Managing the Social Dimensions of Transport

The Role of Social Assessment

Social Development Department /
Transport Division
The World Bank
November 1999

Acknowledgements

This is a work in progress initiated by the Social Assessment Thematic Team under the leadership of Ayse Kudat, Team Coordinator. The study has benefited from the guidance and valuable inputs of Ayse Kudat (ECSSD), Jerry Lebo (TWUTD), and Reidar Kvam (SASSD). Research, writing and analysis was carried out by Ghada Jiha (SDV) and Kathleen Kuehnast (ECSSD).

The compendium greatly benefited from the early and thoughtful reviews of Michael Bamberger (PREMGE), Bruce Harris (EASES), Concepcion Del Castillo (MNSED), Estanislao Gacitua-Mario (LCSES), Jerry Lebo (TWUTD), Zhi Liu (TWUTD), Thampil Pankaj.

On behalf of the Social Development Family, we would also like to thank John Flora, Sector Manager, and staff in the Transport Anchor for their support and productive collaboration . Appreciation is also extended to members of the Social Assessment Thematic Team.

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Preface

This compendium is the product of a collaborative effort between the Social Development Family and the Transport Division. It constitutes the first of several sector-specific guidelines for the integration of social assessment in Bank lending operations, to be prepared with the assistance of the Bank's Social Assessment Thematic Team in the ESSD Network. It is intended for both transport professionals and social assessment practitioners, both internal and external to the Bank, as well as for those groups facilitating or conducting social assessments in the field and for those professionals involved in the preparation and evaluation of transport investments.

Two overriding goals guide this effort:

- To build awareness of the utility of social assessments in improving social development outcomes in transport projects by identifying and enhancing development opportunities with an emphasis on vulnerable groups; identifying and minimizing any adverse social impacts; and ensuring that projects are planned and implemented in consultation with key stakeholders.

- To provide concrete guidance to practitioners and decision makers about key issues, challenges, good practice, and available resources about social development issues in transport projects.

1. Introduction

As we enter the twenty-first century, transport is a critical link between economic and social development. Effective transport systems allow people to get to their jobs, take care of their health, pursue an education, and obtain the necessary food and goods to support their daily existence. Likewise, poorly planned transport systems can perpetuate existing inequities, increase air and noise pollution, and add to the complexity of solving urban and rural planning dilemmas. There can be little doubt that transport in the twenty-first century will be as much about moving people and goods and facilitating equitable access to services, as the previous century has been focused on moving vehicles.[1]

Once dominated by engineering and economic perspectives, transport policy has in the past decade begun to focus more intently on an integrated approach to addressing social development issues. The increase in the range of stakeholders in transportation decision-making has led to an increased awareness of the multi-faceted dimensions of the costs and benefits of such decisions. What was often lacking in the past was a detailed analysis of how individuals and groups were positively or negatively affected by transport projects. Since transport strategies result from the complex interrelationships existing between the physical environment and social, economic, and political activity, transport planning has been transformed from what was considered a business, into an important development tool that targets the needs of the community it serves.[2]

Transport policy is no longer simply summarized in a few performance criteria, but instead engages social policy to guide transport investments. Multiple criteria for evaluation (efficiency, distribution and environmental effects) are therefore necessary in order to address the different and often competing objectives involved in effective transport planning, including adequate funding sources, social equity, and environmental impact.

The involvement of local stakeholders (user groups, transport service providers, academia, government, private sector groups, NGOs) in the fact-finding and decision-making processes has been central to improving the responsiveness of transport planning to a broad set of users, as well as making the best use of limited public resources. These interests range from such traditional concerns as mobility, congestion, and mitigation to a wide range of non-traditional concerns such as social equity, economic development and competitiveness, institutional effects, and environmental costs.[3]

In spite of these advances in transport and development, there remains a critical need for new assessment and evaluation regimes that better articulate the benefits of transport investments and their alternatives, and better plan for the goals of social equity and inclusion. Theoretical analysis that link

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[1] Katherine Sierra of the World Bank offered this statement as one of the five principles that should guide urban transport planning and operation in China's development at the November 8-10, 1995 Symposium in Beijing, China.

[2] Brian Hoyle and Jose Smith, "Transport and Development." *Modern Transport Geography* 1992, p. 11.

[3] Roger R. Stough and Piet Rietveld, " Institutional Issues in Transport Systems." *Journal of Transport Geography*, Vol. 5, No. 3, p. 209.

transport influences to social and economic change require more complex models that go beyond the general and aggregate levels of data collection.

Thus far, few studies of transport have addressed the consequences of social change or derived predictive models to deal with this set of issues. Moreover, there has not been sufficient examination of transport's impact on social issues within a qualitative framework.[4] For example, in many instances only economic criteria are applied to the analysis of "improved accessibility." But more than commodities move over roads. It is important to also consider the flow of social capital in the form of information, news, or job opportunities facilitated through transport networks. Social capital, a fairly recent addition to economic analysis at the Bank, is the set of norms, networks, and organizations through which people gain access to power and resources, and through which decision-making and policy formulation occur.[5] The role of transport in facilitating or limiting social capital expands economic criteria models when measuring the impact of transport projects.

Transport accounts for $5 billion of new World Bank lending each year, and thus presents a critical entry point for the systematic incorporation of social development concerns. In Bank-funded investments and operations, the main approach for accomplishing this is social assessment (SA). While analysis of the socio-economic context of transport development has traditionally been a part of standard transport planning, social assessment provides a framework to improve the consideration and integration of social issues and impacts into the transport project cycle process. As an analytic and development framework, social assessment addresses the differential needs, priorities and constraints of particular stakeholder and social groups in the project design. It also assesses anticipated distribution of benefits during implementation and establishes ongoing monitoring and evaluation mechanisms to ensure that benefits continue to reach intended beneficiaries equitably beyond the end of the project cycle. Equally important, the use of social assessment can also help to identify, minimize, and manage potential adverse social impacts.

The aim of this compendium is to support the adoption of social assessments in transport operations. Over forty transport projects were reviewed and analyzed (see Annex 3) in order to synthesize the growing body of knowledge about how social issues are identified, addressed, and monitored in transport projects. As a means of highlighting the ways in which transport and social development directly or indirectly intersect, Chapter 2 elaborates upon six key social dimensions including poverty, access, gender, sustainability, mitigation, and safety. Chapter 3 presents a practical guide to the social assessment process in transport projects. Using case studies, it relates the social assessment process to transport project design and project cycle. Beyond these steps, the compendium will contribute to the existing *knowledge base* and *lessons learned* on social development and transport.

Although major strides have been made in conceptualizing the social dimensions of transport, the twenty-first century will present even more complex transport challenges than the previous century when growth in mobility and freedom of movement indelibly shaped the sector. Future transport

[4] T. Leinbach. 1995. "Transport and Third World Development: Review, Issues, and Prescription." *Transportation Research Record*, Vol. 29A, No. 5, pp. 337-344.

[5] Christian Grootaert. 1998. "Social Capital: The Missing Link?" Social Capital Initiative, Working Paper No. 3, World Bank.

concerns will represent increasingly complex social and spatial considerations that will require more expansive monitoring and evaluation tools that utilize the best of quantitative and qualitative methodologies. Social assessment is a strategic way to begin meeting the social development challenges facing transport planning in the future. Consider the following examples:

- As liberalization of domestic and international trade expands, larger volumes of goods over greater distances will be the norm. The rapid urbanization of city centers throughout the world, but especially in developing countries, will strain and over extend existing transport systems. The impact of rapid urbanization and failing transport infrastructure will affect the poor in negative ways.

- As a result of urban overcrowding and overuse of transport vehicles, environmental health problems will likely worsen and safety issues will become paramount. About 500,000 persons are killed each year in road accidents in the Bank's developing member countries, and about 70 percent of these fatalities are pedestrians.[6]

- The increasing emphasis on road transport may have negative impacts on other modes of transport, such as inland waterways. Large numbers of people engaged in the informal transport sector may be unable to compete, with resulting problems of unemployment or loss of income.

- The opening up of isolated regions has often resulted in extraction of raw materials and other resources without benefiting local populations. In many parts of the world, tribal groups, ethnic minorities and other vulnerable groups have been negatively affected by increased exposure to disease or migrations of more powerful groups who have put pressures on local resources and lifestyles. In the future, transport planners will have to take better account of who wins and who loses in development projects.

In summary, the social development challenges facing transport are daunting. To address such issues effectively, however, will require systematic quantitative and qualitative research, highly participatory processes, inter-sectoral cooperation, and refined monitoring and evaluation tools. Social assessment is a comprehensive approach toward meeting these challenges, and it is the principal mechanism to ensuring that Bank-financed development initiatives contribute to poverty alleviation, enhance inclusionary practices, increase social capital, build ownership, and avoid adverse social impacts. Social assessment has become an integral part of project feasibility analyses. It complements economic, financial, technical and environmental analyses and is used to refine and direct investment programs toward more effective and socially sustainable development objectives. The following chapters elaborate on the social development issues in the transport sector and offer a step-by-step approach for analysis of these issues through the social assessment process.

[6] World Bank. 1999. "Transport Sector Issues at a Glance." Transport Sector Home Page.

2. Social Dimensions of Transport

Transport plays a critical role in development. Addressing the social dimensions of World Bank-assisted operations and policy work has become a widely acknowledged and practiced imperative of the Bank. The need to understand and to accommodate the interests, perceptions and needs of target populations and other key stakeholders is paramount in the design of projects and programs aimed at social and economic development. This chapter addresses six of the social issues with which transport projects interact, directly or indirectly. These are:

- Poverty
- Access
- Gender
- Sustainability
- Mitigation
- Safety

Each of the following sections examines these social issues in the context of the various transport sub-sectors. In **rural transport**, transport infrastructure and, more importantly, transport services are critical to the economic and social development of rural communities. Rural transport investments can serve as powerful and transformational vehicles of social change. Improvements in rural transport increase access to markets, farm inputs and social services such as health and education; support indirectly the development of a non-agricultural rural economy; and improve information flows and access to urban areas.

The social issues of **urban transport** are highly complex. It is estimated that by the year 2000, 38 percent of the population of Africa and Asia, 67 percent of that of Eastern Europe, and 77 percent of that of Latin America will be living in urban areas.[7] Increasing urbanization generates new needs as many new settlers locate themselves in peripheral locations not served by traditional transport routes or services. Failure to address these needs harms the poor and carries implications for competitiveness through its adverse effect on the allocation of labor.

In urban transport, the transport sector strategy focuses on improving the physical access of the poor through the provision of adequate public transport; reducing barriers to the informal supply of transport; enabling the greater use of intermediate means of transport; and ultimately improving transport systems so that they operate efficiently, effectively, and sustainably. Particular attention is given to women's transport needs.

Accounting for 55 percent of transport loan activity,[8] **highway** projects and related components almost always involve land acquisition and, in most cases, the displacement of households and small enterprises. The highway sub-sector is the largest cause of resettlement in the entire Bank portfolio

[7] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 23

[8] World Bank Operations Database, November 1998.

(20 percent).[9] This is caused both by land acquisition for new alignments, but also by the need to relocate squatters and encroachers—people who have occupied public land within the government owned right of way. Highways frequently affect local groups' and communities' access to common property resources such as water and firewood. Similarly, in maximizing the capacity of **ports** and **waterways**, land acquisition and resettlement of people located along the banks is often necessary.

Historically, **railways** have served important economic and political goals by assisting governments in the expansion of their transport systems into the interior of their countries as a means to spur agricultural and industrial growth and to induce settlement around these poles of new economic activity. As truckers and bus operators have been able to better customize their service delivery, the rail sector has steadily declined and now represents only 7 percent of the World Bank transport lending portfolio. Nevertheless, governments have also used railways as instruments of social policy. In many developing countries, state-owned railways provide important employment for large numbers of people. In trying to reduce losses and improve efficiency through reforms and privatization of such enterprises, impacts on labor must be considered and social safety nets established.

Poverty

With the Bank's current and explicit focus on poverty alleviation, the transport sector is being called upon to better articulate the role of transport as a vehicle of poverty reduction.[10] Improved transport alone cannot reduce poverty, yet it plays a crucial and complementary role to the sectors of agriculture, education and health and their poverty alleviation efforts. By being more responsive to the concerns and problems of the poor and by considering how to improve overall mobility, transport projects can make an important contribution toward poverty alleviation. The many years of Bank involvement in the transport sector provides a solid foundation for building a greater understanding of the dynamic linkages between transport and poverty.

The poor consistently identify the need for affordable and dependable transport in order to secure and maintain jobs, to access medical and educational services and to shop for goods at competitive prices. Therefore, effectively targeting the poor in transport projects is one of the key interventions used to meet the Bank's agenda. When considering the role of transport in poverty reduction efforts, it is useful to examine both direct and indirect approaches. Direct or targeted approaches improve basic access for the poor and improve access to education, health, economic and social resources and opportunities. Indirect approaches operate at the level of improving the overall efficiency of transport systems, as in highway or ports investments.

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[9] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 82.

[10] For further in-depth information about poverty and transport, please see the excellent study of Colin A. Gannon and Zhi Liu, 1997, "Poverty and Transport." Discussion Paper TWU-30, The World Bank, Transport Division. This discussion paper, which assesses the prevailing views of the role of transport projects in poverty alleviation and takes stock of the treatment of poverty issues in transport operations, also highlights the distributional impacts of transport operations and identifies areas where transport investments can be better targeted to meet the transport needs of the poor, including women and the poor. An important finding of this inquiry is the need to strengthen the direct role of transport interventions in poverty alleviation by developing greater knowledge of the transport needs of the poor and how these needs are best served.

Transport Concerns of the Rural Poor

The catalytic, economic potential of rural transport infrastructure and services has not been realized. Equity has not reached the rural areas of many developing countries. Rural transport investments, especially roads, have faced particular discrimination in terms of funding because they are expensive. The low volume of traffic does not produce a high enough economic rate of return. Furthermore, they serve district access transport activities rather than regional or national functions, and they are difficult to maintain because of institutional and financial complexities in many developing countries. The benefits of such projects are increasingly seen to outweigh the costs as project planners begin to factor into their analysis the significant social benefits that transport infrastructure produces for rural communities.

For example, the **Nepal Road Maintenance and Development Project**, which is under preparation, plans to provide support to labor-intensive road building in the rural districts. Because of long distances, difficult terrain and low traffic volumes, this project would not have been judged viable based on economic rate of return alone. However, the expected positive outcomes for poverty alleviation in the isolated districts of Nepal and the improved access to health, education, and other services have been taken into consideration. There has been a broadening of how the Bank views sustainability, and it is no longer sufficient to talk only of economic sustainability. Poverty alleviation, distribution and equity, and social services to the poor must also be factored into the discussion about sustainability. In general, experience has demonstrated that rural or feeder roads play important roles in the collection and distribution of goods, in generating the traffic volumes needed to support major investments in highways and ports, and in stimulating the economic and social development of an area.[11]

Role of the Informal Sector

The transport needs of the poor would be better met by supporting the informal sector. The poor confront everyday problems related to mobility such as access to employment, social services, educational opportunities and domestic tasks. Non-motorized users, who are primarily the poor, are the majority in Sub-Saharan Africa (on foot) and Southeast Asia and South Asia (bicycles, cycle rickshaws, bullock carts, and traditional country boats on the inland waterways). However, they are often neglected in the design and modernization of transportation infrastructure.

In Bangladesh, one of the most important sectors is the country boat sector, a largely unregulated, informal sector which employs more than two million people and provides the main source of income to large numbers of landless poor. This sector has staged a remarkable comeback during the last decade, after the boatmen adapted inexpensive irrigation-pump engines to mechanize their boats. The Bank is now discussing with boatmen's representatives how to facilitate better access to services, credit, and technical support as part of the **Bangladesh Inland Waterways Project, Phase IV**.

[11] Cynthia Cook, "Social Analysis in Rural Road Projects." in *Putting People First: Sociological Variables in Rural Development*; edited by Michael Cernea, 1991, p. 400.

Labor–Based Employment

Labor-based construction methods are the most appropriate for rural road works since these works retain a larger proportion of roads spending in the local community and create employment for women and unskilled workers.[12] They have proven very effective in directing economic benefits of short term job creation opportunities that arise during road construction and maintenance to rural communities.[13] For example, the labor intensive character of the **Kenya Rural Access Roads Program** illustrates the extensive opportunities for rural wage employment. A study on labor characteristics revealed that labor-intensive road construction succeeded in employing primarily poor and low-income residents. The program represented a major opportunity for rural wage employment with 14,000 employees constituting the total labor force by 1986; 20 percent of employed labor was female.

Poverty Alleviation Objectives

Inclusion of poverty components with highway investments is becoming more common. Thirty-four percent of highway projects in 1997 included a poverty alleviation objective.[14] The Road Improvement for Poverty Alleviation (RIPA) under the **China: Tri-Provincial Highway Project** was aimed at providing all-weather access to villages and towns traversed by the highways. The RIPA components focused on lower level roads in the poorest counties. A six-stage screening procedure was developed to select rural roads and included, *inter alia*:

- Identifying priority counties based on their poverty profiles;
- Applying a cost-effectiveness criterion to select rural road systems based on maximization of population served and connectivity to as many settlements as possible; and
- Analyzing social benefits of rural road provision with respect to increased access to health and education facilities and services, reduced transport costs and increased employment opportunities.

Transport Concerns of the Urban Poor

A different set of factors must be considered when designing direct or indirect interventions to address the transport needs of the urban poor. Typically the urban poor are a highly heterogeneous population, thus making targeting a problematic issue. This factor along with a situation in which most of the urban poor tend to rent housing units from wealthier owners means that the poor are likely to lack a unified voice in community matters. In the instance of improving street conditions and

[12] In an evaluation of the Kenya Rural Roads Access Program, the study concluded that participation of women and other disadvantaged groups required direct recruitment approaches. See *Access to Rural Kenya: An Evaluation of the Rural Access Roads Programme*. Danida. 1987. The Netherlands.

[13] Chris Hoban, John Riverson and Albert Weckerle. 1994. *Rural Road Maintenance and Improvement*, World Bank, Washington, D.C.

[14] Colin Gannon and Zhi Liu. 1997. "Poverty and Transport." TWU Discussion Paper, p. 53.

transport services in a poor community, decisions are often made by absentee owners of housing properties who have little interest in spending more to improve the community.

Urban poor tend to live on the outskirts of the city center. Travel to and from work often takes several hours, and can cost as much as 30 percent of personal income. In having to walk places because they cannot afford the cost of using "for-payment" transport, the poor spend time and personal energy that could have been used for productive activities aimed at raising their living standards. Another feature of the urban poor is the high number of non-motorized road users (pedestrians and cyclists). The poor walk long distances on minimally maintained footpaths, and negotiate traffic hazards since they must cross or walk through motorized vehicle roadways. They often carry heavy and even hazardous loads on their heads, backs or hips for long distances, thus increasing the risk of physical injury or debilitation. The urban poor also have a greater likelihood of dealing directly with the repercussions of poor air quality due to lax vehicle emission controls.

Poverty reduction and alleviation among the urban poor hinges on access to employment opportunities, which in turn depends on good and reliable transportation. An improved urban transport system should aim to enhance the ability of the urban poor to find low-cost, time-effective, and safe ways to travel. In the **Kenya Urban Transport Infrastructure Project**, the linkage between inadequate transportation, unemployment, and poverty was systematically identified in consultation with low-income peripheral communities through the social assessment process. In the project preparation stage, special attention was given to the selection of roadways that specifically served low-income users, as well as on ways to improve access of the urban poor to jobs and city services.

Experience shows that urban transport projects should take the following considerations into account:[15]

- Improve physical access to jobs and amenities and reduce time spent walking;
- Reduce barriers to the supply of informal transport services (mini-bus, public motor vehicles);
- Regulate or privatize urban bus services;
- Enable greater use of intermediate means of transport by improving rights-of-way, interchange infrastructure, and attention to safety and eliminating fiscal and financing impediments to vehicle leasing or ownership; and
- Eliminate gender biases by integrating the transport needs of women into transport policy and planning processes.

In summary, acknowledging the differential needs of the urban and rural poor, transport strategies and programs can be designed to provide the poor with better physical access to employment, education, and health services. In an urban setting this often translates into ensuring adequate public transport including the services of the informal sector and non-motorized transport; in a rural context, transport

[15] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 9.

programs should ensure the provision and maintenance of rural access facilities through community participation in decision making and project implementation. Similarly, transport policies can be focused to give particular assistance to the poorest groups either directly by highlighting the needs of particular social groups, or indirectly through assistance to those modes of transport on which the poor are known to be particularly dependent,[16] sometimes referred to as "targeted" interventions.

Access

Basic accessibility is the primary concern for most of the rural and urban poor. An emphasis on accessibility implies that planners, at a minimum, provide or maintain infrastructure, services, and activities that ensure reliable, all-weather access to markets, employment, and social facilities. To meet this standard requires an understanding of the transport needs of rural and urban communities, distinguishing between the priorities of women and men, the purposes and uses that would be derived from improved access, and the constraints preventing those needs from being fulfilled.

Basic Access in Rural Regions

Rural areas throughout the developing world are characterized by isolation and impoverishment; they experience serious access constraints to markets, social services, and transport services. Many parts of rural Africa and Latin America become virtually inaccessible during the wet seasons due to inadequate infrastructure. Studies investigating the relationship between improved transport and socioeconomic development found that accessibility is a key factor in rural development. For example, one study discovered that the average annual farm income for households producing cash crops is a continuously increasing function of access value, and that the efficiency of agricultural production increases considerably with an increase in access value.[17] Interventions in this sub-sector have focused on the provision of reliable, all-weather transport infrastructure; provision and promotion of intermediate means of transport (IMT); and provision of complementary services or programs.

Appropriate Transport Infrastructure

Many rural areas are typically serviced by community level infrastructure – tracks, trails, paths, and footbridges – that connects them to the closest village or municipal district more than the classified network does. For example, in the **Peru Rural Roads Rehabilitation and Maintenance Project**, household surveys and beneficiary workshops underscored the functional importance of the unclassified network of tracks and footpaths that are vital for servicing the transport needs of the rural poor and women in particular. Through a participatory planning process, communities determined and set priorities among a number of alternative routes that fulfilled similar trip purposes. Communities ranked the provision of more reliable and safer tracks as a high priority. Improvement to community transport infrastructure, it was anticipated, would enable more regular trips and more

[16] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 73.

[17] Ali Mazlumolhosseini, "Relationship Between Social and Economic Development and Access to Rural Roads in Developing Countries." *Transportation Research Record* 1274, pp. 179 -194.

goods transported, which in turn effects an increase in agricultural production, increases in rural income, and ultimately better opportunities for education. Indeed, ex-post evaluations of rural transport investments find that improved accessibility through the provision of all-weather transport infrastructure produces positive economic and individual benefits for rural communities.[18] These benefits include improved access to regional or national markets, improved marketing of local production, expanded consumer options, and new economic opportunities.

Intermediate Means of Transport (IMT)

The dominant mode of transport in most rural areas around the world is largely non-motorized. The provision of IMT is one of the best ways to target the transport needs and constraints of the rural poor. IMT can provide critical access to collection centers or local/district markets by transporting imported and exported goods and products. IMT components are more effective when designed in consultation with specific user groups, local manufacturing agents (suppliers), and NGOs (distributors). Of the rural transport projects reviewed, only the **Peru Rural Roads Rehabilitation and Maintenance Project** contained a pilot project for intermediate means of transport. IMT as a project component warrants greater attention.

Complementary Services

In addition to transport infrastructure provision and rehabilitation, transport services are critical, complementary, and necessary inputs to economic and social development of rural communities. Improved infrastructure often is accompanied by a growth in transport services, as the evaluation of the **Kenya Rural Access Roads Program** suggests. Transport services facilitate commerce and exchange between districts and villages, and enable the timely delivery and evacuation of agricultural products, and can help to ensure that potential benefits of road are realized by communities.[19]

To maximize the intended benefits of transport investments, communities can identify and prioritize other complementary interventions. For example, through public consultations and interviews, affected villagers under the **China: Tri-Provincial Highways Project** indicated a need for skills development and training in business management and vehicle maintenance, and for access to credit in order to profit from the economic rewards of the induced roadside economy. While these interventions may fall outside the immediate scope of the project, linkages need to be sought with appropriate programs administered by local governments, community-based organizations, NGOs and other donors.

Basic Access in Urban Areas

Meeting the burgeoning needs of increasing urbanization presents unique challenges to planners due to the heterogeneity of urban populations and the spatial dispersion of social and economic activities. As recent arrivals from rural areas, the urban poor face additional constraints as they tend to cluster

[18] See Hernan Levy. 1996. *Morocco Impact Evaluation Report: Socio-Economic Influence of Rural Roads.* World Bank, Operations Evaluation Department, Washington, D.C.

[19] Ayse Kudat. 1991. "Sharpening Focus on Women and Infrastructure." Mimeo, World Bank.

around urban peripheries – areas which are poorly connected and under-served by traditional transport routes or services and far from commercial centers. Because these areas are dispersed, they do not generate the high traffic flows needed to justify investment in public transport infrastructure and service provision.[20]

In urban areas, there is also a positive correlation between accessibility, job employment and income security. Improving accessibility focuses on the provision of affordable public transport and support for IMT infrastructure and services. This is intended to achieve two desirable objectives: better targeting of the urban poor and enhanced market/commercial productivity.

Affordable Public Transport

The choice of urban transport that people use in their daily business is a function of the availability, accessibility and affordability of different modes. Social assessments conducted in the Kyrgyz Republic and Turkmenistan revealed the high dependence of city residents on public transport services and the disproportionate effects of transport costs on the disposable incomes of the poor. In the Kyrgyz Republic, household surveys found that low-income families spend 25 percent of their household income in meeting their transport needs compared to 18 percent of middle-income households. A similar situation was found in Ashgabat, Turkmenistan, where the cost of public transport bears particularly on the poor who spend about twice the proportion of their income on public transport. Findings of the social assessment suggested that the higher relative expenditure of low-income groups resulted from their being forced to use non-pass vehicles, owing to the unavailabilty of buses or trolleys. The social assessment recommended that investment components focus on the provision of reliable services, especially to outlying districts, and instituting cost-recovery mechanisms to abolish the "unofficial" fares regime.

The quality and efficiency of urban transport has direct economic implications for enterprise productivity and labor market participation. As labor is the principal resource of the poor, it becomes critical to ensure adequate and affordable transport to places of employment. The social assessment in Ashgabat, Turkmenistan found that job turn over rates were high, with people trying to find work near their homes to avoid long commutes. Failure to provide reliable and affordable transport services adversely affects industrial competitiveness: 48 percent of the enterprises surveyed in Ashgabat reported losses in profitability from the burden of operating and maintaining an expensive transport vehicle fleet to compensate for inadequate public transport services.

Adequate Transport Infrastructure

Upgrading existing transport or road infrastructure can improve public transport and other mobility needs of low-income populations and hence, improve their access to employment centers and other social services. Direct investments are needed in the design and modernization of transport infrastructure aimed at those segments of the urban road network that are largely used by the poor. In the **Kenya Urban Transport Infrastructure Project**, project design broadened its perspective to include a

[20] Jeff Turner and Philip Fouracre. 1995. "Women and Transport in Developing Countries." *Transport Reviews*, Vol. 15, No.1, p. 85.

thorough evaluation of IMT infrastructure such as foot paths, bicycle paths, and pedestrian crossings since walking is the predominant mode of transportation in Kenya's urban areas.

Intermediate Means of Transport

Intermediate means of transport provides a flexible form of transport where it is needed most – in activities that are essential to the basic quality of life.[21] In the **Bangladesh: Dhaka Urban Transport Project**, the social assessment process during project preparation reviewed the role of the existing network of cycle rickshaws, revealing their economic and social importance in a city with very low dependence on motorized transport. Through consultations with the rickshaw operators and their organizations, solutions were found that allowed them to continue to operate, even as some roads have to be closed off for non-motorized transport. Smaller access roads for rickshaws are being constructed, and technical assistance, training, and other support are being provided. This required extensive consultations with project authorities and other decision makers, since many people regard rickshaws as a nuisance and would prefer to ban them altogether. Through the social assessment process, the rickshaw's importance for the poor – both as a mode of transport and as employment for 500,000 urban poor – was made clearer.

Gender

Gender issues have yet to be addressed systematically in World Bank transport sector investments.[22] Policies and overall project designs have not given sufficient attention to women's multiple roles in society – as workers, economic and social reproducers and community managers.[23] Moreover, projects and policies do not distinguish between the transport needs of men and women, which vary significantly. In most instances, men's transport activities are centered around getting to and from work, whereas women make trips not only for work but also for educational, health, familial and other welfare purposes.

Transport systems tend to be designed to ensure efficient traffic flows along the main routes during peak traffic flows, and in most cases have not adequately addressed women's needs for "multi-chained" transport needs – particularly as much of their travel needs are off the main routes and out of peak hours. Women's travel needs are further complicated by the multiple demands on their time which means that the long waits between trips is a great burden for them and their families.

Women access and utilize improved infrastructure and services differently. For example, in an evaluation of the **Kenya Rural Access Roads Program**, one of the findings pointed to the different response and behavior patterns exhibited between male- and female-headed households with respect

[21] Paul Guitnik, Susanne Holste, Jerry Lebo. 1994. "Non-Motorized Transport: Confronting Poverty Through Affordable Mobility." in *Infrastructure Notes.*

[22] Michael Bamberger and Jerry Lebo. 1999. " Gender and Transport: A Rationale for Action" *PREM Notes*, No. 14, World Bank.

[23] Women's transport needs vary significantly from that of men in that men's transport activities tend to center around getting to and from work. By contrast, women make trips for work, educational, health, familial and other welfare purposes.

to production opportunities.[24] Male-headed households were able to respond more effectively to these opportunities.

There is a growing awareness and appreciation of the gender differentiated impacts of transport projects and policies and the importance of introducing sustainable improvements of access to economic and social services, especially for rural women.[25] In order to ensure that the benefits of transport reach women, foresight and attention to component design during project planning are necessary. These design and implementation issues will differ in rural, urban, and resettlement contexts.

Gender and Rural Transport

Transport remains a major activity of women and consumes a significant portion of their time and energy, especially in rural settings. Women are the main transporters, accounting for about 75 percent of the transport burden in rural Africa. Research has also consistently pointed to these additional rural realities:[26]

- Walking remains the dominant form of transport.
- Fetching water and collecting firewood take up a large portion of trips and the bulk of the load transported.
- Few journeys on rural roads are related to the production and marketing of rural produce.
- The amount of agricultural produce transported is less than the amount of water and firewood collected.

Investments that take better account of rural situations, travel patterns, and transport needs will alleviate and reduce the transport burdens of rural women, thus releasing their time for more productive and socially beneficial uses, while they realize overall transport efficiency gains. It is essential to recognize that walking is often the major form of travel for both women and men in many rural areas. Until quite recently transport projects focused motorized transport, largely ignoring the needs of pedestrians. Besides not addressing the needs of pedestrians, some projects created additional problems for walkers by increasing the volume of motorized transport on previously safe pathways.

When considering gender needs in transport planning, one must understand the allocation of women's time, energy, and labor to household (reproductive), non-household (productive), and community activities, and the impact of transport on and for each component. For example, women and girls are

[24] Kudat, Ayse. 1989. "Participation of Women in Rural Road Maintenance in Sub-Saharan Africa, World Bank."

[25] Through programs, such as the Sub-Saharan Africa Transport Policy Program (SSATP), a series of studies published under the Rural Travel and Transport Project examined the entire complex of rural access, mobility and household transport. It highlighted the role and centrality of transport in the daily lives of women. See *Case Study on the Role of Women in Rural Transport: Access of Women to Domestic Facilities* by Christina Malmberg Calvo, 1994, World Bank, Sub-Saharan African Transport Policy Program, Working Paper No. 11.

[26] Ayse Kudat. 1990. *Participation of Women in Rural Road Maintenance in Sub-Saharan Africa: Select Issues for Policy Consideration*. EDI/World Bank.

responsible for domestic tasks, including gathering wood for fuel and carrying water. These tasks alone constitute the bulk of energy resources utilized by a rural family and diverts their labor away from more productive uses.[27] In fact, research in much of Sub-Saharan Africa has shown that 80 percent of all the time and energy dedicated to transport occurs in and around the village and is aimed at fulfilling domestic responsibilities and meeting basic needs.

It is coming to be recognized that women's time burden is a major constraint on both economic and social development. It limits their opportunities to seek paid employment and makes it difficult for them to participate in meetings to discuss project selection and design – particularly in remote rural areas where their participation may require several hours of travel in addition to the meeting time itself. Many recent transport project designs, which recommend that women should be involved in the participatory planning process, have not adequately addressed the time-constraint issue.

In spite of the time and travel demands of their domestic responsibilities, it is important to underscore that women are the key agricultural producers and marketers of produce in rural areas. Women contribute considerable levels of labor in rural production, often relying on head-loading and portaging of goods to markets or collection points. Although improved infrastructure availability can enhance women's labor productivity by facilitating access to agriculture extensions services and inputs as well as new farm technologies, women may encounter restricted access to productive resources such as land and credit that may preclude them from taking greater advantage of transport infrastructure. It is also significant to mention that shifting from subsistence production to cash-cropping may place new and increased demands on women's labor. In certain cases, this shift may also lead to reduced dietary intake of women and children.

Despite women's time constraints, focus groups and similar participatory mechanisms have significantly improved the gender-sensitivity of rural transport projects. Focus group meetings specifically held with rural women revealed several significant issues regarding rural road planning in the **Peru Rural Roads and Rehabilitation and Maintenance Project**. For example, women expressed the importance of having roads which provided them with access to at least two markets. Without this choice, women were unable to market their goods successfully or to avoid underselling their produce to a monopoly buyer.[28] It was evident that women, as an important stakeholder group, needed to participate in the process of rural transport infrastructure selection. Similarly, the **Bangladesh Rural Roads Maintenance and Markets Improvement Project** was designed to link improved roads with accessibility to improved market infrastructure in order to maximize the project's direct benefits to the rural poor. Consultations with women resulted in specific provisions for a 'women's corner" in the marketplace, a forum from which they had been previously excluded. This allowed women to have a greater voice in transport and market issues that affected their daily lives and in which they had insightful experience to offer in the management of the local marketplace.

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[27] Women provide a notable amount of transport services in rural Africa: they transport a substantial portion of household products to markets and collection points; purchase and transport household goods, food and production inputs, gather and transport firewood, collect and transport water and transport their children to schools and health facilities often on foot and/or head-loading. Ian Barwell. 1996. *Transport and the Village: Findings from African Village-Level Travel and Transport Surveys and Related Studies*. World Bank Discussion Paper No. 344. Washington, D.C.

[28] Conversation with Michael Bamberger, PREMGE, World Bank, October 15, 1998.

Finally, recent experience has shown that road construction and maintenance in both rural and urban areas can provide a potentially important source of female employment (the previously mentioned **Bangladesh Rural Roads Maintenance Project** is a good example). However, the successful employment of women requires careful gender analysis during project design to address issues such as: scheduling the work to allow women to remain as close as possible to their villages, flexible work hours, possible provision of child-care facilities, and possible provision of transport for women workers. The issue of whether to pay in food or cash is also important as experience in several African countries has shown that when payment is in cash many men will take the jobs themselves and will not allow their wives to work. This is not necessarily to recommend food for work, but simply to point out that a whole range of issues must be addressed in the design of road construction employment programs that are gender sensitive.

Gender and Urban Transport

Research on the differences between the travel patterns and transport needs of men and women in the urban context are not as well developed as in rural areas. In urban areas, women's essential trips are more dispersed in time and location. Some of the transport constraints urban women face include:

- Greater distance between home and employment opportunities reduces the compatibility between household and non-household activities.
- Irregularity of services on off-peak and non-radial routes. Most urban transport systems are not designed to respond to women's needs to combine multiple trips, many at off-peak hours and off the main transport routes.
- Sexual harassment discourages women from traveling, particularly at night.
- High costs of private transport forces the poor, especially women, to wait for publicly operated bus services.

As many of these trips are related to home or child-care provisioning, they are considered inessential and therefore do not receive the appropriate attention of transport planners. The combination of "multi-tasking," poor service, and vehicle access severely limits the time available for other, more productive activities.[29]

Transport user surveys in the **Turkmenistan: Ashgabat Urban Transport Project** found that the use of various modes of transport services is highly differentiated by gender. For example, 28 percent of women walk to work compared to 14 percent of men; 7 percent of women commute by car as compared to 20 percent of men; and 10 percent of women use enterprise transport as compared to 20 percent of men. Women's waiting times are longer than men's and their average total journey time is 10 to 15 percent greater. Women were also found to have lower incomes. Therefore, improvements in public transportation, and particularly, in bus and trolley services will directly serve the needs of women. Similarly, user surveys and focus group discussions undertaken in the **Bangladesh: Dhaka Urban Transport Project** revealed that women's exclusion from public transport was the result of overcrowded buses and inadequate sidewalks which hinder their access to the workplace. Consequently, project design contains provisions to increase the number and to improve the quality of

[29] Bamberger, Michael and Jerry Lebo. 1999. Gender and Transport: A Rationale for Action. *PREM Notes*, No. 14.

sidewalks, as well as building in an intervention component with bus operators to address gender-specific concerns.

While rural transport projects are beginning to address the needs of pedestrians, this is still rarely the case with urban transport projects. In many cities, walking is still the most frequent means of travel for both women and men. However, women's more limited economic resources, combined with cultural constraints on their use of public transport, and the fact that women make more shorter trips, means that travel on foot is particularly important for women. Pedestrian travel is particularly difficult and dangerous in most cities, and road improvement can often reduce the access to sidewalks even further. A few projects, such as the **Second Bangladesh Urban Transport Project** are beginning to address this issue. However, given the constraints on women's time it is important to provide them with the choice between cheap available transport (which cuts into their already meager earnings) and improved pedestrian facilities (which conserves their wages but continues to add to their time burdens).

Road safety is also becoming recognized as a major issue with particularly important gender dimensions. The recently concluded participatory consultations for the **Bangladesh Community Road Safety Project** identified a number of important gender issues. These include:

- Many women are largely confined to their houses and their immediate neighborhood and have less experience than men in negotiating busy roads.
- Women's saris and the cultural expectation that they should walk slowly increase their risk of accidents on the roads.
- Women frequently have to carry children and heavy burdens.
- There are few street lights, particularly under bridges and in isolated areas.
- A woman who is injured in a road accident is less likely to be taken for treatment than a man.
- If a woman suffers a debilitating road accident she will often be abandoned by her husband and will become destitute.

Gender and Involuntary Resettlement

Where a project causes physical or economic displacement of people, the impacts on men and women are often different. In highway projects, for example, much of the potential displacement as well as many of the new benefits are related to the role roads play as economic corridors, not just as transport corridors. It is therefore essential to analyze men's and women's roles and opportunities in relation to income opportunities, and to design support mechanisms which are sensitive to these differences. In the **India State Highways Program**, consultations have also shown that men and women often have different priorities when it comes to compensation or assistance to replace lost assets such as land or homes. Men frequently prefer cash compensation, while women have stated they would like support in kind, such as replacement land, a new home, or assistance in learning new skills.

Similarly, women in India and elsewhere frequently depend on resources available by the roadside for firewood and water, for drying cowdung for fuel, and other purposes. Upgrading a small rural road to a multi-lane highway may have negative effects on the local population, which may disproportionately affect women. These impacts are addressed as an integral part of the resettlement activities, as support to vulnerable groups and communities. Experience from these and other projects

demonstrate the importance of gender analysis, and of taking into account of risk factors related to longer term viability and sustainability of the household.

Sustainability

Sustainability has two dimensions: social and institutional. Sustainability and ownership of development initiatives is strengthened through the incorporation of participatory processes and through the building of institutional capacity at local government and community levels To ensure that the poor have continued access to markets, employment and social services, social sustainability involves the provision and maintenance of transport access facilities by extending community participation in decision-making and project implementation; and decentralizing responsibility for maintenance to communities.[30] Institutional sustainability requires building and strengthening the capacity of local level institutions to plan, implement, and maintain transport infrastructure.

Social Sustainability

The success of transport investments relies on how well transport infrastructure and corresponding services meet users' needs. Community participation in planning, implementation, and maintenance of transport infrastructure, therefore, is one of the central strategies of the transport sector. It is a strategy that aims to enable users or beneficiaries to collaborate with planners and implementers in articulating problems and needs, and recommending proposals for solving their travel and access constraints. The role of the planner and the engineer is to translate community demands into technically and financially feasible interventions. By definition, an approach which places more emphasis and direct responsibility on communities in areas such as decision-making, setting priorities, and organizing responsibilities for infrastructure maintenance, will also take into account that infrastructure – unclassified network – on which the community most relies for access to markets, employment, and social services. This approach also draws on the purposeful participation of rural and urban poor and other vulnerable groups.[31]

By engaging members of the community as important stakeholders in transport investments and linking the project to their transport infrastructure and service needs, planners can promote a culture of ownership and maintenance over the infrastructure and ultimately enhance the sustainability of a project's outcomes. Reaching the poor, therefore, requires working with them to learn about their needs, understanding how development decisions are made in their communities, and identifying institutions and mechanisms which can get opportunities and resources into their hands.

[30] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 72.

[31] Beneficiary/community workshops, user participation, and special focus groups were key mechanisms utilized to include meaningfully key stakeholders and communities in the **Peru Rural Roads Rehabilitation and Maintenance Project,** the **Bangladesh: Second Rural Roads Maintenance and Market Improvement Project** and the **Kenya: Urban Transport Infrastructure Project.**

Institutional Sustainability

Existing experience in the transport sector points to the relative difficulty of governments to maintain transport infrastructure without decentralizing resources and responsibilities to local governments at district levels as well as heavy reliance on the direct participation of users and communities in maintenance schemes.[32] This shift has led to a focus on building the technical and financial capacity of district and local level committees to manage and maintain infrastructure works and to deliver service operations in a more responsible manner. Building this capacity requires the introduction of participatory and institutional mechanisms that enable closer collaboration between local level governments and communities.

District user committees, transport committees, and village level committees are examples of institutional mechanisms established in rural and urban contexts to promote information sharing, to identify and select infrastructure priorities and to facilitate feedback from users on the quality of on-going works. Different user groups of transport infrastructure and services are represented on these committees and are involved in the needs assessment.[33] In this way, the selection and implementation of transport projects is vastly improved and better maintained.

Establishing a road management board within a road agency to oversee the planning and management of the road sector is another viable instrument that enhances sustainability. The boards consist of user groups and stakeholders – representatives of the business community, farmers associations, road transport industry, and municipalities – thereby introducing a strong client perspective to the workings of the road agency and greatly improving its customer orientation.[34]

Mitigation

While transport investments are intended to result in net benefits to the economy and society as a whole, certain initiatives induce adverse impacts and changes on a relatively large scale. Such investments require mitigation measures as mandated by the World Bank's safeguard policies. Under these policies, World Bank investments must minimize and cushion adverse social impacts and outcomes on vulnerable groups and ensure appropriate institutional arrangements and mechanisms for mitigation. Involuntary resettlement and displacement and staff redundancy are two of the leading adverse impacts that occur in highways, railways and ports investments.

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[32] A World Bank study cites the loss of $45 billion worth of transport infrastructure assets in eighty-five developing countries owing to inadequate maintenance. See Carapetis, Steve, Hernan Levy, and Terje Wolden. 1991. *The Road Maintenance Initiative: Building Capacity for Policy Reform*. EDI Seminar Series, World Bank. Washington, D.C.

[33] See case studies for **Bangladesh Second Rural Roads and Market Improvement Project**, **Tanzania Village Travel and Transport Project**, **Kenya: Urban Transport Infrastructure Project**, and **Peru: Lima Urban Transport Project** in Annex 1.

[34] Successful examples of such boards can be found in Jordan, Zambia, Malawi, Ghana, Lesotho, Namibia, South Africa and Honduras. E-mail from Ian Heggie, June 17, 1998.

Involuntary Resettlement

State highway building projects often involve land acquisition and the significant displacement of households and small enterprises. The highways sub-sector is the largest cause of resettlement in the entire Bank portfolio (20 percent).[35] As such, treatment and mitigation of social issues occurs under the framework of resettlement planning. The policy framework of resettlement planning addresses social impacts at the individual and household level. The current framework, however, has evolved from compensating and rehabilitating project affected households to providing support to affected communities and groups through the establishment of a third entitlement category, *collective impacts*.[36] While not measurable in terms of individual losses, these impacts affect a larger and more diffuse population. The intent is to combine mitigation measures with a view towards facilitating better development opportunities and maximizing social development outcomes. This framework has been tested in several highway building projects in many Indian states.

The social assessment process in the **India State Highways Program** has used social analysis to assess the vulnerability of the affected population to the changes and impacts caused by the project. This vulnerability has been based on different criteria in different states in India, but has typically included those below the official poverty line; female-headed households; tribal groups and communities; and poor squatters who have sought shelter or established small roadside shops inside the government-owned right of way. Since the World Bank's support to affected people under the policy on Involuntary Resettlement is based on a rights or entitlements approach, special entitlement categories have been created with additional targeted support for those most at risk.

Combining entitlements differentiated by vulnerability criteria with three different levels of impacts – losses of assets including land; losses of income and livelihood; and losses of community-based resources – has enabled the resettlement projects to focus support where it is most needed. It has also provided a foundation for moving beyond mitigation, using the social analysis and participatory planning process developed in the resettlement program to provide the basis for enhanced development opportunities and poverty alleviation programs. In this sense, the mandatory requirements of a resettlement policy are used as an entry point to create the space and awareness of social development issues and poverty concerns among agencies and individuals who would normally see their role as limited to the infrastructure part of the project. This broader approach includes looking at development opportunities, local level planning, how the projects can contribute to poverty reduction, and how to use participatory approaches to developing better local capacity and commitment.

In the **Gujarat State Highways Project (India)**, compensation provided under the collective impacts entitlement category included the restoration and improvement of common property resources (water pumps), special provisions for women's needs (locating sources of water and firewood within accessible and safe range), safety measures for pedestrians, particularly children, and other non-motorized transport.

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[35] World Bank. 1996. *Sustainable Transport: Priorities for Policy Reform*, p. 82.

[36] Reidar Kvam. 1998. *Social Impacts and Resettlement: Principles and Policy Framework for India National Highways Project*, p. 3.

In the case of resettlement, addressing the potential negative impacts systematically and early is not only necessary to avoid causing harm to poor and vulnerable groups, it is also the best way to undertake civil works in transport projects from an economic perspective. Typically, the cost of compensating and assisting affected populations is low compared to the costs to the projects of delaying startup of civil works, or dealing with the social unrest and conflict which inadequate support can cause.

Social Impacts of Enterprise Restructuring

Poorly managed, operated, and maintained railways and ports can be a significant drain on a nation's resources and economy. Enterprise restructuring in these sub-sectors aims to realign resources efficiently with market imperatives in ways that will enhance the value of the surviving enterprise and to free up scarce resources for better targeted and more effective public uses and investments. A market orientation may, in the long term, result in improved quality of services and productivity gains, where redundant labor is more efficiently employed in other economic sectors. However, the short term impacts of enterprise restructuring result in a significant reduction of the labor force and adversely affect the poorer segments of the population.

Staff Redundancy

It is important to recognize that governments have used railways as instruments of social policy. In many developing countries, employment in state-owned railways provided housing, education, and healthcare to its employees and their families. Therefore, an appreciation of the political nature and wider impacts of staff redundancy programs is warranted, especially when carried out on a large scale and in countries where the unemployment rate is already high. It often involves conflict between government and vested interests who oppose reform efforts. Labor unions, in the restructuring context, represent a major stakeholder. It is, therefore, critical to comprehend the views and interests of various stakeholders clearly and to respond to them meaningfully. The creation of mediation and feedback mechanisms that take into account and reconcile diverse and conflicting views are necessary. Emerging best practice in this area is being defined by two social assessment studies of staff retrenchment components of the **Mozambique Ports Rehabilitation and Railways Project** and the **Zimbabwe Railway Restructuring Project**. Both studies are exploring ways to better manage labor adjustments accompanying large-scale restructuring initiatives by developing a more consultative approach with key stakeholders, including ways to inform and involve labor unions and workers in the reform process.

Socio-Economic and Distributional Impacts

Restructuring also leads to a reorganization of railway operations and services along separate profit centers. This implies the closing of uneconomic and unprofitable lines. Project designers should recognize that often times, it is the poor who use these rail transport services to reach long distance markets or simply get to work. Consideration of their transport needs and alternative and affordable options is warranted within the project context.

A market orientation also requires the elimination of subsidies and the establishment of a more rationalized tariff regime. These measures have distributional impacts and project planners need to identify which groups are most impacted by the removal of subsidies in order to alleviate the costs on them. In a **Romania Railways Project**, for example, no impact analysis of subsidy removals was undertaken in a context where 40 percent of the railway's volume is generated by passenger traffic. In such circumstances, it is important to analyze the characteristics of these passengers, identify vulnerable groups, and ensure that appropriate support mechanisms are provided.

Safety

The developing world faces the serious and growing problem of pedestrian road accident casualties, particularly in urban environments. Road accidents are estimated to be responsible for 500,000 deaths and around 15 million injuries per year. It is forecasted that road accidents will represent the third leading cause of death and disability in the world by 2020. Contributing factors include human behavior,[37] poor or inadequate pedestrian facilities and infrastructure, population growth, and the rapid transition of developing countries to motorized transport.

The increasing rate of road accidents imposes social and economic costs on a nation's development. In terms of economic impact, this fatality and injury rate represents $53 billion of lost production costs to developing nations – equivalent to the level of all international aid. With respect to socio-economic costs, it is important to recognize which sectors of society are affected by road accidents. Safety is an issue that affects the poor more acutely. Women and children, who are often pedestrians, are disproportionately the victims of road accidents, especially in countries with high and mixed levels of motorized and non-motorized traffic using the same road. In the **Kenya: Urban Infrastructure Project**, it was found that 70 to 80 percent of all accidents in urban areas involve non-motorized transport users, primarily pedestrians, many of whom are in low-income groups. To address this issue, the project in consultation with affected user groups included the implementation of safe pedestrian crossings, improvements to transport facilities (bus stations) and infrastructure (footpaths and bicycle paths).

Similarly, in the **China: Tri-Provincial Highways Project**, project planners noted the serious safety situation in Gansu, Inner Mongolia, and Ningxia Hui Autonomous Region, and they anticipated it worsening due to the early yet rapid stages of motorization. Villagers were especially concerned with the proximity of the highway to children's primary schools. Among the safety interventions introduced into project design are the establishment of traffic safety coordination groups in each province, an analysis of accident data, and a modest highway safety education program with emphasis on school children. Provincial traffic safety coordination groups will serve as intermediary mechanisms between the traffic police and communications department that will raise awareness around traffic safety, follow up the development of traffic safety and decide on remedial actions, and improve cooperation among parties involved. Accident data analysis will identify and describe the

[37] The International Road Transport Union (IRU) has identified human behavior as the key factor accounting for 90 percent of road accidents. Umberto De Pretto. "How Can We Reduce Road Casualties?" presentation at Transport Expo '99.

main characteristics of accidents in order to help determine priority areas in traffic safety and devise appropriate strategies and measures to reduce traffic accidents.

The need and rationale for action is clear as road accidents will do more harm through death and disability than many of the health threats presently given priority for assistance.[38] Increasingly, transport investments are addressing the issue of safety at the level of adequate infrastructure provision, improved agency coordination with respect to collecting and analyzing accident data, provision of education and awareness program for vulnerable groups, as well as driver training and education.

[38] "The Disaster of Traffic Accidents." Transport Research Laboratory Newsletter, Issue No. 7, November 1998.

3. Integrating Social Assessment into Transport Projects

Social assessment is relevant to any World Bank initiative that aims to reduce poverty. The broad objectives of social assessment are to ensure that World Bank investment programs contribute to poverty alleviation by sharpening project objectives to focus on poor, vulnerable, and other marginalized and excluded groups. Although transport planners are familiar with various tools that collect and analyze data on the social dimensions of transport, there are gains to be made by rationalizing these processes and by improving the application of these procedures. Social assessment, as an approach, is well adapted and structured to accomplish this. It provides a dynamic, research process and a framework for identifying and integrating the key social and institutional issues that should be addressed in the project cycle. Social assessments contribute to development effectiveness by:

- *Focusing* on the poor, vulnerable and other marginalized and excluded groups;
- *Identifying* key social development objectives and institutional arrangements;
- *Creating* a participatory framework which enhances the inclusion of stakeholders in processes and decisions that affect them;
- *Building* ownership and capacity for policies and investments, and
- *Mitigating* adverse social impacts of development initiatives.

In the World Bank's use of the term, a social assessment (SA) is not an abstract study or a set of discussions, but an integral part of project planning and implementation. Unless the findings from the social assessment translate into operational recommendations and improvements for design and implementation, the social assessment has little value.

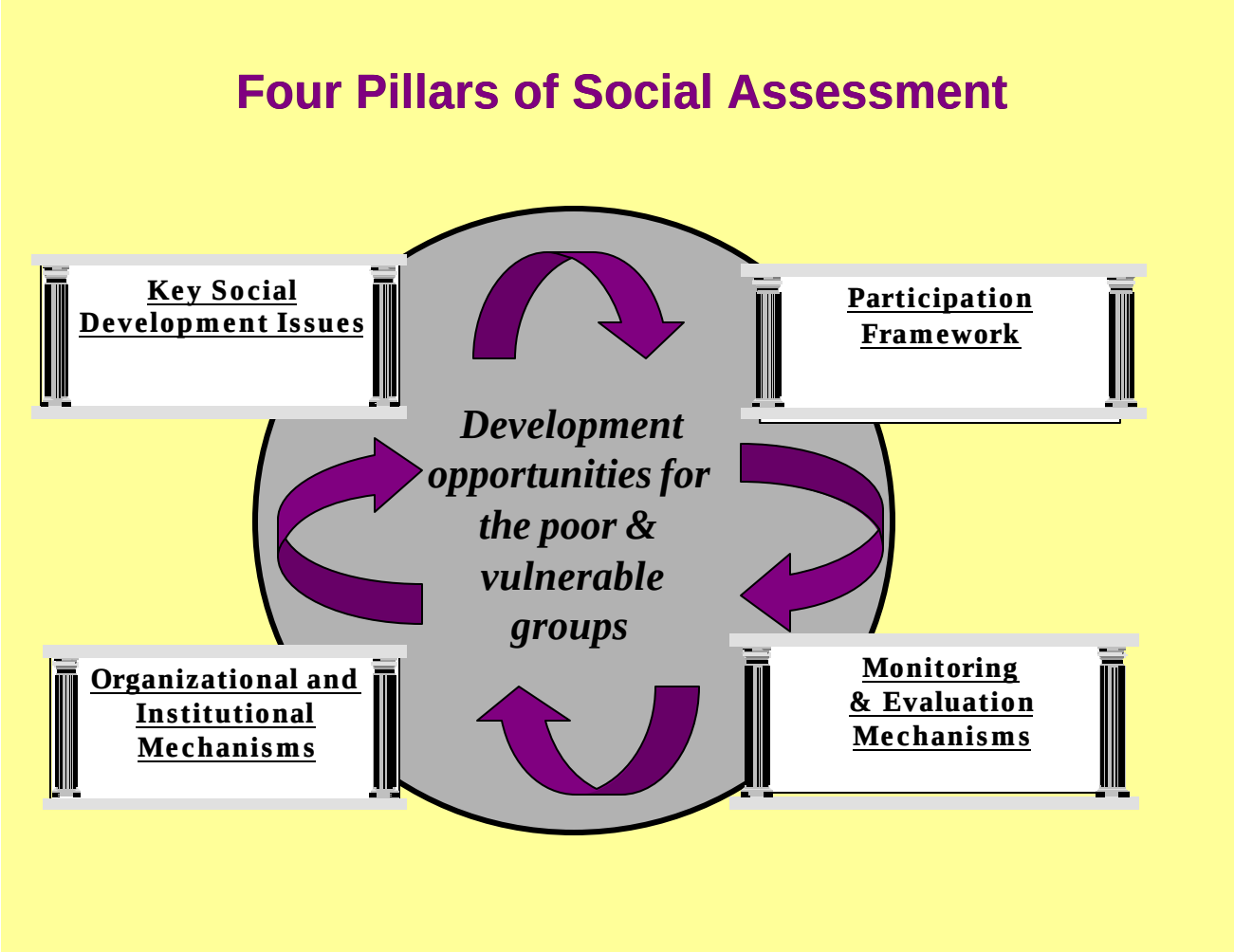
Key criteria for a good social assessment would therefore be the extent to which it has analytical value (how it contributes to understanding key social issues required for social preparation and implementation); its operational value (whether it provides instruments, mechanisms, and action plans that are integrated in the project as a whole; and its process value (how well it mainstreams participation and capacity value).

SA involves four primary steps or pillars. These are:

- Identify key social development issues
- Analyze institutional and social organizational issues and options
- Formulate a participation framework
- Establish mechanisms for monitoring and evaluation

Figure 3.1 illustrates the dynamic nature and interaction of the four pillars social assessment and Box 3.1 summarizes the relevant contributions of each pillar adapted to the transport context.

Figure 3.1


Four Pillars of Social Assessment
Key Social Development Issues
Participation Framework
Development opportunities for the poor & vulnerable groups
Organizational and Institutional Mechanisms
Monitoring & Evaluation Mechanisms

Box 3.1

Four Pillars of Social Assessment

- **Identify Key Social Development and Participation Issues**

SA strengthens transport projects by:

Facilitating the identification of the social dimensions of spatial and transport planning. By highlighting needs and priorities of stakeholders, SA identifies complementary policies and investments to maximize intended outcomes of transport sector interventions and to increase social returns of projects.

Identifiying the *differential* needs, priorities, and constraints of particular social groups (for example, urban/rural, men/women) resulting in more responsive and appropriately designed transport strategies and programs aimed at providing the poor with better access to employment, education and health services.

Supporting an objective evaluation of the anticipated distribution of benefits and how best to ensure that benefits reach the intended beneficiaries equitably.

- **Analyze Institutional and Organizational Issues**

SA strengthens transport projects by evaluating institutional arrangements and mechanisms for sustaining the participation of beneficiaries and communities in the maintenance of transport infrastructure.

- **Formulate a Participation Framework**

SA strengthens transport projects by instituting consultative mechanisms to ensure the participation of key user groups, including the poor, local communities, NGOs and the private sector in the selection, planning, design, and implementation of infrastructure improvements.

- **Establish Mechanisms for Monitoring and Evaluation**

SA strengthens transport projects by monitoring distributional impacts of transport investments and develops indicators for participatory monitoring of social development objectives.

These four pillars are useful for understanding how transport and social development intersect with one another. They also provide a holistic way of viewing transport projects within a specific socio-economic context, without undermining the traditional economic and financial requirements of such projects.

Each pillar of the SA requires a number of steps, which are detailed below. Where appropriate, each pillar must also address the need to mitigate any adverse social impacts. This is accomplished by identifying the impacts, assessing the institutional capacity to mitigate them, ensuring stakeholder participation in the mitigation plan, and, integrating the monitoring of the mitigation measures into the overall project monitoring framework.

First Pillar: Identify Key Social Development and Participation Issues

The initial step in launching the SA process is to design an information strategy that will identify the key social development and participation issues. This strategy includes broad-sector and country-specific information as well as project specific data, and it takes place prior to field investigations,

Identify Broad Social Development Issues

Preliminary identification of the key social-development issues may be based on available secondary information about the experiences and lessons learned from previous transport projects in the specific country or in similar contexts. These may include:

- Social development literature/studies relevant to the transport sector or area of concern
- Social impact monitoring studies for similar projects in the same or other countries
- Existing social development profiles or other background information prepared for the Country Assistance Strategy (CAS) and economic sector work (ESW)
- Country social science studies, area studies, other secondary literature, demographic data, relevant socio-economic statistics, political and institutional information

The groups and agencies that are most directly concerned by the initiative will emerge from the review of secondary literature. In addition, this preliminary orientation to the key social and participation issues and stakeholders of transport projects will begin to define the information and research needs of the SA and the information strategy that will be necessary to build consensus and ownership of the proposed project.

Identify Key Stakeholders

Secondary literature reviews can only produce a tentative list of stakeholders and beneficiaries. First-hand knowledge of local context(s) is necessary to develop a comprehensive understanding of the range of stakeholders and their interests. Thus, consultations with policy-makers, representatives of central and local governments, local and international social scientists, and local NGOs are a necessary next step to understand who stakeholders are. As noted elsewhere in this compendium, the range of actors and stakeholders participating in the transport planning process has significantly expanded over the last fifteen years. This is manifested at national, provincial/regional, and local levels.

The increase in the range of stakeholders in transport decision-making has led to an increased awareness of the multifaceted dimensions of the costs and benefits of such decisions. Box 3.2 enumerates the various stakeholder groups in transport investments.

Box 3.2

Key Stakeholders in Bank-financed Transport Investments

Actors and beneficiaries at national, regional, and local levels are instrumental in identifying social concerns, determining priorities, and identifying participatory strategies to enhance and better target project benefits and minimize negative impacts.

Government Agencies: Ministry of Transport, Ministry of Communications, Ministry of Finance, Ministry of Planning, Highways Administration, Ministry of Work at the national level and their regional and/or district counterparts

Transport User Groups: rural/urban communities (particularly women), community groups, farmer's associations, road user and transport associations, peripheral districts in urban areas, pensioners, the elderly, students, and children

Transport Provider/Supplier Groups: local government and central government ministries, investors, donors, NGOs, media, community organizations, private sector (transport suppliers), and labor unions

Directly Affected Groups/Vulnerable Groups: project-affected people in resettlement, indigenous peoples, ethnic groups, redundant labor force (railways/ports restructuring projects), squatters, encroachers, street vendors, sidewalk hawkers, women, and children

Other Stakeholders: donors, labor unions, media, chambers of commerce, research institutes, and banks or financial institutions

The social assessment identifies subgroups within each stakeholder group that may face a different set of constraints with respect to access, affordability, and availability of transport infrastructure and services, and therefore may have different demands requiring more targeted interventions. These distinctions can be made on the basis of sex, ethnicity, age, profession, residential or geographical location, or modal choice. Particular attention should be given to the kinds of infrastructure improvements are needed and the ways in which the mobility and access needs of specific user groups can be enhanced, especially those groups that rely on intermediate means of transport.

The stakeholder focus of many of the transport projects reviewed emphasizes the users and/or beneficiary groups. However, the participation and involvement of other critical groups, namely transport suppliers, is also a critical factor in project success. In the **Turkmenistan: Ashgabat Urban Transport Project**, focus group discussions revealed that bus drivers are influential actors in the transport system. Due to poor organizational incentives and deteriorating infrastructure, they were unilaterally making decisions on taking unscheduled routes or charging passengers extra fares. To mitigate against this behavior, the social assessment recommended that their salaries be increased and that transport management units consistently monitor and supervise performance.

Narrow the Key Social Development Issues to the Project Context

With the broad social development issues clarified and the key stakeholders identified, the SA proceeds to focus on how the participation of the poor and vulnerable groups may be affected and on how their participation may have an impact on the ownership and sustainability of the transport project. Ensuring that improvements correspond to stated needs and priorities and that the project is closely linked with infrastructure and service needs of communities is instrumental for promoting a culture of infrastructure maintenance and ownership.

Assemble Relevant Data

The information needed to achieve the transport project's specific economic and social goals covers: socio-economic characteristics of the key stakeholders; information about their problems, constraints and needs; and ideas for alternative solutions. These data can be used to define eligibility and targeting criteria, to confirm beneficiary identification, and to determine the appropriateness of proposed alternative solutions for targeted social groups. Not every project generates new data. Often other projects in the area have collected data that the SA can use.

The rigor of the SA data-gathering process is important, but the array of social science research techniques is broad. Each situation demands a different combination of methods and procedures tailored to the given issues and set of actors. The appropriate mix of quantitative and qualitative information requirements is determined based on the specific project context and the availability of relevant information from secondary sources. A combination of qualitative and quantitative methodologies should be used to investigate, identify, and prioritize social issues in transport investments:

- **Qualitative methodologies** can provide an understanding of reality as it is perceived by the beneficiaries being targeted and of particular activities or prevailing norms within a specific socio-cultural context. They shed light on whether, how, and why certain groups, families, or communities are benefiting or excluded from participating.

- **Quantitative methods** generate statistical findings, such as the demographic characteristics of a sample population – size of household, sex, ethnicity, forms of livelihood, land holdings/type of crops – people's transport patterns, and the impact of transport costs on household incomes and travel patterns. It is useful to employ quantitative methods when a project is interested in comparing different groups at a given point in time, to estimate changes over time, to compare actual conditions with the goals established in project design or to describe conditions in a particular community or group.

The initial data gathering must be systematic, since these databases will provide an empirical basis for analysis and the baseline for future monitoring and evaluation. The results of each inquiry will inform and refine subsequent activities and contribute to a comprehensive understanding of the priorities of different stakeholders. The following section enumerates and describes the quantitative and qualitative techniques used in transport contexts to identify the social dimensions, as discussed in Chapter 2, and to strengthen the social sustainability of investments.

Quantitative and Qualitative Methods and Tools

Secondary data: Data related to physical and demographic characteristics, land availability, standards in terms of area and population for different type of services or infrastructure gathered from secondary sources. This data can be collected at ward, town, district, and state levels. In addition, the social assessment makes use of existing data from other projects, donors and local institutions.

Household surveys: A random or stratified sample of households to compile gender specific statistics on household size, structure, assets, education, employment, income, and health. Focus on the transport elements of day-to day activities in and around the village and on travel patterns and trip purposes outside the village; utilization and availability of transportation; and means and costs incurred. Household information needs to be collected across different social groups to ensure that the data is representative.

Socio-economic surveys: Administered to collect baseline and gender-specific information on the target or beneficiary population to assess socio-economic benefits of roads and access services and to establish a set of indicators aimed at measuring the socio-economic impacts of road project. Suggested data to be collected:

- Demographic information of a sample population (ethnicity/caste, gender, age, religion)
- Forms of livelihood (land holdings, land cultivated, income, type of crops, non-farm employment including migration)
- Transport data (average daily load, distance and time to and from the nearest road, type of transport, costs of transport)
- Access to social services and status of social well-being (distance to primary and junior high schools, enrollment rates by gender, access to primary health facility/nearest hospital, days lost due to sickness in the previous year)
- Access to markets (costs, time, and by main mode of transport, marketing channel of main crops)
- Commodity prices (of major crops and fuel)

Land acquisition assessment (LAA): Initiated to conduct a rapid scoping, based on available project documents, existing legislation and administrative practice with respect to land acquisition and field verifications; determine the applicability of World Bank safeguard policies (OD 4.30), and serve as the basis of resettlement planning in the context of involuntary resettlement.

Semi-structured interviews: An interview questionnaire should gauge households' perceptions regarding their access issues to resources, services, opportunities, transport constraints and needs, priority problems; the importance they assign to improving their transport conditions, willingness to participate in the maintenance of rural road network (roads/paths/trails). The questionnaire should also reveal existing transport options and services available to user groups, frequency of usage, costs of such services and their impact on household income, and preferences for transport options.

The questionnaire should also assess bottlenecks experienced in using available transport option and services as well as assess the needs of beneficiaries and other user groups for services that may complement rural road investment. For example, promotion of appropriate, low-cost non-motorized

means of transport or the introduction of transport reducing measures such as siting the water pump or grinding mill closer to the village.

Focus group discussions: These are held with village leaders, district/local government representatives and other key informants to obtain baseline data about the community and an overview of its travel patterns, transport constraints and problems. Focus group discussions are held separately with each stakeholder to draw their experience and knowledge of the issues involved in project selection, preparation, and implementation.

Willingness-to-pay surveys: Administered among a select and representative group of beneficiaries and user groups to determine the willingness to pay for and/or maintain rural road improvements and transport services.

Survey questionnaires: Distributed to key service providers and transport operators and distributors to understand the nature of their constraints in service delivery and to establish an estimation of the level, frequency and quality of service resulting from road improvements.

User surveys: Intended to obtain representative data at a household level. Includes demographic and economic data for the household, transport use and satisfaction, trip lengths and times, transport costs, and priorities for improvements.

Participant observation: A fieldwork technique used to collect qualitative data and to develop in-depth understanding of people's motivations, perceptions and attitudes. In-depth participant observation can reveal the influences on people's preferences and can lead to a better understanding of their constraints and incentives.

Participatory stakeholder workshops: Conducted with beneficiaries and key stakeholders to present findings of surveys, focus group discussions and interviews; to establish and agree on priorities in a transparent manner, and to achieve consensus around project objectives. An output of this workshop is to recommend how to incorporate stakeholders' priorities and perceived constraints into project design.

Define Mitigation Plans

Mitigation measures must be defined where adverse, *direct* impacts are identified for certain social groups and as mandated by the World Bank's social safeguard policies, OD 4.30, OD 4.20 and OP 4.01. In the transport context, especially in the highways sub-sector, land acquisition and population displacement occur on a relatively large scale. Land acquisition and population displacement occur at a small scale in rural and urban transport contexts. Therefore, a policy framework and procedures for compensation, rehabilitation and resettlement must be put in place prior to project inception.

Compensation and assistance are based on the overall principle that people should not suffer net losses as a result of the project. Under the **China: Tri-Provincial Highways Project**, efforts were made throughout the design stage to minimize land acquisition and resettlement impacts. Apart from involving various governmental agencies, local governments and people's representatives were consulted extensively through workshops, meetings, and public opinion questionnaires, and were involved in the formulation and comparison of alternative alignments. These consultations resulted in

the significant reduction in the amount of population relocation by modifying the alignment of the highways.[39]

Similarly, the **India State Highways Program** has developed an approach where displacement under the project will be limited to the corridor required for the road and its safety zone. This corridor of impact is defined as the full construction width plus a safety zone of one meter on either side. This varies depending on area, but is typically 18 to 20 meters. Within this corridor, there cannot be any structures or other hindrances. The advantage to this approach is that such a corridor is easier to maintain free of encumbrances than the full right of way (ROW). Since the density of structures and other encroachments is not very high close to the road, the need for resettlement is reduced to less than a quarter of what would be required if the entire ROW were to be cleared – with corresponding savings in cost and efforts. Through consultations with the project authorities and government officials, agreement has been reached that those outside the corridor of impact but inside the ROW will not be displaced during the project period.

While this solution constituted a compromise in very difficult discussions about how to deal with squatters and encroachers, it should be recognized that the approach offers only a temporary solution. It does not adequately address the Government's longer term needs of maintaining the right of way clear, nor does it provide squatters and encroachers with the security of tenure needed to improve their lives. Attempts are therefore being made within the context of the project to investigate and attempt to achieve more permanent solutions, such as facilitating access to credit or other ways for squatters and encroachers to obtain security of tenure.

For adverse, *indirect* impacts that are not quantifiable, the SA ensures measures to minimize and cushion adverse social outcomes on vulnerable groups. For example, where a temporary migrant labor force is used for civil works, project planners should consider the effect of this influx on the settled, host community. Past experience has noted that the presence of construction workers and of potential new settlers in areas with improved access can have negative impacts on local communities by placing constraints on overtaxed infrastructure, introducing social problems, or contributing to the spread of contagious diseases. In transport projects, adverse impacts that are not measurable in terms of individual losses and where the affected population can not be clearly delineated will necessitate identification and design of community-oriented support mechanisms.

Additionally, measures to ensure pedestrian safety, particularly for children, where major roads pass through villages and towns should be considered. For countries in early stages of motorization, there is a high risk of increased fatalities and vehicle accidents. Pedestrian and non-motorized traffic are the groups most affected. The social assessment should investigate who contributes to unsafe practices, consult with communities on how best to deal with this problem, and design appropriate mechanisms.

Second Pillar: Analyze Institutional and Organizational Issues

The institutional analysis carried out in the SA process focuses on the feasibility of proposed targeting measures, the sustainability of proposed participation arrangements, and the interface between

[39] World Bank. 1998. China: Tri-Provincial Highway Project, Project Appraisal Document.

beneficiaries and formal implementing institutions. The objective of such analysis is to engender more inclusive and accountable institutions that ensure a role for stakeholders and beneficiaries in shaping the *rules of the game* and to ensure that those rules are applied consistently and equitably.

The inclusion of a broader set of stakeholders[40] in the transport planning and decision-making context and hence the accommodation of a wider range of objectives and interests has led to significant changes in the institutional framework of traditional transport planning. These changes are slowly redefining the roles of institutions – governments, private sector, communities – in the definition, provision, maintenance, and operation of transport systems.

Several steps are necessary to develop a good understanding of institutional and social organizational issues. Within the context of social assessment, institutional analysis should clarify the sets of mutual and/or competing interests between and among institutional stakeholders, as well as their patterns of interaction at national, municipal, and community levels. Mechanisms to improve coordination between relevant agencies aimed at better meeting the needs of vulnerable and poor groups. In addition to understanding the roles and relationships of formal institutions, it is equally important to understand the role of informal institutions/organizations that operate and govern at community and household levels. The importance and centrality of culture, tradition, and solidarity-based or village-based networks are seldom recognized and yet play instrumental roles in creating economic and political opportunities for their members or restricting access to them.[41]

Identify Blockages to Equitable Access

Institutional blockages and disincentives at national, regional, municipal/district and local levels often discriminate against the poor and preclude their equitable and affordable access to infrastructure and public transport services. The reasons for such limitations are many: formal and informal institutions, local customs, patterns of social organization, inter-group relations, social institutions (family, kinship groups, tribal or ethnic affiliations), formal and customary laws and regulations, property rights, subsidy arrangements, central and local government agencies, and information and communications systems. Often policy and regulatory constraints exist in the areas of provision and development of local transport services, such as the use of intermediate means of transport, the provision of credit and/or other complementary services, and the adoption and diffusion of new transport technologies. At local levels, for example, there may be social and cultural norms that preclude women from participating in decision-making or labor-based schemes.

Institutional analysis undertaken in the context of a social assessment addresses the following questions:

- Who are the actors that influence decisions/outcomes and what are their stakes?

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[40] In transport operations, there is a wide range of institutional stakeholders including different government departments, various units within donor agencies, labor unions, community based organizations, NGOs and private sector actors.

[41] Ayse Kudat. 1999. "Social Assessment: A Comprehensive Framework for Development Initiatives." Mimeo, World Bank.

- What formal and informal rule systems characterize the decisions?
- What incentives do the actors have to change or not?
- What is the information/communication structure? How can it be changed to support the desired outcomes?
- What changes in the rules and incentives systems would be needed to affect desired outcomes?

In identifying the blockages to equitable access as experienced by communities, the SA analyzes the institutional basis of exclusion and evaluates the potential success of new or modified institutional arrangements throughout the project cycle. Local-level and informal rules – norms, values, and belief systems that shape the attitudes and behavior of social groups – may affect project implementation arrangements. It is important to understand the range of institutions and organizations and their respective interactions and relationships in order to appreciate how access to resources and opportunities are structured and achieve the goals of equitable growth and poverty reduction.[42]

Recommend Strategies for Strengthening Institutional Capacity

Decentralization of planning, management, and maintenance authority and responsibility – primarily in rural and more recently in urban transport investments – is one of the predominant institutional strategies that emerged during this review. Decentralization to local level agencies and organizations at district, municipal, and community levels is intended to enhance transparency and accountability in decision-making. The success of decentralization depends on the incentives it creates, the capabilities it can draw on, and the cost it imposes.[43]

There are two driving factors behind decentralization:

- Decentralization results in higher sensitivity to local priorities and needs. With local governments better placed to determine and respond to local preferences, user or beneficiary satisfaction is highly increased. This presents an opportunity to develop and build the capacity of local level institutions that empower the poor with information and skills they need to influence the allocation of resources. District user committees and/or village level committees are examples of institutional mechanisms that were established to promote information sharing, to identify and select infrastructure priorities and to facilitate feedback from users on the quality of on-going works. Different user groups of transport infrastructure and services are represented on these committees.[44] In this way, the selection and implementation of transport projects is vastly improved.

- Decentralization has been shown to facilitate the better maintenance of transport infrastructure. To that end, improved maintenance capacity at the local authority level is key. It is therefore

[42] Lynn Bennett. 1998. Changing the Bank's Approach to Poverty Analysis and Action: Challenges and Opportunities for Inter-Disciplinary Work in the New Bank, South Asia Social Development.

[43] World Bank. 1994. *Infrastructure for Development: World Development Report*, p. 74.

[44] Refer to **Bangladesh Second Rural Roads and Market Improvement Project**, **Tanzania Village Travel and Transport Project**, and **Kenya: Urban Transport Infrastructure Project** case studies.

important to pay attention to the capacities of district and local level committees that play an important role in project planning and implementation; especially in country contexts where the private sector is small and relatively undeveloped. In the **Kenya: Urban Transport Infrastructure Project**, project planners recognized the vital social linkage that local level authorities provide for communities. As central players in the sustainability of a well-functioning transport system, local level authorities will be provided with staff training and development with respect to maintenance planning and procurement management.

Through consultation with key stakeholders, the social assessment can also assess the capacity and the ability of users to pay for or undertake maintenance work. Then it can propose appropriate cost-sharing arrangements between local governments and users/beneficiaries, such as jointly funded maintenance committees.

In addition to assessing the capacity of local level authorities, it is also important to understand the role of NGOs, community organizations, and private sector groups in service delivery and provision, especially to poor or low-income groups. A social assessment can identify measures to better support organizational capacities to meet the needs of the rural and urban poor. NGOs can play valuable intermediary roles with beneficiaries – in savings mobilization and credit provision, community mobilization for infrastructure maintenance, and provision and promotion of intermediate means of transport.

Because infrastructure investments have broad impacts on many groups, planning strategies should focus on coordinating the decisions of relevant and concerned agencies. In many of the project contexts reviewed, poor coordination and overlapping responsibilities among different government ministries and municipal agencies were one of the many institutional constraints cited. Institutional analysis undertaken under a social assessment can recommend mechanisms to improve coordination between relevant agencies aimed at better meeting the needs of vulnerable and poor groups.

Improved and transparent coordination is especially critical when implementing resettlement components of transport investments. While transport projects frequently cause displacement and other social impacts, the public works departments and transport departments in different countries rarely have the capacity to address these concerns. Planning and implementing social mitigation projects as a part of transport projects therefore requires a coordinated effort among different agencies. In many countries, local NGOs, rural development organizations, or other agencies have been involved in these resettlement components. While this has had some positive results, it also raises the problem of coordination among public and private sector agencies, among different public sector agencies, and among agencies in different jurisdictions, since transport projects typically cross administrative boundaries between districts, states, and even countries. While these challenges are not unique to the social development components of the projects, they are particularly difficult to integrate into the overall project coordination and decision making processes where the focus traditionally has been on engineering issues. Experience has shown that the best results require careful stakeholder analysis, taking all concerns into account, and systematic consultations and information dissemination to build consensus and understanding of the need and nature of mitigation mechanisms as well as the broader social development concerns. Institutional analysis, assessment of capacity, training programs, and other mechanisms are required to integrate the social concerns.

Define Targeting Mechanisms

Transport subsidies have often been used as measures to reach needier population groups. Experience, however, indicates that subsidies are often captured by non-poor individuals and families: they are absorbed by transit operators in the form of leakages to inflated transit operating costs, or seized by property owners in the areas served by subsidies in the form of increased property values.

Removal of subsidy regimes carries many inherent political risks and adverse social impacts; such a decision requires closer examination. A social assessment can review the exemption categories of a subsidy regime and recommend ways to structure subsidies to improve their effectiveness in reaching the poor and other vulnerable groups. The social assessment for the **Kyrgyz Urban Transport Project**, for example, assessed the social impacts of the possible removal of exemptions and subsidies. Low-income pensioners would be disproportionately affected by such a measure. As a result, the SA recommended that the government maintain but reduce subsidies for elderly people and pensioners in order to safeguard their mobility. Given relatively low frequency of travel among the elderly and relevant global experience, the SA also pointed that maintaining a certain level of subsidies for the elderly would not impose a heavy fiscal burden on the transport system. However, by way of alleviating the financial burden of the subsidy regime, the SA proposed that subsidies providing coverage to students be eliminated and that schools consider issuing needs-based student pass system. Although the initial removal of subsidies may have a negative impact on household budgets, students' travel patterns depend primarily on walking and therefore, as a group, they are more adaptable to increases in publicly provided payments.

Third Pillar: Formulate a Participation Framework

Formulate Participation Strategy

Fostering the participation of the poor in the development process is one of the World Bank's principal strategies for promoting poverty alleviation and enhancing social inclusion. Lessons learned in infrastructure sectors, including transport, have shown that provision of public goods at local levels are more effective when participation provides a voice for infrastructure users and stakeholders. The importance of participation in effective delivery of local public goods is well recognized and it is central to community provision of service. Without local participation, projects have often foundered at the implementation stage or were simply not maintained and failed to produce sustained benefits. In the **Tanzania Village Travel and Transport Project (VTTP)**, participation lies at the center of the planning, implementation, and maintenance strategies and includes rural communities, local NGOs, and local government. Village communities are responsible for determining the nature and priority of rural travel and transport interventions. Village Transport Committees and Ward Transport Committees are established to support community efforts. Together, they plan, implement, mobilize the requisite labor and materials, and manage and maintain the infrastructure. Participation in project formulation is particularly important for the maintenance of facilities.

The SA utilizes two forms of participation in project strategy design: the participation of the poor, vulnerable, and disadvantaged groups, and the participation of the broader group of stakeholders – governmental and non-governmental organizations, and other partners. The participation process

should institute mechanisms aimed at being more inclusive, particularly of those groups that are often under-represented or not likely to participate. Projects have failed in part because support of key groups of people was not mobilized**.** Broader stakeholder participation is critical for attaining the participation of the poor and vulnerable groups, and both levels of participation are important for developing support for project objectives and institutional arrangements.

The SA designs an information and communication strategy to inform and involve key stakeholders from the outset about the objectives of a transport investment. This strategy contains three elements:

- Mechanisms to share the information from the social surveys and institutional analyses with the broader group of stakeholders and partners (including national and international governments and NGOs);
- Mechanisms to ensure the participation of key stakeholders, wherever feasible; and
- Feedback mechanisms that facilitate stakeholder response to the information provided.

Stakeholder or community workshops are commonly used participatory mechanisms in rural and urban transport investments. Undertaken during project preparation, these workshops can ensure that project objectives are informed by and address community perceptions of issues and constraints related to transport. Stakeholder consultations and involvement create a foundation for the future participation of citizens in providing inputs to transport policy and development.

In the **Turkmenistan: Ashgabat Urban Transport Project**, a stakeholder workshop was convened to share preliminary survey results, to exchange concerns and ideas, and to achieve consensus and support for the project. Representatives of the Ministry of Transport, the municipality, transport operators and users attended the workshop, as well as members of the academic community. These workshops provided critical links between decision-makers and public opinion on a matter of joint concern.

In transport contexts involving resettlement and enterprise restructuring where the social dimensions are of a mitigation nature, the participation component of the social assessment can assist with the development of an information campaign to explain the needs and benefits of a new highway or reform/restructuring initiative and generate support for the project. Widespread information dissemination can enhance transparency during implementation.

A media strategy can also be an appropriate and critical input into the design of a participation/public consultation framework in cases where the scope and reach of a development initiative is broad and where direct participation may not be feasible. In some instances, the specificity of the investment or policy context may preclude democratic representation in the determination of the mechanisms for key stakeholder participation. Therefore, social and institutional analyses, the first two pillars, can provide important information about the views of the poor and vulnerable populations. In either instance, the SA will still develop specific mechanisms to facilitate the direct involvement of the poor and vulnerable groups in the design, implementation, and monitoring of the development initiative.

The success of transport investments hinges on how well transport infrastructure and corresponding services meet users' needs. As determination of priorities and infrastructure maintenance responsibilities are decentralized to district and local levels, developing a participatory framework for

transport investments is a critical activity. A social assessment can facilitate the participation of key user groups, including the poor, in the selection, planning, design, implementation and maintenance of infrastructure improvements. Transport planners often refer to this approach as *user input* or *user participation.*

User participation ensures that communities clarify their access/mobility needs and are consulted about their constraints and priorities, in addition to the levels and kinds of service needed. These consultative forums at local levels can serve as platforms for feedback during project planning and implementation. Employing user participation informs the selection and siting of main project components. It is important to consider ways to obtain input and engage users, beneficiaries, or affected groups in the discussion of alternatives and processes rather than just reacting to information. It is also important to involve users throughout the planning process and to tailor the participation strategy to the circumstances of each issue and population groups involved. One of the lessons learned under the Swiss-funded Makete Integrated Rural Transport Project[45] in Tanzania is that participation helps to increase the awareness of rural populations of means to solve their own transport problems, as well as avenues for increased access to public resources and expertise to support such initiatives.

Improved consensus on a project among intended users increases their satisfaction and willingness to contribute, strengthens ownership of infrastructure, and helps to mobilize their involvement in construction and maintenance. Instituting meaningful participatory processes takes time and often requires the skills of professional intermediaries who interact with formal sector agencies, explain technology options, and help resolve disputes. Special interests, local elites, or powerful minorities can capture the process to the exclusion of others.

Define Implementation Arrangements

Implementation of a development project must be seen as a social process. Dialogue and consultation with stakeholders ensures ownership and commitment to an inclusionary policy. An SA can contribute to designing measures for building consensus and trust, resolving conflicts and negotiating acceptable options. An implementation strategy must consider how to establish delivery mechanisms that people and institutions can manage effectively.[46] The SA should define the specific responsibilities and monitorable contributions of each stakeholder group – central ministries, local government, NGOs, citizen groups, the private sector, and donors. The dialogues will also help to determine the various implementation options available (Step II), including institutional changes, capacity building, targeting, sequencing, subsidies, and incentives. The implementation plan will also include a joint evaluation of the social-development benefits and risks, including potential conflicts and costs. To this end, institutional and implementation arrangements for any mitigation plan prepared under the World Bank's social safeguard policies are jointly endorsed by the relevant stakeholders.

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[45] Swiss Agency for Development and Cooperation. 1998. Makete Integrated Rural Transport Project: Ex-Post Evaluation Final Report, p. 2.

[46] Cernea and Kudat (eds.). 1997. *Social Assessments for Better Development: Case Studies in Russia and Central Asia*. World Bank.

Fourth Pillar: Establish Mechanisms for Monitoring and Evaluation[47]

With the growing emphasis on demonstrating "results," the inclusion of monitoring and evaluation (M&E) procedures is mandatory for Bank-financed projects. A well-designed monitoring and evaluation system is essential for the efficient operation of any transport project. It ensures that the project is being efficiently implemented, that it is reaching the intended target groups, and that it is achieving its intended objectives. It assists management to improve the efficient implementation, and identify problems at an early stage so that they can be resolved. It also provides a learning system so that lessons learned can be used to improve the design and performance of future projects.

An efficient M&E system contributes to *effective project implementation* in the following ways:

- Develops a model of the project implementation process and identifies key inputs, expected outputs and intended program impacts.
- Monitors the use of project inputs.
- Monitors the production of project outputs and the impacts they have on the pilot communities.
- Monitors and assesses the effectiveness of the project implementation process.
- Monitors the effectiveness with which transport project outputs resulted in the intended short-term and long-term impacts.
- Evaluates the extent to which these impacts can be attributed to the effects of the project.

In addition the M&E system should contribute to the following *learning and development objectives:*

- Extracting lessons and best practices for design of future projects.
- Adapting the program design to changing circumstances.
- Providing adequate data for evaluation of program impact.

SA provides inputs to the M&E component by focusing on inputs, processes, outputs, and outcomes that pertain to the social development objectives of the project. Moreover, understanding better who benefits and who loses can give rise to important policy considerations as well as thought to complementary and targeted programs that are needed to enable the poor to maximize benefits from improved access to infrastructure and services. For monitoring and evaluation, a social assessment:

- Establishes baseline conditions in select communities in order to allow for a comparison of pre- and post project benefits and to enable the measurement of the magnitude and direction of change. Baseline surveys should contain gender-specific information regarding *land holdings* (distinguishing between owners and tenants), *agricultural production*, *household incomes, health conditions*, *education levels*, *employment*, and other socio-economic data.

[47] This section draws heavily on Michael Bamberger and Ghada Jiha "Developing a Monitoring and Evaluation System for the Tanzania Village Travel and Transport Project (VTTP)" Presented at the Tanzania National Village Travel and Transport Workshop. Dar Es-Salaam June 1999.

- Identifies a set of social indicators against which the benefits of transport investments can be measured. Benefits may include enhanced accessibility, time savings, reduced travel costs, increased incomes, increased enrollment rates, number of visits to health and other social facilities, and the proportion of on-farm and off-farm employment created.

- Develops mechanisms for participatory monitoring of social development objectives. Monitoring activities systematically seek feedback from main stakeholders involved in the project concerning project benefits. Basic attitudinal and beneficiary surveys can be used to gauge any changes in attitudes, needs, and expectations of key stakeholders. Such monitoring can provide vital feedback to the client regarding project implementation in addition to flagging potential problems at local levels.

- Monitors the distributional impacts among different socio-economic groups with respect to income distribution, access, gender, safety, land-use and values, and spatial impacts. This provides a better picture of who benefits and how well the poor are reached from transport investments. It develops impact indicators to measure the development impact, magnitude, and direction of social and economic change resulting from the project intervention. Results of this change should be gender disaggregated.

Monitoring and evaluation contributes to a better understanding of poverty, enables better and more effective targeting of the poor and vulnerable, maximizes user/stakeholder participation, and can draw attention to the complementary investments needed to support the intended objectives and impact of transport projects.

Beyond simply determining the criteria or benchmarks for measuring whether project benefits are reaching the targeted stakeholders, monitoring and evaluation processes should serve as feedback mechanisms. Process indicators that monitor and evaluate operation and maintenance should be specified in addition to adjustments required to meet the needs of beneficiaries, user groups, and service providers more effectively identified.

There should be specific points in the life of the project when the results of monitoring are used to introduce modifications into project design to take account of changing circumstances or new information. The mechanisms for doing so should be built into project design from the beginning.

In the case of more general social analysis, which is designed to provide information concerning the social landscape and the most effective ways to foster sustainable development, the monitoring of social change should also be carried out on a consistent and ongoing basis. The results of this monitoring should feed back into the development of social policy that in turn should be integrated into economic and development policy in general. In this way, the ongoing monitoring of social groups and how they are changing will inform development policy.

Addressing Gender Issues in Monitoring and Evaluation

Women and men have different transport and travel needs, and they also face different constraints due to their different social and economic roles. Transport projects often ignore these differences by adopting a "gender neutral" approach which assumes that men and women will benefit equally from

the project and its services without having to make any special provisions. However, experience has shown that when the special needs of women are not taken into consideration, they will often benefit less from projects and some women may even be worse off. For example:

- If male traders monopolize new intermediate means of transport (IMT) such as bicycles, then women, who are selling wood, charcoal, or other produce which must be transported by them on foot, may be at an even greater competitive disadvantage.
- Often the community will offer women's labor for road maintenance (which is very arduous and time-consuming) even though women may benefit less from roads than men.
- Increased volumes of traffic on improved roads may present an increased danger to women pedestrians who are carrying heavy loads.

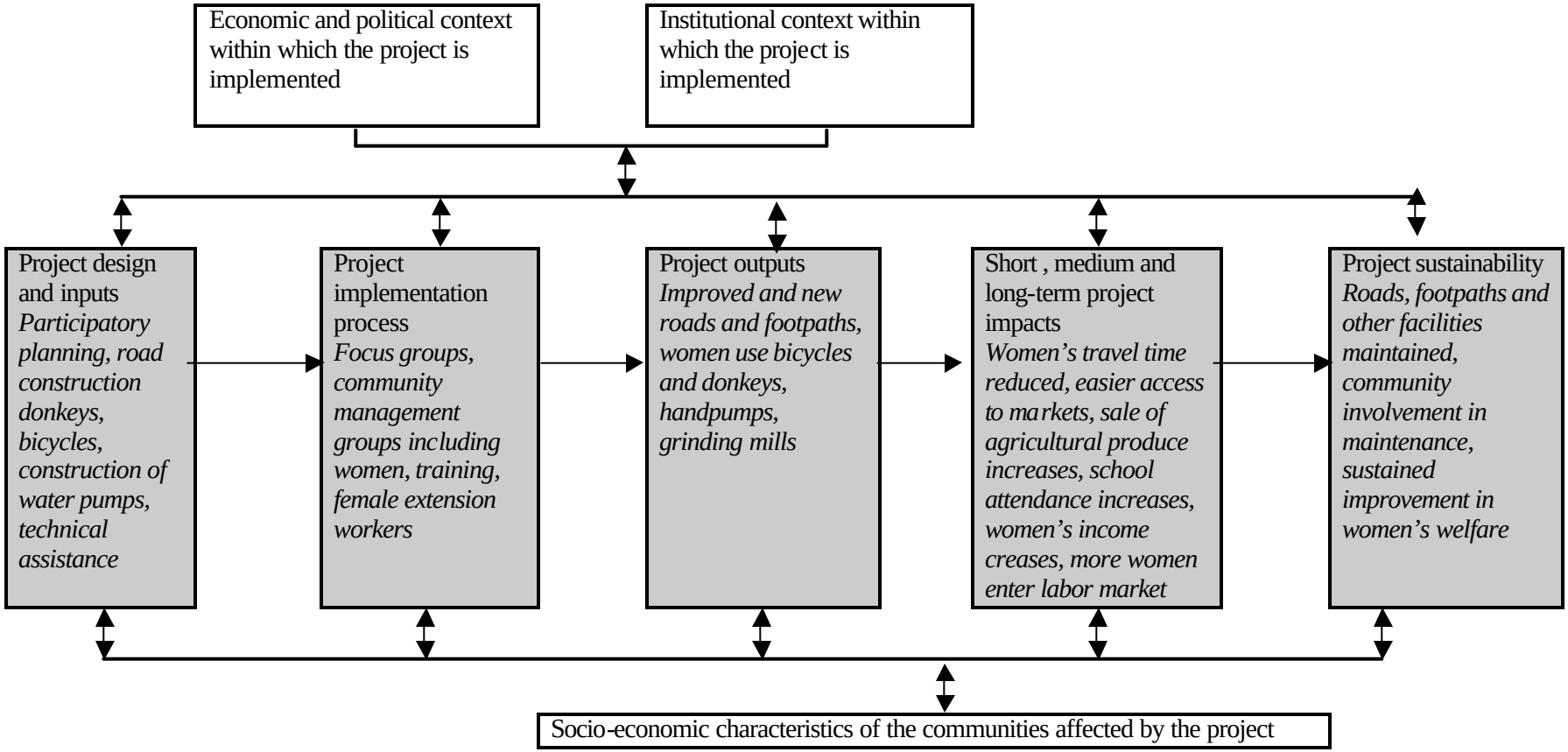
Consequently an effective transport project must understand these differences and must be designed to ensure that the travel and transport infrastructure and services provided respond to the needs of both men and women and also to the needs of children (particularly students). Following are some of the kinds of gender specific information which a good gender-responsive M&E system should address:

- Transport constraints on women's economic and domestic roles.
- Identification of women and men's "latent" (unsatisfied) transport needs.
- Involvement of women in project design and implementation.
- Dealing with cultural issues in addressing women's travel and transport needs.
- The positive and negative impacts of projects on women.
- The cost-effectiveness of transport versus non-transport (providing water closer to the village, providing more grinding mills) interventions in improving women's welfare.

The Basic Monitoring and Evaluation Model

Figure 3.2 presents the basic M&E model and shows how it would be applied to a hypothetical rural transport project. All projects have a set of ***design*** procedures and ***inputs*** (money, staff, materials) which will be used to produce a set of ***outputs*** (roads, trained project staff, production of intermediate means of transport). It is intended that these outputs will produce a set of short, medium, and long-term ***impacts*** (increased sales of agricultural produce, increased school attendance, increased female labor market participation). For the project to produce long-term benefits it is also essential that the services and impacts be ***sustainable*** (roads, footpaths, and other infrastructure are maintained, transport services continue to operate, improvements in women's welfare are maintained over time).

Figure 3.2: Applying the Monitoring and Evaluation Model to the Gender Dimensions of a Village Travel and Transport Project



In addition, the M&E model indicates the ***project implementation processes*** which will be used to ensure the project inputs are used in the most effective way to produce the intended outputs. For example, in one project engineers from the Ministry of Transport may conduct a study to decide which kinds of roads are required, whereas in another project community meetings may be held to involve the intended beneficiaries in the planning of the project.

The success of a project is affected by three sets of factors largely outside the control of the project implementation agency:

- *The economic and political context within which the project is implemented.* For example, if the local economy is growing and there is a big demand for agricultural produce, then local farmers may be more willing to spend time and money on improving the roads to get their produce to market.

- *The institutional context.* Project implementation often requires coordination between a number of different government agencies as well as non-governmental agencies. If these agencies are efficiently organized, and if they work well together, it will be much easier for the project to obtain the support required from each of these agencies, and that will improve the efficiency of implementation.

- *The social and economic characteristics of the local communities affected by the projects.* Many projects involve changes in the activities of men and women and how they relate to each other. The project may open up new employment and income earning opportunities for women, and may make it easier for them to travel. While some communities may welcome these changes, in other communities there may be some opposition to women riding bicycles or to girl students riding the bus to town where they can continue their education.

One of the practical benefits from this model is that it enables evaluators and managers to identify the factors which have contributed to the overall success or failure of a project, or which have determined how benefits have been distributed among different groups. For example, if a transport project has not produced the intended increases in women's income this may be due to any of the following factors:

- Women were not consulted during project design.
- Some of the inputs which would have benefited women were not provided (for example donkeys).
- Services such as credit were provided in a way which limited women's access (perhaps the bank was located at a considerable distance from the village or the hours were not convenient for most women).
- The increased availability of intermediate means of transport may not have reduced women's time burdens as women may have been given more tasks which filled up the time which had been saved.
- Men may control the sale of the increased agricultural output so that women receive little benefit.

The model makes it possible to assess the relative importance of each of these factors and hence to provide guidance on where and how the project design and implementation should be strengthened or modified.

The Key Monitoring and Evaluation Questions

The monitoring and evaluation will collect information be for each of the boxes in Figure 3.2 and develop indicators to monitor how effectively each of these phases of the project is carried out. Most of the design issues for monitoring and evaluation systems concern these basic questions:

- What are the indicators which should be used to measure and monitor each of these stages of the project cycle?
- How should the information be collected?
- How can the effectiveness and quality of performance be monitored at each phase?
- How do we obtain rapid feedback when problems are arising?
- How can the findings of the M&E studies be communicated to project managers and policy makers so that actions can be taken in a timely manner to correct problems, to change project design, or to take advantage of things which are going well?
- How do we assess the impacts or benefits produced by the project, and how can we be certain that these impacts are due to the project and not to the many other independent changes which are taking place in the region?
- How do we judge whether the pilot projects have been successful and whether they should be replicated on a larger scale?

The Logical Framework Approach to Monitoring and Evaluation

A useful and frequently used approach to the monitoring and evaluation of transport (and other development projects) is the logical framework (LOGFRAME) approach. This approach has proved useful in many other projects in countries around the world. This system identifies the objectives of the project and describes the project model through which these objectives are to be achieved through the different phases of the project cycle as shown in Figure 3.2. The model also identifies the key assumptions which are made at each stage of the project. The data from the model are then converted into a set of tables planning purposes which present the indicators used to monitor progress and evaluate impacts (Table 3.1).

Table 3.1: Typical Indicators Used in a Monitoring and Evaluation Framework for a Village Travel And Transport Project

Project inputs	Implementation processes	Project outputs	Short-term impacts	Long-term impacts
Funds for improvement and maintenance of paths/tracks and key services	Village committees (with 50% women) set priorities for interventions	Local organizational structure at district level in place for improvements Committees established in which at least 50% are women	Increased volume of agricultural products can be marketed Increased use of health and education services	Increased household income Higher proportion of girls go to school
Technical assistance for overall project monitoring and coordination; training of local staff in PRA and labor-based construction and maintenance; provision of material and equipment not locally available.		Technical and social capacity to advise on activities is available within district, village, private sector, NGOs Number of trained staff in community participation and planning, road/path improvement, saving/credit schemes and IMTs		Capacity to provide TA
Local personnel from District Office and/or NGO staff		Action Plan completed for each village		
Provision of credit facilities		Resources mobilized on a sustainable basis Bylaws in place that specify village participation in counterpart funding; saving/credit schemes available for IMTs	Creation of micro-enterprises	Increased household income
		Improvements made to village roads and paths and maintenance system in place.	Local village participation in identifying and carrying out improvement works	
		Key services located closer to villages	Four key services located closer to project villages	
		IMTs introduced or improved	Number and extent of IMT use	
		Project methodology developed and integrated national level		

These might include the following information:

- C*omponent/ stage of project:* Inputs, implementation process, outputs.

- *Sub-component:* Loans for purchase of bicycles, community awareness program on female use of bicycles.

- *Monitorable indicators:* A set of measurable indicators for each sub-component. All concepts are defined sufficiently precisely to be measured so that it is possible to collect the required information.

- *Data sources:* Sources for collecting each kind of information. In some cases the information can be obtained from existing studies or project records, while in other cases it will be necessary to commission special studies.

- *Progress to date:* Progress on each of the indicators.

- *Targets:* Numerical targets – either to the current reporting period or to project completion.

- *Key assumptions and issues:* Approved funds will actually be used as specified, communities will allow women to use bicycles. Key issues may also be identified with respect to the availability or accuracy of data: Do records indicate which of the participating organizations are active? Do records indicate what was discussed in community meetings?

The project design is based upon a series of assumptions about the problems which need to be addressed, the benefits (impacts) which will be achieved when the problems are overcome, and the types of interventions which will be most effective in achieving these goals. These assumptions can be presented in a logical framework analysis as illustrated in Figure 3.3.

Figure 3.3: The Structure of Logical Framework Analysis

	Stage of the analysis		Example	Key assumptions
IF	Certain INPUTS are used		*Upgrading or construction of feeder roads*	
	↓			
THEN	Certain OUTPUTS will be obtained		*More agricultural produce will be transported to local markets.*	1. Households have sufficient land and financial resources to increase production. 2. The labor supply is available to increase production
	↓			
IF	This OUTPUT is obtained		*More agricultural produce is transported to market*	
	↓			
THEN	The following PRODUCT will be obtained.		*Household income will increase.* *Food consumption will increase for all household members*	1. Income will be spent within the household. 2. All household members will benefit from increased consumption.

The chart is completed during project design phase for each sub-component and is then updated every reporting period. The LOGFRAME system is useful to monitor progress. It also provides a systematic way to learn from experience and assess the strengths and weaknesses of the proposed implementation model as well as the assumptions on which it is based. For example, one of the project goals is to improve household welfare and increase consumption of food and other basic necessities. If the impact analysis does not find any improvement in household consumption, this could be due to one or more of the following design elements of the project:

- Feeder roads do not reach all villages.
- Households do not have the resources to increase agricultural production.
- Husbands do not use increased income to increase household consumption of basic necessities.

Applying the Socially Sensitive Monitoring and Evaluation Model to a Typical Transport Project

This example illustrates the M&E design and implementation process for a rural transport project. The *process* is similar for an urban transport project although the specific issues

addressed would of course vary. Developing the evaluation design usually involves the following stages:

Describing the Social and Economic Context

Before beginning to work on the evaluation design it is essential to first understand the economic, social, and political context within which the program will be developed. In the case of gender and transport, some of the issues to examine include:

- The major travel and transport patterns and needs of the community.
- The major economic activities of the communities and how effectively current transport systems respond to these needs.
- Women's travel and transport usage and the unsatisfied transport demand.
- Travel resources available to households and who controls their use.
- Cultural, economic, and other factors constraining women's access to available transport.
- Women's time use and the amount of time spent traveling.

Identifying the Major Stakeholders and Their Primary Areas of Concern

An important element of the evaluation design involves the identification of the key stakeholder groups involved with the projects in the villages and in the different agencies involved with the project. The views and information needs of these groups must be incorporated into the evaluation design.

- Who are the major groups inside and outside the community who have an interest in the project?
- What are the main areas of interest/concern for each group?
- What are the transport and travel issues on which there is a reasonable degree of consensus?
- What are the areas of actual or potential conflict?
- What are the priority areas of concern for different groups of women?

Defining the Proposed Project Model and the Key Assumptions

The next stage is to describe the proposed project model, to identify its main objectives and the key assumptions on which it is based. The project model can be in terms of the different stages of design, implementation and outputs/ impacts presented in Figure 3.2:

- *Project inputs* (the resources provided by the project): staff consulting services, funds for loans, vehicles and equipment, training materials.

- *Project implementation processes* (the way in which the resources are used to achieve the project's objectives; the institutional arrangements and delivery systems through which the inputs will be utilized): participatory consultation with communities on project planning, involving communities in construction, procurement requirements concerning female labor, administration of small loans through women's organizations. This includes training

and capacity building and the methodologies for introducing new forms of transport (such as donkeys or bicycles).

- *Project outputs:* small loans approved, bus services initiated or improved, roads constructed.

- *Products:* the immediate impacts produced by each of the outputs such as reduced costs of taking goods to market, reduction in time women spend collecting water and fuel, more frequent visits to health centers, improved school attendance.

- *Impacts:* the impacts resulting from each product such as increased income for market women, increased time spent on productive activities, improved health, improved school performance.

Figure 3.2 illustrates how the basic monitoring and evaluation model could be applied to a typical rural transport project. Examples of inputs, implementation processes, outputs, products/short-term impacts and medium/long-term impacts are given to illustrate the model.

Evaluating the Impacts of Context on Project Outcomes

The model will also describe and evaluate how the context within which the project is implemented affects the results.

- *The socioeconomic characteristics of the target population groups.* Women's multiple productive, reproductive, and community management roles with related transport needs. Cultural factors affecting control and use of different means of transport at the community and household level. For example, women and men are responsible for different transport-related household tasks such as transporting fuel, water, and agricultural produce; there are social customs that concern the use of bicycles, animals, and other means of transport.

- *The institutional context.* The capacity of the key implementing agencies towards addressing gender issues and the involvement of NGOs and academic groups concerned with gender issues.

- *The economic and political context.* The labor market and how it affects men's and women's access to employment; the political context and government policies towards gender equality.

Indicators should be selected for the three boxes labeled economic and political context, institutional context, and socio-economic characteristics of the communities (Figure 3.2). This is a very simple example, and the model must be adapted to the specific design and conditions of each pilot area. Table 3.1 gives examples of the kinds of indicators which could be used at each stage of the model for a gender sensitive rural transport project whose objectives are to:

- improve and maintain paths and tracks and key services,

- provide technical assistance and training,
- recruit and train local personnel, and
- provide credit facilities for the promotion of small enterprises.

Applying the Logical Framework Analysis to a Typical Rural Transport Project

Table 3.2 shows how Log Frame Analysis could be applied to a hypothetical component of a rural transport project designed to provide small loans to women traders to enable them to purchase bicycles. The model follows the stages discussed above, namely:

- Components
- Sub-components
- Monitorable indicators
- Data sources
- Progress to date
- Targets
- Key assumptions

Table 3.2: Logical Framework Analysis Used with Small Loan Program to Help Women Acquire Bicycles						
Component/ stage	Sub-component	Monitorable indicator	Data source	Progress to date	Target	Key assumptions /issues
Input	Loans for purchase of bicycles	Funds approved for component	Project financial monitoring records	$50,000	$500,000	Funds approved in loan agreement are allocated to the small loan program
		Number of intermediary organizations to whom funds transferred and volume of loans transferred	Quarterly progress reports	10 organizations $25,000 transferred	10 per project area = 50	Funds are transferred and accessible to organizations.
Project implementation process	Loans for purchase of bicycles	Number of organizations involved in administering the program	Quarterly progress report	10 organizations	50	Records indicate which organizations are active
		Numbers of women's organizations involved in loan program	Quarterly progress report	5 women's organizations involved	40	
		Effectiveness of client orientation of intermediary organizations	Participatory monitoring studies			Development of objective indicators of client orientation

	Community awareness campaign to promote women's use of bicycles	Numbers of community meetings	Quarterly progress report	5	5 per project area = 25	Records indicate whether bicycle project was discussed
		Volume and types of publicity	Participatory monitoring studies			
Output	Loans for purchase of bicycles	Number of female and male loan applicants	Project financial monitoring records	250 applications	10,000 applicants	
		Number of loans approved for women and men	Project financial monitoring records	50 loans approved	5,000	
		Number of women and men who acquire bicycles	Participatory monitoring studies	50 people acquired bikes	5,000	Women do have access to bicycles acquired in their name

Defining the Kinds of Information to Be Collected

To undertake an impact evaluation, plans must be made to collect baseline data which yield comparative data in an ex-ante and ex-post analysis, allowing important conclusions to be drawn regarding the impact of improved local level infrastructure as well as the impact of decentralized decision-making and community participation.

Suggested Baseline Data:

- Population characteristics in each village (average household size, percent of female headed households, average household income and income sources);
- Village structures, transport infrastructure and services (access, needs, perceptions);
- Agricultural activities, land ownership, ownership to means of transport;
- Location and quality of commonly used social and economic services and facilities;Reasons affecting villages, especially women from utilizing above services or facilities;
- Transport patterns differentiated by male and female patterns of travel;
- Travel and transport constraints and burdens of women, children and other family members, especially on women's economic and domestic roles;
- Women's access to, and use of, the travel and transport services provided by project;
- Types and number of sources of water, firewood;
- Involvement in self-help work;
- Traffic counts including pedestrians (pre and post rehabilitation).

Source: Swiss Agency for Development and Cooperation. *A Guide to Integrated Rural Accessibility Planning in Tanzania*. Dar es-Salaam, March 1997.

Most monitoring systems decide ahead of time what information will be observed or measured periodically and over time. Table 3.3 organizes the information according to the anticipated physical outputs of a typical rural transport project as well as the range of benefits/impacts that accrue from rural transport investments.

Table 3.3: Defining the Kinds of Output and Impact Evaluation Information to Be Collected

Categories	Quantitative	Qualitative	Impact
Physical outputs			
	Km of paths/tracks/feeder roads and their standards		
	Km of paths/tracks or feeder roads improved		
	Km of paths/tracks or feeder roads under regular maintenance		
	Number of improved or rehabilitated non-transport interventions (water wells, grinding mills)		
	Number of new and functioning non-transport interventions		
Institutional outputs			
		Existence of village/ward-based org. for maintenance of infrastructure	Increased role of women in decision-making at village and district levels
		Levels of men and women's participation at decision-making levels, planning, implementation and maintenance	Impact of decentralized decision-making and planning at the village level
		Types of organizations operating in the community, their activities, inter-relationships and their attitudes to VTTP	

Economic benefits			
	Increase in agricultural production		Shift from subsistence to cash cropping
	Increase in marketing opportunities		Expansion in accessible agricultural areas
	Increase in sales of food crops		Changes in consumption and consumer patterns
	Availability and reduced price of inputs		
	Increase in household income		
	Increase in farm gate prices		
	Number of men and women employed in labor-based rehab and maintenance schemes		
	Reduction in transport service costs		
	Increase in supply of passenger services		
Social benefits			
	Increase in visits to health centers,	Change in female mortality/morbidity rates, neonatal rates	
	Increase in girls and boys enrollment in primary schools	Number of women benefiting from improved paths/tracks	
	Increase in visits to market centers		
	Increase in use of agricultural extension services		
	Increase in migration rates		
	Time savings with respect to home provisioning, crop collection and transfer	Means of transport used to carry adjacent activities	
	Number of households owning IMT	Number of men and women benefiting from non-transport interventions	Reduced headloads carried by women as a result of IMT and NTI
		Number of men and women benefiting from IMT	Redistribution of women's workload
Distributional impacts			
		Who benefits from interventions	Impacts of project on female-headed households

In a multi-donor evaluation of the **Kenya Rural Access Road Program**, the baseline survey revealed distinct disparities between male-headed and female-headed households with respect

to wealth, ownership of land, level of economic activity, and consumption behavior. While female-headed households are able to meet their subsistence needs, their agricultural productivity level and overall income stream fall below those of male-headed households. Gender differential impacts were noted with respect to farm inputs and outputs, non-farm activity, and wage opportunities.

Five Main Monitoring and Evaluation Study Designs

There are a number of different kinds of information which management, planners, policy makers, and donors may require on the social dimensions of transport projects. Each of these kinds of information will require a different kind of monitoring or evaluation study. The following are the main kinds of information and the corresponding monitoring or evaluation studies:

Question	Study
• Are the activities being implemented on schedule?	• Monitoring study (this will be an output of the LOGFRAME if it is used).
• Are women fully involved in the selection, design, and implementation of the activities?	• Assessing the gender-responsiveness of the project implementation process.
• Are the activities producing their intended benefits, and do women share in these benefits?	• Impact evaluation.
• Are the activities sustainable?	• Sustainability assessment.
• Were the pilot interventions successful and should they be replicated?	• Replicability assessment.

The design of each of these studies is described in the following pages.

Monitoring Study

Example: Micro-credit to promote women's access to IMT.

Design: Periodic reports are prepared on the actual and planned: use of funds, number of orientation training sessions organized, numbers of staff recruited, numbers of financial institutions involved in the program, number of women who have acquired IMT. Gender-sensitive indicators would be used to compare women and men's access to credit.

Data sources: Most of the information can be obtained from secondary sources such as project records, records of lending institutions, records of suppliers of IMT. Interviews would also be conducted with project staff, lending institutions, and a small sample of beneficiaries to obtain feedback on how effectively the project is operating. A random sample of households in the target areas could also be interviewed to estimate the proportion of households who know about the project and possibly to identify potential borrowers who were either discouraged from applying for loans or whose applications were rejected. Both women and men would be interviewed. Triangulation techniques would be used to check on the validity of information supplied by women and men and to ensure that women were not

concealing any problems they had encountered (such as their husbands using the loan for other purposes).

Dissemination and use of the study findings: Short reports will be submitted to management and possibly funding agencies on a regular basis (perhaps every three months) reporting on the progress of the activity, identifying any problems, and presenting recommendations on how they might be resolved.

Assessing the Social and Gender Responsiveness of Project Implementation

Example: Installation of village water pumps.

Design: Simple baseline study to provide information on the sources of water at the start of the project, the numbers of households having access to each water source, and the time and cost of using each source. The study is repeated periodically to measure and document the number of new water sources installed, the number of households using each one, and the average cost and time of water collection to each household.

Data sources: Baseline data will be collected from short survey of a random sample of households, a PRA study, or by direct observation. Gender-sensitive indicators would be used.

Dissemination and use of the study findings: Short reports will be submitted to management and possibly funding agencies on a regular basis (perhaps every three months) reporting on the progress of the activity, identifying any problems, and presenting recommendations on how they might be resolved.

Impact Evaluation

Example: Impact of women's access to IMT on the marketing of agricultural produce, household income, and women's control over household resources.

Design 1: Comprehensive impact evaluation. The evaluation will collect information on each stage of the project implementation model presented in Figure 3.2. Baseline data will be obtained at the start of the project on women's access to transport, the amount of agricultural produce grown, the amount marketed, income from marketing, time spent in the marketing process, post-harvest losses, household income, and women's control over household resources. The baseline study will be repeated at the end of the project to measure changes in each of the indicators. Information will be obtained on the project implementation process and the effectiveness with which each stage of the project is completed. Information will be obtained on the institutional context, economic and political context, and the socio-economic characteristics of the community to assess how these affect project outcomes.

Design 2: Rapid ex-post evaluation study. This model, which uses PRA and other rapid assessment methods, would be conducted after the project is completed. Baseline data would only be obtained from already available secondary sources. The study would rely heavily on household's opinions on how they had benefited from the project.

Data sources: Short survey administered to a randomly selected sample of households before the project begins and after it is completed (design 1); information from project records on the effectiveness of implementation of each stage of the project (design 1); time-use and travel surveys (design 1); participatory methods to assess household opinion on project impacts (designs 1 and 2); observation, secondary sources, and interviews with key informants to obtain information on the institutional context, the economic and political context, and community social and economic characteristics (design 1). Efforts would be made to ensure that all relevant indicators are gender-sensitive, and triangulation would be used to check on validity of the information.

Dissemination and use of the study findings: The study would be used to assess whether IMT interventions are an effective way to increase household income and to enhance women's control over household resources. Recommendations would be made as to whether, and under what conditions, this intervention should be included in future projects. The findings would be disseminated widely in the district and to the national and international stakeholders.

Sustainability Assessment

Example: Upgrading of footpaths

Design: Maps and charts would be prepared at the start of the project to record the condition of the footpaths during different periods of the year to compare dry and rainy seasons and also to assess how the footpaths stand up to heavy use during different stages of agricultural production. The charts would be updated at the end of the project and after the project has been operating for at least one year to measure changes. Information would also be obtained on the maintenance procedures and how well they are carried out.

Data sources: Available secondary data; maps and charts prepared in cooperation with the community and updated periodically; observational methods used to assess the condition of the footpaths, to observe whether they satisfy community needs (including whether they are over-designed), and to observe maintenance procedures; interviews with key informants; and gender-sensitive indicators used throughout.

Dissemination and use of the study findings: A report would be submitted to project management at the time the project is completed. This would include recommendations on any actions which must be taken to correct actual or potential maintenance problems. The final report, prepared at least one year after the project has been implemented, would be disseminated widely at the district and national levels and to donors.

Replicability Assessment

Example: Was the introduction of new IMT successful and should this be replicated in a future project?

Design: The assessment will draw on all of the information collected in earlier studies (particularly impact and sustainability studies) to assess how effectively the activities were implemented and what kinds of benefits they produced. An assessment will also be conducted

of the cost-effectiveness of the component. This will estimate the unit cost of producing a particular benefit (person hours of travel time saved, increase in household income). Risk analysis might also be conducted.

Data sources: Information collected by earlier studies; assessment of the costs (money, community time, project staff time, materials, equipment) used in the implementation of the activities; quantitative indicators of benefits obtained from earlier studies. Gender sensitive indicators and triangulation would be used throughout to ensure validity.

Dissemination and use of the findings: The findings will be included in the project completion report and in the planning documents concerning future projects. The findings would be disseminated widely at the local, national, and international levels.

Table 3.4: Examples of Monitoring and Evaluation Indicators Used in the Case Studies In Annex 1		
Case Study	Indicator	Type of indicator
Bangladesh Rural Roads and Markets Improvement Project	Extent of participatory and planning input by the community	Design or project implementation indicator
	Attendance of women and men at meetings	Project implementation indicator
	Degree to which plans for maintenance are implemented	Sustainability indicator
	Distribution of benefits and poverty impact	Impact indicator
Kenya Rural Access Roads Projects	Increased agricultural production	Impact indicator
	Shift from subsistence to cash crops	Impact
	Increased non-farm income and entrepreneurial development	Impact
	Improved marketing reduces food prices	Impact
	Improved transport services	Output
	Increased land values	
	Improved access to social services	Impact
	Women time saving	Impact
	Increased migration to urban areas	Impact
	Greater increase in male output and income	Impact
	Greater increase in female off-farm income	Impact
		Distributional impact
		Distributional impact
Dhaka Urban Transport Project	Reduced travel time for commuters	Impact
	Reduced vehicle operating costs	Sustainability indicator
	Improved sidewalks for pedestrian use	Output indicator
	Improved public health	Impact
	Reduced accidents and enhanced pedestrian safety	Output and impact
Ashgabat Urban Transport Project	Opening up of new bus routes	Output indicator
	Improved frequency of transport	Output indicator
	Improved fare collection	Implementation process indicator

Data Collection and Analysis for Gender Sensitive Social Assessments[48]

Data collection methods are determined by the kinds of information/data needed to monitor change and progress. Principal methods of data collection should combine both quantitative and qualitative methodologies. In selecting a particular combination, project staff need to consider how the information is to be used and by whom and to assess these needs in light of budgetary and time constraints.

Quantitative Survey Methods

Secondary data: Secondary data can often be used to estimate conditions in the pre-project period or used as a control. Most of the information related to ward, village, and district level aggregated data can be collected from various secondary sources. The data related to physical and demographic characteristics, land availability, standards in terms of area and population for different types and levels of services should be gathered from secondary sources, which can be both quantitative and qualitative.[49] It is important to check for the availability of secondary data before collecting new data.

Household surveys: Based on a random or stratified sample of households, this tool obtains representative household information on size, labor force participation, income and expenditure levels, and ownership of assets (land and means of transport). Information should also be collected regarding access to transport, use and costs of public and private transport, and satisfaction with transportation service in order to analyze actual and potential needs of transport users. It is important to collect information on non-motorized transport (NMT) issues as well, since foot-paths, bicycle paths, and other NMT pathways are integral to the overall transport plan. Gender-specific constraints and needs should also be identified.

Socio-economic surveys: The main objective of the survey is to assess the socio-economic benefits, both quantitative and qualitative, and to develop a system to monitor and evaluate such benefits. Data to be collected include:[50]

- Demographic information of a sample population (ethnicity, gender, age, religion);
- Forms of livelihood (land holding, land cultivated, income, type of crops, non-farm employment including migration);
- Transport data (average daily loads, distance and time to and from nearest road, type of transport, costs of transport);

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[48] This section draws heavily on Michael Bamberger and Ghada Jiha "Developing a Monitoring and Evaluation System for the Tanzania Village Travel and Transport Project (VTTP)" Presented at the Tanzania National Village Travel and Transport Workshop. Dar Es-Salaam June 1999.

[49] See Joseph Valadez and Michael Bamberger, 1994 *Monitoring and Evaluating Social Programs in Developing Countries: A Handbook for Managers, Researchers and Policy Makers*. World Bank. page 271.

[50] Thampil Pankaj, "Terms of Reference for World Bank Bhutan Rural Access Roads Project." 1998.

- Access to social services and the status of social well-being (distance to primary and junior high schools, enrollment rates *by gender*, access to primary health facility/ nearest hospital, days lost due to sickness in the previous year);
- Access to markets (costs and time by main modes of transport, marketing channel of main crops); and
- Commodity prices (major crops and fuel).

Transport user surveys: This instrument is intended to obtain *observed* transport use data that is representative by location, time of day, and day of the week. It includes the time spent waiting and journeying; the uses, purpose, and cost of transport; satisfaction and needs; and income. In addition, the user survey should identify the range of available transport means and services. The results obtained from the surveys will highlight trip purposes and the relationship between income levels and transport use as well as incomes and modal choice. For VTT this should be expanded to include travel on foot – not just the usual vehicle use surveys.

Transport supplier surveys: This series of surveys is administered to a range of transport suppliers (bus associations, non-motorized suppliers, taxi services, or enterprises) to obtain information on the status of their operations. They show what incentives or disincentives exist, their respective roles and importance in urban transport service provision, measure and prospects for changes in its status. This should also include non-vehicular transport services such as water carriers (on foot).

Travel pattern surveys: These surveys describe who is going where, with whom, at what time, by which mode and route, and for what purpose.

Perception and attitude surveys: When attitude questions are open-ended, "What are the things you like most about living in this community?" the survey analyst must read all of the responses and then develop categories. For example, the responses to: "What are the reasons that you do not allow your daughters to use public transport to travel to school?" might suggest categories such as: "concerns about security," "high cost," "inconvenient schedules."

On the other hand, it is possible to obtain a quantitative estimate of the intensity of opinions or attitudes by asking respondents to select a position on a scale. Scales can either contain a set of responses reflecting intensity of satisfaction or attitudes, for example:

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

Or respondents may be asked to select a position on the following kind of scale:

Strongly disagree Strongly agree
1___ 2___ 3___ 4___ 5___ 6___ 7___

It is then possible to conduct numerical analysis on the findings, although it is important to remember that this is an ordinal variable rather than an integral or continuous variable. This means that each value can be considered as greater than the previous value but that the intervals between the values cannot be considered as equal. Consequently it is not valid to compute values such as means or standard deviations.

Willingness to pay and capacity to pay for transport services: The planning of many transport interventions is based on the estimation of "effective demand": the capacity of the potential users to pay the economic cost of the service being provided. Examples include bus or taxi fare, fee for use of grain mill or rice mill, or the amount paid for water. A number of methods have been developed to calculate willingness to pay, including:

- Direct questions as to whether potential users would be willing and able to pay the fare or service charge.
- Asking how much the user would be willing to pay.
- Estimating what is spent on alternative services.

It is often useful to combine these quantitative questions with the use of observational or other qualitative methods to estimate how much is currently being paid for these services. It is frequently found, for example, that households are paying a much higher price for water provided through informal and sometimes illegal sources than they would pay for the public service. Respondents may be reluctant to acknowledge they are using illegal sources, or they may wish to give the impression that they would be too poor to pay the full cost of the public service in the hope that they would receive a subsidy or concessional price. The use of consistency checks through the combination of survey questions and qualitative methods is discussed later in this chapter.

Qualitative Survey Methods

Secondary data: Qualitative secondary data may include newspaper articles, photographs, university theses, records of community groups, land titles, medical records.

Stakeholder analysis: Stakeholder analysis identifies the key stakeholders and develops ways to involve them in selection, preparation, implementation and monitoring of the project through a process of consultation and participation. Identification of *key stakeholders* and their *stakes* in the project should occur at the central/national, district, and local/community levels. For each of the stakeholders, the analysis should present the expectations from the project, likely benefits and adverse impacts, conflict of interests, and type of involvement in design and implementation process (roles and responsibilities, type of participation such as information sharing, collaboration, employment). It should also show the commitment of resources, opinions towards the project, priority of services, and standards required. By involving stakeholders through consultation and collaboration, the consultant disseminates the objectives and scope of the project.

Stakeholder analysis also involves defining the *constraints* in achieving objectives and developing a strategy and tactics to address them. Recommendations must be made for a mechanism of consultation and collaboration for bringing stakeholders knowledge and experience in project

preparation and implementation process. If any *vulnerable* or *at-risk* groups are identified in terms of poverty, gender, age, cultural identity, and displacement, the analysis must also address their needs, minimize the adverse impacts of the project, and maximize their benefits.

Institutional analysis: This involves a careful review of existing institutional arrangements for delivering various services (financial management, engineering, and resettlement management) and identifying the strengths and weaknesses of such arrangements. Special attention should be paid to decentralization and the important roles of district councils and village committees in project planning and implementation. The consultant should assess likely risks, both internal and external to the project (lack of commitment to project goals, insufficient capacity to achieve the project objectives, involvement of NGOs and beneficiaries in implementation). Based on the risk assessment, the institutional issues, and consultations with key stakeholders, the consultant should propose appropriate institutional arrangements and capacity building programs for successful and timely implementation of the projects.

Focus group interviews: Focus groups are useful methods for soliciting community attitudes and identifying other issue areas. They require a trained individual who can handle group dynamics and who has the ability to prevent anyone from dominating the setting. Focus group or semi-structured interviews should be undertaken to explore issues that could not be easily captured by household surveys. Separate discussions should be carried out among all the stakeholders to draw their experience and knowledge in each of the issues involved in project selection, preparation, and implementation.

Community forum/workshop: An agenda should be prepared in advance of the meeting and basic rules should be explained to the moderator to ensure that all participants contribute to the forum. This is an efficient way to produce information.

Participatory Evaluation Methods

Participant observation: Fieldwork techniques used to collect qualitative data and to develop in-depth understanding of people's motivations, perceptions, and attitudes. Participant observation can reveal the influences on people's preferences and can lead to a better understanding of their constraints and incentives.

Access to resources: Collects information, raises awareness and understanding of how access to resources varies according to gender and other social variables. The tool is used in participatory settings and draws upon the everyday experiences of rural inhabitants.[51]

Analysis of tasks: Analysis of tasks by gender raises community awareness of the distribution of domestic and community activities according to gender, and it familiarizes planners with the degree of role flexibility associated with different tasks. The complementarity of community members' tasks can be highlighted during this activity by illustrating the dynamic system of activities that constitute daily life. The participation of young adults and children in task analysis

[51] Sue Jacobs, downloaded from World Bank Social Asssessment Website.

exercises can reveal important information about how youth perceive the gender roles and responsibilities.

Needs assessment: Extracts information about people's needs, raises participants' awareness of related issues, and provides a framework for prioritizing needs. It is usually employed as a part of gender analysis to develop an understanding of the particular needs of men and women. A thorough needs assessment of a community must take into account the interdependence of women's and men's needs, and the degree to which these change seasonally and at different life stages.

Mapping: Useful for collecting baseline data on a number of indicators – for example, as part of a beneficiary assessment. The process can lay the foundation for community ownership of development planning by including diversely interested groups of people. Maps are an excellent starting place for investigation because of the high level of participation they encourage and because the visual output can be used to bridge any verbal communication gap that might exist between local people and development planners. Mapping can be used to generate discussions about local development priorities and aspirations.

Photographs: Periodic photographs of a project site are a rapid means of collecting data that preserves information for depicting progress over time

Using Integrated, Multi-method Evaluation Approaches

Quantitative survey methods have their drawbacks when used to evaluate community participation and organizational behavior. In pilot projects where the participation of communities in labor-based infrastructure schemes and in priority setting and decision-making are central, rapid qualitative monitoring and evaluation techniques are appropriate and suitable. Participatory Monitoring and Evaluation is "a process of collaborative problem-solving through the generation and use of knowledge. It is a process that leads to corrective action by involving all levels of stakeholders in shared decisionmaking."[52] Participatory Monitoring and Evaluation should be a component of every monitoring and evaluation system.

The strengths of utilizing participatory and rapid qualitative methodologies in projects of this nature are:

- The success of the project is evaluated by the active participation of the community itself and is focused on building stakeholder capacity for analysis and problem-solving.
- Knowledge and data that is generated during the course of an evaluation remains and is owned by the community.
- The approaches are more cost-effective.

Information about and feedback from communities can be obtained in several ways. In selecting appropriate and cost-effective data collection methods, the evaluator must determine the purpose of the evaluation and the audience.

[52] Deepa Narayan, 1993, "Participatory Evaluation: Tools for Managing Change in Water and Sanitation." World Bank Technical Paper No. 207, Washington, D.C.

The degree of confidence in the findings of the participatory assessment methods can be greatly increased by *triangulation*, comparing estimates obtained from different methods of data collection. For example, a carefully selected random sample of households could greatly strengthen the reliability and validity of the data. Effective use of triangulation must satisfy the following conditions:

- Potential biases of each method must be identified.
- Other methods that do not share the same biases must be selected and used.
- Different methods must be independent of each other so as to provide independent estimates.
- Procedures must be established for comparing the estimates obtained through different methods and for explaining any observed differences.

Annex 1

Social Assessment Case Studies and Lessons Learned

Kyrgyz Republic: Urban Transport Sector Review

Background

Since the demise of the Soviet Union, urban transport services in the Kyrgyz Republic have deteriorated badly and are increasingly incapable of satisfying public demand. The urban transport system is characterized by the use of old, inefficient vehicles, increasing penetration by private operators, decreasing quality of the publicly owned system, shortages and overcrowding, and inadequate road infrastructure in peri-urban areas. Currently, publicly owned and operated services are available primarily in the capital, Bishkek. Outside the capital city most services have been transferred to joint-stock companies. Private operators provide a variety of transport services in Bishkek and other urban areas.

Whether publicly or privately provided, the services are not satisfactory to users; urban residents view the lack of service and irregularity on some routes as a constraint to their ability to work. Inadequate roads pose problems to bus drivers and the owners of private vehicles. The Kyrgyz Government is concerned about this situation and has requested World Bank assistance. The proposed project focuses on three major cities: Bishkek, the capital city; Osh, the largest city of South Kyrgyzstan; and Jalal-Abad, located 50 kilometers from Osh.

As part of the project preparation process, the social assessment (SA) sought to gain a better understanding of transport patterns and the transport needs of low-income residents, as well as to facilitate stakeholder participation in the design of a people-focused urban transport project. The broad objectives of the SA process were to: (a) identify key social development issues that pertain to the project; (b) define stakeholders and their role in affecting the equitable participation of the poor in the project; (c) identify institutional, social, or cultural factors that affect the participation of select social groups in the project and design mechanisms to ensure sustainability of project benefits to low-income, vulnerable, and otherwise excluded populations; and (d) propose monitoring and evaluation indicators for project implementation. The SA analyzed the existing subsidy regime and the potential social impacts of privatizing transport services in Bishkek. Given the relationship between urban transport and poverty, the SA also focused special attention on transport costs and the ability and willingness to pay higher fares for improved services. The SA endeavored to identify the most critical interventions needed to improve transport services and infrastructure.

Social Assessment

While the initial phase of the SA raised a number of social development concerns and proposed solutions, its immediate recommendations focused on the need for broader client review of its results and a joint determination of the next steps. The Institute for Regional Studies in Bishkek, a branch of the Kyrgyz Social Science Network, collaborated with other local social scientists and World Bank staff to organize the administration of both qualitative and quantitative data-gathering efforts, conduct background research, and share results with relevant public sector institutions.

Key Social Development Concerns

To identify the key social development issues, the SA reviewed national demographic, socioeconomic, and other relevant data and secondary research, as well as social assessments of similar projects in other countries. The SA carried out representative household and user surveys to discern the problems faced by city residents. It made use of focus group discussions and qualitative observations.

The SA examined whether low-income and potentially vulnerable groups—women, the elderly, and migrants—had differential access to urban transport services and transport infrastructure. Household and user surveys indicated that transport costs constitute 12 to 18 percent of family budgets and affect low-income families disproportionately. In Bishkek, for example, average monthly transport expenses consume 18 percent of monthly income, but low-income families spend 25 percent on transport, compared to only 15 percent for higher-income families. In Bishkek, Osh, and Jalal Abad, over half of household income is spent on meeting basic needs, such as food.

Low-income residents of peripheral neighborhoods rely heavily on urban transport and are less able to receive good quality service. Residents of neighborhoods constructed at the peripheries of major urban areas during the post-Soviet period earn 30 percent less than those in central areas and spend a significantly higher portion of their monthly income on transport. They are less educated and have fewer alternatives for employment or opportunities for income generation.

Economic hardship is a major problem throughout the country. Inadequate transport services exacerbates this hardship and therefore ranked among the three most important problems for people in Bishkek. Transport is perceived as a constraint, especially for those who seek to improve their work conditions through change of employment. Many who are currently employed, or seeking work, place more importance on improving the frequency and comfort of transport services. Improvements in public bus and trolley schedules and routes are especially important in Bishkek. High costs and low frequency of service are the main concerns of residents of the smaller cities. Given the significant differences among settlements, there is a need to tailor interventions to the needs and the means of each city.

About half of the residents in each city are willing to pay more for urban transport if schedules and routes are improved. It is perceived that improved transport will enhance and improve employment options and opportunities. Affordability levels, however, are low, and cost is a factor for pensioners, students, and low-income households. Willingness-to-pay surveys showed that a 25 percent increase in overall transport costs would cause many families to spend more than 20 percent of their income on transport (assuming constant income levels), low-income families would spend more than 30 percent of their income.

Institutional and Organizational Issues

The SA addressed institutional issues concerning the respective roles of the public and the private sector in providing transport services, the need for subsidies, and the regulatory and managerial dimensions of public-sector institutions. The SA also examined whether proposed institutional

changes, such as reducing the role of the state in the provision of transport services and reducing the subsidies targeted to certain social groups, would result in adverse impacts that required mitigation.

Dependence on public transport is high in Bishkek, where public-sector agencies are responsible for the improvements people seek. In Bishkek, continued support to public transport could be offered, given the city's potential growth and the heavy reliance of its citizens on urban transport. However, public agencies cannot bring about sufficient improvements in service levels while keeping costs constant. Final costs to users could be controlled by decreasing revenue leakage. The current payment system is complicated and inefficient. Reducing revenue leakage and improving operations would reduce the need for fare increases. In most buses, either a conductor or the driver collects cash, so the ticketing system lacks transparency.

Improving the regulatory framework and granting concessions to private operators on more crowded routes in return for operating routes in peripheral neighbor-hoods would help poorer residents gain greater access to transport. In Osh and Jalal Abad, public transport services have been privatized as joint stock companies that claim to recognize exemptions granted to the elderly, students, and other eligible groups. However, very few of these target populations acknowledge receiving such exemptions. In fact, one of the findings of the social assessment revealed that the current fare-collection system in public transport led to the exclusion of passengers with exemptions. Drivers, trying to meet their revenue targets and earn a profit by transporting as many paying passengers as possible, often exclude nonpaying passengers, such as pensioners or school children.

People receive inadequate information on route changes, fare increases, or schedule changes in public transport services. Most people learn about such changes by word of mouth and no mechanisms for voicing complaints exist. Consumer satisfaction could be enhanced through institutional, regulatory, and physical improvements (including roads), as well as efforts to provide clear and accurate information on routes, fares, and schedules.

Reducing subsidies and removing exemptions would increase revenues and partially offset increased costs. It is necessary, however, to consider how different stakeholder groups would be affected. In many Central Asian countries, Russian populations tend to be much older than ethnic Central Asians. In the case of the Kyrgyz Republic, it is expected that subsidy reductions would have a disproportionate impact on the Russian minority. Pensioners travel less frequently than other residents and are a relatively small group. If their exemptions were removed, pensioners might have to spend as much as 47 percent of their income on transport.

Student subsidies represent a heavy burden on bus companies, and it is not clear that all students are equally needy. If students were to pay the full fare, they could provide bus companies with close to 71 percent of their current annual revenue. Students' travel patterns suggest that they are more flexible than pensioners and could adapt more easily to new price structures, thereby diminishing the effects of removed subsidies on their household budget. Although important social considerations favor maintaining subsidies for the elderly, the potential for the removal of student subsidies should be considered, with attention to the possible affects on educational performance.

Participation Framework

The SA included stakeholder consultations with actual and potential users of publicly and privately provided bus, trolley, minibus, and taxi services, a key stakeholder group in the design and implementation of transport projects. These consultations concerned the level and quality of service available and solicited ideas about desired improvements. Addition consultations were held with transport suppliers, including car owners and drivers of public and private vehicles. Drivers complain about the lack of spare parts, bad condition of roads, high maintenance costs, and inadequate support from existing driver associations and companies. The current licensing system requires drivers to meet rules of competence, but there is insufficient regulation of actual levels of competency and adherence to rules.

Next Steps and the Longer Term

The SA recommended that the World Bank support urban transport improvements in the Kyrgyz Republic, drawing special attention to low-cost interventions. The project could improve access for groups that are currently excluded. Mechanisms for assuring equitable access include promoting adequate ticketing and control methods, improving services to the urban periphery, and increasing the efficiency of the regulatory functions of the state with respect to private operators. Improved urban transport will have a positive impact on low-income families by increasing access to employment and thereby increasing income levels, particularly in the capital city where the distances between home and workplace are greatest. Enlarging the scope of urban transport service to growing city peripheries would help to increase living standards and respond to the needs of recent migrants. Enhanced competition between private providers of services, better regulatory mechanisms, and special incentives for transport companies that service less profitable routes would have high benefits for the poor and the vulnerable, including the unemployed who are seeking work. Another area identified by the SA and one that requires attention is the issue of improved passenger safety. Safety could be assured through better standards for driver education and better regulation of private operators.

Proposals regarding the changes in subsidy systems could be communicated to the public in appropriate fora, public debate on relevant issues should be planned and implemented, and the private sector should be involved in the discussions. The debate could focus both on subsidy levels and on mechanisms for its targeting. Thus, it is critical to continue the SA process. Consultations during the next stage of the SA could also examine the impact of an increase in the transport cost burden on poorer households located in peripheral areas.

For more information on the Social Assessment of the Kyrgyz Urban Transport Project, please reference the detailed and full report in Annex 7 or contact Ayse Kudat (Social Advisor,ECSSD) or Bulent Ozbilgin (ECSSD).

Bangladesh: Second Rural Roads and Markets Improvement and Maintenance Project

Background

Bangladesh is one of the poorest countries in the world with an annual per capita income of $240. Poverty is more widespread in the rural areas and among women; about half the rural population lives below the level of absolute poverty. As a predominantly rural country, infrastructure plays a vital role in supporting a highly active rural cash economy. However, the economy is affected by major transportation constraints that have stymied economic growth and social development. Improved transport infrastructure and services is intended to facilitate access to market facilities, schools, health clinics, and other social services.

The Second Rural Roads and Markets Improvement and Maintenance Project (RRMIMP-2)—with coverage of 22 million people—is designed to link improved transport accessibility with improved market infrastructure to maximize direct benefits to the rural poor. From the outset, the RRMIMP-2 instituted a participatory and consultative process with a wide range of stakeholders including rural communities, poor vendors, women's groups, the landless, country boat users, non-motorized transport operators, traditional leaders, and ward representatives.

Key Social Development Concerns

Stakeholder consultations drew the attention of transport planners to important social development issues, especially women's needs and constraints as well as the poor's overwhelming reliance on intermediate means of transport (IMT).

RRMIMP-2 project design specifically addressed gender needs in transport and market infrastructure improvements. Simple road works target destitute women for employment. Close consultation with women vendors and groups led to the creation of a "women's corner" in the market place—aimed at enabling women to use the marketplace; an area from which they were previously barred.

The rural poor of Bangladesh are highly dependent on IMT as a source of employment and income as well as a mode of transportation. To maintain and strengthen the role of IMT services, RRMIMP-2 includes a pilot program aimed at improving the safety and efficiency of IMT, particularly rickshaw vans and passenger rickshaws.

Institutional and Organizational Options

Sustainability and ownership of development initiatives is strengthened through the building of institutional capacity at local government and community levels and the incorporation of participatory processes in operations.

At local government and community level, RRMIMP-2 established district user committees to promote information sharing, identify and select infrastructure priorities, and to facilitate feedback

from users on quality of on-going works. The different user groups of transport infrastructure and services are well represented on these committees.

Participation Framework

Reaching the poor requires working with them to learn about their needs, understanding how development decisions are made in their communities, and identifying institutions and mechanisms which direct opportunities and resources into their hands. To mobilize community participation, numerous stakeholder consultations and public information and dissemination campaigns regarding the project's objectives took place.

Employing a *users input approach* allowed planners to acquire more comprehensive and accurate knowledge of the various infrastructure user groups and clarified the relations prevailing between these groups and their respective needs, demands, and priorities. This informed the selection and siting of main project components, such as rural road structures and river ghats.

Monitoring and Evaluation

RRMIMP-2 project design included a monitoring component that will track the extent of participatory and planning input by the community, the attendance of men and women at meetings, and the degree to which plans for maintenance are occurring. In addition, a socio-economic impact study focusing on the distribution of project benefits and the poverty impact of infrastructure rehabilitation and improvements is planned.

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For more information on Bangladesh: Second Rural Roads and Markets Improvement and Maintenance Project, please contact Thampil Pankaj (Task Leader, SASIN) or Deepa Narayan (PRMPO) and Anders Rudqvist (PRMPO)

Kenya: Rural Access Roads Impact Study

Background

In the late 1960s, rapid population growth threatened many developing countries with rural-urban migrations, decreased standards of living, and political instability. The scope for industrial job creation was limited and, at the same time, agricultural output and social facilities in the rural areas had to cater to an increasing number of people. The Kenya Rural Access Roads Program (RARP) was a multi-donor[53] funded initiative aimed at introducing efficient, labor-based road construction and maintenance practices as a means of creating and generating employment opportunities in rural infrastructure projects.

Contributing $8 million, the World Bank agreed to finance, inter alia, the construction of 1,000 km of selected rural roads as access from farm to market centers; establishment of a monitoring and evaluation entity for the entire program; and establishment of a maintenance system for all RARP roads. Social and economic objectives aimed to increase cash crop and livestock production and bring rural Kenyans into the market economy through provision of all-weather access to markets, rural employment, improved access to social facilities and services, and increased local participation in development planning through selection of roads for improvement.

A large number of studies endeavoring to document the socio-economic impacts of the RARP were conducted. Ultimately, the World Bank allocated over $1 million which to be spent on the monitoring and evaluation component of the RARP. A baseline was established to allow a comparison of the level of pre- and post-project benefits and the distribution of these benefits among the different groups. Data was collected with respect to household information, socio-economic systematic surveys, low altitude and high altitude photography, landsat data as well as qualitative data were gathered to establish road impacts on a broad range of variables.

Carried out by the Ministry of Transport and Communication (MOTC) one year after the baseline, the purpose of the Rural Roads Impact study is to help monitor and evaluate the RARP by determining the impact of the roads being monitored upon the income and quality of life of low-income rural people affected by them. On the whole, rode impacts were unquestionably postive.

[53] The Kenya Rural Roads Access Program was funded by seven donors: the World Bank, the United States Agency for International Development (USAID), DANIDA, the Netherlands, NORAD, CIDA and British ODA. The RARP was the first labor-based demonstration project supported by the World Bank.

Methodology

Because the impact evaluation used a range of quantitative and qualitative instruments, not all results can be summarized here. These were reported in 18 different volumes authored by Ayse Kudat and her associates. For instance, in the seven road impact areas under evaluation, a **baseline survey** of 828 households was conducted, representing 46 percent of all households. The baseline survey collected socio-economic and demographic information and analyzed this information in relation to different variables: by impact area; by male vs. female headed households; and by distance from the road.

A **farm survey** was carried out to collect information on a number of variables including size of land, livestock holdings and other assets, as well as cropping and marketing patterns. **Traffic and community inventory surveys** developed information regarding the volume of vehicular and pedestrian traffic before and after road construction and indicated the social services available to residents of the impact area in order to measure the changes in access to local infrastructure.

To support the data and conclusions drawn from quantitative studies, evaluators also relied on **direct observations** and **interviews** with a range of individuals: employees on roads and in construction camps, farmers and traders, local officials, users of various means of transportation on the road, and members of cooperatives and women's groups.

Economic Impacts

Agricultural production: New roads lead to an expansion of cultivated land and to more intensive use of land already under cultivation. Increased availability of inputs, accessibility to new areas, and greater potential for marketing appear to explain these effects. Cash crop areas tend to respond faster and more effectively than subsistence areas. The more developed the agricultural system and the more integrated it is in the national economy, the more it will react to the opportunities provided by the new roads. Generally, however, rural road provision tends to result in a shift from subsistence cultivation to cash cropping. Areas of road construction where cash crops are already grown will tend to respond faster and more effectively than areas with only subsistence crops. Rural access roads contributed to increased production and sales of food crops, livestock, milk and poultry. Production of subsistence decreased in the road impact areas.

Non-farm economy: In response to changing consumer patterns, local entrepreneurship and regional enterprises are activated by new routes. Retailing and wholesaling of new products is linked to consumer access to the outside world. The preliminary research in Kenya found that increased income from such wages were channeled into the following purchase priorities: clothes, livestock, school fees, household goods, and general commercial activities. At the same time, it is important to note that male involvement off-farm has shifted a greater share of farm labor to women and children.

Marketing: Increased food crop and livestock production was marketed as a result of new road construction. Reduced transport costs depress the price of inputs as well as shipping costs of output to markets; therefore, farmers are encouraged to produce a surplus.

Employment: The employment benefits of new road construction are both short and long term. Roads also create opportunities for short-term regional wage labor by facilitating the movement of such labor and allowing households to diversify their income sources between on-farm and off-farm income. In Kenya, the RARP represented one of the major opportunities for rural wage employment among the poorer communities in many districts and stimulated skills development. Employment opportunities were more available to men than to women suggesting that a direct approach to recruitment was more appropriate. Research has indicated that governments must complement burgeoning economic activity resulting from road construction with appropriate programs to maintain the momentum of local development.

Transport services: Reduction in transport costs has enabled the provision and utilization of vehicle transport services in the impact areas. The Rural Road Impact study observed that demand for passenger transport and transport of small quantities of goods is met by matatu service and truck transport (haulage contractors). For people living in the area of influence of the roads, competition among small transport operators will result in transport cost savings through reduced transport fares and higher farm-gate prices for produce.

Land values: Construction of new roads induces an appreciation of land value. The reasons for such increases are: reduced transport costs, the potential for commercial enterprise, greater ease of bringing in construction materials, and improved access to outside social services. In Kenya, a phenomenon Kenya associated with rural road construction was the creation of a "roadside elite" made up of wealthy entrepreneurs and farmers. This new elite bought up the economically more useful land along the roadside, resulting in the displacement of tenant farmers and farmers with uncertain title to their land.

Socio-Cultural Impacts

Social services: The addition of rural roads to a region generally results in improved and greater access to and increased use of health and education facilities. The roads have provided accessibility to a number of social service facilities, including health clinics, adult literacy centers, nursery schools, and agricultural demonstration centers. Women especially spoke of how roads have facilitated their ability to access health services, particularly neonatal and childbirth visits. Improved health of mothers and decrease in the infant mortality rate are therefore anticipated. It is also important to be aware of negative health impacts. For example, the transition from subsistence to cash cropping might result in reduced dietary intake, particularly for women and children.

Time savings/quality of life: Time saved from spending long hours walking to and from markets by travelling by matatus allowed both men and women to invest in other pursuits. Men increased their visits to market centers, while women cared for their families or participated more actively in cooperatives and associations. In the impact areas visited, nearly half of the women interviewed belonged to an association or group.

Migration: Rural roads link villages to each other as well as to large urban areas. There were no clear cut conclusions to be drawn about migration. To the degree that rural access roads help open

up rural areas for income-generating activities, the unavoidable movement of people in search of greater employment opportunities in town will slow.

Distributional Impacts

In addition to economic and social impacts, evaluations need to consider how and to whom these benefits were distributed. It is important to consider different responses and behavior patterns of various groups to the new access roads. Identifying the distributional impacts of rural road construction may give rise to very important policy considerations.

Wealth and income distribution: Although all groups are better off in most cases, the wealthy seem to derive more benefit from rural road provision than do less advantaged rural dwellers. Research conducted in Kenya concerning the distribution effects of future roads found specific cases of economically powerful truckers, traders, and farmers who could be expected to benefit disproportionately relative to their numbers in the overall population. Also, land tenancy patterns are important considerations in assessing distributional impacts. Location of households with respect to new roads also causes differential effects: those living nearest roads benefit from increased land values, cash cropping opportunities, and reduced transportation costs, while those living farthest from the roads may find themselves relatively worse off. Therefore, in conjunction with road construction programs, complementary and targeted programs are needed to enable the poor to exploit benefits from improved access and infrastructure.

Gender impacts: Activities affected by road access and availability are gender specific and the services provided through roads are accessed and utilized differently by women and men.[54] Investigating gender differential impacts in a context characterized by female-headed households was of critical importance in the Kenya RARP. Furthermore, the baseline survey revealed distinct disparities between male-headed and female-headed households, particularly with respect to greater wealth, ownership of land, level of economic activity, and consumption behavior. While female-headed households are able to meet their subsistence needs, their agricultural productivity level and overall income stream fall below those of male-headed households. The following gender differential impacts were noted in the Rural Impact Study with respect to these variables:

- Farm inputs and outputs: Male-headed households increased their agricultural inputs, outputs, and income at a more rapid rate and hence were able to increase farm earnings more than female headed households. Women are less involved in higher value and cash crops.

- Non-farm activity: Female headed households showed a greater increase in both non-farm and total earnings than male headed households.

- Wage opportunities: Women were found to be seriously underrepresented in the RARP labor force, and hence excluded from accessing and benefiting from income-earning opportunities.

Distance of households from road: The distance of various households from the road have a substantial bearing on many of the road impacts experienced by those households. At the time of

[54] Kudat, Ayse. 1989. Participation of Women in Rural Road Maintenance in Sub-Saharan Africa, World Bank, p. 40.

the baseline survey, very few differences were observed between households located at different distances prior to the construction of the new rural roads. Expected changes from the baseline in favor of those households nearest the roads concerned the increased proportion of cultivated land; access to crop and livestock input, output and marketing, crop diversification and intensification; access to new technologies at agricultural and household levels (fertilizers, pesticides, paraffin lamps); and access to non-farm activity.

Labor-Based Technology Proves Economically Efficient and Socially Effective

Labor-based construction and maintenance methods proved to be a technically feasible and cost effective development mechanism for reducing unemployment and in providing much demanded access roads to the rural community. A study on labor characteristics revealed that labor-intensive road construction succeeded in employing primarily poor and low-income residents. By 1986, the RARP represented a major opportunity for rural wage employment with 14,000 employees constituting the total labor force by 1986; 20 percent of employed labor was female.

For more information on the Kenya Rural Access Roads Impact Study, please contact Ayse Kudat (Social Advisor, ECSSD).

Peru: Rural Roads Rehabilitation and Maintenance Project

Background

Peru has undergone a remarkable economic recovery since the inauguration of the Fujimori administration in July 1990. In spite of impressive broad-based progress, however, the benefits have not effectively reached the poor. While the overall poverty level was reduced between 1991 and 1994, the proportion of rural poverty to national poverty increased. In 1991, the incidence of rural poverty was 68 percent while national poverty was 54 percent; in 1994, figures stood at 66 percent and 46 percent respectively.

In 1994, the Government of Peru (GOP) requested World Bank support to enhance the access of poor communities to mainstream economic activities. Priorities shifted toward directing public investments to the rural sierra where the highest prevalence of extreme poverty is concentrated. To this end, the GOP planned to rehabilitate basic infrastructure, particularly rural roads, whose impassability increased the isolation and further impoverished the communities of the rural sierra.

The Peru Rural Roads Rehabilitation and Maintenance Project responds to GOP goals of alleviating rural poverty and raising living standards of rural communities through increased access to basic social services and income-generating activities. Project objectives aim to improve transport conditions in rural villages by focusing on their articulated needs to upgrade local roads, tracks, and trails; to connect these isolated communities to a well-integrated and reliable road system; to provide employment opportunities through rehabilitation and maintenance works using labor-based means; and to build institutional capacity of local governments and develop microenterprises for road maintenance. Using poverty indicators obtained at provincial and district levels, six of the country's eight poorest departments were selected for a pilot intervention.

To achieve the intended objective of poverty alleviation in Peru, the project had to be designed around the purposeful inclusion of key stakeholders, which included the Ministry of Transport and Communication, FONCODES,[55] the municipality, rural communities of the six poorest departments, NGOs, local governments, provincial authorities, mayors, and mother's clubs. As an input to project identification, the World Bank was asked to design and put in place participatory processes and mechanisms for successive phases of the project. Early and iterative involvement of stakeholders and beneficiaries would play a key role in ensuring sustainability of the road maintenance strategy.

Key Social Development Concerns

Poor and unreliable transport infrastructure and services exacerbate the poverty and isolation of communities in the rural sierra. Impassability of roads during rain and inclement weather combined with high transportation costs pose serious access constraints. In conjunction with a series of planned participatory workshops with communities, a survey was conducted among 204

[55] FONCODES, the National Fund for Social Compensation and Development, is a centrally administered mechanism to channel government and external resources to labor-intensive projects. FONCODES encourages close involvement of community representatives and responds to demands from poor communities for rehabilitating social and economic infrastructure and improving access to basic social services.

households to understand the nature of these access constraints with respect to markets, social services, and transport services; and to arrive at a better understanding of the community's transport needs. Furthermore, quantitative and qualitative techniques revealed that transport constraints particularly affected women and indigenous people who are much poorer than the rest of the population.

Market access: High transport costs negatively affect the price of consumer goods—those produced in rural sierras and those imported into the villages—and disproportionately affect women who are the largest group involved in taking products to markets. In addition, commerce between districts and villages is precluded and the timely delivery and evacuation of market products is also seriously constrained.

Social services: Transportation difficulties result in a lack of and insufficient access to health and educational services. As women are the primary caregivers, women and children would benefit greatly from improved access. Community leaders including those from women's organizations provided important descriptions of the social needs of the communities.

Transport services: Currently, poor road conditions limit the frequency and affect the quality of transport services. With limited services, transport operators exercise the prerogative of selecting both the passengers and type of products to be transported. It is anticipated that better road conditions will bring more and better transport services as a result of the introduced competition.

Non-motorized transport: Both the survey and beneficiary workshops underscored the importance of improving the accessibility and mobility of rural areas by taking into account the unclassified network of tracks and footpaths that service the transport needs of the rural poor and women in particular. Field visits confirmed that the poor inhabitants utilize a range of intermediate and non-motorized modes. Remote areas are more likely to be serviced by tracks and paths that connect them to the closest village or municipal district more than they are by the classified rural road network.

The project therefore includes a non-motorized rural transport component aimed at providing local governments and communities with a tool to help them formulate coherent programs for the management and maintenance of village level infrastructure and improvement of transport technology.

Institutional and Organizational Issues

Transport and mobility of goods and people in rural areas relies on the existence of adequate infrastructure and on the access to means of transport. The functional impassability of the rural roads network is one of the conditions that must be changed under the project. Central to this effort is addressing the road maintenance issue which has kept communities of the rural sierra isolated from the rest of the country. Therefore the project needs to address institutional and organizational issues at two levels: government and community.

District and municipal levels: In line with Bank's support to GOP's decentralization agenda, responsibilities for improvement and maintenance of roads at local levels needed to be clarified and supported by funding allocation and accountability mechanisms. It was also important to introduce municipalities to key principles for sustainable management of their road networks, including non-motorized tracks; to build the capacity of local government to manage maintenance and rehabilitation of roads with an emphasis towards employing labor-based means; to design effective local participation mechanisms to improve selection and execution of rural road projects; and to regularly monitor project objectives with respect to targeting the poor.

Community level: Rural participants at beneficiary workshops recommended that a ten person Road Maintenance Committee be established and jointly funded by the community and Ministry of Transport. This committee would be responsible for organizing work teams to perform road maintenance through Peruvian NGOs, community-based organizations, or micro-enterprises.

Participation Framework

There are many cultural, economic and political barriers which effectively prevent the poor from having any real stake in development initiatives. Among project planners, there was a recognition that participatory methods that have been satisfactorily used to involve government officials and other relatively powerful stakeholders in development initiatives may often be inappropriate or inadequate for reaching the poor. Special efforts were therefore required to ensure that the poor had a "voice" in the project. Participatory planning and consultation took place separately at government and community level.

Government: A number of participatory workshops and consultative meetings were held at government level and consisted of the following:

- Information gathering meetings with local representatives of the Ministry of Transport and Communications were held for the selection of the villages.
- To raise awareness and mobilize community support for road maintenance, the Ministry of Education agreed to undertake a permanent public education effort to make children and adults aware of community dependency on roads for development.
- Policy Workshop was convened to review the roles of various levels of government and explore the potential role of the private sector in road sector administration and development.

The project also aims to provide a venue for sustained dialogue on the key policies in the rural roads sector and to foster development of coordinated strategies at the provincial and departmental level. At central levels, training will be provided to the staff of the Ministry of Transport and Communications to coordinate investments with other sector ministries who have development and poverty alleviation programs targeting the same provinces.

Community: Community participation workshops were viewed as the most adequate means of reaching the Peruvian poor. A series of *beneficiary-participant* workshops were organized drawing on the direct participation of beneficiaries: two involved community leaders and heads of NGOs and two involved discussions with rural communities. These participatory workshops aimed to:

- Provide local communities with information about the project and their role in it.
- Assess transport needs at the community level.
- Confirm with beneficiaries priority of works and commitment to their maintenance to build ownership.
- Validate designs and include local solutions, especially with respect to selection of candidate road sub-projects.
- Mobilize support for road maintenance.

These participatory workshops also provided an opportunity for rural communities to analyze the causes of their impoverishment and isolation. By addressing their transportation needs and constraints first, villagers realized the centrality of road maintenance to their improved accessibility to markets and social services.

Emphasis on stakeholder participation is intended to ensure project responsiveness to community needs and promote stakeholder ownership by means of linking the project with the transport infrastructure and service needs of rural communities. Reaching the poor requires working with them to learn about their needs, understanding how development decisions are made in their communities, and identifying institutions and mechanisms which can get opportunities and resources into their hands. Equally important, stakeholder participation in all phases of a project leads to greater sustainability of a project's outcomes.

Monitoring and Evaluation Framework

Baseline surveys were conducted to measure the success of poverty alleviation efforts in the rural sierra and to inform the expansion of the project's scope beyond the initial six departments. Progress would be assessed and measured by improved rural accessibility to health and educational services, the main forms of inter-village transport and the routes chosen, the level of human porterage, and constraints for the use of non-motorized modes.

Participatory monitoring systems were designed to complement the baseline survey. The series of beneficiary-participant workshops generated a list of performance indicators.

Next Steps

To contribute to a better understanding of the role of transport in poverty alleviation and to refine the focus and emphasis of rural transport investments, the project suggested three key areas requiring further exploration and research:

- Measuring the impact of road infrastructure on the living standards of the rural poor and particularly how decentralization of rural infrastructure may or may not influence poverty.

- Quantifying the multiplier effects on rural non-farm employment and income resulting from linkages between rural farm and non-farm activities when assessing prospects for long-term economic growth.

- Providing insights on the interdependence between road investments and other development initiatives.

For more information on the Peru Rural Roads Rehabilitation and Maintenance project, please contact Jose Luis Irigoyen (Task Manager), Sally Burningham, and/or Aurelio Menendez.

Bangladesh: Dhaka Urban Transport Project

Background

The urban population of Bangladesh has experienced extreme rapid growth in the last decade. This surge combined with inefficient infrastructure and services, neither of which has kept pace with the population growth, has left urban transport throughout the country in serious disrepair. Moreover, the transport problem is compounded by weak institutions at the local government level and a poor revenue base with inadequate cost recovery.

Dhaka is Bangladesh's most industrialized and largest city, with a population of eight million in 1995, projected to double by 2015. The transport climate in the city is characterized by traffic congestion and delays, inadequate traffic management, poor coordination and conflict of jurisdictions among agencies, as well as rapidly growing air pollution problems. Between 1995 and 1998, traffic delays have tripled. Such intense traffic problems have jeopardized the city's ability to sustain economic growth. The future outlook is dim for a city that is projected to be one of the largest urban centers in the next century. Without sizable changes in its urban landscape (including urban water supply, sanitation, housing and roads), Dhaka may also become one of the poorest centers of the world.

In addition to population and congestion concerns, Dhaka's bus and mass transport systems are disorganized and unreliable. It may be the only city of its size with such a poorly coordinated system. The impacts of deteriorating urban transport upon the population are numerous. Most severely affected are women, low-income groups, and the very poor.

The government of Bangladesh has sought funding from the World Bank to tackle urbanization problems and to improve transport services, especially in Dhaka. Improved urban transport is seen as a key strategy in the overall Bank mission to reduce poverty in Bangladesh through the promotion of rapid, job-creating economic growth and interventions.

Social Assessment

The social assessment (SA) on Dhaka urban transport incorporated consultation and participation among various stakeholders, including local communities and potentially affected groups of people. In addition, the SA utilized early screening, a census and baseline socio-economic survey of the potentially affected population, and a time-bound resettlement action plan. The SA fostered participation of the poor in the development process, and specifically looked at the role of women in urban transport.

The community participation process occurred on multiple levels and formats due to the very large, mixed, and complex group of stakeholders. Information sharing included government agencies, private sector groups and businesses, media, general citizens, specific user groups, NGOs and civic groups, and academia. Public consultation and participation were facilitated through consultative forums; demand/need assessment studies of specific focus groups (women, garment workers, etc.); consultation with and participation of specific project affected groups

(cycle rickshaw operators, auto rickshaw operators and sidewalk hawkers); and other special initiatives.

An example of the information sharing and consultation with special groups was the assessment of women and transport issues. The SA included extensive surveys with a sample size of nearly 7,000 people and eight different zones within the city. Moreover, focused discussions were conducted to develop a detailed understanding of the needs/demands and specific recommendations related to women. A well-attended workshop was conducted to disseminate the findings of the survey and get feedback. Among the findings were that women are often excluded from public transport since buses are frequently overcrowded. Moreover, female garment workers are hindered by inadequate sidewalks.

Several other initiatives were undertaken to enhance stakeholder involvement in the project. These included a bus financing initiative, premium bus service initiative, and vehicular pollution reduction initiative. For example, Dhaka has a poor-running bus system; thus the bus financing initiative focused on improving the bus system and encouraging the private sector to invest in new buses. An organized group of stakeholders went on a banking mission to India to learn from the experiences of those who have pioneered bus financing on a large-scale and to review lending policies and processes.

The SA identified the need for some resettlement, although it should be minimal considering that no new roads are being proposed in the urban transport improvement plan. A detail resettlement program has been developed in accordance with OD 4.30 that outlines the various categories of impactees and the impacts on them. An entitlement framework has also prepared. A city-wide program to clear the sidewalks of hawkers has already reduced the congestion and provided relief—particularly to women, since women are the predominant users of sidewalks.

Key Social Development Concerns

The SA identified a number of social development concerns. One of the most important issues raised was the impact of the city's traffic problem on economic growth, rendering the lower income groups even more vulnerable. Quality of life issues, including poor air quality and dangerous pedestrian crossings, particularly impact the poor, since lower income groups are most likely to use non-motorized routes in their daily transport needs. Walking, instead of commuting by motorized vehicles, also means the poor sacrifice productive time that could be applied toward earning needed income. Instead, they spend a sizable percentage of their time walking from one daily activity (jobs, health needs, school and family visitations) to another.

Other social development concerns include the need to address air pollution related problems which have been compounded by the fast growth of highly polluting auto-rickshaws (with two-stroke engines). Introducing new private buses with better quality service to attract more commuters would alleviate auto-rickshaw congestion and improve traffic flow. The enforcement and establishment of a higher vehicle standard will help diminish air and noise pollution, and produce significant health benefits.

The SA has provided a better understanding of the urban squatters situation, clarifying, for example, that invariably squatters have migrated to the city from distant rural areas, and not necessarily from nearby rural areas or other urban areas. It is typical for the men in the squatter families to work as rickshaw pullers, manual laborers, or hawkers whereas women tend to work as cleaners, maids, brick crushers or construction industry laborers. There is a high incidence of beggars originating from the squatters areas, including children, physically disabled persons, and the elderly. The issue of resettlement of these squatter communities is complex, and has a history of being undertaken in a non-systematic manner.

Institutional and Organizational Issues

All stakeholder agencies that deal with urban transport in Dhaka (DCC, BRTA, DMP, RHD, and RAJUK) require further strengthening. In particular, training and technical assistance is called for in order to achieve efficient project management and subsequent sustainable operation and maintenance.

A major emphasis of the project will be the introduction of international "best practice" to the road sector in Bangladesh. Engineering concerns, such as modern traffic management techniques, including the design of complex traffic signalization and the introduction of "bus-only" lanes or bus ways along existing major roads in the city, are paramount in order to sustain urban transport reforms. Likewise road maintenance works need improvement and the introduction of new engineering techniques. The project will introduce rational road maintenance planning, strengthened work methods and quality control.

Monitoring and Evaluation

The project fosters a new approach to urban transport planning and places more emphasis and responsibility directly on the community. It is also geared to their priorities and calibrated to their ability to finance it.

In order to improve urban transport services in Dhaka in an environmentally sustainable manner transport surveys, economic surveys, pedestrian surveys, air quality, and health surveys will continued to be administered in order to gauge the effectiveness of the reforms. Key indicators of an improved transport system include:

- reduced travel time for commuters along key corridors
- increased share of bus transport users in the modal split
- reduced vehicle operating costs
- improved sidewalks for easy pedestrian movement along key road links
- reduced air pollution from vehicles
- improved public health
- reduced accidents and enhanced commuter safety

Reforms will be evaluated in the following ways: the establishment of incentives to allow private groups to invest in urban buses; successful implementation of traffic management plans that

regulate different modes of transport; and the adoption of suitable measures to control the perpetuation of two-stroke engines (auto rickshaws).

Next Steps: Human and Economic Sustainable Transport

Critical to the continuity of transport reforms is the improvement of quality of life issues for Dhaka's residents. Improvements must be accompanied by strong community support that reflects the concerns of the stakeholders. The community must also begin to cultivate a long-term perspective and have a vested interested in maintaining and sustaining the reforms.

Transport reforms are crucial to the economic growth and long-term economic viability of Dhaka. Without such reforms, economic development will continue to be stifled and further deterioration of the city's infrastructure will result. With the projected doubling of the population by 2015, these reforms must happened quickly and effectively with reliable monitoring devises in place.

The potential positive impacts of transport reforms on women can be profound. Access to health care, education and jobs would improve the quality of life for many women. Moreover, improved transport routes can also benefit women in finding more affordable goods, water, and fuel in much less time. Women can also benefit from potential employment opportunities that footpath and road improvement projects afford.

Further attention is needed to helping the urban poor and their transport problems. Removing transport access barriers to jobs, services and goods will reduce the excessive time spent walking. Improving the quality of roadways and pathways and enforcing safety levels will elevate their quality of life issues.

For more information on the Dhaka Urban Transport Project, please contact Thampil Pankaj (Task Manager) and Reider Kvam (Social Scientist).

Kenya: Urban Transport Infrastructure Project

Background

The economic situation in Kenya took a turn for the worse in 1991 due to external constraints and domestic problems. Between 1991 and 1993, there was a sharp decline in public investment, especially road investments. In addition to the financial crisis, Kenya has a high population growth rate and one of the highest rates of urbanization in the world. It is expected that the urban population will rise from 19 percent in 1989 to 21 percent by the year 2000. Urban growth has strained the infrastructure of transportation and roads. Likewise, poor urban transport has intensified unemployment problems, since many job opportunities are dependent on reliable public transportation. The linkage between poor transportation, unemployment, and poverty in Kenya is critical to addressing the overall Country Assistance Strategy.

Traffic growth in the urban centers has outstripped the government's capacity to provide adequate road infrastructure. The deterioration of the roadways are visually evident. In the major towns, such as Nairobi and Mombasa, there is no adequate system of by-passes to avoid inter-city traffic from passing through the cities. Thus, congestion is a major problem. Travel time during peak hours in Nairobi is estimated to be twice that of non-peak hours. Without road improvements, it is projected that by 2002, 50 million vehicle-hours will be lost due to congestion.

Road quality is extremely poor. The proportion of roads rated in good condition in Nairobi, Mombasa and Kisumu fell from 245 to 105 between 1988 and 1993. Road network development and improved maintenance capacity at the local authority level are key urban transport issues for Kenya. Although air and railway transport systems are important, the poor conditions of the roadways and inadequate road network have become the most serious impediments to economic growth. Since government regulation of the transport sector is minimal, attention to regulatory practices at the local level is critical in order to achieve sustainability of road improvements and maintenance capacity.

The majority of Nairobi inhabitants fall into the low-income or poor sector. Moreover, the poorest communities live on the outskirts of the city center. Travel to and from work often takes several hours, and can cost as much as 30 percent of personal income. Consequently, the poor also walk long distances on minimally maintained footpaths, and must cope often with dangerous intersections.

The Kenyan government has requested assistance from the World Bank for conducting traffic management improvement and long-term investment studies to increase the economic efficiency of the urban road network and to build capacity of the local authorities to sustain and maintain roadways.

The social assessment (SA) identified the impacts of a debilitated urban transport system on the population of 26 urban centers in Kenya. The SA focused on the transportation needs of urban residents, including the urban poor. Special attention was given to the selection of roadways that specifically served low-income users, as well as on ways to improve access of the urban poor to jobs and city services.

Community participation was a central strategy in assessing the needs of urban residents. The community was defined as those who use the road on a daily or regular basis. An inventory was made of the existing user groups and stakeholders, and focus group discussions were convened to survey their needs. The outcome of these efforts was the formation of Transport Committees in two pilot towns. The committee comprised of representatives of the various groups involved in the initial focus group discussions.

In addition, the SA broadened its usual perspective on transport to include a thorough evaluation of non-motorized transport (NMT), such as foot paths, bicycle paths, and pedestrian crossings. In Kenya's urban areas, walking is the predominate mode of transportation, even when considering trips to and from the workplace. In Mombasa, the share of important trips made on foot is relatively high (61 percent) compared to Nairobi (24 to 44 percent, depending on the survey). By contrast, cars are used more for transportation in Nairobi (22 to 38 percent), compared to 18 percent in Mombasa.

Since in Kenya an effective transportation system is highly dependent on a functioning local government infrastructure, the SA identified the local authorities as important stakeholders, especially in the larger issue of maintenance of good roadways. The SA pinpointed several key areas that need improvement: increase capacity between maintenance and works inspectorate; improve maintenance planning and procurement management, and develop training for the staff of local authorities.

The SA included a desk review of relevant international, regional, and country specific experience in urban transport, with special attention to transport issues of the poor and non-motorized transportation.

Key Social Development Concerns

The SA revealed several key social issues. Among the beneficiaries for the urban transport project are the motorized road users (approximately 75 percent of passenger trips are by bus, while only 25 percent by car), and the **non-motorized road users** (pedestrians and cyclists). As typical in many developing countries, the latter group is predominantly representative of **lower income groups, including the urban poor**. Since the poorest groups are those least likely to afford transportation services, they often carry heavy and even hazardous loads on their heads, backs, or hips for long distances, thus increasing the risk of physical injury or debilitation. In addition, they also face traffic hazards since they must cross or walk through motorized vehicles roadways. In having to walk places because they cannot afford the cost of using "for-payment" transport, the poor spend time and personal energy that could have been used for activities which would have raised their living standard.

Transport development is a complementary policy tool for poverty reduction. Moreover, poverty reduction and alleviation among the urban poor hinges on access to employment opportunities, and the latter depends on good transportation. Thus, an improved urban transport system will enhance the ability of the urban poor to find low-cost, time-effective, and safe ways to travel to jobs and medical services.

Special surveys revealed low-income users in each of the urban areas. As a result, the project targeted low-income housing estates for the improvement of both motorized and non-motorized transportation routes. In addition to increased safety, better service, reduced traffic congestion, improvements of bus stations and footpaths and bicycle paths, the transportation project also indirectly addresses an important social development issues: malaria control through improved drainage around roadways.

Second, the SA also highlighted the vital social linkage of the local authorities and their significant role in the improvement, maintenance and sustainability of good transportation systems in their urban jurisdictions. The impact of this institutional strengthening, dissemination of the technical expertise and improved management procedures could provide similar improvements throughout Kenya.

Third, the inadequate roadways and problematic infrastructure magnify the economic problems of the country, especially enterprise and labor market activity. Goods are not easily and affordably transported within the country, much less abroad. Likewise, employees have difficulty reaching jobs in a cost- and time-effective manner. Improving the efficiency of the urban transport in Kenya would promote the development of urban manufacturing and service sectors, and thus, indirectly benefiting the urban poor.

Given that rapid urbanization continues to grow in Kenya, the SA identified that improved transportation at the infrastructual and local government level will provide a more conducive economic climate.

Institutional and Organizational Issues

One of the central institutional issues regarding Kenya's decaying urban transport system is found at the local authority level. Since the government's central ministries are constrained by national fiscal problems, the role of the local authorities is paramount. Even more urgent than reforming public transport policies and planning is the need to improve road maintenance capacity of the local authorities. Thus, the ability of local authorities to manage capital investments and service operations in a more responsible manner is critical for the continue success of the Kenyan economy.

Road sector development. Crucial to promoting private sector development, especially export-oriented industries, is the improvement of Kenya's intra-urban road network (roads within the towns and urban centers). Road transport dominates the overall transport sector and almost entirely belongs in the private sector. Roadways also adversely affect low income groups. Among the most important issues identified by user groups was the implementation of safe pedestrian crossings, since 70 to 80 percent of all accidents in urban areas involve non-motorized transport users, primarily pedestrians.

Bus and mini-bus transport. Nearly all public transportation in Kenya's urban areas is private, with the exception of the government's Nyayo Bus Service Corporation. Thus, government

regulation of the transport sector is minimal and market forces are generally the basis for traffic allocation. Regulation and taxation issues may need to be considered in future projects.

Policy Inputs

Among the key inputs from the SA, is adopting an investment policy framework to ensure allocative efficiency between the government, sector agencies, and the local authorities. Inadequate financial resources for maintenance has been a critical problem in urban transport sub-sector. Weak technical and institutional capacity at the local authority level has also played a significant role in the deterioration of road conditions. Moreover, planning capacity is poor and managerial training is weak at the local authority level. There is no incentive system in place to either encourage or reward good maintenance performance by local authorities and their staff.

Monitoring and Evaluation

In the course of the Project Implementation Plan (PIP), each project town had to demonstrate an adequate routine performance based upon an agreed Maintenance Performance Rating system. Three physical audits have been carried out, and local consultants have monitored the physical performance of all the transport authorities involved in the project. This two-part process allows for an assessment of the actual performance of these local stakeholders.

Communities require further guidance in how to identify and prioritize their needs, and begin to shift from immediate outcomes to long-term planning. Nevertheless, the benefits of the project must be clearly visible to the community without a long delay.

The Long Term Considerations: Roadway Infrastructure

Improved roadways and a better infrastructure at the local authority level are two realistic strategies for Kenya's Urban Transportation project. The critical issue is whether these strategies are sustainable twenty years from now.

The assumption that improved urban transport will also encourage enterprise activity should be continued to be carefully evaluated, especially in the context of the urban poor. The degree to which the proposed development of footpaths and bicycle paths actually provide safe, time-efficient alternatives for those who cannot afford transportation must be monitored in a consistent manner.

For more information on Kenya: Urban Transport Infrastructure Project, please contact Gautam Sengupta (Task Manager) and Tom Opiyo.

Turkmenistan: Ashgabat Urban Transport Project

Background

Since the collapse of the Soviet Union, Turkmenistan has undergone a rapid increase in the number of urban dwellers in the capital city of Ashgabat. Its high growth rate has strained and outstripped the capacity of urban services and infrastructure to meet and satisfy rising demand. Fifty-five percent of Ashgabat's population of 500,000 population is heavily dependent on public transportation system for its mobility needs.[56] The deterioration in the public transport system has constrained commuting and spawned widespread dissatisfaction. These problems are particularly difficult on the poorest of the urban population, whose households pay a disproportionately high percentage of their incomes to transport costs, and consequently, their access to employment opportunities is seriously constrained.

In addition to increased demand, the transport problems are rooted in poor services, inadequate infrastructure, and a restrictive regulatory environment. The deterioration of services is compounded by the inadequate road infrastructure resulting in low utilization rate of vehicles, weak institutional structure and management, and poor cost recovery. The gap between demand and service provision is particularly evident in the sector of public and private transport. Moreover, the regulatory environment has prevented the entry of a sizable fleet of private taxis which could play a complementary role to public transport services, especially during off-peak hours and on weekends when public transport is virtually unavailable.

The government of Turkmenistan has requested assistance from the World Bank for formulating and implementing strategies in order to ensure that an adequate, efficient, and sustainable level of public transport services is available in the coming years to the urban population of Ashgabat.

Social Assessment

The social assessment (SA) identified the social development concerns and assessed the impact of inadequate public transport services and poor infrastructure on a range of stakeholders–both users and transport suppliers. The SA focused on the evaluation of institutional and organizational issues, the establishment of a participatory framework for stakeholders with a focus on poor and lower-income user groups, the identification of the most critical interventions to improve urban transport in Ashgabat, and the appropriate mechanisms and indicators for monitoring and evaluation.

Specifically, the SA concentrated on how people use urban transport, their needs, choices, and behavior. The SA also focused on transport suppliers, namely drivers, in an attempt to identify incentives to improve their performance. In an effort to provide a better understanding of the demand and supply side of public and private transportation, the SA addressed the extent to which

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[56] Cernea and Kudat (eds). 1997. *Social Assessments for Better Development: Case Studies in Russia and Central Asia*. World Bank.

public demand for transport is satisfied with respect to level and quality, and, in addition to users' willingness and ability to pay more for improved services.

In preparation for the SA, a desk review of relevant international, regional and country specific experience in urban transport projects was carried out to glean important lessons learned and to be aware of the nature of social issues which arise in urban transport projects. A preliminary inventory of user groups and transport suppliers emerged from these reviews and included various social and occupational groups, as well as private firms and state industries engaged in the transport sector. In February 1995, eight local social scientists and computer specialists, supported by World Bank staff, conducted 2000 formal and informal interviews including, (a) household survey; (b) transport user survey; (c) vehicle service characteristics; (d) willingness-to-pay surveys; (e) enterprise survey; and (f) informal meetings with different user and operator groups. The socio-economic data was also aggregated by lower income households, gender, and ethnicity and incorporated the various stakeholder's views in the recommendations of economic reforms, cost recovery, and price setting.

Key Social Development Concerns

A set of important social issues emerged from the SA. Using a range of survey instruments, the SA investigated the issues, constraints, and needs of the concerned groups and the impact of proposed project interventions on urban residents. First, it confirmed that social inclusion is a major concern, since the urban poor are disproportionately affected by inadequate and poorly maintained transport services and infrastructure. Survey and focus group findings revealed that peripheral communities, where the poor are mostly concentrated, are adversely affected. Moreover, lower-income and poor households spend twice the proportion of their income on public transport. The surveys also found that women suffered inequitable access to means of transport. The SA findings point to important issues of access and affordability and prioritized the urban areas needing better service and roads.

Second, the SA also highlighted the vital social role of the private sector of transport services. Private taxi carriers not only significantly help to bridge the transportation gap on weekends, but play a key role in the transportation of goods as well. The SA underscored the importance of addressing the regulatory environment. Third, inadequate transportation services and infrastructure amplify the enterprise productivity and labor market problems that contribute directly to a decline in urban productivity, as reported by 48 percent of surveyed firms and institutions. Formal and informal interviews revealed that employment decisions are based primarily on the quality and efficiency of public transport services to the job, revealing the type of inefficiencies affecting labor allocation. These distortions impact women more adversely. Since to balance child-care and home provisioning roles with their jobs, women are forced to accept lower wage rates in order to work closer to home. Finally, the SA clarified and provided a rough guide as to what tariff levels the public would accept and what cost recovery might be expected.

Institutional and Organizational Issues

The SA found a number of institutional and organizational issues regarding the three main transport suppliers in Ashgabat: the city's public transportation system (including buses and private taxis), the emerging informal taxi service, and enterprise transport.

Public Transport. The findings from the SA indicated that the city's public transportation (buses, trolleys, and minibuses) was characterized by 90 percent of the respondents as very unreliable. Since there are no dependable transport service schedules, employees often arrive late for work. Even the city's high job turn-over rates are correlated with the problematic transport system, since people are constantly trying to find work near their home to avoid long commutes.

Women are at a disadvantage compared to men in terms of waiting for a bus, since they tend to travel more in non-peak periods. Their commuting time for public transportation is 10 to 15 percent greater than that of men. Due to the puzzling system of payment for public transportation, the lower income groups are spending a substantially higher proportion of their income on public transport than are those with higher incomes.

Informal Sector. The SA identified that the fleet of private cars that serve as informal taxis (approximately 6,500) not only complement the official taxi service, but also significantly alleviate the shortage of public transportation during late hours and weekends. Although private cars assist many in getting to and from work, the cost of such informal taxis is prohibitive for most lower income or poor groups. Also, this sector is currently constrained by the high price of fuel, lack of available spare parts for vehicle maintenance, and poor road conditions. However, this transport resource has the potential to grow rapidly and serve as serious competition to the official taxis, especially once the taxi business becomes privatized and government subsidies are stopped. This means that the legalization and regulation of private taxis will eventually need to be considered in greater detail.

Enterprise Transport. The SA noted that many institutions, organizations and enterprises provide transport services for their workers and employees. Enterprises report that they suffer the burden of having to operate and maintain an expensive transport vehicle fleet, to complement inadequate public transport services. However, provision of such transport is seen as an unfortunate necessity. Often enterprise managers reported that transport concerns outweigh comparative skill advantages when hiring new employees. Firms also recounted high rates of job turn-over due to transportation problems.

Participation Framework

A stakeholder workshop was held to share preliminary survey results, to exchange concerns and ideas, and to achieve consensus and support for the Ashgabat Urban Transport Project. Representatives of the Ministry of Transport, the municipality, operators, and users attended the workshop, as well as members of the academic community.

The social assessment provided inputs to project preparation based on the stated priority needs of the majority of the city's population. It also created a foundation for the future involvement of

citizens in making inputs to transport policy and development. The SA contributed to the policy dialogue and laid the basis for internal reforms that could be instituted without major cost or the need for approval at national government level. Moreover, the SA was instrumental to the overall process of reform and democratization by linking decision makers to public opinion on a matter of general concern. Furthermore, SA findings, especially on actual travel costs, opened the way to a policy dialogue and enabled public transport management to institute a number of effective reforms to raise levels of public satisfaction with what had been a service in decline. As a result of SA findings, the Government of Turkmenistan has taken concrete steps to improve the provision of public transport services in the city.

Policy Inputs

The SA identified two measures to improve cost recovery. First, salaries of bus drivers were raised. Simultaneously, transport supervisors were designated to ride on buses so as to control the behavior of drivers, especially those charging double fares. Other disciplinary measures were also introduced to control inadequate performance. As a result, discretionary charges formerly imposed by bus drivers were reduced resulting in a reduction in the cost of travel to all, and, especially to the poor who have greater dependence on public transport.

The findings of the SA demonstrated the ineffectiveness of the fares policy as an instrument for ensuring the affordability of public transport. Therefore, by raising the official fare, tariff increases, in conjunction with other reforms, *in effect* reduced the real cost of transport. Since the SA revealed that in practice people had been paying twice the new amount, the burden on the poor was halved. This also had the added affect of improving the liquidity situation of public transport enterprises allowing them to keep more vehicles in service.

Second, the social assessment has become part of the on-going effort by the government to assess, monitor, and formulate different strategies to address specific concerns of the residents of Ashgabat. The Government of Turkmenistan created a new bus transport management organization (APAPO) which has a social assessment department, headed by a sociologist, with the mandate to solicit opinions from the city's residents on specific transport related concerns, redress their grievances and identify critical interventions to improve the city's transport. A dedicated hot line has been established for Ashgabat residents to express their concerns.

Monitoring and Evaluation

As stated above, APAPO consistently monitors the satisfaction levels of their clients with respect to the quality and service of urban public transport in a participatory manner. Between August and December 1996, 400 Ashgabat residents had been surveyed. Most of the issues raised by the residents have been addressed by transport suppliers and transport companies. For example, new bus routes have been introduced, frequency along some corridors has increased, and fare collection procedures have been improved.

The Longer Term: Road Infrastructure and People's Needs

The SA provides strong support for a primary project focus on improvements to public service vehicular improvements, as a means of linking transport quality with the price paid by transport users. In the longer term, investment in the urban road network and infrastructure will be essential to make transport improvements sustainable.

Suggested improvements must be accompanied by a strong community outreach and public information effort. These relatively low-cost measures would help users to make a more informed choice of transportation while at the same time demonstrating to the public that a clear effort was being made to provide better transport services.

Regulation of private taxis needs to be considered in future planning, since this transport resource has the potential to grow rapidly and serve as serious competition to the official taxis, especially once the taxi business becomes privatized and government subsidies are stopped.

Persistent monitoring is required of transport needs and the concerns of lower income users and women. Enterprise management should continue to oversee their employee turn-over rate from the perspective of transportation problems.

For more information on Turkmenistan: Ashgabat Urban Transport Project, please refer to Annex 6 for Social Assessment Report or contact Yusupha Crookes (AFT1) or Ayse Kudat (Social Advisor, ECSSD).

Annex 2

Sample Social Assessment Terms of Reference for Transport

Rural Transport
Sample Terms of Reference for Social Assessment

The broad objectives of a social assessment are to ensure that the World Bank investment programs contribute to poverty alleviation by sharpening project objectives to focus on poor, vulnerable, and otherwise marginalized and excluded groups; establishing a participatory framework which enhances the inclusion of the poor in development processes and decisions that affect them; eliminating, or at a minimum, mitigating the adverse social impacts that may result from the investment; and establishing a basis for social monitoring and evaluation. Social assessments, as an integral part of project feasibility analysis, should be initiated early in the project planning process in order to help define the beneficiaries and the mechanisms through which intended beneficiaries can be targeted and their participation facilitated.

The paramount goals of rural road investments are to provide the necessary level of road access to meet specific transport needs, to reduce rural household's time requirements for transport purposes, and therefore, stimulate rural development. A social assessment can ensure that project objectives:

- Target the travel demands and transport needs of rural residents, and in particular, the rural poor and vulnerable groups;
- Aim at improving their access to markets, social services, and economic opportunities;
- Promote the adoption and use of affordable intermediate or non-motorized means of transport;
- Involve the participation of key stakeholders, including local communities, NGOs, and the private sector in selection, planning, and design of roads, as well as improving network of paths, trails and tracks;
- Ensure the sustainability of project benefits by recommending appropriate institutional arrangements for infrastructure operation and maintenance; and
- Identify a set of social indicators for monitoring and evaluation of impact.

A social assessment addresses issues of equity and considers the potential adverse impacts of rural road improvements on land ownership and tenure arrangements, especially on subsistence and female-headed households, as well as on road safety.

Specifically, the social assessment can:

- Establish how improved rural transport is a priority for the people.

- Identify the nature of infrastructure and service improvements needed: road rehabilitation/maintenance; provision/enhanced level of transport services, or the introduction of transport avoiding or reducing measures.

- Assess the social impacts of the project with respect to equity, accessibility, and affordability. Establish differential access of social groups to rural transport infrastructure and services and identify mechanisms to enhance inclusion. Assess the type of complementary investments to transport that would help maximize social returns to rural transport improvements.

- Identify the interests and constraints of expected transport users and beneficiaries (i.e. transport operators, service providers, distributors, producers, farmers, villagers, women, and casual laborers). Analyze stakeholders' views/perceptions of transport constraints and the issues encountered by each stakeholder group.

- Develop a participation plan which incorporates stakeholders' priorities and perceived constraints into project design and implementation arrangements. Design appropriate and inclusionary mechanisms to incorporate participation of key stakeholders.

- Determine the range of institutional actors in rural transport, as well as the set of institutional issues that hinder equitable development of transport infrastructure and services. Identify current roles of governmental, private sector, and community roles. Assess mechanisms to enhance partnerships.

- Assess the use of labor-based methods for the construction and maintenance of rural roads, as well as for the improvement of paths and tracks. Assess the potential for employment and income-earning opportunities in rural areas and the development of skills for road maintenance.

- Establish benchmarks and mechanisms to monitor and evaluate the impact of rural roads on communities. Compile gender-specific socio-economic, baseline data for villages/rural areas during project preparation.

In alleviating the transport constraints of rural areas, the SA will focus on the travel demands of rural households; how they satisfy their transport needs including transport services that are available to them; what they perceive as priority needs in building or upgrading rural road network; and the extent to which beneficiaries are willing and able to contribute either in-cash or in-kind for these improvements. This analysis should recognize the household division of transport tasks by distinguishing between the transport roles and responsibilities of men and women. It will also require a good understanding of affordability and cost-recovery potential in the specific project area.

Qualitative and quantitative techniques and activities will be used to investigate, identify and prioritize social issues in rural transport. Because rural transport investments, especially roads, often can not be justified merely on economic grounds, it is particularly important for the SA to assess potential social development impacts. Some of these may be difficult to measure, and would thus require expert judgment of local social scientists. Also, rural transport investments often require simultaneous investments in other sectors such as agriculture or marketing. It is therefore important for the SA to have a broad focus, both in its information gathering activities and in those related to institutional development and participation. The results of each activity will inform and refine subsequent activities and contribute to a comprehensive understanding of the roles and priorities of different stakeholders. While the preparation of the SA is the responsibility of the borrower, the World Bank SA team will help design the strategy for information gathering including, surveys, managing collection, and analysis of data, as well as information sharing activities, such as stakeholder workshops. The Bank team will help identify key findings and operational recommendations for joint evaluation with the Borrower.

The SA consists of four, main elements. The processes and activities associated with each of these elements are detailed below.

Identification of Key Social Development and Participation Issues

Secondary Data Review of Existing Information

Before field investigations, a SA should be preceded by a cursory review of available documentation and secondary sources of information regarding the experience and lessons learned from previous rural road projects in that specific country or in similar contexts. The groups and agencies that are most directly concerned by the initiative will emerge from the review of secondary literature. In addition, this preliminary orientation to the key social and participation issues and stakeholders of rural road projects will begin to define the information and research needs of the SA and the information strategy that will be necessary to build consensus and ownership of the proposed project.

Identification of Key Stakeholders

The tentative list of stakeholders and beneficiaries derived from the secondary review should be confirmed through consultations with policy-makers, representatives of central and local governments, local and international social scientists, and local NGOs. Subgroups, who will have different needs and demands within various stakeholder groups, should also be identified. In particular, various social and vulnerable groups that constitute the poor may have different access constraints with respect to transport infrastructure and services, therefore requiring different interventions to alleviate these constraints.

The appropriate mix of quantitative and qualitative information requirements will have to be determined with rigor, based on the specific project context and on the availability of relevant information from secondary sources. Based on the review of rural road projects, the following qualitative and quantitative techniques have been used to identify and investigate social issues:

Quantitative and Qualitative Methods and Tools

Secondary data: The data related to physical and demographic characteristics, land availability, standards in terms of area and population for different type of services, etc at various levels should be gathered from secondary sources. This data can be collected at ward, town, district and state level .

Household surveys: Choosing a random or stratified sample of rural households, compile gender specific household statistics on size, structure, assets, education, employment, income, and health. Survey will also focus on the transport elements of day-to day activities in and around the village and on travel patterns and trip purposes outside the village; utilization and availability of transportation means and costs incurred. Household information needs to be collected across different social groups to ensure representativeness of data.

Socio-economic surveys: Similarly, a socio-economic survey can be administered to collect baseline and gender-specific information on the target or beneficiary rural population to assess socio-economic benefits of rural roads and rural access services and to establish a set of indicators aimed at measuring the socio-economic impacts of rural road project. Suggested data to be collected:

- Demographic information of a sample population (i.e. ethnicity/caste, gender, age, religion)
- Forms of livelihood (i.e. land holdings, land cultivated, income, type of crops, non-farm employment including migration)
- Transport data (i.e. average daily load, distance and time to and from the nearest road, type of transport, costs of transport)
- Access to social services and status of social well-being (i.e. distance to primary and junior high schools, enrollment rates by gender, access to primary health facility/nearest hospital, days lost due to sickness in the previous year)
- Access to markets (i.e. costs, time, and by main mode of transport, marketing channel of main crops)
- Commodity prices (of major crops, fuel)

Land acquisition assessment (LAA): This exercise is initiated to (i) conduct a rapid scoping, based on available project documents, existing legislation and administrative practice with respect to land acquisition, and field verifications and (ii) to determine the applicability of World Bank OD 4.30. In the case of involuntary resettlement, a LAA will serve as the basis of resettlement planning.

Semi-structured interviews: An interview questionnaire should gauge households' perceptions regarding their access issues to resources, services, opportunities, transport constraints and needs, priority problems; the importance they assign to improving their transport conditions, willingness to participate in the maintenance of rural road network (roads/paths/trails). The questionnaire should also reveal existing transport options and services available to user groups, frequency of usage, costs of such services and their impact on household income, and preferences for transport options. The questionnaire should also assess bottlenecks experienced in using available transport option and services as well as assess the needs of beneficiaries and other user groups for services that may complement rural road investment. For example, promotion of appropriate, low-cost non-motorized means of transport or the introduction of transport reducing measures such as the siting of facilities (i.e. water pump, grinding mill) closer to villages.

Focus group discussions with village leaders, district/local government representatives and other key informants to obtain baseline data about the community and an overview of its travel patterns, transport constraints and problems. Focus group discussions are held separately with each stakeholder to draw their experience and knowledge of the issues involved in project selection, preparation and implementation.

Willingness to pay surveys: These surveys should be administered among a select and representative group of beneficiaries and user groups to determine the willingness to pay for and/or maintain rural road improvements and transport services.

Survey questionnaire distributed to key service providers and transport operators and distributors to understand the nature of their constraints in service delivery and to establish an estimation of the level, frequency and quality of service resulting from rural road improvements.

User survey: A survey intended to obtain representative data at a household level. The survey includes demographic and economic data for the household, rural transport use and satisfaction, trip lengths and times, transport costs, and priorities for improvements.

Participant observation: A fieldwork technique used to collect qualitative data and to develop in-depth understanding of people's motivations, perceptions and attitudes. In-depth participant observation can reveal the influences on people's preferences and can lead to a better understanding of their constraints and incentives.

Participatory stakeholder workshops: Workshops conducted with beneficiaries and key stakeholders to present findings of surveys, focus group discussions and interviews; to establish and agree on priorities in a transparent manner, and to achieve consensus around project objectives. An output of this workshop is to recommend how to incorporate stakeholders' priorities and perceived constraints into project design.

Define Mitigation Plan

Mitigation measures must be defined where adverse, *direct* impacts are identified for certain social groups and as mandated and governed by OD 4.30, OD 4.20 and OP 4.01. In a rural road context, land acquisition is usually on a small scale. Nevertheless, a policy framework and procedures for compensation, rehabilitation and resettlement must be put in place prior to project inception. For adverse, *indirect* impacts that are not quantifiable or identifiable, the SA will ensure measures to minimize and cushion adverse social outcomes on vulnerable groups. In rural road projects, adverse impacts that are not measurable in terms of individual losses and where the affected population can not be clearly delineated will necessitate identification and design of community-oriented support mechanisms.

Analysis of Institutional and Organizational Issues

In identifying the blockages to equitable access as experienced by rural communities, the SA should investigate whether the nature of the constraints is structurally embedded or a product of the local environment. The social assessment should contribute to an understanding of the constraints/biases of the regulatory and legal framework, as well as the institutional context of the project setting.

In rural road investments, there is a wide range of institutional stakeholders in rural transport ranging from different government departments, various units within donor agencies, community-based organizations (CBOs), NGOs, and private sector actors. The SA will:

- Review existing institutional arrangements for delivering various services. Special attention should be paid to the context of decentralization in which capacities of district and/or local level committees play an important role in project planning and implementation.

- Identify the sets of mutual and/or competing interests between and among institutional stakeholders at national, local, community, and farm levels.

- Probe feasibility of resource-sharing arrangements for road maintenance between different level of institutions involved in rural transport.

- Clarify and communicate ownership of operation and maintenance of local road network.

With respect to **local level institutions and community participation**, the SA will:

- Decentralize maintenance responsibilities either to private sector, community, or a combination of both to ensure incorporation of local priorities in plans and programs.

- Include technical and financial assistance for strengthening capacity of public and private institutions.

- Identify local government level and community sources of financing and assess the capacity and willingness of rural communities to undertake rural road maintenance work through close consultation with key stakeholders.

- Define appropriate mechanisms to mobilize resources or cost-sharing arrangements between local governments and beneficiaries for maintenance works.

- Assess the role of community organizations and private sector groups in the provision of transport services: how these institutions are useful, and how they can be better supported to meet the needs of the rural poor.

- Assess potential roles of NGOs as intermediaries with beneficiaries, and identify criteria for selecting NGOs. For example, NGOs can play instrumental roles in savings mobilization and credit provision, as well as community mobilization for road maintenance works.

Formulation of Participation Framework

The success of rural road investments hinges on how well transport infrastructure and corresponding services meet users' needs. As determination of priorities and infrastructure maintenance responsibilities are decentralized to district and local levels, developing a participatory framework for rural road investments is a critical activity. A participatory framework aimed at the inclusion of the rural poor and vulnerable groups consists of the following components:

- An information strategy about the objectives of rural road investments for local communities that is informed by and addresses communities' perceptions and views of transport issues and constraints.

- Collaborative and participatory mechanisms between communities and local district authorities aimed at enabling communities to participate in identifying and selecting road improvements, as well as ensuring that rural communities (men and women) are consulted about their needs, constraints and priorities, and discuss access/mobility needs as well as the levels and kinds of services needed.

Employment opportunities resulting from road improvement/maintenance works should be aimed at local communities or small, private contracting firms. Ensure that women have equitable access to these opportunities and receive equal pay. To ensure their participation, the SA should recommend whether a strategy of direct recruitment of women is warranted.

Establishment of Mechanisms for Monitoring and Evaluation

The inclusion of monitoring and evaluation (M&E) procedures is mandatory for Bank-financed projects. The social assessment will develop indicators for the M&E component by focusing on inputs, processes, outputs and outcomes that pertain to the social development objectives of a project. Specifically, the SA will help to:

- Establish baseline conditions in each rural community. Baseline surveys should contain gender-specific information regarding *land size holdings* (distinguishing between owners and tenants), *agricultural production*, *household incomes*, *health conditions*, *education levels*, *employment,* and other socio-economic data. Establishing a baseline will enable the measurement of the magnitude and direction of change/impact.

- Identify a set of social indicators against which the benefits of rural road investments can be measured. Benefits may include enhanced accessibility, time savings, reduced travel costs, increased incomes, increased enrollment rates, number of visits to health and other social facilities, and the proportion of on-farm to off-farm employment created.

- Consider those indicators which shed light on the distributional impacts of rural roads investments. Distributional impacts will consider changes in population and settlement patterns, land use and land value patterns, as well as changes in health and educational status by gender as a result of increased household income. This would provide a better picture of who benefits and how well the poor are reached from such investments.

- Specify indicators to monitor and evaluate operation and maintenance and to identify adjustments required to meet the needs of beneficiaries, user groups, and service providers more effectively.

- Define transparent, participatory evaluation procedures by assigning responsibility for monitoring to a capable institution, and ensuring that appropriate staff exist or are recruited for this task.

Rural Transport
Sample Terms of Reference for Social Impact Monitoring

Causal Possibilities

There are three causal possibilities in relation to transport provision:

- *Positive effect* where new directly productive activities are the direct result of providing transportation facilities.

- *Neutral effect* where transportation facilities do not induce directly productive activity and concomitant increases in the levels of economic growth

- *Negative effect* where the presence of transportation facilities eliminates directly productive activity and effectively reduces economic growth.[57]

Social impact monitoring (SIM) is a process used to understand the socio-economic impacts induced by development initiatives. SIM needs to be conducted on a periodic basis and at different stages of the project. It involves:

- Observing, assessing, and registering short and medium term social effects.
- Comparing project objectives with actual outcomes, both negative and positive;
- Incorporating improvements into project design to optimize beneficial impacts and reduce negative aspects.

At a broad level transport investments are intended to stimulate economic growth and to provide and facilitate access to markets, social services, and employment opportunities. The benefits of such investments, however, are often unequally distributed and/or accessed. In keeping with the poverty alleviation mission of the World Bank, it is important to consider the different responses and behavior patterns of different groups; to understand the mechanisms which enabled some groups to profit; and to identify and rectify the constraints that prevented other groups from deriving project benefits.

Socio-economic, distributional and spatial impacts must be considered when monitoring transport investments throughout the course of the project cycle.

Socio-Economic Impacts

Land values: Provision of transport infrastructure often results in an appreciation of land value and rent which may result in the displacement of vulnerable rural families, especially those with uncertain title to their land by wealthy entrepreneurs or farmers.

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[57] Howe, John. 1981. "The Impact of Rural Roads on Poverty Alleviation: A Review of the Literature." World Employment Programme Research.

Agricultural production: Anticipated benefits are increased availability of inputs, accessibility to new areas and greater potential for marketing.

Access to services: Better access to government, health, and education services or facilities are often cited as one of the major contributions of transport provision observed through increases in school enrollment rates, in visits to hospitals or government extension services (such as agricultural technical assistance, inputs, etc). It is also important to recognize that moving toward cash cropping from subsistence agriculture may result in reduced dietary intake and other negative health impacts.

Improved living standards: Labor-based schemes, providing an important source of income, should enhance quality of life of poorer residents. Time savings for both men and women can be invested in pursuing productive or community-oriented activities.

Migration: Out-migration and/or in-migration prompted by enhanced employment opportunities may result from improved connectivity between villages, cities and regional centers.

Distributional Impacts

Wealth and income distribution: Often there will be some segments of the population that are in a better position to enhance their economic status and are better able to identify and grasp opportunities than other groups. It is important to consider the mechanisms available or needed for poorer, less economically advantaged groups to maximize the benefits accruing from transport investment.

Gender impacts: Activities affected by road access and availability are gender specific and the services provided through roads are accessed and utilized differently by men and women. Gender differentials should be noted at the outset of the project and changes monitored against them. For example, women vs. men's access to employment opportunities (on-farm and off-farm), to social services, to government extension services and to leisure time.

Safety issues: Women, children and the elderly are particularly affected by road safety concerns. Fatality rates, disaggregated by gender and age, should be monitored regularly.

Spatial Impacts

Spatial restructuring: Road access may result in a considerable growth of population and economic activity along strategic points of network. Nucleation of settlements may also occur. Roads are major instruments through which spatial relationships change and, as a consequence, social interactions of groups are affected. Some social groups, including indigenous populations, gain greater contact with others.

Distance of households from road: The distance of various households from the road have a substantial bearing on many of the road impacts experienced by those households. Changes in favor of those households nearest the roads are expected with respect to increased proportion of

cultivated land, access to crop and livestock input, output and marketing, crop diversification and intensification, access to new technologies, and access to non-farm activity.

Quantitative and Qualitative Methods for Social Impact Monitoring

A baseline survey should be established at the project's outset to allow a comparison of the level of pre- and post-project benefits and the distribution of these benefits among different socio-economic groups. Listed below are other quantitative and qualitative methods and tools that can be used for social impact monitoring and to measure change over time:

Household survey: Choosing a random or stratified sample of households, gender specific statistics on size, assets, education, employment and income and health can be compared against the original baseline.

Settlement survey: Used to monitor settlement expansion by noting the level, location, and type of new construction occurring in road impact area. Used to gauge any changes in patterns of land ownership and tenure.

Socio-economic survey: Administered to collect baseline and gender-specific information on target or beneficiary rural population to assess socio-economic benefits of rural roads and rural access services and to establish a set of indicators aimed at measuring socio-economic impacts of rural road project. Suggested data to be collected:

- Demographic information of a sample population (i.e. ethnicity/caste, gender, age, religion)
- Forms of livelihood (i.e. land holdings, land cultivated, income, type of crops, non-farm employment including migration)
- Transport data (i.e. average daily load, distance and time to and from the nearest road, type of transport, costs of transport)
- Access to social services and status of social well-being (i.e. distance to primary and junior high schools, enrollment rates by gender, access to primary health facility/nearest hospital, days lost due to sickness in the previous year)
- Access to markets (i.e. costs, time, and by main mode of transport, marketing channel of main crops)
- Commodity prices (of major crops, fuel)

Traffic and community inventory surveys: Obtains information regarding the volume of vehicular and pedestrian traffic before and after road construction and indicates the types of social services available to residents of the impact area to measure the changes in access to local infrastructure.

Semi-structured interviews: An interview questionnaire used to gauge household's perceptions regarding their access issues to resources, services, and opportunities.

Participant observation: A fieldwork technique used to collect qualitative data and to develop in-depth understanding of people's motivations, perceptions, and attitudes.

Urban Transport
Sample Terms of Reference for Social Assessment

The broad objectives of a social assessment are to ensure that the World Bank investment programs contribute to poverty alleviation by sharpening project objectives to focus on poor, vulnerable, and otherwise marginalized and excluded groups; establishing a participatory framework which enhances the inclusion of the poor in development processes and decisions that affect them; eliminating or, at a minimum, mitigating the adverse social impacts that may result from the investment; and establishing a basis for social monitoring and evaluation. Social assessments, as an integral part of project feasibility analysis, should be initiated early in the project planning process in order to help define the beneficiaries and the mechanisms through which intended beneficiaries can be targeted and their participation facilitated.

The prime function of urban transport is to link together residence and employment as well as producers and users of goods and services. In many Third World conglomerations, urban residents exhibit high rates of dependence on public transport to access employment opportunities as well as to meet basic needs. A deficient urban transport system places constraints on growth, introduces labor market inefficiencies, harms productivity, exacerbates economic hardships, and worsens the standard of living for urban residents. The urban poor are particularly affected as they are often found residing in peripheral communities or squatter settlements, far from main employment centers and social service facilities.

Given that the poor are disproportionately affected by economic and social changes, a social assessment of urban transport investments can ensure that project objectives:

- Target the travel demands and mobility needs of low-income residents and peripheral communities, and in particular, the urban poor and vulnerable groups;

- Improve the poor's physical access to places of employment, social services, and educational opportunities;

- Involve the participation of key user groups, including local communities, NGOs, and the private sector in problem identification, analysis, design, implementation and monitoring;

- Determine the range of institutional actors in urban transport, as well as the set of institutional issues that hinder equitable development of transport infrastructure and services. Identifies current role of government, private and informal sector and community groups. Assess mechanisms to enhance partnerships that improve institutional framework, ensure inclusionary practices and sustain stakeholder participation;

- Enable greater use and integration of NMT within the urban transport network;

- Promote community participation and ownership of infrastructure maintenance and operation;

- Identify a set of social indicators for monitoring and evaluating the impact.

A social assessment also addresses issues of gender, equity, and considers the potential adverse impact of urban transport on various socio-economic groups, including changes in land use, road safety, or the "crowding out" of non-motorized transport.

Specifically, the SA will:

- Establish how improved public transport services rank vis-à-vis broader needs and priorities of urban residents and communities.

- Ascertain the behavior, views, and interests of the users and suppliers of public and private transportation. Particular focus should be given to passenger transport use patterns; transport needs and affordability; the extent to which public demand for transport is being satisfied vis-à-vis level and quality of service; desired and priority improvements; and users' willingness and ability to pay for improved public transport and services.

- Compile a gender-specific, socio-economic and poverty profile of urban residents; evaluate the prevailing expenditure on transport by different income groups; establish how different communities, social groups, or users meet their particular travel requirements of transport (non-motorized vs. motorized) and the adequacy and safety of such services.

- Examine travel characteristics of the different segments of the city population and identify transport means and transport services as perceived by different stakeholder groups.

- Assess the social impact of the proposed project on households, especially those in low-income, peripheral communities, or in the Corridor of Impact. Investigate how certain social groups may be affected. Establish differential access of social groups to urban transport infrastructure and services, and identify mechanisms to enhance inclusionary practices.

- Assess the potential role of private sector participation in the provision of urban transport services and in the management and maintenance of urban infrastructure;

- Assist in the identification of the most critical project interventions or complementary investments in order to improve and to maximize social returns of investment in urban transport infrastructure and services.

An appropriate combination of qualitative and quantitative methodologies will be used to investigate, identify, and prioritize social issues in urban transport. The results of each inquiry will inform and refine subsequent activities and contribute to a comprehensive understanding of the roles and priorities of different stakeholders. While the preparation of the SA is the responsibility of the borrower, the World Bank SA team will assist in the design of the information gathering strategy, including survey instruments, managing collection, and analysis of data, as well as information sharing activities through stakeholder workshops. The Bank team will also help identify key findings and operational recommendations of these activities for joint evaluation with the Borrower.

The SA consists of four main elements. The process and activities associated with each of these elements is detailed below.

Identification of Key Social Development and Participation Issues

Existing Information and Secondary Review of Data

A review of available documentation and secondary sources of information regarding the experience and lessons learned from former urban transport projects in that specific country or in similar contexts. A preliminary inventory of both user groups and public and private sector suppliers of transport should emerge from these reviews. In addition, this orientation to the key social and participation issues and initial identification of stakeholders will begin to define the information and research needs of the SA and the information strategy that will be necessary to build consensus and ownership of the proposed investment.

Identification of Key Stakeholders

The tentative list of stakeholders derived from the secondary review should be confirmed through consultations with policy-makers, governmental and municipal representatives, and local NGOs. The SA will also need to identify subgroups within each stakeholder group that may face a different set of constraints with respect to access, affordability, and availability, and have different demands which may require designing a more targeted project intervention. These distinctions or groupings can be made on the basis of sex, ethnicity, age, profession, residential location (peripheral districts), or modal choice. Particular attention should be given to non-motorized transport users (and suppliers) and how the mobility needs of this specific user group can be enhanced and what urban infrastructure improvements are needed (i.e. sidewalks, footpaths, bus shelters). As walking is the predominant mode of transport for the urban poor, priority for pedestrian movements, especially reduction of time spent walking, need to be included in infrastructure planning.

The appropriate mix of quantitative and qualitative information requirements will have to be determined with rigor, based on the specific project objectives and urban context, as well as the availability or relevant information from other sources.

Quantitative and Qualitative Methods and Tools

Household survey: Based on a random or stratified sample of urban households, obtain representative data of basic household information on size, labor force participation, income and expenditure levels, schooling and vehicle ownership. Information regarding access to, use and costs of public and private transport, satisfaction with transportation service in order to analyze actual and potential needs of transport users should also be collected. Gender specific constraints and needs should also be identified.

Socio-economic survey: The main objective of the survey is to assess needs and priorities of the users and to integrate these findings into project design. Data to be collected includes demographic information, forms of livelihood, level of access to urban services, affordability

toward capital and maintenance of installed facilities and priorities and standards for proposed services. Special attention should be paid to the needs and priorities of women and the poor. The potential growth of urban population should be taken into consideration for proposing different type of services in the project.

User survey: This instrument is intended to obtain transport use data that is representative by location, time of day and weekday. It includes the time spent waiting and journeying; the uses, purpose, and cost of transport; satisfaction and needs; and income. In addition, the user survey should identify the range of available transport means and services. The results obtained from the above surveys will highlight the relationship between income levels and transport use as well as incomes and modal choice.

Transport supplier survey(s): A series of surveys administered to a range of transport suppliers (i.e. bus associations, NMT suppliers, taxi services, or enterprises) to obtain information on the status of their operations; what incentives/disincentives exist; their respective roles and importance in urban transport service provision; measure and prospects for changes in its status.

Focus groups: This method can be used to analyze key issues from the perspective of stakeholders/user groups. The purpose of these discussions is to obtain additional qualitative data aimed at developing a detailed understanding of needs and demands, including local perceptions, concerns, constraints and opportunities in urban transport. Separate discussions should be held between transport users and suppliers and result in specific recommendations related to each user or supplier group. Focus group discussions can also provide a basis for the interpretation of survey data.

Willingness-to-pay survey: These surveys should be administered to a select and representative group of transport users to determine the willingness to pay for and/or maintain urban transport improvements. Particular consideration should be given to the ability of certain social and income groups to pay more for transport services and the impact of higher costs on the allocation of disposable household income.

Stakeholder workshop: A series of workshops should be held either jointly or separately with different stakeholder groups, including the academic community, government representatives, local NGOs, community groups and leaders. These workshops are intended to disseminate preliminary results and findings, to exchange concerns and ideas, and to build consensus around project priorities and objectives.

Define Mitigation Plans

Mitigation measures must be defined where adverse, *direct* impacts are identified for certain social groups and as mandated and governed by OD 4.30, OD 4.20 and OP 4.11. For adverse, *indirect* impacts that are not quantifiable or identifiable, the SA will ensure measures to minimize and cushion adverse social outcomes on vulnerable groups. In urban transport projects, adverse impacts that are not measurable in terms of individual losses and where the affected population can not be clearly delineated will necessitate identification and design of community-oriented support mechanisms.

Analyze Institutional and Organizational Issues

Institutional blockages and disincentives at national, provincial, and municipal levels often discriminate against the poor and preclude their equitable and affordable access to public transport services. In addition to identifying the institutional stakeholders, the SA should contribute to a wider understanding of the institutional context of the project by examining the sources of these constraints/biases. Addressing these constraints in project design will improve project effectiveness.

Institutions

Identify the sets of mutual and/or competing interests between and among institutional stakeholders, as well as their patterns of interaction at national, municipal, and community levels. Identify measures or mechanisms to strengthen operational management and policy planning in urban transport between concerned agencies aimed at better meeting the needs of vulnerable and poor groups.

Examine the impacts of government regulations—fares policy and barriers to entry for the informal sector to urban transport markets—at both user and supplier levels. At user levels, assess the impact of government regulation on accessibility and affordability of transport services. For transport suppliers, assess impact on quality standards—schedule frequency, state of equipment, and route lines. Determine the need to introduce better regulation of private operators and driving standards for new drivers to ensure safety in transport.

Identify the institutional and regulatory constraints precluding private sector provision of transport services and/or management and maintenance of infrastructure.

Examine the impacts of subsidy regime and exemption categories and determine need for more effective and direct targeting to poor and vulnerable groups. Provide sound justification for subsidy intervention (i.e. needs-based or self-selection) and ensure that project monitoring and evaluation component conducts periodic review of the appropriateness and effectiveness of the design.

Local Level Institutions and Community Participation

Assess the capacity of municipality or responsible government agency to involve users and/or community groups in needs identification and priority setting, and the choice of interventions and monitoring of impacts. Identify and recommend capacity building measures.

Assess the capacity of various institutions and community groups to undertake and assume responsibility for maintenance and operation of urban transport infrastructure. Specify how maintenance works will be sustained through the development of effective cost recovery schemes and efficient utilization of local resources. Clearly define and assign roles and responsibilities during project preparation.

Assess the potential role of NGOs in areas such as community mobilization for maintenance of urban transport infrastructure, credit provision, or impact monitoring.

Formulate Participation Framework

The SA incorporates two types of participation. First, there is the participation of the poor, vulnerable, and disadvantaged groups. Second, there is the participation of the broader group of stakeholders—governmental and non-governmental organizations, and other partners—in project strategy design. Both levels of participation are important in developing support for specific project proposals and institutional arrangements.

In urban transport investments, developing a participatory framework is aimed at initiating a series of participatory processes with different stakeholder groups at institutional and local levels. This will involve:

Macro-Institutional Level

Designing mechanisms for information sharing, consultation, and participation at various levels and involving, *inter alia*, government agencies, private sector groups, businesses, media, general citizens, and specific user groups.

Probe the feasibility of establishing public consultative forums at national/municipal levels. These forums can serve as mechanisms that provide feedback during project preparation on a range of issues, including the siting of infrastructure improvement. Broad-based representation of various institutional stakeholders should be sought. Stakeholders can include various ministries and government agencies, chamber of commerce, vehicle-owner associations, NGOs, community leaders, and research institutes.

Community Level

Identify appropriate or strengthen existing mechanisms to enhance the participation of users, especially poor or low-income users, in problem identification, analysis, design and implementation. Consultative forums at local levels can serve as platforms for public consultation and facilitate feedback during project planning and implementation.

Build community ownership and capacity to undertake infrastructure maintenance and operation. Clarify roles, responsibilities, and the nature of community contribution—in-kind, labor, or cash.

Consultation with the participation of specific project-affected groups as required by OP 4.01 on Environmental Assessments and by Operational Directives 4.20 and 4.30.

Establish Mechanisms for Monitoring and Evaluation

The inclusion of monitoring and evaluation (M&E) procedures is mandatory for Bank-financed projects. Project processes need to internalize social impact monitoring throughout. Monitoring contributes to a better understanding of poverty, enables better and more effective targeting of the

poor and vulnerable, maximizes user/stakeholder participation, and can draw attention to the complementary investments needed to support the intended objectives and impact of transport projects. Joint determination and agreement between the Borrower and World Bank will need to be reached regarding social impact indicators.

The SA will provide inputs to the M&E component by focusing on inputs, processes, outputs, and outcomes that pertain to the social development objectives of the project:

- Input indicators refer to what the project intends to accomplish in terms of physical improvements.

- Process indicators provide benchmarks/baseline used to monitor and measure what happens during project implementation.

- Output indicators ensure that planned project objectives are being reached and reached adequately. Output indicators will require establishing reliable baseline data at project inception.

- Impact indicators will measure the development impact, magnitude and direction of social and economic change resulting from the project intervention. Results of this change should be gender disaggregated. Moreover, participatory impact monitoring mechanisms should be developed with respect to key elements of the program. Impact monitoring activities should systematically seek feedback from main stakeholders involved in the project. Basic attitude and beneficiary surveys can be used to gauge any changes in attitudes, needs and expectations of key stakeholders and provide vital client feedback to project implementation in addition to flagging potential problems at local levels.

Examples of indicators that can be used in urban transport projects:

- Reduced travel time,
- Reduced road fatality rates,
- Number of people with improved access to social services (especially women),
- Number of people with improved access to employment opportunities.

The effectiveness of community participation in infrastructure maintenance and operation, needs identification, and priority setting is also important, as is enhanced affordability, accessibility, and availability.

Urban Transport
Sample Terms of Reference for Social Impact Monitoring

Causal Possibilities

There are three causal possibilities in relation to transport infrastructure provision:

- *Positive effect* where new directly productive activities are the direct result of providing transportation facilities.

- *Neutral effect* where transportation facilities do not induce directly productive activity and concomitant increases in the levels of economic growth

- *Negative effect* where the presence of transportation facilities eliminates directly productive activity and effectively reduces economic growth.[58]

Social impact monitoring (SIM) is a process used to understand the socio-economic impacts induced by development initiatives. SIM needs to be conducted on a periodic basis and at different stages of the project. It involves:

- Observing, assessing, and registering short and medium term social effects.
- Comparing project objectives with actual outcomes, both negative and positive;
- Incorporating improvements into project design to optimize beneficial impacts and reduce negative aspects.

At a broad level transport investments are intended to stimulate economic growth and to provide and facilitate access to markets, social services, and employment opportunities. The benefits of such investments, however, are often unequally distributed and/or accessed. In keeping with the poverty alleviation mission of the World Bank, it is important to consider the different responses and behavior patterns of different groups; to understand the mechanisms which enabled some groups to profit; and to identify and rectify the constraints that prevented other groups from deriving project benefits.

Socio-economic, distributional and spatial impacts must be considered when monitoring transport investments throughout the course of the project cycle.

Socio-Economic Impacts

Land values: Provision of transport infrastructure often results in an appreciation of land value and rent which may result in the displacement of vulnerable poor families, especially tenants and those with uncertain title to their land.

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[58] Howe, John. 1981. "The Impact of Rural Roads on Poverty Alleviation: A Review of the Literature." World Employment Programme Research.

Access to services: Better access to government, health, and education services or facilities are often cited as one of the major contributions of transport infrastructure and service provision. Improved accessibility can be observed through increases in school enrollment rates, in visits to hospitals or government extension services (such as agricultural technical assistance, inputs, etc). Time savings is another useful indicator of accessibility.

Improved living standards: Through enhanced accessibility, time savings and reduction in transport costs should ensue. This should result in quality of life improvements.

Migration: Prompted by enhanced employment opportunities, migration may result from improved connectivity between villages, cities and regional centers. Effects on infrastructure and service capacity need to be assessed periodically.

Distributional Impacts

Wealth and income distribution: Often there will be some segments of the population that are in a better position to enhance their economic status and are better able to identify and grasp opportunities than other groups. It is important to consider the mechanisms available or needed for poorer, less economically advantaged groups to maximize the benefits accruing from transport investment.

Gender impacts: Activities affected by road access and availability are gender specific and the services provided through roads are accessed and utilized differently by men and women. Gender differentials should be noted at the outset of the project and changes monitored against them. For example, women vs. men's access to employment opportunities, to social services, to government extension services and to leisure time.

Safety: As women, children and the elderly are disproportionately affected by safety concerns, gender disaggregated data of fatality and assault rates should be carefully monitored.

Spatial Impacts

Settlement expansion and restructuring: Better transport may result in settlement expansion through new construction or upgraded business or housing structures. Changes in demographic and settlement patterns should be regularly monitored and trends discerned.

Distance of households from infrastructure improvement: The distance of various households from infrastructure improvements affect the degree of impact, positive and negative, experienced by them.

Quantitative and Qualitative Methods for Social Impact Monitoring

A baseline survey should be established at the project's outset to allow a comparison of the level of pre- and post-project benefits and the distribution of these benefits among different socio-economic groups. Listed below are methods and tools that can be used for social impact monitoring.

Household survey: Choosing a random or stratified sample of households, gender specific statistics on size, assets, education, employment and income and health can be compared against the original baseline.

Settlement survey: This survey can be used to monitor settlement expansion by noting the level, location, and type of new construction occurring in impact area.

Socio-economic survey: The main objective of the survey is to assess needs and priorities of the users and to integrate these findings into project design. Data to be collected includes demographic information, forms of livelihood, level of access to urban services, affordability toward capital and maintenance of installed facilities and priorities and standards for proposed services. Special attention should be paid to the needs and priorities of women and the poor. The potential growth of urban population should be taken into consideration for proposing different type of services in the project.

Traffic and community inventory surveys: Obtains information regarding the volume of vehicular and pedestrian traffic before and after infrastructure improvement and indicates the types of social services available to residents of the impact area to measure changes in access to local infrastructure.

User survey: This instrument is intended to obtain transport use data that is representative by location, time of day and weekday. It includes the time spent waiting and journeying; the uses, purpose, and cost of transport; satisfaction and needs; and income. In addition, the user survey should identify the range of available transport means and services

Semi-structured interviews: An interview questionnaire used to gauge household's perceptions regarding their access issues to resources, services, and opportunities.

Direct observation: Visual observations of the impact area can be a useful supplement to qualitative data.

Highways
Sample Terms of Reference for Social Assessment

Highway projects aim to increase national economic efficiency and broad-based growth through more reliable access to regional, capital and international markets. Efficiency-oriented transport development often benefits the rich, and in some cases, adversely affects the poor. Rights of way are often imposed on poor communities for high mobility projects. As one of the largest causes of resettlement in the World Bank portfolio, highway projects require in land acquisition, often cause displacement and resettlement of individuals and families, and at times encroach on the land and livelihood of indigenous people's. The rights and well being of both these population groups—indigenous people's and resettlement affected groups—are safeguarded by World Bank operational directives OD 4.30 Involuntary Resettlement and OD 4.20 Indigenous Peoples.

Resettlement and indigenous people's specialists, however, have begun to apply a social assessment lens to resettlement and indigenous people's planning which has broadened the previous, exclusive focus on mitigation and individual and household losses and entitlements. Social assessment in this context addresses development-induced impacts caused by highways and is not limited to the physical relocation of project affected people. A social assessment in a resettlement context identifies the potential adverse impacts as well as opportunities for enhancement measures intended to benefit affected communities directly, especially vulnerable population groups, traversed by the highway.

A social assessment in highway planning contributes these enumerated components:

- Assess impacts on local communities, both affected and adjacent, and on their local economies.
- Assess *collective* impacts on groups resulting from displacement. Establish differential access of social groups to social services, physical facilities and other common property resources.
- Identify collectively-oriented mitigation and support mechanisms. Particular attention should be given to women, children and other vulnerable groups, such as the landless.
- Assess the type of complementary investments to highway infrastructure development that would enable communities to maximize socio-economic benefits and opportunities;
- Assess currently available transport options and services and the extent to which these are used and paid for by user groups and/or affected communities. Assess transport needs and access constraints with respect to available transport options and services as well as additional infrastructure or services needed to exploit the benefits of highway investment;
- Determine the willingness of the expected user subgroups to pay for improved road use and transport services (taxes, toll fees);
- Develop a participation plan which incorporates stakeholder's priorities and perceived constraints into project design and implementation arrangements. Design appropriate and inclusionary mechanisms to incorporate participation of key stakeholders.
- Establish benchmarks and mechanisms to monitor and evaluate impact of highway on affected groups and to ensure that benefits accruing from road investment are shared and reach all groups.

Qualitative and quantitative techniques and activities will be used to investigate, identify and prioritize social and institutional issues. Highway investments will often require complementary investments in sectors such as agriculture, credit, and other social services. It is therefore important for the SA to have a broad focus in its information gathering activities and in those related to institutional development and coordination. The SA consists of four main elements; the processes and activities associated with each of these elements are detailed below.

Identification and Analysis of Stakeholders

Main stakeholder groups include project-affected people, road users, national government agencies at national and regional levels, such as Ministry of Public Works, Highway/Road Administration. Anticipated impacts of highway investment on both groups should be carefully assessed.

Identify the affected populations and/or vulnerable groups. If highway bisects communities, assess impact of physical separation with respect to severance of social ties, disrupted trading patterns and other constraints on mobility of people, resources, farm equipment.

Prepare a socio-economic profile of affected populations describing nature of impact and quantifying that impact to the extent possible. The socio-economic profile should identify the different needs and demands of each sub-group which may require different kinds of interventions. Additionally, assess the compatibility of relocated communities with host populations.

Identify the expected road users (includes transport operators, service providers, distributors, producers) and other beneficiaries of highway investment.

Analyze stakeholders' views/perceptions of the issues and constraints faced including transport needs, and existing transport options and services available to these groups.

Recommend how to incorporate stakeholders' priorities and perceived constraints into project design.

Assess the needs of the users and beneficiaries for complementary program and/or service components, such as agricultural extension services, access to individual properties such as tourist areas, water supply systems, health clinics and schools

Define Mitigation Plan

Mitigation measures must be defined where adverse, direct impacts are identified for certain social groups and as mandated and governed by main ODs relevant to formulation of transport projects. In highway investments with large land acquisition components, project planners will need to judge the applicability of the following ODs:

OP4.01	Environmental Assessment
OD4.30	Involuntary Resettlement

OD4.20 Indigenous Peoples
OPN 11.03 Cultural Property

For adverse, indirect impacts that are not quantifiable or identifiable, the SA will need to ensure measures to minimize and cushion adverse social outcomes, especially on vulnerable groups. Adverse, indirect impacts may be caused by temporary migrant labor force during civil works project. Project planners should consider the effect of this influx on settled, host community. Past experience has noted that the presence of construction workers and of potential new settlers in areas with improved access can have negative impacts on local communities by placing constraints on overtaxed infrastructure, introducing social problems or contributing to the spread of contagious diseases.

Additionally, measures to ensure pedestrian safety, particularly for children, where major roads pass through villages and towns should be considered. For countries in early stages of motorization, there is a high risk of increased fatalities and vehicle accidents. While conditions for motorized vehicle owners improves, pedestrian traffic and non-motorized traffic are the groups most affected. The social assessment should investigate who contributes to unsafe practices, consult with communities on how best to deal with this problem and design appropriate mechanisms.

Quantitative and Qualitative Methods for Social Assessment

Household surveys: Choosing a random or stratified sample of households along the right of way, compile gender specific household statistics on size, structure, assets, education, employment, income, and health. The household survey should endeavor to document the likely impacts of road construction on residents and their views concerning road construction. Survey will also focus on the transport elements of day-to day activities in and around the village and on travel patterns and trip purposes outside the village; utilization and availability of transportation means and costs incurred. Household information needs to be collected across different social groups to ensure representativeness of data.

Socio-economic surveys: Similarly, a socio-economic survey can be administered to collect baseline and gender-specific information on a representative sample of project-affected population, indigenous peoples and other beneficiary population to assess potential socio-economic benefits of highway investment and to establish a set of socio-economic impact indicators. The analysis should cover the needs and resources of different groups and individuals and include intra-household analysis and gender analysis. For project affected populations or indigenous peoples, a socio-economic survey serves as an input to the RAP or IPDP and provides a baseline against which mitigation measures and support will be measured. Suggested data to be collected:

- Demographic information of a sample population (i.e. ethnicity/caste, gender, age, religion)
- Forms of livelihood (i.e. land holdings, land cultivated, income, type of crops, non-farm employment including migration)

- Transport data (i.e. average daily load, distance and time to and from the nearest road, type of transport, costs of transport)

- Access to social services and status of social well-being (i.e. distance to primary and junior high schools, enrollment rates by gender, access to primary health facility/nearest hospital, days lost due to sickness in the previous year)

- Access to markets (i.e. costs, time, and by main mode of transport, marketing channel of main crops)

- Commodity prices (of major crops, fuel)

Land Acquisition Assessment (LAA): This exercise is initiated to (i) conduct a rapid scoping, based on available project documents, existing legislation and administrative practice with respect to land acquisition, and field verifications and (ii) to determine the applicability of World Bank OD 4.30, (iii) and in the case of involuntary resettlement, a LAA will serve as the basis of resettlement planning.

Semi-structured interviews: An interview questionnaire should gauge households' perceptions regarding their access issues to resources, services, opportunities, transport constraints and needs, priority problems; the importance they assign to improving their transport conditions. The questionnaire should also reveal existing transport options and services available to user groups, frequency of usage, costs of such services and their impact on household income, and preferences for transport options. The questionnaire should also assess bottlenecks experienced in using available transport option and services as well as assess the needs of beneficiaries and other user groups for services that may complement rural road investment.

Focus group discussions with project-affected people, village leaders, district/local government representatives and other key informants to obtain baseline data about the community, to ascertain their views and attitudes toward the highway project and to discuss likely impacts of road construction. Focus group discussions are held separately with each stakeholder to draw their experience and knowledge of the issues involved in project selection, preparation and implementation. Stakeholders can be grouped according to ethnicity, gender, production mode, age, or level of education.

User survey: A survey intended to obtain representative data at a household level. The survey includes demographic and economic data for the household, rural transport use and satisfaction, trip lengths and times, transport costs, and priorities for improvements.

Transport supplier survey(s): A series of surveys administered to a range of transport suppliers (i.e. trucking and bus associations, taxi services, or enterprises) to obtain information on the status of their operations, what incentives/disincentives exist, their respective roles and importance in transport service provision; measure and prospects for changes in their status.

Willingness to pay survey: These surveys should be administered among a select and representative group of beneficiaries and user groups to determine the willingness to pay for

operation and maintenance costs of improved road use and transport services through taxes, toll fees, and other user charges.

Stakeholder consultation workshops: Workshops conducted to identify how best communities can reap induced economic and social benefits from the road. An output of this workshop is to recommend additional infrastructure or complementary investments that would enable communities to maximize benefits.

Analysis of Institutional and Organizational Issues

A social assessment identifies key institutional stakeholders and contributes to a wider understanding of the institutional context of the project. When highway investments involve involuntary resettlement or indigenous people's, the project must address two sets of institutional concerns. One concerns ensuring the appropriate institutional arrangements and mechanisms for safeguarding the project-affected people. The second concerns ensuring appropriate institutional arrangements for road management and maintenance. Since the Resettlement Action Plan and Indigenous People's Development Plans make the requisite institutional provisions to mitigate and rehabilitate project-affected people, this TOR will address the second set of institutional concerns.

Institutional responsibilities for managing different parts of the road network are fragmented among several, central government ministries and whole range of local government agencies. One of the institutional objectives of highway planning is to create a link between a road agency and wider group of individuals with a vested interest in well managed roads. The SA can support the following institutional components:

- Establish an institutional framework which clarifies and locates responsibility for managing different parts of the road network among different government agencies. This includes defining a coordination process between different institutional agencies working in different districts. Additionally, responsibilities for improving road safety and reducing adverse environmental/social impacts associated with road traffic should be clearly assigned.

- Establish road management boards consisting of stakeholders to oversee the planning and management of the road sector. Road management boards introduce a strong client perspective to the workings of the road agency and greatly improves customer orientation. Stakeholders include representatives of the business community, farmers associations, road transport industry, municipalities, etc.

- Examine the nature of relations or patterns of interaction between and among institutions, beneficiaries and other relevant actors and stakeholders.

- Define resource-sharing arrangements for highway maintenance between government agencies and road users.

- Ensure institutional collaboration for the management of road safety issues.

- Build capacity within federal/national level highway administrations to identify, manage and monitor social impacts. Consideration to recruiting a social scientist on staff should be given.

- Establish a framework which ensure that government agencies responsible for implementing the Resettlement Action Plan (RAP) and/or Indigenous People's Development Plan (IPDP) are fully involved in design, implementation and monitoring of the project. Investigate existing institutional options/mechanisms for mitigating and managing adverse impact with a view towards NGO involvement.

- Examine existing institutional mechanisms to facilitate access to new economic opportunities and social benefits for communities, small traders, local businesses and other commercial enterprises. Assess the potential roles of NGOs as intermediaries with beneficiaries and community groups in this regard and identify selection criteria.

Formulation of Participation Framework

Participation and consultation of project-affected peoples is described comprehensively by World Bank OD4.20 and OD4.30. The participation process ensures that the affected population and other stakeholders are informed, consulted in a meaningful way, and allowed to participate actively in the development process throughout project preparation, implementation, and monitoring of results and impacts. Participatory mechanisms that are designed for each stage of the project should take into account cultural, gender-based, and other differences among the stakeholders. Participation with project affected people should also be extended to include – incorporate from other TORs.

In the interests of maintaining a well managed road system, the second component of participation aims to reduce traffic accidents on highways and develop a relationship between the road agency and its users that is responsive and meets users' demands and needs, including those of project-affected people.

- Design a public education and awareness campaign regarding road safety issues directed at users and communities.

- Establish a mechanism to facilitate dialogue with important road users in order to effectively consult them on road management and other sector issues at national and local levels. Road users include chambers of commerce, transport sector organizations, road sector organizations, village associations, parent-teacher's associations and other community groups. At national level, this can be done by expanding membership or creating an inter-ministerial steering committee which includes road user representatives. At district levels, establish working committees or road transport committees which deal with roads, street cleaning, street lights, and traffic management.

Establishment of Mechanisms for Monitoring and Evaluation

Benchmarks and indicators should be limited in number and combine quantitative and qualitative data. Process and output indicators will be monitored internally by the project. This information should inform project management about progress and results.

Monitoring provisions under OD4.20 and 4.30 are made for project affected people to ensure that affected groups are not made worse off and that resettlement action plan is implemented in a timely way. Specifically, criteria/benchmarks for measuring whether project benefits are reaching the targeted stakeholders should be determined. Monitoring and evaluation procedures should also guide the implementation of the mitigation plan.

Specific indicators to monitor and evaluate project operation and maintenance and to identify adjustments required to meet the needs of user groups more effectively should be developed. Additional impacts and benefits that should be measured are diversification of local and regional economies, increased accessibility, increased incomes, improvement in social development indicators, and road safety issues. Distributional impacts with respect to income and gender should also be carefully monitored and measured.

Railways
Sample Terms of Reference for Social Impact Assessment

Background

Restructuring is a politically sensitive process that can have significant social implications when carried out on a large scale. It often involves conflict between government and labor unions due to the laying off of significant numbers of laborers. A social assessment can help explore ways to:

- Identify the potential social impacts of the proposed restructuring on workers and their communities;

- Better manage labor adjustments that accompany restructuring through developing a more consultative approach with key stakeholders, especially with labor so as to include their views and perceptions in future exercises;

- Establish a social impact monitoring system that ensures adverse impacts are minimized to monitor the timely flow of entitlements to redundant labor, to investigate institutional blockages or individual constraints to accessing benefits and to ensure that mitigation and corrective action is taken expeditiously.

Identification of Stakeholders

- Identify possible areas for skills enhancement within redeployment programs

- Survey the different perceptions of retrenchment by various stakeholders (new opportunity, well deserved, entitlement, rejection);

- Assess positive and negative impacts on the social and community structures (role models, involvement in community-based organization (CBOs) and other mediating institutions, increase in domestic violence, substance abuse); and

- Develop a profile of participants in the Voluntary Early Retirement scheme (VER) and likely participants in a retrenchment exercise. Identify types of occupations of retirees for example self employed, employer, employee, or other.

- Assess the performance of the VER exercise and its impact on retirees, their families, and communities, including identifying incentives and disincentives of participating in the program.

The appropriate mix of quantitative and qualitative information requirements will have to be determined based on the specific project and country context and on the availability of relevant information from secondary sources.

Quantitative and Qualitative Methods

Socioeconomic profile: This profile should be conducted on the participants of the voluntary early retirement (VER) scheme and redundant labor. Data to be collected includes:

- Characteristics of VER/redundant labor such as number of participants involved, age, gender, ethnicity, experience, educational and skills levels, intended area of retirement. Identify vulnerable groups for targeted assistance
- Patterns of settlement (urban vs. rural) of VER/redundant labor schemes;
- Identify types of occupations of retirees for example self employed, employer, employee, other.
- Identifying capacity building and training requirements of retirees (including constraints to redeployment within the public and the private sector, perceived assets necessary to enhance livelihood prospects, successful redeployment interventions).

Needs assessment**:** An assessment to analyze the needs of workers in the proposed scheme and identifying the kinds of social infrastructure available and the kinds of opportunities for introducing life chance investments, such as home gardens, household production, cottage industries, financial intermediary and technical assistance support for small business ventures.

Institutional stakeholder analysis**:** This analysis assesses the institutional context of project operations. It identifies:

- Main actors (government, labor unions, beneficiaries, other affected groups, international donors, interest groups such as NGOs, private sector, community based organizations) and vulnerable groups;

- Stakes (interests, influence, power, viability and risks); including the impact of trade unions on retrenchment arrangements; and

- Organizational, implementation, capacity and process issues of intermediary institutions involved in oversight or implementation of restructuring process and the support needed to improve service delivery.

Focus groups**:** This method can be used to analyze key issues and/or different perceptions of key stakeholder groups of restructuring options and process. Additionally, incentives and disincentives for participating in program can be identified. The purpose of these discussions is to obtain additional qualitative data aimed at developing a detailed understanding of needs and demands, including local perceptions, concerns, constraints and opportunities.

Consultative workshops: A series of workshops held either jointly or separately with different stakeholder groups, including government, private sector, labor unions, media, local NGOs, community groups and leaders. These workshops are intended to disseminate public information concerning the objectives of restructuring process, to exchange concerns and ideas, and to build consensus around reform effort.

Analysis of Institutional and Social Organizational Issues

- Assess the implementation of the voluntary retirement scheme to learn what lessons it may hold for informing the design and execution of a retrenchment exercise. Identifying capacity building and training requirements of retirees (including constraints to redeployment within the public and the private sector, perceived assets necessary to enhance livelihood prospects, successful redeployment interventions.

- Assess the impact of trade unions on restructuring arrangements

- Assess the mechanisms that government has used to date to evaluate the political and social risks of labor restructuring.

- Assess the prevalence and role of intermediary institutions in supporting restructuring efforts. Identify those institutions that can assist workers in their transition and re-entry into the workforce. Assess institutional capacity and identify areas where support is needed; and

- Identify and explore other safety net arrangements to understand the kinds of formal and informal safety nets on which retirees depend and which institutional actors (government, NGOs, community) can best support these systems.

- Clarify the roles and responsibilities of government, private sector, NGOs/CBOs with respect to the implementation of restructuring program, severance payments, training and job placement. Ensure that designated institutions/organizations have the capacity and commitment to perform their roles.

Formulation of Participation Framework

Due to the political sensitivity of the restructuring process, the SA should institute a participatory process aimed at informing and involving key stakeholders at the outset.

Information/publicity campaign: The SA can assist with the development of an information campaign aimed at explaining the needs and benefits of reform/privatization initiatives as well as generating support for the process. Widespread information dissemination is aimed at enhancing transparency in the implementation of the restructuring process.

Consultative mechanisms: The SA can recommend appropriate consultative mechanisms to establish a dialogue between government, private sector and labor unions as well as management and redundant/affected employees. In addition, feedback mechanisms that take into account diverse and conflicting views and mediation mechanisms that manage these views need to be created. Stakeholder participation will be critical to ensure that adverse impacts are mitigated

Continuous Social Impact Monitoring

Instituting a process of continuous Social Impact Monitoring (SIM) to oversee the overall implementation of the restructuring process is critical. Furthermore, SIM can put in place

interventions to minimize negative impacts on redundant labor and their families in a timely and responsive way. The specific objectives of SIM are:

- Ensure that individual benefits intended for redundant labor reach them; that workers are fully informed of their entitlements and are given notice in accordance with established laws and regulations, that there are mechanisms for legal and compensatory recourse; and that responsible agency/institution for assisting redundant labor are providing agreed upon services.

- Ensure that certain groups such as pensioners, casual workers and women are not disproportionately affected by restructuring. Should such adverse impacts be observed, SIM will identify contributing factors and propose mitigation measures.

- Ensure that household and community access to and quality of social services are not adversely affected during the restructuring process. Should such adverse impacts be observed, SIM will identify contributing factors and propose mitigation measures.

Over the long term, an evaluation of the restructuring processs should be undertaken and consider the following elements:

- Evaluate the success of the restructuring process by the new professions workers have assumed, the length of time redundant labor remained unemployed; and the number who succeeded in finding employment.

- Identify a set of indicators to evaluate socio-economic impact of restructuring process on retirees and their families. Results should indicate whether families are better or worse off with respect to income levels, health, education, etc.

Ports
Sample Terms of Reference for Social Impact Monitoring of Port Restructuring

Background

Restructuring is a politically sensitive process that can have significant social implications when carried out on a large scale. It often involves conflict between government and labor unions due to the laying off of significant numbers of laborers. A social assessment can help explore ways to:

- Identify the potential social impacts of the proposed restructuring on workers and their communities;

- Better manage labor adjustments that accompany restructuring through developing a more consultative approach with key stakeholders, especially with labor so as to include their views and perceptions in future exercises;

- Establish a social impact monitoring system that ensures adverse impacts are minimized to monitor the timely flow of entitlements to redundant labor, to investigate institutional blockages or individual constraints to accessing benefits and to ensure that mitigation and corrective action is taken expeditiously.

Identification of Stakeholders

- Identify possible areas for skills enhancement within redeployment programs.

- Survey the different perceptions of retrenchment by various stakeholders (new opportunity, well deserved, entitlement, rejection).

- Assess positive and negative impacts on the social and community structures (role models, involvement in community-based organizations (CBOs) and other mediating institutions, increase in domestic violence, substance abuse); and,

- Develop a profile of participants in the Voluntary Early Retirement scheme (VER) and likely participants in a retrenchment exercise. Identify types of occupations of retirees for example self employed, employer, employee, or other.

- Assess the performance of the VER exercise and its impact on retirees, their families, and communities, including identifying incentives and disincentives of participating in the program.

The appropriate mix of quantitative and qualitative information requirements will have to be determined based on the specific project and country context and on the availability of relevant information from secondary sources.

Quantitative and Qualitative Methods

Socioeconomic profile: This profile should be conducted on the participants of the voluntary early retirement (VER) scheme and redundant labor. Data to be collected includes:

- Characteristics of VER/redundant labor such as number of participants involved, age, gender, ethnicity, experience, educational and skills levels, intended area of retirement. Identify vulnerable groups for targeted assistance
- Patterns of settlement (urban vs. rural) of VER/redundant labor schemes;
- Types of occupations of retirees for example: self employed, employer, employee, other.
- Capacity building and training requirements of displaced and early retirees (including constraints to redeployment within the public and the private sector, perceived assets necessary to enhance livelihood prospects, successful redeployment interventions).

Needs assessment: An assessment to analyze the needs of workers in the proposed scheme and identifying the kinds of social infrastructure available and the kinds of opportunities for introducing life chance investments, such as home gardens, household production, cottage industries, financial intermediary and technical assistance support for small business ventures.

Institutional stakeholder analysis: This analysis assesses the institutional context of project operations. It identifies (i) main actors (government, labor unions, beneficiaries, other affected groups, international donors, interest groups such as NGOs, private sector, community based organizations) and vulnerable groups; (ii) stakes (interests, influence, power, viability and risks); including the impact of trade unions on retrenchment arrangements; and (iii) organizational, implementation, capacity and process issues of intermediary institutions involved in oversight or implementation of restructuring process and the support needed to improve service delivery.

Focus groups: This method can be used to analyze key issues and/or different perceptions of key stakeholder groups of restructuring options and process. Additionally, incentives and disincentives for participating in program can be identified. The purpose of these discussions is to obtain additional qualitative data aimed at developing a detailed understanding of needs and demands, including local perceptions, concerns, constraints and opportunities.

Consultative workshops: A series of workshops held either jointly or separately with different stakeholder groups, including government, private sector, labor unions, media, local NGOs, community groups and leaders. These workshops are intended to disseminate public information concerning the objectives of restructuring process, to exchange concerns and ideas, and to build consensus around reform effort.

Analysis of Institutional and Organizational Issues

- Assess the implementation of the voluntary retirement scheme to learn what lessons it may hold for informing the design and execution of a retrenchment exercise. Identifying capacity building and training requirements of retirees (including constraints to redeployment within the public and the private sector, perceived assets necessary to enhance livelihood prospects, successful redeployment interventions.

- Assess the impact of trade unions on restructuring arrangements

- Assess the mechanisms that government has used to date to evaluate the political and social risks of labor restructuring.

- Assess the prevalence and role of intermediary institutions in supporting restructuring efforts. Identify those institutions that can assist workers in their transition and re-entry into the workforce. Assess institutional capacity and identify areas where support is needed; and

- Identify and explore other safety net arrangements to understand the kinds of formal and informal safety nets on which retirees depend and which institutional actors (government, NGOs, community) can best support these systems.

- Clarify the roles and responsibilities of government, private sector, NGOs/CBOs with respect to the implementation of restructuring program, severance payments, training and job placement. Ensure that designated institutions/organizations have the capacity and commitment to perform their roles.

Formulation of Participation Framework

Due to the political sensitivity of the restructuring process, the SA should institute a participatory process aimed at informing and involving key stakeholders at the outset.

- *Information/publicity campaign*: The SA can assist with the development of an information campaign aimed at explaining the needs and benefits of reform/privatization initiatives as well as generating support for the process. Widespread information dissemination is aimed at enhancing transparency in the implementation of the restructuring process.

- *Consultative mechanisms*: The SA can recommend appropriate consultative mechanisms to establish a dialogue between government, private sector and labor unions as well as management and redundant/affected employees. In addition, feedback mechanisms that take into account diverse and conflicting views and mediation mechanisms that manage these views need to be created. Stakeholder participation will be critical to ensure that adverse impacts are mitigated

Continuous Social Impact Monitoring

Instituting a process of continuous Social Impact Monitoring (SIM) to oversee the overall implementation of the restructuring process is critical. Furthermore, SIM can put in place interventions to minimize negative impacts on redundant labor and their families in a timely and responsive way. The specific objectives of SIM are:

- Ensure that individual benefits intended for redundant labor reach them; that workers are fully informed of their entitlements and are given notice in accordance with established laws and regulations, that there are mechanisms for legal and compensatory recourse; and that

responsible agency/institution for assisting redundant labor are providing agreed upon services.

- Ensure that certain groups such as pensioners, casual workers and women are not disproportionately affected by restructuring. Should such adverse impacts be observed, SIM will identify contributing factors and propose mitigation measures.

- Ensure that household and community access to and quality of social services are not adversely affected during the restructuring process. Should such adverse impacts be observed, SIM will identify contributing factors and propose mitigation measures

Over the long term, an evaluation of the restructuring processs should be undertaken and consider the following elements:

- Evaluate the success of the restructuring process by the new professions workers have assumed, the length of time redundant labor remained unemployed; and the number who succeeded in finding employment.

- Identify a set of indicators to evaluate socio-economic impact of restructuring process on retirees and their families. Results should indicate whether families are better or worse off with respect to income levels, health, education, etc.

Bridge Project Impact Evaluation
Sample Terms of Reference

JAMUNA MULTIPURPOSE BRIDGE PROJECT

Resettlement Program (RRAP)
and
Project on Erosion and Flood Affected Persons (EFAP)

IMPACT EVALUATION:
SAMPLE TERMS OF REFERENCE[59]

BACKGROUND

The World Bank, Asian Development Bank (ADB), and OECF have assisted the Government of Bangladesh in constructing the Jamuna Multipurpose Bridge. The Bridge was completed and opened in 1998.

As part of the loan agreement between the Government of Bangladesh and its Co-financiers, a comprehensive program is being undertaken to resettle, rehabilitate and otherwise assist the persons who have been displaced by the project or suffered losses through loss of land, assets, or livelihood. This program is undertaken as a development program coordinated by the Jamuna Multipurpose Bridge Authority (JMBA). The policy framework and actions to be undertaken are primarily based on the Revised Resettlement Action Plan (RRAP), dated 1993. In 1996, it was also decided to assist persons displaced by flooding or erosion caused by the project. A separate program to assist Erosion and Flood Affected Persons (EFAP) was launched in 1997. JMBA is implementing the provisions in the RRAP and EFAP with the assistance of other agencies, both government and NGOs. Due to the high numbers of people displaced and the unique nature of the project in Bangladesh, the project has received international attention.

Agreement has been reached between the Government of Bangladesh and the project Co-financiers that an impact evaluation will be undertaken of the RRAP and EFAP. These Terms of Reference are based on consultations among the primary project stakeholders, including JMBA, its co-financiers, the implementing NGOs, and affected people in the project area.

OBJECTIVES AND SCOPE

The objectives of this assignment are to assess the longer term effects of project induced losses of land and livelihood, and the corresponding mitigation measures of the RRAP and EFAP. It should assess the extent to which the project has been successful in compensating, resettling and rehabilitating the project affected persons. The evaluation shall provide guidance to the

[59] This sample terms of reference was provided by Reidar Kvam, Senior Anthropologist (SASSD).

Government of Bangladesh and its co-financiers about whether the actions and expected outcomes agreed on in the RRAP and EFAP have been achieved satisfactorily.

While civil works for the project are largely completed, the resettlement activities are still ongoing. The activities under the RRAP and EFAP programs are not expected to be completed until mid 2000. The impact evaluation should therefore focus on issues of process, based on input indicators, and short term and intermediate results, based on output indicators. This information is expected to be used as inputs to the co-financiers' completion reports for the project as a whole. [60]

Where possible, the evaluation will assess likely longer-term impacts of the activities undertaken during the project. Where these impacts can not be assessed with reasonable probability, the evaluation team will propose areas for follow up in the later evaluations to be undertaken for the project as a whole, and suggest impact indicators for such studies.

The evaluation should address four main elements of the program:[61]

How well **social issues and impacts on vulnerable groups** have been identified and addressed through the RRAP and EFAP programs.
To what extent a **participatory approach** has been followed, with adequate stakeholder consultations and involvement.
The adequacy and functioning of **organizational and institutional mechanisms** established.
The adequacy of **monitoring mechanisms**, and how the project has been able to incorporate findings from monitoring into overall project implementation.

Issues to be addressed under each of these elements are outlined in more detail in the following sections. The evaluation is intended to be a learning exercise both for the Government of Bangladesh and the co-financiers; thus, for every observation or conclusion, the consultants are expected to suggest ways in which to address similar issues in future projects.

SOCIAL ISSUES

The evaluation shall assess the key social issues related to adverse impacts covered by the RRAP and EFAP, and identify the key groups affected, focusing on poor and vulnerable groups. The adequacy and timeliness of the various support mechanisms for different impact categories and entitlement mechanisms provided shall be reviewed, and the consultants shall provide an updated summary of progress in providing compensation and other support to the affected population. A comparison shall be made with the available baseline data to ascertain whether different groups are better or worse off than their situation prior to the displacement caused by the project.

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[60] The World Bank is planning to produce an Implementation Completion Report (ICR) by June 30, 2000.

[61] These four elements correspond to the standard components of Social Assessment processes undertaken during planning and implementation of World Bank assisted projects.

This includes an assessment of impact on the social structure of the villages, and of the changing fortunes of particular groups within the villages. This will include analyses of changes in income levels, changes in land-holding patterns, patterns of expenditure, patterns of investment, as well as changes in employment profiles, the position of female members of families, family support systems, and changes in the quality of housing and neighborhood environments. This analysis should be accompanied by a comparison with circumstances prevailing in communities not directly affected by the project, and by a comparison of PAP circumstances with the norms of local and national development.

While the main focus of the evaluation is on the minimization and mitigation of adverse social impacts, the review team shall also make an assessment of whether the project has contributed positively to local economic growth and development in the surrounding areas, and the extent to which poorer groups are able to benefit from this.

Key issues that should be covered under this section should include but not be limited to:

Likely longer term impact of displacement and land loss. The project has established a cash-for-land policy, based on the recognition that the Government would not be able to provide adequate replacement land to those losing agricultural land. The project was expected to assist people in purchasing replacement land individually with the cash compensation. The evaluation should assess the extent to which this has been successful, both regarding homesteads and agricultural land; the reasons for success or failure; and the implications for future projects of a similar nature. This should be assessed for each of the major categories of affected people, e.g. land owners, tenants, *uthulis*, etc.

Gender issues. The evaluation should assess the differential impacts on men and women; the extent to which women have been able to take full advantage of support mechanisms and opportunities offered; and how appropriate the project assistance has been for women. Issues to be addressed should include training opportunities, credit, and other support mechanisms. The evaluation should also assess the different role and nature of consultations and participation among women and men, and suggest what the best organizational forms would be for enhancing women's roles and benefits through the project.

Self-relocation versus relocation to a resettlement site. The evaluation should address the project experiences with self-relocation versus moving to the resettlement sites. What are the factors governing the choices people made? Is self-relocation an adequate solution? The intention was that the resettlement sites were primarily intended for the more vulnerable groups. The evaluation should assess whether this has worked according to the intentions, and how best to address the relocation needs of vulnerable groups in the future.

Livelihood opportunities for displaced persons. The evaluation shall focus particularly on whether access to income and livelihood has improved or not among displaced persons or those losing agricultural land. Efforts are underway to provide targeted groups with skills training and credit to improve their earning capacity; the evaluation shall assess the quality and adequacy of these programs. This shall address strategies to support individual or household efforts as well as

group-based activities such as fish cultivation in roadside ponds.

Relationship between Entitled Persons (EPs) and others in the project area. The evaluation shall assess how the project has addressed the relationship between those entitled to support under the project, and other residents of the area, such as host communities where resettlers have established themselves. Since the support mechanisms for EPs are quite generous, there are reports that other local people perceive the support to EPs as unjust. This shall be assessed particularly in the case of the EFAP program, which provides support to people affected by floods and erosion. The targeted support to those deemed as eligible for support under the EFAP program may lead to complaints from others, since it is difficult to determine the boundaries of project induced impacts and natural occurrences of flooding and erosion. The evaluation should address these concerns.

Exaggerated or fraudulent claims. Through implementing the RRAP and EFAP, it is reported that there are large numbers of exaggerated or fraudulent claims for compensation and support. This is particularly the case in the EFAP program. Verifying claims has proven to be a time consuming and difficult exercise, in part because of the incomplete land records available. The evaluation should review this issue, and discuss what the best ways may be to minimize claims made by people not eligible for support under the project guidelines, and suggest the best way to screen and verify claims.

Transparency and the role of local elites. It has been reported that some of the delays and exaggerated claims have been caused by local elites attempting to gain benefits from the support mechanisms intended for displaced poor people. The evaluation should review this issue, and assess whether undue influence or gains by others than the intended project beneficiaries has taken place.

Project induced dependency. There has been a concern that the entitlements and support given under the project are causing a relief mentality among the beneficiaries, leading to dependency on continued support rather than sustained livelihoods. The evaluation should assess whether the project has created unintended dependency rather than capacity and independence among the beneficiaries, and provide guidance on how to avoid or minimize unintended consequences of dependency or relief mentality.

INSTITUTIONAL ISSUES

The project is the first major, comprehensive resettlement program in Bangladesh which has incorporated guidelines to not only compensate but also resettle and rehabilitate affected people. The organizational and institutional mechanisms for undertaking this effort were not in place prior to the project, and have had to be built up gradually. The approach established is based on a model of collaboration between the Government (JMBA) and development NGOs for implementing specific components of the program.

The evaluation shall assess these organizational structures, the inter-relationships and coordination mechanisms among them, and the extent to which the organizational structures have proven

satisfactory in ensuring that the needs of the primary stakeholders have been met. Of particular importance are issues of coordination between the resettlement program and other components of the project. Have social impacts, land acquisition and displacement been taken into account in project designs and civil works? Has there been adequate sequencing of activities, to ensure that unnecessary displacement did not take place, and that full compensation and support was given to the affected people before they were made to move?

To the extent possible, the evaluation shall also assess whether more informal institutional mechanisms such as neighborhood or community ties, kinship or religious networks, or other institutions have been factors in the project outcomes.

Key issues that should be covered under this section should include but not be limited to:

Minimizing land acquisition. A great deal of land acquisition has taken place during the project period, both for the bridge itself and its support structures, the river training works, and the access roads. The evaluation should assess whether this has been kept to the necessary minimum required for the project, or whether land has been acquired unnecessarily. If it is deemed that surplus land has been acquired, the consultants should make an estimate of the cost of this, both in terms of financial cost and the numbers of displaced persons, and offer guidance on how to minimize land acquisition and displacement in future projects.

Piecemeal land acquisition and cumulative impacts on people. There are reports that some people have been displaced more than once because of land acquisition at different sites. The evaluation should assess whether adequate coordination and sequencing of land acquisition has taken place, and suggest ways in which this should be done in future projects.

Institutional sustainability. The evaluation should assess organizational issues such as capacity and coordination during the implementation of the development program, and also look at longer term institutional sustainability. This includes whether a sustainable organization with long term capacity has been built up to address future resettlement issues, as well as the model of "handing over" responsibility for longer term development to other agencies once the responsibilities laid out in the RRAP or EFAP have been carried out.

The evaluation shall assess the potential model represented by organizations such as BRAC and the Grameen Bank, which have been working with JMBA on different components of the project, where eligible people may be incorporated into the longer term development programs of NGOs or other development agencies once the specific responsibilities of the resettlement program have been met.

Governance and accountability. The evaluation shall assess the adequacy of the governance and accountability mechanisms established under the project, and assess whether any affected people have been deprived of any of their rightful entitlements as a result of fees charged or other mechanisms. The evaluation shall also assess whether project beneficiaries, officials, or others have benefited beyond the entitlements agreed on in the RRAP and EFAP.

EFAP Policy. The EFAP policy, where the Government of Bangladesh accepts responsibility for induced flooding and erosion caused by the project within a delimited geographical area and time frame, is unique in Bangladesh and possibly in the world. Implementation of this policy has proven to be challenging, and has led to complaints from other flood and erosion victims who are not eligible for support under the project criteria. The evaluation shall assess how and whether this type of policy could be implemented on a broader scale, given the difficulties in distinguishing between project induced impacts and naturally occurring floods and erosion in a country like Bangladesh.

PARTICIPATORY PROCESS

The evaluation shall assess how key stakeholders have participated in project design and preparation, and how they have been involved in implementation, monitoring and evaluation. This shall focus particularly on the groups identified as eligible for support under the RRAP and EFAP programs, but also other primary stakeholders such as local government officials and involved NGOs. The consultants should distinguish between four levels of involvement:

information dissemination (one way communication)
consultation (two-way flow of communication)
collaboration (shared control over decision making)
empowerment (transfer of control over decisions and resources)

Particular attention shall be paid to the mechanisms established for consultations and information dissemination with the project affected population. The consultants shall assess how the grievance redress system set up under the project has functioned, and the current status of complaints or cases filed.

PROJECT MONITORING AND INCORPORATION OF SOCIAL ISSUES IN IMPLEMENTATION

The evaluation shall review the project monitoring methods used during the project implementation, and assess to what extent findings from internal monitoring and external supervision and reviews have been incorporated into project implementation. This shall include a brief overview of earlier recommendations made through monitoring and supervision, and whether recommendations made have contributed to improved project implementation.

The project has used techniques and methodologies ranging from focus group discussions to satellite imagery. The evaluation should briefly review these different techniques, and provide guidance on how different tools, methodologies and data types can best be integrated in similar projects in the future. This should include an assessment of the MIS system set up under the project.

EVALUATION METHODOLOGY

The instruments used to collect data for these investigations will be developed by the consultants in cooperation with JMBA and the co-financiers. It is suggested that a review meeting be held between the consultants, JMBA and the co-financiers at the beginning of the evaluation, to clarify the scope of work and suggested approach.

Existing documentation should be reviewed by the consultants. The research team will have access to all relevant documents/records concerning the project held by JMBA or the co-financiers. Implementation and outcomes will be assessed based on the agreed principles and plans of action described in the RRAP of 1993 and the EFAP of 1996. Additional documents such as progress reports and findings from other reviews including reports from the World Bank's Inspection Panel will also be reviewed. Particular emphasis will be placed on systematic consultation with various stakeholder groups utilizing approaches such as focus group discussions and key informant interviews.

TEAM COMPOSITION

It is suggested that a team composed of five independent consultants be recruited for the evaluation, led by an international authority on resettlement issues or rural development familiar with Bangladesh. The team should consist of both male and female consultants. Of the team, at least two members should be international consultants. The following skills shall be represented among the consultants:

experience with involuntary resettlement
expertise in legal and administrative rules and practices in Bangladesh
rural development expertise, including income generation and credit
project management and organizational expertise
expertise on gender issues

It is essential that the consultants selected provide an objective and neutral evaluation of the RRAP and EFAP components. Persons who have been involved at any stage with planning or implementing the project will therefore not be considered eligible for membership in the review team, because of potential conflict of interest.

It is suggested, however, that one staff member from JMBA and one staff member from one of the implementing NGOs be seconded to work full time with the evaluation team during their field work, to assist in getting access to data and other sources of information, and provide factual information to the team. These people will not be involved in evaluating the information gathered, nor in making recommendations. The costs of these members' time will be borne by JMBA.

REPORTING

A draft report shall be presented to JMBA and the co-financiers at the end of the evaluation, and discussed at a project wrap-up meeting. Provision shall be made for time to review and comment on this report, and for necessary corrections and updates to be made by the consultants following receipt of the comments.

TIME FRAME

It is suggested that a total of five man-months be used for the review, with the five consultants working together doing fieldwork, conducting interviews and collecting primary data during a two-week period in late January or early February 2000. The remainder of the allocated time shall be used for review of secondary data sources such as background documents, and for report writing. It is expected that the finalization of the report following comments made be done by the team leader after the completion of the other team members' work; an additional week or ten days may be allocated to the team leader for this work. The final approved report should be completed by March 15, 2000.

BUDGET

The evaluation will be paid for by the co-financiers, in equal shares of the total costs. JMBA will provide logistical support including the use of vehicles and accommodation where required.

Annex 3

Inventory of Project and Policy Work

Inventory of Project and Policy Work

Thirty-four project documents (including ESWs) were reviewed and analyzed for:

- Key social issues that arise in the transport sub-sectors of rural transport, urban transport, highways, railways and ports;
- A range of methods and tools utilized for identifying and understanding the concerns of key stakeholders;
- Major findings of the social analyses/social assessments; and
- Specific linkages of these social assessment findings to operations and their impact on project design.

Other documents reviewed included terms of references, back-to-office reports, resettlement action plans, social assessment reports, project completion reports and audits.

Economic and Sector Work (ESW)

Belarus: Transport Sector Review
China: Forward With One Spirit: A Strategy for the Transport Sector
India: Transport Sector: Long Term Issues
Kazakstan: Transport Sector Review
Kyrgyz Republic: Urban Transport Sector Review
Poland: Urban Transport Sector Review
Russian Federation: Transport Sector Strategy

Rural Roads

Bangladesh: Rural Roads and Markets Improvement and Maintenance Project
Brazil: Secondary Feeder Roads Project
Bhutan Rural Roads
Kenya: Rural Access Roads Program
Morocco: Fourth Highway Project
Nepal: Rural Road Maintenance
Peru: Rural Roads Rehabilitation and Maintenance
Tanzania: Village Travel and Transport P roject
Vietnam: Rural Roads Rehabilitation and Maintenance Project
Zambia: Road Sector Investment Program

Urban Transport

Bangladesh: Dhaka Urban Transport Project
Kenya: Nairobi Urban Transport Infrastructure Project
Nigeria: Lagos Urban Transport Project
Peru: Lima Urban Transport Project
Turkmenistan: Ashgabat Urban Transport Project

Highways

Bolivia:
China: Tri-Provincial Highway Project
India: Gujarat State Highways Project
Indonesia: Northern Sumatra Regional Road Project
Russia: Second Road Rehabilitation and Maintenance Project
Yemen: Safir-Hadramout Road Project

Railways

Brazil: Railways Restructuring
Mozambique: Ports Rehabilitation and Railways Project
Romania: Railway Rehabilitation Project
Zimbabwe: Railway Restructuring Project

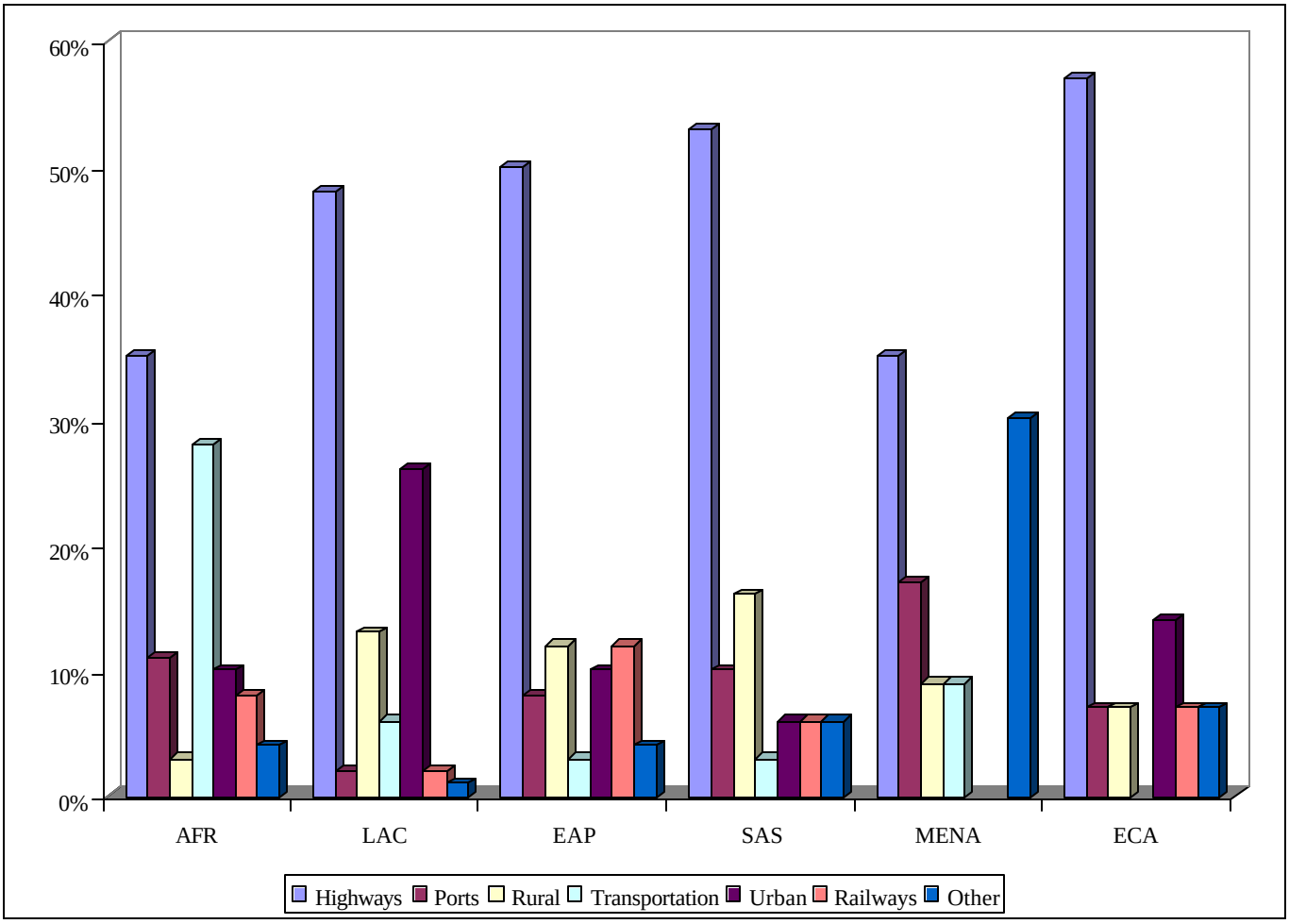
Ports and Waterways

China: Container Transport Services and Trade
Thailand: Inland Waterway and Coastal Ports Project
Vietnam: Inland Waterways and Port Rehabilitation Project
Yemen: Aden Ports Rehabilitation Project

Annex 4

Composition of Transport Lending by Region

Composition of Transport Lending by Region



Annex 5

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