formulating Strategies for Economic and Social Development. 2001. Final Report. Appendix F: The Survey of Sucos in Timor Leste—Summary of Initial Results and Implications for Poverty Reduction, by a Partnership of the East Timor Transitional Administration, the Asian Development Bank, the World Bank, and the United Nations Development Programme.

B. Suco Development Index

The Suco Development Index² represents the levels of wealth, social services, and access in a composite form. These parameters show the relative socioeconomic development of each suco, with lower indices indicating lower levels of development. The indices are compiled at the suco and the district levels. Table A2.2 presents the districts in the order of their levels of development.

Table A2:1
Families with Food Security

District	Average (%)
Dili	39
Oecussi	31
Lautem	26
Ermera	26
Bobonaro	25
Liquica	25
Manatuto	24
Baucau	24
Aileu	22
Viqueque	20
Ainaro	16
Manufahi	10
Cova Lima	10

Table A2:2 Suco
Development Index

District	Index
Liquica	38
Dili	46
Ermera	46
Manatuto	46
Bobonaro	48
Aileu	50
Oecussi	50
Viqueque	51
Baucau	54
Lautem	59
Ainaro	61
Manufahi	64
Cova Lima	65

C. Concentration of Strategic Crops

Coffee is one of the most important cash crops in Timor-Leste. Although it represents a great potential for economic growth and poverty alleviation, such potential is hampered by poor road conditions that makes it almost impossible for people to transport crops to markets. Because Timor-Leste's coffee is mostly produced in the western part of the country, coffee buyers travel to the largest coffee-producing districts by truck. However, according to the study team's interview with the Cooperative Café Timor, some roads are impassable, forcing sellers to hand carry coffee to the nearest points that can be reached by the buyers' trucks. Three of these districts

² See footnote 1.

(Bobonaro, Ermera, and Liquica) are also among the six poorest or least developed districts, and have high concentrations of sucos with severe food insecurity.

Another potential strategic crop to be considered is vanilla. Timor-Leste is one of the few countries where high-quality vanilla can grow,³ with a large potential for increasing cash income. In addition, coffee and vanilla thrive in similar climate conditions (although not all coffee-producing areas are suitable for vanilla production). It also could become an ideal alternative crop for farmers to grow as part of a diversification plan to manage risks better.

D. Concentration of Major Food Crops

Rice, maize, and cassava are among the most important food crops for local consumption in Timor-Leste. The data on the production of these crops are available only at the district level,⁴ and the large producers of these primary crops (in terms of total cereal equivalent tons) were given higher priority in the selection of the survey locations (Table A2.3).

E. Population Density

People, including the poor, are concentrated along the roads, and it is expected that population along any road section will include a large proportion of the poor. Therefore, the higher the population density, the more enhanced the poverty reduction impact of a road improvement project would be (i.e., improving a kilometer of road would impact a larger number of people in the areas with higher population concentrations). Thus, the population density of each district, estimates based on the preliminary 2004 Census data⁵ (Table A2.4), was included as one of the indicators to determine the fieldwork locations.

³ Sustainable Assessment of the National Cooperative Business Association: East Timor Coffee Activity. 2001. Prepared for the United States Agency for International Development, Asia and Near East Bureau, Development Alternatives International, Inc. p. 37.

⁴ Food and Agriculture Organization of the United Nations and the World Food Program. 2003. *Special Report: FAO/WFP Crop and Food Supply Assessment: Mission to Timor-Leste*. The data are forecast for 2003.

⁵ At the time of survey location selection (March 2005), the latest available data on Timor-Leste's population by district were the preliminary results of the 2004 Census. The 2004 Census data present considerable fluctuations in the population of each district compared to the 2001 Suco Survey—from a 3% increase in Baucau District to an almost 40% increase in Dili District. Therefore, while the 2004 Census data had not been finalized, they most likely provide the most accurate information available on the current population and its distribution.

Table A2.3:
Primary Crop Production

District	Tons ^a
Baucau	20,652
Bobonaro	19,960
Viqueque	18,454
Cova Lima	15,545
Lautem	9,080
Manatuto	5,992
Oecussi	5,690
Ermera	5,630
Liquica	2,666
Manufahi	2,663
Aileu	2,355
Ainaro	2,091
Dili	1,473

Table A2.4:
Population Density

District	Persons/km ²
Dili	451
Ermera	138
Liquica	101
Oecussi	72
Baucau	70
Ainaro	67
Bobonaro	60
Aileu	51
Cova Lima	46
Viqueque	37
Lautem	34
Manufahi	29
Manatuto	20

km² = square kilometer.

^a The total production of rice, maize, and cassava expressed as total cereal equivalent.

Methodology to Determine Poverty Incidence

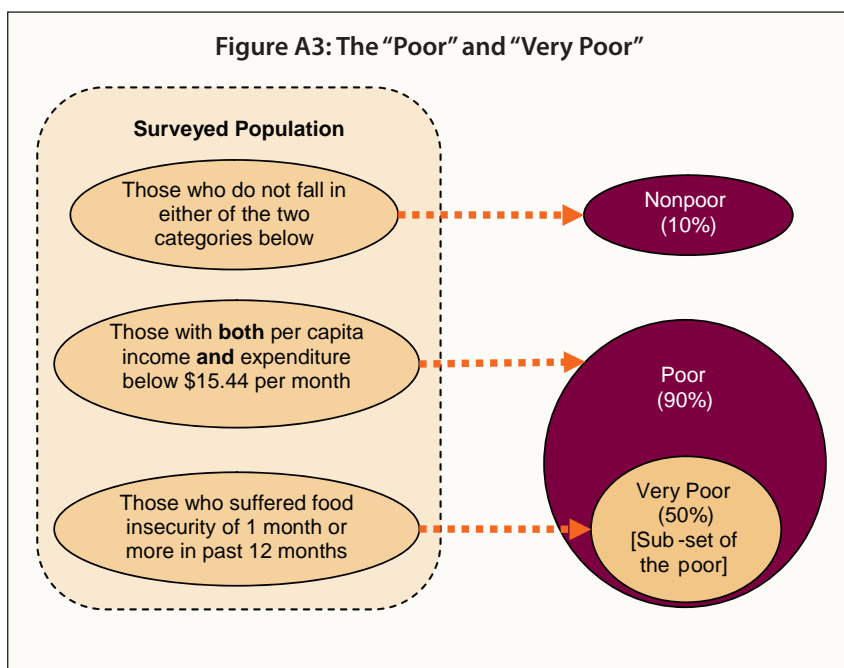
A. Defining the “Poor” and “Very Poor”

Considering that those people who cannot afford sufficient caloric intake are clearly living below the extreme poverty line, the feasibility study team first classified anybody who suffered food insecurity for 1 month or more as “very poor”. As those who are very poor are a sub-set of the “poor”, the poor were defined as those classified as very poor plus those whose per capita income and expenditures are both below the national poverty line of \$15.44 per month after the team made appropriate adjustments to their reported incomes and expenditures (Figure A3).

B. Correcting Underreported Incomes and Expenditures

Because a large percentage of the local population are subsistence or near-subsistence farmers, a substantial portion of household food consumption comes directly from private plots and do not come from markets. This means that the incomes and expenditures reported do not consider such consumption in monetary terms, and the figures are most likely underreported.

To correct the likely underreporting of incomes and expenditures of those who consume agricultural products from their private plots, the study team used the (i) national poverty line of \$15.44 per month per person as a guideline, and (ii) data obtained on the percentage of total household



food consumption satisfied by household agricultural production. Table A3 gives an example of adjusting a reported per capita income of \$12.00 (A) of a person who also indicated that 50% (B) of their household food consumption comes directly from their private plots. This adjustment was made to each household sample responses showing reported income and expenditure to determine the incidence of poverty and extreme poverty, at the per capita level.

C. Determining Poverty Incidence

Based on the team’s expert judgment, fieldwork, and survey results, the “official” poverty incidence estimate of 40% was much too low. Following the method described, the team estimated that Timor-Leste’s poverty incidence was at least 90% and that approximately 50% of the total population was very poor.

The majority of the sample responses were collected from those households located along national roads, which are generally in much better condition than district roads and any feeder roads. These are areas where

Table A3: Sample Adjustment of Underreported Income and Expenditures

A	B	C	D	E	F
Income per capita (before adjustment)	HH consumption satisfied with HH production	National poverty line	Estimated food threshold (80% of poverty line)	Convert Item B into monetary terms	Adjusted income per capita
Reported	Reported	–	Item C x 0.8	Item B x Item D	Item A + Item E
\$12.00	50%	\$15.44	\$12.35	\$6.18	\$18.18

HH = household, \$ = US dollar, % = percent.

Notes:

- \$12.00 (A) is the person's income per capita before adjustment, and 50% (B) is the estimated percentage of the respondent's household food consumption met by his/her household agricultural production.
- The national poverty line of \$15.44 (C) is assumed the expenditure amount necessary for a person to purchase the minimum but sufficient amount of food plus basic household items. Of this amount, the team assumed that 80% is necessary for food, and the rest for basic household items. Thus, 80% of the national poverty line is considered as the food threshold, equivalent to \$12.35 (D).
- The surveyed households' estimated percentage of household food consumption that was met by household agricultural production, 50% (B), was converted into monetary terms for each sample by applying the food threshold, \$12.35 (D). In this example, the estimated monetary amount equals \$6.18 (E), which is derived by multiplying the food threshold by 50% or 0.5.
- The sum of the reported income per capita, \$12.00 (A) and estimated monetary amount equivalent to the household consumption met by household agricultural production, \$6.18 (E) is \$18.18 (F). It is considered as the adjusted income per capita in this example.

residents have better access to markets and other economic centers than people living further. In addition, many households that were interviewed along national roads were located right along the roads, with the distance of only a few to a couple of hundred meters from the roads. The team observed during their field visits that, in general, living conditions become worse the further away households are from the national roads. This indicates that the actual poverty incidence—taking into consideration those remotely located further from both national and district roads—is likely to be even higher than the new estimates. During the surveys, the team observed many stunted, very thin children with swollen stomachs—evidence of malnutrition even along major national roads—and this also supports the estimate that poverty incidence is much higher than what was reported in 2001.¹

¹ This estimate is reinforced by the latest figures on food insecurity published by the Ministry of Agriculture, Forestry and Fisheries. The Priorities and Proposed Sector Investment Program report (p. 4) states that about 600,000 people suffer food insecurity at some time during the year. Considering that extreme poverty is typically defined by the food threshold of 2,100 calories per person per day, this implies that the incidence of extreme poverty could be as high as 60%.

Villagers' Perspectives of their Poverty (Inputs to Social Analysis)

As part of the inputs to the social analysis, the following summarizes the villagers' perspectives, obtained mainly through 11 focus group discussions with an average of 7 participants in each discussion, and 22 detailed household interviews.

A. Self-definition of the Poor and Better-off

When asked how they define the poor and the better-off in their village, the largest number of groups used as the top criterion the amount and quality of food a household can afford to eat (Table A4.1). Closely related to this food and nutrition measure, the villagers also mentioned poor health as one of the characteristics of the poor. Also important is one's ability to afford higher education for children. These criteria are closely followed by the most visible material measures, such as condition of houses, number of livestock—in particular, large animals like buffalos—the amount of land for cultivation, and whether one owns vehicles and/or kiosks. In summary, the general picture of those who they think are better off are those who suffer no food insecurity and can afford better food, can afford to send their children to distant places for higher education, who live in houses that are in good condition, who own larger numbers of livestock, and who own vehicles and/or kiosks.

Table A4.1: Self-defining Who is “Better-off”

Rank	Definition of “Better-off”	Number of Focus Groups (Total 11 groups)
1	Food and nutrition	6
	Ability to afford high levels of education for children	6
2	Condition of the houses	5
	Number of livestock	5
	Size of land for cultivation	5
3	Possession of automobiles and kiosks	4

The fact that people identify whether one can eat or not as the top indicator of poverty or wealth indicates that the severe food insecurity—discussed earlier—is the key determinant of poverty. The condition of the houses people live in has been an issue of serious concern to many people, as many complained that their houses were damaged during the conflicts and still require repair.

People are well aware of the importance of education for their children’s future and education’s association with the level of well-being. Thus, most children in the villages are enrolled in school. Considering the income of the villagers, school fees and uniforms are expensive. Some poor villagers even cut their spending on other items and/or borrow money to pay for school tuition and uniforms. Each village normally has a primary school located within it, and children have reasonably good access to primary education. When it comes to pre-secondary school, however, each subdistrict center usually has only one such school. Normally, each district has a few secondary schools, but they tend to be concentrated in the respective district capitals or in major towns.

B. Self-defined Causes of Poverty

People tend to see that the primary cause of poverty lies in the attitude of each individual. Many respondents stated that many rich people work hard and continue to do so because they do not want to fall into poverty. These respondents believe that they themselves can become better off if they do the same. Many do possess the desire to move upward and the willingness to work harder, yet they lack education and skills, resources, and access to income-generating opportunities. Their religion, however, emphasizes the

dignity and high standing placed on the poor, and preaches that only the poor will reach paradise in the afterlife.

The attitude of individuals as the perceived number one cause of poverty is closely followed by the levels of education and skills people have. The villagers believe that low levels of education, or lack of it, and/or the lack of capacity are closely associated with poverty (Table A4.2). This belief is well reflected in their efforts to keep their children in school and their desire to provide their children with higher education.

Majority of the respondents are subsistence or near-subsistence farmers who often do not have access to appropriate irrigation systems and cannot

Table A4.2: Self-defined Causes of Poverty

Rank	Causes of Poverty	Number of Focus Groups (Total 11 groups)
1	Poor attitude by individuals toward work	6
2	Low levels of education, capacity, and skills	5
3	Poor condition of land	5
	Status of ancestors— inheritance	5
4	Lack of resources, such as money and animals, to do better in farming and other economic activities	4
	Lack of income-generating opportunities	4
5	Household size (high-dependency ratio)	3
	Bad weather conditions	3
6	Corruption and nepotism among officials at various levels	1
	No cooperation between the nonpoor and the poor	1
	Lack of relatives from whom they can receive assistance	1
	The 1999 conflict, which caused a large loss of resources	1
	Lack of expenditure planning	1
	Determined by God	1
	High cost of ceremonial gifts	1

afford fertilizers. For them, the existing quality of the land they cultivate and the natural climate conditions are the largest determining factors of their living standard in the near future. Understandably, the respondents consider the poor condition of the land and bad weather conditions as among the reasons for poverty. Crop failure not only means they may not have anything to sell, but also they may not have sufficient food to consume the next season. At present, people do not have the resources to complement their farming activities, such as building/repairing irrigation systems or buying fertilizers.

People also see that the size of the households matters. They seem to recognize that it is more difficult to provide all children with the same levels of education when they have many children. However, what they mean by the household size is not only related to the number of children, but also the number of dependents in the households in general. In some villages, people identified very poor families as those with old couples without anybody else to support, and who have very few resources to support themselves with.

One group also cited spending on ceremonial occasions as one of the causes of poverty. In Timor-Leste, it is customary to give a large animal or other major gift on such occasions, such as funerals and weddings. Even the poor spend more than they can afford to save face—even if that means that later on they will not have sufficient food to consume.

C. Villagers' Coping Strategies

The most common coping strategy of the villagers for income generation is to sell livestock when the need arises. Many indicated that they normally sell agricultural produce such as corn, beans, cassava, rice, potatoes, other vegetables, and fruits. However, when they do not have this produce to sell, they attempt to earn some income by selling animals.

In villages without drinking water supply systems, people walk to the closest river for water. In these villages, the villagers are much more concerned about the water supply than road conditions. During the dry season, the quality of water is acceptable according to the villagers. However, during the rainy season, people have to wait after the rain—that is, until the river clears—before they can draw water.

Those who live in villages without nearby health-care facilities are forced to walk or ride in small trucks and minibuses to go to the closest

health-care facilities. A couple of villages also had traditional practitioners, such as a traditional midwife to assist in the delivery of babies.

Because primary school fees and uniforms are expensive, the villagers have to find a way to fund their children's education. When they do not have enough money, they cut expenditures on other items or borrow to pay for their children's primary education.

D. Villagers' Major Concerns

The poor condition of the roads (including the condition of feeder roads to farms, gardens, and other aldeias [hamlets]) and/or lack of good transportation systems were cited as major concerns in five out of nine focus groups (Table A4.3). This was followed by the lack of access to income-generating opportunities, which is closely associated with the existing poor road conditions that prevent easy access to market centers. Many consider lack of access to other primary facilities—such as water supply systems, health-care facilities, and schools—as a high-priority issue.

In a village near Ossu on Baucau-Viqueque Road (National Road A16), villagers were seriously concerned by the illegal occupation of land and houses. The village used to be occupied by a Muslim minority, but the latter fled during the 1999 conflicts, and Catholics have settled there. This has created land and house disputes.

Table A4.3: Major Concerns Cited by Villagers

Rank	Major Concerns	Number of Focus Groups (Total 11 groups)
1	Poor condition of roads and/or lack of good transportation system	7
2	Lack of access to income-generating opportunities	4
3	Lack of water supply	3
	Lack of health-care facilities in the village	3
4	Lack of good leadership at various levels	2
	Access to education (affordability and physical distance)	2
	Disputes over land and houses	2
5	Unsatisfactory condition of local school facility	1
	Bad weather conditions	1
	Food insecurity	1
	Poor housing conditions	1
	Lack of electricity	1

Economic Benefit Distribution Analysis (Inputs to Distribution and Poverty Analysis)

The economic analysis of the project provides the basis for the distribution of benefits among different stakeholder groups. According to the project's economic evaluation, the estimated economic net present value (ENPV) of the first-year project is \$6.85 million over 20 years (limited to the national road rehabilitation component). This exercise also allows estimating the poverty impact ratio (PIR), defined as the percentage of the total ENPV and direct labor benefits that will accrue to the poor (details on the benefits and pitfalls of using PIR estimates are in Box A5).

The following parameters serve as the major determinants in distributing this ENPV: (i) proportion of the poor and the very poor in each of the identified stakeholder groups, (ii) traffic composition and use of each vehicle type by different stakeholder groups, and (iii) competitive conditions in the transport service sector.

The direct field observations and analysis of the data obtained through the small-sample surveys (Chapter II, Section B.3) are the bases for estimating the above parameters and the base case scenario (Table A5). The table includes two additional types of project benefits: "direct labor benefits" and "benefits to the economy". It should be noted that these are not part of the ENPV of \$6.85 million.

Box A5: Benefits and Pitfalls of Using PIR Estimates

The poverty impact ratio (PIR) is the estimated share of the project's economic net present value plus direct labor benefits that will go to the poor from a given project. However, the key estimate of the project's impact on the poor is the total value of the economic net present value expected to accrue to the poor. Moreover, the PIR can exceed one if the poor are receiving all or nearly all of the project's benefits, while the nonpoor are paying for the project and receiving little or no direct benefit from it.

Estimating the PIR shows policy makers a measure of the risk facing the project that is independent of the rate of return. For example, a very high PIR compared to the poor's share of regional or national income indicates that nonpoor stakeholders may object to the project because they pay for it but get only a small share of the project's benefits. Conversely, if the PIR is substantially below the poor's share of regional or national income, then the poor stakeholders may object to the project, and thus, block it because they are receiving a very small share of the benefits and paying a large share of the project's cost.

The Asian Development Bank (ADB) used the PIR in the late 1990s and early 2000s. It then found that PIR were sometimes misinterpreted, overemphasizing and/or underrepresenting the project's contribution to poverty reduction. Thus, PIR is no longer required as part of ADB reporting. However, as part of the poverty and social analysis (mandatory for every ADB loan), ADB is now doing ex-ante poverty impact analysis.

- The direct labor benefits are an estimate of the benefits that will accrue to the poor and other workers during project construction. It is estimated as a percentage of the project's capital costs (labor costs are counted as costs in the economic evaluation, but "benefits" for the distribution and poverty analysis), taking into account the opportunity costs of the labor. Table A5 shows the estimated share of the labor costs that the poor will earn (70%). These earnings are included in the estimate of the PIR.
- The total benefits of the project to the economy are estimated by applying a "Keynesian" type multiplier, estimated at 2.5 via expert judgment. This means that the strengthened road network is assumed to have direct, indirect, and induced effects amounting to

2.5 times the direct costs of the project. Thus, the project's benefit to the economy in general is estimated to be \$18 million, of which about \$7 million or 40% are expected to accrue to the poor. This 40% share is based on the estimated share of the gross domestic product (GDP) that is earned or received by the lower 4 quintiles of the population. These benefits to the economy are not included in the estimate of the PIR.

In the baseline case of the project, the PIRs are expected to be about 20% of the total project benefits (excluding the benefits to the overall economy) that will be passed on to the poor and 7% to the very poor. A PIR of about 20% is low in that the project, without complementary actions, will pass only 20% of its net benefits to the poor, which is less than their share in the national economy (as represented by GDP).