

POVNET 2nd Workshop on Infrastructure for Poverty Reduction

Transport and ICT: Making Infrastructure Pro-Poor

Final Report

November 30, 2004

International Development Center of Japan

Table of Contents

Chapter 1: Introduction – The Importance of Transport and ICT on Poverty Reduction		4
<hr/>		
1. Introduction		4
2. Types of Transport and ICT Infrastructure		4
3. Effect of Poverty Reduction in Transport/ICT infrastructure		5
(1) The Relationships with Millennium Development Goals		6
(2) Sustainable Economic Growth After Achieving MDGs		7
4. The Process Until Transport/ICT Infrastructure Reach Sustainable Growth and Contribute to Poverty Reduction		8
(1) The Phase of Planning, Construction, Maintenance and Operational Management of Transport/ICT Infrastructure		8
(2) The Phase of Sustainable Service Provision of Transport/ICT Service		9
5. Focus of this Report		9
(1) Presenting General Issues of Transport/ICT Infrastructure		9
(2) Areas Covered in this Report		10
 Chapter 2: Decentralization		 11
<hr/>		
1. General Issues		11
(1) Definition of Decentralization		11
(2) Pros and Cons of Decentralization		11
(3) Patterns for Decentralization and Success Characteristics		11
(4) General Agenda in Implementing Infrastructure Projects Under Decentralization		11
(5) Types of Transportation Infrastructure and Decentralization		12
2. Agenda and Approaches Pointed out in the Answers to the Questionnaire		13
(1) Problems encountered in the development and execution of projects in infrastructure		13
(2) Approaches to the Above-mentioned Decentralization Issues		14
3. Issues for Discussion		14
(1) Common Position		14
(2) Summary of the Discussion		15
 Chapter 3: Sustainable Service Delivery to the Poor		 17
<hr/>		
1. General Issues		17
(1) Main Theme of Service Delivery		17
(2) General Agenda for Efficient Service Delivery		17
(2) Infrastructure Facility Construction and Characteristics of Service Provision in Each Sub-sector of Transport Sector		19
2. Agenda and Approaches Pointed out in the Answers to the Questionnaire		20
Sub Theme 1: Targeting the Poor		20
(1) Specific Criteria for Targeting and the Problems of Targeting the Poor Directly		20
(3) Roles of NGOs, Local Government, User Groups and the Private Sector, Roles of Targeting Mechanisms through Prices		20
(3) Approach toward Attributing Impact to the Indirectly Targeted Poor		20
(4) Experience of Ex-ante Poverty Impact Assessments and their Link with Broader Impact Analysis		21
Sub Theme 2: The Role of Subsidy and Tariff Structure for Striking Right Balance Between Affordability for Access and Financial Sustainability of Operation (Cost Recovery)		21
(1) Problems in Designing and Implementing Project/programs in terms of Access Versus Affordability and the Approaches to Them		21
(2) Experience in Sustaining Private Sector Operation; Policies/measures to make Service Delivery by the Private Sector Efficient, Reliable and Affordable		21
(3) Conditions under which Public Provision is Preferable or Justifiable		21
(4) Views on the Roles of Subsidies for Better Service Delivery for the Poor and their Design		22
(5) Approaches for Providing Affordable ICT for the Poor		22
3. Issues for Discussion		22
(1) Common Positions		23
(2) Summary for the Discussion		24

Chapter 4: Governance	25
1. General Issues	25
(1) Understanding Governance	25
(2) Relationship between Governance and Growth	25
(3) Accountability in the Provision of Public Sector	25
(4) New Role of the Government in Promoting Private Sector Participation	26
2. Agenda and Approaches Pointed out in the Answers to the Questionnaire	26
Sub Theme 1: Accountability and Capacity Building of Infrastructure Institutions	26
(1) Problems of Governance in Construction, Operation and Maintenance of Infrastructure	26
(2) Measures for Low Accountability of Infrastructure related Institutions	27
(3) Roles of Technical and Financial Assistance	27
(4) Anti-corruption Measures	27
Sub Theme 2: Participation of the Poor	27
(1) Problems in Employing Participatory Approaches	27
(2) Ensuring Participation of the Poor	28
3. Issues for Discussion	28
(1) Common Position	28
(2) Summary of the Discussion	28
Appendix	30
Issue Note for Sector Discussions	39

Chapter 1: Introduction – The importance of Transport and ICT on Poverty Reduction

1. Introduction

Transport/ICT infrastructure is indispensable for a democratic governance of the country. Moreover, “Transport/ICT” encompasses the entire process of planning, funding, and building physical facilities, administrating and managing them, monitoring their effectiveness, as well as building the institutions and organizations to regulate and sanction the efficient provision of transport and information services for public interest. Transport and ICT services help people’s security and social stability, improve productivity and income distribution, support peoples’ quality of life directly or indirectly, and enhance the opportunity for people to make use of their potential. Transport and ICT services could be only partially supplied by the market transactions. In some cases, they could not be supplied at all in the market economy. Therefore, Transport/ICT infrastructure is an indispensable public device to craft “good governance” of the world, nations, and local communities, as well as a mechanism to help people enjoy cultural and humane lives.¹

2. Types of Transport and ICT Infrastructure

Transport/ICT infrastructures can be classified into ‘Nationwide Network Type’, and ‘Local Area Network Type’, in terms of purpose, function, and effectiveness. There are strong synergies and complementarities between nationwide network type and local area network type infrastructure.

Nationwide Network Type Infrastructure: Nationwide network type transport infrastructure includes trunk roads, provincial roads, railways, international and major airports and major ports, while nationwide network type ICT infrastructure includes long distance and international telephone lines and other trunk telephone networks, data transmission lines and so on. Nationwide network type infrastructure plays a crucial role in linking a nation’s economy to abroad. Most developing countries adopt economic growth strategies, which aim to secure the relationships with abroad in view of mobilizing resources from the international market. Therefore, establishing nationwide network type transport/ICT infrastructure, which effectively connects a country with overseas, is essential to a country’s development. Moreover, as a natural consequence, a domestic backbone network to link international market and domestic economy becomes indispensable. On the other hand, the formation of national backbone network is needed to connect the industrial agglomeration that was formed based on domestic comparative advantages, the urban areas as service and consumption agglomeration, and the urban and rural area. This is also indispensable for sustainable growth and balanced development of the national territory and correction of regional income disparity.

Local Area Network Type Infrastructure: Local area network type transport infrastructure includes rural/urban roads, local/urban railways, rural ports and local airports, while local area network type ICT infrastructure includes local/rural residential telephone networks and other access lines, mobile telephone networks, data access lines, and so on. Local area network type infrastructure improves accessibility within the area and enables the efficient transfer of local resources to activate productive activity. In turn, better accessibility improves people’s quality of life. Ensuring access to other infrastructure facility and function

¹ We would like to recall the fact that in the late 19th century, Japan aimed for modern nation from its feudal society (Edo government). At this period, the first infrastructures to be developed were telecommunications (ICT), railway, and port (transport) that are indispensable for the state governance.

such as education, healthcare, and cultural services, blooms and improves their potential ability, and expands their chances to be inclusive aggressively in the process of economic growth, and increases their chances to continuously escape from the poverty trap. That is a role that infrastructure plays in sustainable poverty reduction process.

Therefore, the selection of the priority area and construction order for infrastructure, in accordance with the target country and area’s situation, are very important tasks for sustainable poverty reduction, as well as complimentary private investment.

	Transport	ICT
Nationwide Network Type Infrastructure	Trunk roads, provincial roads, railways, international and major airports, major ports	Long distance and international telephone networks, trunk telephone lines, data transmission networks
Local Area Network Type Infrastructure	Rural/urban roads, local/urban railways, local airports, rural ports	Local/rural residential telephone networks, access telephone lines, mobile telephone networks, data access lines

3. Effects of Poverty Reduction in Transportation/ICT Infrastructure

The ultimate purpose of achieving poverty reduction goals is not only to achieve them at a point in time but also to ensure the long run sustainability of the achievement. In sustaining it, the national economic growth must be sustained with due consideration for regional growth balance within a country.

Infrastructure’s role on poverty reduction is two-fold. First of all, infrastructure projects generate increased **demand** (or flow effect) during the construction and investment phase, as low-income unskilled labor is employed in public investment projects and local enterprises find business. This demand effect of infrastructure on poverty reduction is likely to be direct and short-term. Secondly, transportation and ICT increase **productivity** (or ”stock” effect) once the facilities are operational.

It is often claimed that infrastructure’s poverty reducing effect is small, or that, because poor laborers lack the means to use the infrastructure to increase their productivity, infrastructure can actually increase income disparities once the productivity effect materializes. This means that part of the poor population cannot participate in the economic growth process. Consequently, basic parallel social and infrastructure services (education, healthcare, and water) are crucial since they increase the **ability** of the poor to benefit from transport or ICT-enabled increase in accessibility.

However, indirect mid-term or long-term poverty reduction can be expected to result from the productivity increase. Both transport infrastructure and ICT play vital economic roles (such as reducing transaction cost or reducing economic vulnerability). They also facilitate international trade and connections, and create employment opportunities by enabling the promotion of economic activities as well as private sector investment. These eventually enable economic growth and consequently, increases in peoples’ income.

In order to maximize the productivity effect, the infrastructure facilities should be developed based on the current market demands for the service. However, so as to alleviate regional disparity, infrastructure facilities could also be provided even before such market demands become actually visible. Such investment in advance would normally coincide with other policies, such as industrial estate development, in expecting

the materialization of economic potential of the targeted region or area.

Referring to the above-mentioned arguments, the relationship of transport/ICT infrastructure and the Millennium Development Goals (MDGs) shall be examined in the following section.

(1) The Relationships with Millennium Development Goals

The Role of Transport Infrastructure

Macro Level: Integration in the global economy

■ Eradicate Extreme Poverty and Hunger (MDG-1)

Domestic uniformity and economic growth: Nationwide network type infrastructure improves domestic cultural/social uniformity and indirectly supports private sector economic activity. This type of infrastructure also indirectly contributes to poverty reduction through economic growth, by ensuring circular flow of the domestic economic resources, and by providing measures for international linkages. In addition, connecting rural roads to trunk roads strengthens the connection between backlands, urban areas and industrial agglomerations, which facilitates the economic development of the backlands.

Participation in markets: Availability of competitive transport services on adequately maintained trunk network is critical to the effective participation of an area in national and international markets.

International trade and FDI: Port and airport infrastructure constitutes a platform for import and export, and supports private sector economic activity. Connecting ports and airports to the trunk roads contributes to poverty reduction through expansion of employment along with economic growth, by reducing the transaction costs and strengthening the international competitiveness of local private companies, and by enabling direct foreign investment.

■ Achieve Universal Primary Education (MDG-2)

Quality of link to regional center significantly affects quality of teacher who can be attracted and his/her attendance.

■ Reduce Child Mortality (MDG-4)

Transport contributes vaccines/drug supply, and supports visits by more skilled health personnel and emergency evacuations.

Micro Level: Improvement of Access to Social and Environmental Development

■ Eradicate Extreme Poverty and Hunger (MDG-1)

Transport directly contributes to income increase of the poor by: a) providing external market reach to poor isolated villages; b) creating employment opportunities, such as working in public transportation or building roads in urban slums; c) creating jobs in road construction, operation and maintenance, as well as; d) enabling deliveries of food in case of emergency. Road networks connecting isolated rural villages can increase agricultural production, to fulfill food demand in the surrounding regions. Additionally, development of the fishery ports and surrounding roads for small fishers would have the same effect as the development of rural roads.

■ Achieve Universal Primary Education (MDG-2)

Roads facilitate access to school, and other educational and cultural services.

■ Reduce Child Mortality (MDG-4) and Improve Maternal Health (MDG-5)

Roads facilitate the access to hospitals, other healthcare services and pharmacies. They also facilitate the development of home-visit medical services by doctors and midwives. However, the development of domestic and international transport also has the negative effect of facilitating the expansion of infectious diseases,

making preventive action to accompany trunk road and port construction necessary.

■ Develop a global partnership (MDG-8)

The work on local roads/transport can generate much youth employment.

The Role of ICTs

Macro Level: Integration in the global economy

■ Eradicate Extreme Poverty and Hunger (MDG-1)

ICTs play an indirect role in promoting sustainable economic growth through: the reduction of transaction costs, the improvement of market functioning, and the promotion of exports, especially in services. ICTs also play an important role in increasing the quality and efficiency of government services, and can in particular reach poor people with information of direct use for improving their economic situation. Across a large sample of countries, the correlation of the human development index (HDI) and the networked economy index (NEI) is above 0.8, suggesting a link between welfare and the existence and use of ICT in developing countries.

Micro Level: The Contribution Through Improvement of Access to Social and Environmental Development

■ Eradicate Extreme Poverty and Hunger (MDG-1)

ICT improves the private sector's performance. The role of ICT in agriculture is important. Telecommunications reduce transaction costs, and enable farmers to obtain market information and to produce agricultural products that meet market needs, and this strengthen their competitiveness. ICT also reduces risks of the community and household from natural and man-made disasters. ICT also reduces risks of the community and household from natural and man-made disasters.

■ Achieve Universal Primary Education (MDG-2)

Distant learning can increase access to education for student and teachers in the area where the conventional method cannot assure the services with quality.

■ Promote Gender Equality and Empower Women (MDG-3)

Through ICT enabled information distribution channels, awareness of gender equality issues can be increased. Educational and literacy programs specifically targeted to poor girls & women using appropriate technologies can be delivered.

■ Reduce Child Mortality (MDG-4), Improve Maternal Health (MDG-5) and Combat HIV/AIDS, Malaria, and other diseases (MDG-7)

ICT enables rapid transmission of information on infectious diseases, that enables prevention measures against the spread of such diseases which is caused by interaction of people. By using ICT, health care workers can provide remote consultation without traveling long distances and incurring associated costs. ICT also enables efficient arrangements for emergency treatment. Access to reproductive health information is increased, including information on AIDS prevention, through locally appropriate content in local languages. Access of rural care-givers to specialist support and remote diagnosis are increased, as well. ICT reduces drug stock-outs and make efficient referrals to higher medical institutions.

(2) Sustainable Economic Growth After Achieving MDGs

It should be emphasized the importance of not just meeting the MDGs, but also of maintaining that state of achievement once the goals have been achieved. In order to do this, national economy fundamentals should be improved at the core and in a sustainable way, to induce long-term growth and poverty reduction.

Three elements will make this possible: human resources, sound government policies and systems, and investment capital. Since the MDGs incorporate many education and health sectors indicators related to BHN (Basic Human Needs), achievement of the MDGs implies the development of human resources. The latter will consequently form the basis for economic development, specifically through increased employment opportunities with higher labor productivity. Economic growth would in turn lead to the future improvement of human resources, which would further ensure economic growth that is sustainable and likely to develop as a virtuous cycle.

The transport and ICT sectors have been playing a major role in supporting economic growth, in combination with good economic policy management and the inflow of foreign investment resources. Particularly in East Asian countries, transport and ICT have made linkages of domestic industry to international markets possible and contributed to the expansion of export-oriented industry.

4. The Process Until Transport/ICT Infrastructure Reach Sustainable Growth and Contribute to Poverty Reduction

Past experience has shown that transport/ICT infrastructure does not substantially contribute to poverty reduction just by its construction. Infrastructure facilities require considerable planning, maintenance, and operational management, as well as the efficient provision of infrastructure services. The process involves various issues, from construction until results are felt. For example, who plans the infrastructure and how? How are funds raised? What design and technology are the most appropriate? Who is the management body and how does it manage? How are functions assessed? How is effectiveness tested? What is the system and organization? Does the system ensure maximum effectiveness? and so on. Before discussing these issues in the following chapters, we will first organize these issues with two phases; 1) the phase of planning, construction, operational/maintenance management of the facility, and 2) the phase of sustainable provision of infrastructure services.

(1) The Phase of Planning, Construction, Maintenance and Operational Management of Transport/ICT Infrastructure

For sustainable growth through cooperation with international market, the development of nationwide network type infrastructure, such as international ports, international airports and international ICT, is becoming indispensable. It is also necessary to develop domestic backbone infrastructure in order to realize cultural/social uniformity, to function democratic governance system, and to activate domestic economy.

In principle, the central government or its affiliated organization is the main actor in terms of planning, construction, maintenance and operation of infrastructure of national scope, such as trunk roads, railways, international ports, international airports, telephone networks and local airports. The reasons for this are that these infrastructural assets are highly public, and that their construction is often based on national policy, requires advanced technology as well as significant capital investments. However, in the service provision of telecommunications and transportation facilities, private companies often participate in planning, construction, maintenance and operation. The following are the issues: how can the central government, by anticipating the country's socio-economic development, elaborate and implement an appropriate long-term plan (construction and operation/maintenance) for transport/ICT, and secure financial resources for it; what is the government's role when private sector participation is involved; and how can the central government secure investment while enhancing accountability towards the private sector? and so on. These items are detailed in Chapter

Three 'Service Delivery' and Chapter Four 'Governance'.

Generally, local area network type infrastructures, such as rural/urban roads, local/urban railways, rural ports, and rural telephone networks have low commercial profitability. Historically, planning, construction, operation and maintenance of these types of infrastructure had been mainly done by central government, though in the countries in the process of decentralizing, local governments are becoming the main actors of development/operation. However, problems such as inadequate investment, poor management and lack of maintenance prevail, due to inappropriate decentralization of power and resources (financial, human, and technical) toward local governments. In this situation, the role of local government in decentralization becomes an issue (which is detailed in Chapter Two). It is also an important issue to reflect beneficiary's needs in each phase of planning, project implementation, operation and maintenance, and enhance beneficiary's ownership to seek long-term sustainability of project effect. (It is discussed in Chapter Three 'Service Delivery' and Chapter Four 'Governance' in detail)

(2) The Phase of Sustainable Service Provision of Transport/ICT Services

Whereas public entities attached to central governments retain a central role in the provision of nationwide network type transport/ICT infrastructure, private sector participation is increasing. The associated dilemma is how governments can best develop an attractive environment for the private sector (in particular, improving the competitive/regulatory environment) and minimize private sector risk to an acceptable level (this is discussed in Chapter Four 'Governance' in detail).

Because of the low profitability of transport services which use local area network type infrastructure, the private sector shies away from these investments, and on this premise, it is common for public organizations affiliated to local governments or municipalities to provide these services. Related issues are the following: targeting the poor effectively, balancing financial sustainability of service providers with user affordability (commercial prices, minus possible subsidies) (These items are detailed in Chapter Two).

5. Focus of this Report

(1) Presenting General Issues of Transport/ICT Infrastructure

Transport/ICT Infrastructure generally concerns a large variety of issues discussed both on the macro and micro level of the country. The issues include the following:

Transport Infrastructure

Macro Level: Contribution Through the Country's Integration in the Global Economy

Development Plan: Consistent plans for regional development and transportation infrastructure development (taking into account geographical relationships between agglomerated industrial areas and ports and interurban transport, securing inter-modal connections, assessing traffic volume, establishing appropriate investment plan, and so on)

Promotion of Competition: Institutional reform of transport agencies. (Problem of inefficient transport agencies, policy action for reform); deregulation in terms of promotion of competition in transport services both in rural and urban area; financially independent management and related regulation of railway and port business unit, securing competition in the road carriage business.

Public Regulation: Regulation of overloading in aspects of traffic safety and road operation and maintenance; traffic safety measure, and so on.

Micro Level: The Contribution Through Improvement of Access to Social and Environmental Development

Urban transportation : Designing urban transport service strategies for the poor; making use of public transportation in slums, and so on.

Rural transportation : Providing basic access and mobility (rural roads); improving and maintaining rural transportation infrastructure; construction and operation and maintenance of transportation infrastructure, and securing funds; the need for road operation and maintenance and fiscal policy to enable it; motorized vs. non-motorized vehicles; non-transport solutions (better provision of facilities near households); participation of the poor in road construction plans; operation and maintenance through participatory and labor-intensive methods.

ICT Infrastructure

Macro Level: Contribution Through the Country's Integration in the Global Economy

Development Plan: Consistent development plans for the country's telecommunications network.

Promotion of Competition: Competition between wireless mobile network operators and regional telephone networks; appropriate legislation and regulatory safeguards; tariff regulation for regional telephone service

Micro Level: The Contribution Through Improvement of Access to Social and Environmental Development

(Within the local area) Planning universal access policy and the related issues of regulatory reform and of smart subsidies for rural telecommunications development, possibly through minimum-subsidy auctions for subsidies from universal access funds

(2) Areas Covered in this Report

Since the general issues presented above cover enormously wide areas, this report focuses on the three themes of "Decentralization/Service Delivery/Governance", which will be discussed from Chapter 2 to Chapter 4, with reference to each country's answers.

Chapter 2: Decentralization

1. General Issues

(1) Definition of Decentralization

Decentralization is generally described as “the transfer of the authority to plan, make decisions or manage public functions from the national level to any organization or agency at the sub-national level” (Mills et al. 1990, p.89, quoted by OECD 2004, p.16).

(2) Pros and Cons of Decentralization

Pros: Decentralization is expected to trigger the following benefits: (i) increased information-sharing between central and local governments (ii) enlarged participation opportunities for local stakeholders (iii) responsiveness to local needs (iv) improvement of accountability and transparency, and reduction of corruption (v) increased sustainability of development projects. The above-mentioned benefits are expected to materialize when the authority over construction, operation and management is delegated to local governments for local area network type infrastructure facilities and services, and, in some cases, the construction of nationwide network type infrastructures facilities (roads, ports, airports; where both central and local government have different roles).

Cons: Decentralization increases regional economic disparities as a result of possible local-focused views on economic development without attention to national-level considerations. Moreover, opportunistic behavior caused by increased authority of local governments, and risk of moral hazard caused by soft budget constraints on local governments can be detrimental. Increase in coordination costs of regional and local government budgetary allocation is foreseen, as well.

(3) Patterns for Decentralization and Success Characteristics

Patterns of Decentralization: Ideally, the following aspects of decentralization should be adequately addressed: (i) political decentralization (ii) public administration decentralization (iii) fiscal administration decentralization. However, in practice, addressing these three aspects simultaneously, especially political decentralization, is difficult. Therefore, customized solutions are required to address the specific situation in which decentralization is required. Decentralization is a dynamic process, rather than a fixed form of institutional arrangement. Its characteristics are subject to change in function of the government in power and popular trends.

Characteristics of the Countries Where Decentralization Generated Poverty Reduction: The following correlations arise from the analysis of the countries successful (where decentralization led to poverty reduction) and unsuccessful with decentralization. LLDCs with a literacy rate below 50% were not successful at using decentralization to reduce poverty. Instead, most successful countries are lower middle-income countries with a literacy rate of over 80% and qualified as “free” by Freedom House based on the assessment of the state of political rights and civil liberties (Jütting et al. 2004).

(4) General Agenda in Implementing Infrastructure Projects Under Decentralization

Lack of clear division of roles between central and local governments makes it difficult to decentralize transportation infrastructure, especially the nationwide network type. In order to promote decentralization, establishment of adequate laws and institutions and partnership between central and local governments are

essential. Fiscal decentralization does not necessarily accompany administrative decentralization, so determination of central government to decentralize is sometimes questionable. The local government capacity development is in demand, as well.

The followings issues are applicable to both international and local area network type infrastructures: i) securing road funds for investment, as well as operation/maintenance, ii) more awareness of the budget requirements to cover operation/maintenance, and iii) alleviation of financial disparities among localities.

In local area network type infrastructure projects, participation and ownership of beneficiaries play an important part in decentralization. The following points relate mainly to local area network type infrastructure: i) participation of beneficiary in planning, implementing, and maintaining infrastructure projects, ii) supervision and monitoring by beneficiary, iii) establishment of cost-sharing mechanism (financial resources and labor) by beneficiary, and iv) establishment of service delivery mechanism to target the poorest.

(5) Types of Transportation Infrastructure and Decentralization

Road

In nationwide network type infrastructure such as trunk road networks, the issue is the division of roles between central and local government. On the other hand, in local area network type infrastructure such as rural roads, participation by and reflection of the needs of beneficiaries also become important. Division of role between central and local governments is associated with classification of roads according to their function and service coverage of the corresponding supervisory agency. How to distribute road-related funds to finance maintenance is also an issue.

Railway

In nationwide network type infrastructure such as national railways network, horizontal unbundling depending on the railway project service type or area based division of service provider have been implemented as a sector reform. This does not match with the decentralization concept of administrative organization stated here. Transport facilities of interurban railway, urban railway, and local railway are provided either by public sector unit which owns railway facilities in the case of horizontal unbundling, or by railway organization serving the respective area in the case of area based division. On the other hand, transport service is either operated by public corporation affiliated to the central government as a part of national standard service or by the other organization, which solely operates at the local railway service area. Thus, it cannot be categorically described that the service provision is done by municipality or by local government affiliated organization. An issue in the transport service provision is that how to provide efficient and high quality services by reflecting user's needs (including both passengers and cargo).

Port and Airport

Similar to roads, in the case of port and airport, the central government operates and maintains major ports and airports, which function as the nodes of major maritime and air traffic. In other ports and airports, local government plays a large role in constructing, operating and maintaining the facility, by providing investment funds and by operating the facility by itself. Therefore, the issue relates to how to divide the coverage of responsibilities and funding in panning, building, operating, and maintenance between central and local governments.

Transport Service Provision

When the transport sector is deregulated parallel to decentralization, local government faces the problems

of how to promote entry of private sector and how to develop local transport industry, as targeted service area of transport service is limited for urban and local transport (subway and bus) services. In such case, local government takes over the role of central government, which has been traditionally assured, by the central government such as developing the comprehensive urban transportation strategy and planning and maintenance of each transport mode.

2. Agenda and Approaches Pointed Out in the Answers to the Questionnaire

Sub Theme 1: Division of role between central and local governments

(1) Problems encountered in the development and execution of projects in infrastructure

All donors regard premature organizational structure and setting as serious constraints for decentralization. The responsibility among administrative entities is not clearly specified, in particular. ILO-ASIST makes an explicit statement about difficulty of matching among authority, responsibility, and accountability. Responsibility is relegated to regional offices of a central authority without the involvement of the attendant authority. Hence, local level authority needs to be clearly divided between the appropriate parties and institutions best equipped to deal with the various responsibilities.

Most donors pointed out that weak capacity in infrastructure investments, management and maintenance are as severe constraints, especially for local government. Some donors mention that availability of equipment and transport is also a significant problem. Moreover, the UK pointed out that local government usually has very limited ability to borrow for infrastructure investment.

Donors also consider insufficient local financial resources as another problem. Low awareness of the budget requirements to cover operation/maintenance is pointed out, as well. Furthermore, donors face resistance to decentralization in line ministries, where donor projects provide numerous incentives, both monetary and in terms of career advancement.

(2) Approaches to the Above-mentioned Decentralization Issues

Coordination between donors and central government is often proposed. According to Ireland, SWAPs have been a key instrument in advancing dialogue on the issues affecting local government. Moreover, many donors regard institutional building and capacity development as important issues. It is, for instance, considered necessary to build systems to share information and know-how between central and local governments and to ensure coordination between the two. Furthermore, using outside parties is proposed by Switzerland due to a need for close project monitoring through consultants and its local partners. As a solution to securing operation and maintenance funds, Germany suggests to establish local maintenance funds. Participation of beneficiaries can be supported in several ways. Donors introduce such practices as signing a project agreement with beneficiaries to clarify each actor's role, or coaching representatives of the local beneficiary.

Sub Theme 2: Local resources for investment and maintenance

(1) Counterpart Fund Issues

In many occasions, inadequate funds especially for road construction and operation maintenance, are considered a big issue in infrastructure development and maintenance. Firstly, the division of role among donor, central government, and local government on their financial, administrative and operational

responsibilities is not clear. Secondly, the government is often not reliable for their responsibilities because of the weak local government structures and financing mechanisms, or because of the inadequate management of the fund. Moreover, the limited budgets of central and/or local government are a bottleneck. The UK suggests that in the case of Nepal "Counterpart funding is often there in principle, but in practice, budget releases are delayed or not existent."

(2) Approaches to the Above-Mentioned Counterpart Fund Issues

To overcome funding issue, many donors suggest the improvement of budget system. As a solution to inadequate local maintenance funds, Australia is working with partner governments in developing public expenditure review mechanisms as a part of public sector reform and promotion of good fiscal management. A need for clarification of responsibility and mandate for certain aspects of infrastructure is suggested by the UK. Japan also points out possible solutions for increasing independent revenue from local sources by improving collection efficiency, reviewing the criteria for allocating grants from the central government, efforts to increase revenue such as the introduction of local automobile tax or registration tax, etc.

As ways to improve revenue system, review of overall national tax system is suggested by Japan, whereas Switzerland proposes the examination and discussion of sector policies with other donors to give more power to local governments to make independent decisions about raising tariffs and/or taxes. In many developing countries, road fund is established to secure resources.

Promoting efficiency to reduce cost and providing complementary means in operation and maintenance are suggested by many donors in different methods. Firstly, adaptation of cheaper design is often sufficient. Ireland introduces its example of supporting the Transport Research Laboratory to examine the whole life cost of roads and to recommend alternative surfaces. Ireland also makes effort to focus on maintenance instead of new investments. Some donors suggest the need of community contribution in the form of toll charge or other ways. For such, institutional building and capacity building for operation and maintenance should also be implemented aiming at proper local government structure and finance mechanism.

3. Issues for Discussion

(1) Common Position

Central government has roles to play under decentralization: Even under decentralized schemes, central governments play an essential role, and the respective roles and responsibilities of central and local governments should be clearly defined. Central and local levels of government need to coordinate with each other according to a clear-cut division of role and authority. The central government needs to provide an overall framework for territorial development to achieve balanced development of the country, within which national transport and ICT plans should be elaborated and executed. Nationwide network-type infrastructure, which connects an entire region of a country, must be planned, constructed and maintained, with adequate international linkages, by the central government ministry or agency, since it concerns the circulation of passenger, freight and information at international and national level. The "essential facilities" such as local loop in telecommunication or railway trucks must be provided by the public sector, while proper regulation of access charges is essential for ensuring the level playing field, and must be enforced by the central governments. It should also provide guidance and technical support to the local governments.

Local government has potential to satisfy the needs of its constituents but lacks appropriate institutional setting and capacity: Local government should plan, build and maintain the local area network-type infrastructure in their area of jurisdiction, within the framework of a national territorial development plan. Individual projects by local governments should be planned and implemented according to the economic and social priorities of the targeted areas or sub-national regions and should take into consideration the needs of local people. However, local governments often lack adequate institutions, human resources, and financial resources to rise up to the job. As a prerequisite to making local government services accountable to the constituents, necessary institutions and human capacity must be developed, with the support of donors.

Lack of government's financing is a serious issue especially for the sub-national governments: A major issue is that financial resources for the construction, operation and maintenance of roads, are insufficient. This is apparent in the counterpart funding of both new investments and maintenance. The *maintenance* funding problem stems from government officials' lack of awareness of maintenance needs. And the problem of *both* new investment and maintenance funding is even more serious for lower-class roads at sub-national level. In situations where local governments depend on central governments for financial resources, budget allocations must take into consideration these new infrastructure-related responsibilities. When dealing with transportation projects at the sub-national level, donors should address the maintenance funding issue with central government ministries. As to the partner countries, they should factor in that new investments generate new maintenance expense, and should themselves take the responsibility of planning and providing budgets for maintenance costs.

(2) Summary of the discussion

At the second workshop of Infra Poor Task Team, several key issues were discussed by the Sector Working Group on Transport/ICT. The discussion during the session for Decentralization is summarized as follows.

Firstly, it was pointed out that one of the most important roles of the central government should be the **inter-disciplinary planning at the national level**, including PRSP. Promotion of cross-sector planning at national level within the framework of PRSPs was stressed as well as the integration of transport strategy with other sectors to enforce poverty reduction impact. Such integrated strategies should be realistically budgeted, and financial resources should actually be allocated at both national and local levels. It was also mentioned that the donors must differentiate their approaches according to the levels of counterpart for cross – sector articulation; inter ministerial consultation is important at the central government. Moreover, the central government was expected to introduce a **holistic approach to transport at sector level**. A holistic or life cycle approach was considered to be necessary; such approach considers implementation and maintenance stages in planning. An importance of network approach was also underlined, which links cross border network with that within a national boundary and the primary network with feeder and rural roads. A greater focus should be put on multi-modal services linkages and on intermediary mode and non-motorized solutions to improve mobility and access.

Secondly, **multi-sector capacity building at local government level** was much emphasized. Comprehensive and multi-sector plans should be formulated at the level of decentralized governments in order to respond to local needs and this requires multi-sector planning at sub-national government where such capacity is not sufficiently equipped, so that support multi-sector capacity building at local government level was underlined. It was considered important to clarify the roles of central and local government as

well as the private sector in planning, regulating, constructing, operating and maintaining infrastructure services. The donor should sufficiently understand the present conditions of decentralized governments and provide assistance that reflects these conditions.

Thirdly, **better maintenance management** was stressed in the face of insufficient financial resources of the sub-national governments. The participants from the partner countries pointed out the non-interest of the politicians on maintenance. The importance of transport infrastructure maintenance was underlined with the needs to provide appropriate funding (user charges, budget and donor funding) as well as to establish appropriate management systems for sustaining the maintenance works. The participants underlined utilization of local human resources, by employing labor-intensive methods and by adopting appropriate standards for technical specification and the development of local industry and the use of NGOs.

Finally, participants expected **increasing and making more effective use of resources**. Substantial increase in resources – including donor funding - for transport infrastructure and services is necessary while more emphasis must be put on the increase in local resources. Smooth and actual budget transfer from the central to sub-national level governments is another important issue.

References

Jütting, J. et al. (2004), “Decentralization and Poverty in Developing Countries: Exploring the Impact”, OECD Development Centre Working paper No.236, OECD, Paris

Mills, A. et al. (ed.) (1990), “Health System Decentralization. Concepts, Issues and Country Experience”, World Health Organization, Geneva

OECD (2004), “Lessons Learned on Donor Support to Decentralization and Local Governance”, OECD, Paris

Chapter 3: Sustainable Service Delivery to the Poor

1. General Issues

(1) Main Theme of Service Delivery

Service delivery refers centrally to how efficient and high quality services can be provided in order to achieve poverty reduction through economic growth enabled by improvements in productivity, and also to contribute to the improvement of the poor people's quality of life. Service delivery can be classified broadly into two categories: 1) delivery of infrastructure facilities themselves (plan, construction, and management), and 2) delivery of transport services utilizing infrastructure facilities (transportation of passengers or cargo by buses, trucks, subways, marine transports, airlines, and so on) "Infrastructure can deliver major benefits in economic growth, poverty alleviation, and environmental sustainability (and, improvement of quality of life) – but only when it provides services that respond to effective demand and does so efficiently" (World Bank 1994).

(2) General Agenda for Efficient Service Delivery

Options for ownership and service delivery entities for efficient service delivery:

Delivery of transport infrastructure facility is efficiently provided through public ownership/public management (government sector, state-run companies/public corporations, government corporation), public ownership/private management (concession, lease), private ownership/private management, and delivery by beneficiaries. Also, services in transport/ICT sector include the transportation and transfer of people, goods, and information in various means. Both the public and private sectors can provide such transport/ICT services.

Competition policy and regulatory policy to promote efficiency in the sector as a whole:

How to promote providers to deliver efficient and good quality services by competition policies such as privatization, deregulation, horizontal separation/vertical separation (in the case of railways) as well as rules securing commercial viability are challenges. Along with efficient service provision by competition policy, how to secure the access to service by all users (universal access/ universal service), and the equality of providers, as well as safety by means of regulation are the issues (Kessides 2004).

There are two methods in regulations. The first one is a regulation based on price factor (economic regulation), which is a method of price regulation (price cap, yardstick, long-term incremental cost model, and so on) and setting an interconnection rate (access charge) between providers of telecommunication services. The second one is a regulation based on non-price factor (social regulation). Regulations on safety standards of vehicles and ships etc., load capacity/limitation of numbers of people, service standards (numbers and frequency of the service, route allocation, division of road by use such as bus lanes), and safety standard of the crew should be considered.

Policies to encourage service providers (deregulation of participation, support to start-up businesses, financial support, development of competition environment, establishment of safety standards, and so on), revision of related policies and measures to develop equal competition environment with other transport modes, and elimination of other policy/non-policy barriers, etc. should be established.

Cooperation between the modes of transport in urban/regional transportation:

Elaboration of coordinated and integrated policies by government for transport service provision such as railways, buses, subways, and roads. How to improve user mobility (reduction of time, and improvement of

accessibility) considering the future change of each regional/urban function (commercial area, industrial area, agricultural area, and residential area, and so on)

Organizational management of the service providers:

In the case service provider changes its status from government sector to public corporation, how to introduce and consolidate commercial principle in its management. Also, how to handle the lack of capacity related to finance, human resource management and technology, whose characteristics have been changed by such organizational change.

Fund raising of the service providers:

Systems/means of fundraising and risk allocation. Since large financial resources are needed for construction/management of infrastructure facilities, in the past, the public sector has often provided financial support through governmental budget. On the other hand, there is a case that the private sector construct/manage infrastructure facilities while the private sector also raises the fund through contract with the government. In such a case, how to allocate risk between public/private sectors becomes an issue. In some transport services, basically private service providers raise funds through their own business management, while to provide transport services in under-populated area, local governments finance transport service provision through their support by subsidies.

From single sector project toward packaged multi sector project

Currently, a road project only focuses on the improvement of the road network, or a telecommunication project builds nothing but telephone wires. Similarly, electrification project constructs electric wires and other related facilities with little linkage with the development of other types of infrastructure. If these infrastructure projects are sufficiently coordinated and simultaneously implemented, the total project costs should decrease to a large extent. For instance, in implementing a road improvement project between city A and city B, if electric and telephone wires are built between the two cities at the same time, the total cost of the projects should be saved significantly.

Care for the poor:

In the provision of local area network type infrastructure facilities, issues include the provision of infrastructure of appropriate size and standard, and the employment of the poor in facility construction. Concerning the provision of transport service utilizing local area network type infrastructure, issues include appropriate methods/standards of targeting the poor as users, and securing the balances between financial sustainability of the providers and users' ability to pay (decision of appropriate tariff structure and subsidy level).

On the other hand, the plan to provide nationwide network type infrastructure facilities should basically be based on a market principle (demand lead model), though it plays an important role by cooperating with other policies for priority investment (demand encouragement model) to contribute country's development target to reduce regional disparity. In many cases, the transport services utilizing nationwide network type infrastructure are under the regional monopoly, so the promotion of fair competition by regulation of government becomes an issue.

Care for the environment:

The following measures are proposed to make transport/ICT infrastructure environmentally friendly: Utilization of alternative technology and demand side management for resource-saving and prevention of pollution (avoiding bad quality fuel and diesel oil, introducing fuel-economy type engines, promotion of public transport, regulating vehicles inflow to the central business district, utilization of non-motorized

transport, and construction of disposing facility of oil waste in port), selection of service provision site, care for sustainability such as recycling, setting environment regulation/safety standard.

Care for road safety:

Traffic accidents are a major source of premature deaths, lifelong disability and losses to households. Of particular importance is the role of properly designed infrastructure to prevent from disabilities. This is particularly true for road safety issues in urban areas.

Needs for adequate capacity

Over-investment surely reduces the economic value of the infrastructure, but under-investment could be a worse problem because under-investment might become a bottleneck of economic activities and depress economic growth. In the case of the development of ICT service, such as Grameen Phone in Bangladesh, the initial surplus capacity of the backbone infrastructure has enabled the country to expand the service very rapidly. If the additional cost of investment is low, it might be necessary to make the infrastructure service adequately expanded to some extent in preparing for future increase of demand or for unexpected rise in demand.

(3) Infrastructure Facility Construction and Characteristics of Service Provision in Each Sub-sector of Transport Sector

Construction of infrastructure facility

Concerning the facility of transport infrastructure, particularly the nationwide network type infrastructure on the nationwide network such as national roads or railways, the central government and its related organizations are in charge of providing the infrastructure facilities that should be developed based on national policies such as National Comprehensive Development Plan. However, in the road network, it has been provided by various levels of government, according to hierarchy of the network classification, such as provincial roads by provincial government, prefectural roads by prefectural government, municipal roads by municipal government. In the past, central government has been involved considerably in the planning and construction of these roads. Along with decentralization, these functions are clearly transferred to local government and the role of central government became concentrated in establishment of backbone network, and also its planning, construction, operation and maintenance. Recently, it is not only the local government that constructs the rural roads, but also the beneficiaries who participate in the process of planning, operation and maintenance.

Concerning port and airport, particularly those forming nationwide networks just as national road network, and those having national importance in the national policy, central government or its affiliated organizations are in charge of providing facilities. On the other hand, local government or private companies contracting with local governments provide facilities in some cases.

Provision of transport services

Transport services utilizing nationwide network type infrastructure (railways, marine transport, and airline services) have been monopolized by public providers in the past in many countries, but now private companies play main role of service provision.

In many cases, urban/local transport services (urban railway, and buses) utilizing local area network type infrastructure have been provided by local government, municipal government, its affiliated organization, or even by private company authorized by these local governments, since its service area almost overlaps the administrative areas of those governments. In bus services, the private sector replaces the public sector

monopoly due to deregulation.

Principle of beneficiary's burden sharing in provision of transport infrastructure facility

Reflecting the fact that impact of construction shall spread nationwide by making the national economic activities much efficient, in many cases, the basic plan of nationwide network type infrastructure facility is being made by central government, and the construction, operation and management of toll collecting infrastructure is being done by private sector.

The local governments invest in the local area network type infrastructure facility from their budget. When local government cannot secure enough financial sources by itself, it happens that the cost of construction is bared by the central government budget as a part of the central government's development plan. Also, concerning the construction of community roads, beneficiaries incur the cost directly in some cases.

2. Agenda and Approaches Pointed Out in the Answers to the Questionnaire

Sub Theme 1: Targeting the poor

(1) Specific criteria for targeting and the problems of targeting the poor directly

In most of the cases, the geographic targeting of the poor is based on socio-economic study, existing socio-economic indicator (i.e. HDI) and household survey. Japan considers it necessary to target the poor that can utilize economic opportunities, as the impact of road development to poverty reduction is indirect through the vitalization of local economy. Ireland suggests the targeting by salary by employing the poor in project construction. As the method of targeting the poorest, participatory methods based on Poverty Reduction Strategy are the mostly used. For example, France uses the socio-economic studies carried out in a participative way within the framework of the Poverty Reduction Strategy. Switzerland also notes that they analyze the social, economic, ecological and cultural factors for poverty, and identify the poorest groups within the society. Regarding the problems to target the poor, the difficulties of clear-cut targeting of the poor are pointed out. For instance, Switzerland mentioned the difficulty to administer the income levels as selection criteria.

(2) Roles of NGOs, local governments, user groups and the private sector; roles of targeting mechanisms through prices

Concerning the issue of the role of NGOs, Australia notes that NGO and community involvement in transport infrastructure is critical in the East Asia and Pacific region as to manage the complex land ownership issues. Irelands also notes that NGO, user groups and local government have primary roles in identifying the poor and facilitating the poor to identify their needs. Switzerland notes that the international private sector can have a strong role in improving the efficiency and effectiveness of the services, thus reducing costs and improving the responsiveness to the needs of the poor. Yet, in order to make sure that the poor actually benefit from the private sector involvement, clear rules and targets have to be set in advance by the government.

(3) Approach towards attributing impact to the indirectly targeted poor

The general difficulties in identifying indirectly affected poor are suggested. Japan emphasizes that, as precise and direct targeting is not easy for nationwide network type infrastructure, most of the beneficiaries of this type of infrastructure benefit indirectly. Thus, when selecting the targeted area of the nationwide

network type infrastructure project, Japan considers regional income disparities identified through poverty surveys by the national government and donor agencies

(4) Experience of ex-ante poverty impact assessments and their link with broader impact analysis

The U.K. mentions that the links with PRS are often not well made, and expresses a concern that some of the practical assessment issues that should inform longer-term planning will be lost while focusing more on policy level initiative. Japan emphasizes that it is appropriate to take following three elements into consideration in designing the rural electrification projects: first, the combined provision of vocational training and micro credit scheme creating the chance to make the poor family materialize the minimum regular earnings thus enabling them to hook up to the electricity; second, the appreciation of the benefits derived from the electrification by the poor are important source for driving the poor to use the electricity; and third, electrifying the social facilities such as health center and school provide positive impact to the poorer segment of the population that is not capable to finance to connect their individual household to the distribution network.

Sub Theme 2: The role of subsidy and tariff structure for striking right balance between affordability for access and financial sustainability of operation (cost recovery)

(1) Problems in designing and implementing projects/programs in terms of access versus affordability and the approaches to them

The need of commercial-based pricing structure is mentioned. However, Japan pointed out that commercial-based pricing structures demand excessive financial burden to the poor population. With respect to cost recovery in providing facility, it is mentioned that rural roads need subsidization because the volume of traffic is low. But even high-volume roads often do not pay for themselves because fuel taxation is too low or because the incomes from fuel taxation are not attributed to the transport sector. Japan also notes that it is necessary to improve both willingness to pay and capacity to pay in order to improve affordability.

(2) Experience in sustaining private sector operation; policies/measures to make service delivery by the private sector efficient, reliable and affordable

In order to sustain private sector operation, private sector participation approaches are used as viable tools. To ensure access to the poor segment and to combat poverty, however, private sector participation needs to be accompanied by a strong regulatory component. Ireland adds the importance of involvement of community in design and management of contract through NGOs. OECD points out that ICT is useful for monitoring data on service delivery, where commercial contact with private providers is based on their performance, in particular. ICT could also help providers overcome revenue collection problems.

(3) Conditions under which public provision is preferable or justifiable

Switzerland argues that public provision is a good solution, if the public utility is run in an efficient manner, if the utility is autonomous from the political level, or if the tariffs are set independent from political influence on a level that guarantees the long-term operation of the facilities. U.S. also points out that public provision is preferable if the local private sector does not have capacity or financial strength to perform

implementation, or if there exist natural monopolies combined with an inadequate policy and regulatory framework.

In addition, Japan points out that since the provision of utility services in rural areas needs higher cost than that in urban areas, and rural populations generally have lower income than urban residents, there is concern that no private providers would offer services in rural areas, which also justifies service provision by the public sector including ODA.

(4) Views on the role of subsidies for better service delivery for the poor and their design

Japan emphasizes that the subsidies should be supplied directly to the poor population as opposed to organizations executing projects, in order to expand the access by the poor without interfering with the efficiency and sustainability of public utility services. The U.K. explains that in some cases, subsidies are justifiable, but need to be managed very carefully so as not to be captured by the not-so-poor, and it would be better if provided as a target (i.e. output based) rather as a fairly blunt incentive (i.e. input based).

(5) Approach for providing affordable ICT for the Poor

Links between ICT and poverty reduction is widely recognized, however, direct access by the poor to more advanced ICT in particular is extremely limited. "Universal Access (UA)" policies are known as the targeted pro-poor policies to complement liberalization of telecom sector. They aim to provide available, affordable, and accessible access to telecommunications services in rural through a combination of private and public access facilities. Universal Access Funds (UAF) for telecommunications is a tool for implementing the Universal Access policies created in many countries, generally through a levy on the telecom industry. They represent a way of subsidizing Universal Access, by providing financial incentives to the business sector to deploy telecommunication networks in rural areas. In an increasing number of developing countries, the UAF approach is seen as the best option. Pre-requisites to setting-up a successful UAF, for examples are: 1) government support of the telecommunications industry and well-defined UA policy, 2) promotion of regulatory reform and competition, 3) market-oriented regulatory measures to increase universal access without subsidies, and 4) investment in other sectors which increase the effectiveness of telecommunication infrastructure. For successful UA policies, minimum-subsidy auctions are considered to be an efficient method to balance (i) enhancing universal access; (ii) minimizing level of subsidies; and (iii) enabling the sustainability of operators after the one-time subsidy has been awarded. In order to successfully achieve UA policies, donor financed pilots UA project can help developing countries build experience and capacity in managing the above mentioned minimum-subsidy auctions.

3. Issues for Discussion

(1) Common Positions

Infrastructure facility provision is the prerequisite of transport and ICT service delivery: Building and maintaining well-functioning transport and ICT infrastructure *facilities* is the prerequisite to delivering transport and ICT *services*. It is the public sector's role to provide such infrastructure facilities especially in areas where financial return-on-investment is unacceptably low for the private sector and that are the bottlenecks of network. For nationwide network-type infrastructure where the associated services have revenue-generating potential, the private sector can also participate in designing, building and operating the

facilities under auspice of the public sector. To provide access to transport facilities to the poor segment of the population, existing socio-economic surveying can be used as a proxy for geographical targeting. To design, build and maintain local area network-type transport infrastructure that meets local needs, a participatory approach involving local communities and NGOs is crucial and the use of labor intensive methods create demand effect.

The beneficiary-pay principle should be the basis and subsidy must be introduced due to affordability consideration: The “beneficiary-pay” principle should be applied for both transport infrastructure facilities and service provision. The corresponding costs should be recovered in various ways. For the national road network, although road funds, created through vehicle registration fees, fuel levies and toll road tariff are introduced in several countries, they are incapable of financing the totality of maintenance needs. Similar cost recovering mechanisms must be enforced or introduced for other transport facilities such as ports, airports and canals. For transport services, this beneficiary-pay principle assures financial sustainability of the service providers and, if properly managed, also gives appropriate pricing signals that help maintain the efficiency and quality of the services. It is generally assumed that the beneficiaries’ contribution ought to cover at least operation and maintenance costs. However, in providing transport services to the poor or in rural areas where the poor are dispersed, it should be recognized that the poor cannot afford normal commercial tariffs. Subsidies are therefore necessary to enable the operation’s financial viability and must be funded from government budget, from special funds financed by a tax or service charge on the relevant sector. It is important to note that cross-subsidies can no longer be used efficiently when competition is introduced (cream-skimming). Universal access fund in telecommunication is one of the innovative mechanisms.

Regulatory framework is important to enable competition leading to efficient service delivery with quality and the role of government changes accordingly: *Private* sector entities are generally expected to deliver more efficient transport and ICT services than the public sector. In addition, *competition* between several private firms is expected to increase efficiency and quality of services. However, to enable private sector participation and competition in transport and ICT infrastructure, the government must put in place the appropriate regulatory framework, and must have the capacity to enforce the law, particularly to avoid “bottleneck monopoly” situations. This involves major changes in the traditional role of public transport authorities, and thereby necessitates human resource development. While private sector participation in transport and ICT service delivery is very desirable, some geographical areas may not be financially viable and thus not attractive for private sector investment and/or operation. In such areas, even though the public sector must continue to provide services, services should be delivered by striking a right balance between economic efficiency and social equity through needed regulation and competition.

(2) Summary of the discussion

At the second workshop of Infra Poor Task Team, several key issues were discussed by the Sector Working Group on Transport/ICT. The discussion during the session for Sustainable Service Delivery to the Poor is summarized as follows.

Firstly, the importance of **providing well-functioning transport facilities** was emphasized. Provision of well-functioning transport facilities was considered as a duty of both national and local government. It was suggested to apply appropriate technologies and technical standards to extend access as widely as possible to the poor. Moreover, appropriate and accessible design of transport services should be considered, including

non-motorized transport. It was also agreed to undertake much better analysis of needs and demands (particularly in rural areas) to ensure effective **pro-poor targeting** and to improve the prioritization of investments. Techniques and approaches of pro-poor targeting exist already.

Secondly, **sustainable financing of the sector** were discussed. Use of tailored **beneficiary-pay principles and subsidies** which assures the appropriate services provision were considered important for the benefit of the poor. It was pointed out that the problem of the road fund was not the mechanism but the fact that the better-off users were not paying what they should pay and the decision making process on the usages of funds. It was also pointed out that the poor level of management among the transport services providers and excessive levels of tax on auto spare parts, both of which negatively affects the operation of the service providing entity thus impeding them to provide better and sustainable provision of transport services.

Thirdly, it was agreed among the participants that **the regulatory framework** is the key for pro-poor service delivery, as the minimum service level can be assured by providing appropriate level of regulation. In this context, an independent and strong regulatory body was regarded as important. Cross subsidization was considered appropriate and necessary under competitive environment. The introduction of cross subsidy did not contradict with that of regulatory framework while careful use of subsidy is necessary particularly for the rural area.

Fourthly, **the need to consider road safety and disability** was discussed. It was required to give safety and security much more attention, among the transport services providers and users and pedestrian.

Finally, participants emphasized **the need for district level capacity to plan and implement the projects beyond infrastructure sectors**. The need for cross sector planning and demand driven approach were emphasized.

References

Ioannis N. Kessides (2004), "Reforming Infrastructure: Privatization, Regulation, and Competition", A World Bank Policy Research Report, World Bank, Washington D.C.

World Bank (1994), "World Development Report 1994: Infrastructure for Development", World Bank, Washington D.C.

Chapter 4: Governance

1. General Issues

(1) Understanding Governance

The concept of governance is understood in a broad sense with several dimensions. For instance, governance is defined as the traditions and institutions by which authority in a country is exercised for the common good. This includes (i) the process by which those in authority are selected, monitored and replaced, (ii) the capacity of the government to effectively manage its resources and implement sound policies, and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them². With respect to the provision of transport/ICT infrastructure facilities and services, in particular, the governance would be understood as (1) degree of which the organization responsible for planning, constructing and maintaining the transport/ICT infrastructure facilities allows to reflect the general public opinion, especially the needs of the beneficiary and (2) whether transport/ICT infrastructure construction organization and its services providing organization function efficiently and effectively in order to achieve that organization's proper public objective. Governance is also understood as the institutional requirements to support reforms, promote efficiency and other social objectives (Kessides 2004). These requirements include 'coherence', 'independence', 'accountability', 'transparency', 'predictability', and 'capacity'. Accountability in the provision of public service shall be discussed in this context.

(2) Relationship between Governance and Growth

Infrastructure projects under the good governance should accelerate the economic growth. On the other hand, the effort to improve the governance requires inputs of human, physical and financial resources. Therefore, the improvement of governance requires adequate capacity and resources, which must be a challenge especially for the countries in the early stage of development (World Bank 2004).

(3) Accountability in the Provision of Public Service

Corruption, bribery as a regular practice and utilization of public policies for a private objective, and pursuit of monopolistic interests by private enterprises under the protection of the state power are the common problems in service delivery. Also, effective control of the state by a small group: utilization of the state function for a private objective by a specific interest group in power, and political intervention to the provision of transport infrastructure facilities such as arbitrary decision of development plan (utilization of development assistance by the ruler so as to strengthen his legitimacy: white elephants) is problematic. Unstable politics and unpredictability in investment environment are other problems.

On the issue of accountability in the government, inadequate and insufficient policies and laws coupled with its weak enforcement and lack of enforcement mechanism, and subsequent lack of monitoring of the policy implementation should be considered. The limited capacity of staff and institutional settings make it difficult to resist political influence from the viewpoints of policy implementation.

Concerning the transport/ICT service provision, no concept is available to compare cost and benefit of the service in public executing agencies, so vicious circle is found starting with waste of valuable financial resources and ended up with provision of poor service. With the policy slogan of service expansion, the

² WBI Themes, Governance & Anti-Corruption (<http://www.worldbank.org/wbi/governance/about.html>)

public expenditure for such services increases and commercially unviable facilities were provided to the service providers without any choice of refusing it. Transport/ICT services providers are forced to take the responsibility of their management, which results in further expansion of deficit. In order to cope with this problem, privatization of public enterprises has been promoted since 1990s.

Accountability, institutional settings and division of roles in local government are not as fully matured as those in central government. Consequently political factors easily influence the choice of policies. Local government has limited experience of planning, investing and operating transport/ICT infrastructure projects, so they do not have enough capability to implement, manage, operate and maintain the projects under the long-term plan with priorities. In order to cope with this problem, the approach of “social development fund”, in which the local residents themselves bear the cost of infrastructure facilities and construct by themselves with participatory approach based on their own needs, has been introduced since 1990s in providing infrastructure facilities for the poor.

(4) New Role of the Government in Promoting Private Sector Participation

As the result of having introduced the concept of private financed infrastructure in the 90s, it becomes less evident for the government, in the case of nationwide network type infrastructure in particular, to monopolistically own the infrastructure facilities, operate them and provide the services by utilizing them. The private sector companies are investing and materializing the construction of inter-city highways and railways and their operation. Moreover, private management or provision of services based on concession agreement is often observed in providing urban transport services. Because of such participation of private sector, the role of the government has been shifting significantly from that of comprehensive and exclusive execution of projects toward that of policy implementation, i.e. the government plays the role of presenting policy directions and regulation through development plan and making private sector to contract and operate (World Bank 2002).

Such transition to the new roles of government requires the human resources that have not been existed in the central government. Consequently, it is necessary to develop the human resources while such needs are more imminent for the local governments, where financial, human and technological resources are of critical shortage in comparison with those in central government.

2. Agenda and Approaches Pointed Out in the Answers to the Questionnaire

Sub Theme 1: Accountability and capacity building of infrastructure institutions

(1) Problems of Governance in Construction, Operation and Maintenance of Infrastructure

Political Interference is a major issue in governance of infrastructure. Many donors mention lack of accountability and transparency results in corruption. ILO-ASSIST states "Local patronage and nepotism, extra budgetary financing available to local politicians tend to disrupt the effective and equitable delivery of infrastructure. There is the potential for greater interference from local politicians in the way that the funds are spent." Many donors also consider the lack of the experience to plan and manage projects, as well as the lack of capacity for operation and maintenance, as another major issue in governance. Beneficiary involvement is crucial issue in decentralization of infrastructure projects, as well. Lack of commercial principle in providing infrastructure services is yet another issue, which can hinder effective service provisions. To strengthen capacity building for planning, operation and management, the UK proposes the

"integration of infrastructure as a key component of wider and longer-term reform".

(2) Measures for low accountability of infrastructure related institutions

To improve accountability of infrastructure related institutions, several approaches can be taken. The first one is to locate infrastructure within the framework of sector reform, to support sector reform and to set up legal framework of regulation and ratification policies. As Australia refers, sustainable and reliable provision of infrastructure services requires efficient operation of service provider institutions. Such institutions must be operated and managed by commercial principle, based on transparent incentive structures and avoiding the kind of inefficiency and lack of accountability that was common in public institutions. Such institutions also require capacity building for their effective operation.

Community involvement marks another key issue. Many donors emphasize the importance of community involvement. The UK gives their examples that through public auditing and other efforts, it works directly to build, support, and strengthen community based organizations.

(3) Role of technical and financial assistance

All donors agree that the combination of technical assistance and financial assistance is important to enhance the impact of assistance on the infrastructure projects. The technical assistance usually focuses on bringing institutional change and development of human resources. On the other hand, financial assistance provides financial means to support such technical assistance.

(4) Anti-corruption measures

For the anti-corruption measures, more public involvement is encouraged. Public involvement can be encouraged through public auditing, community involvement in the design and monitoring of projects, and the supervision by outside party such as consultant. The US proposes "seminars and conferences and training for selected officials to introduce best governance practices." According to OECD, moreover, ICTs can play an important role in combating corruption and making government institutions more transparent, by reducing opportunities and incentives for and increasing the costs of corruption.

Sub Theme 2: Participation of the poor

(1) Problems in employing participatory approaches

Limitation of participation is a central issue in employing participatory approaches. Ensuring pro-poor participation in implementation of transport/ICT infrastructure projects is very difficult, because the scale of the infrastructure is generally large. However, the poor should make some kind of commitments themselves. Without such commitment, maintenance of any infrastructure in the rural and poor areas is bound to fail.

Burden for the poor is summarized as (i) the general burden on communities to participate in numerous development activities and to be in many user-groups and committees, (ii) the specific problem of this excessive burden on women, and (iii) a problem of road building group activity being arranged not to interfere with the agricultural working season. It is difficult to identify the real representatives of poor groups and to coordinate various agencies to adopt effective participatory process. In order to materialize those coordination, Japan encourages utilization of specialists including NGOs and consultants, who play an intermediary's role between the beneficiaries and these organizations.

(2) Ensuring participation of the poor

Switzerland summarizes and categorizes the ways to ensure participation of poor into: (i) wide consultation of stakeholders from the very beginning of projects (e.g. public hearings); (ii) assessments of the beneficiaries' ability and willingness to pay; (iii) transparent information and consultation during project preparation and implementation, and so on. OECD regards ICT as a mechanism or tool to facilitate the PRSP process. The PRSP is intended to be a driver of pro-poor growth, so it is essential that the poor are included in the policy making process. ICTs offer opportunities for this. For instance, local governments can report their activities to and accept any comments from the population through their website, which could extend the participation of the poor in any phases of the project, especially of those who cannot easily access the information on the project because of geographical distance.

3. Issues for Discussion

(1) Common Position

Long-term macroeconomic stability and predictable government policy are the important elements for infrastructure investment; it is particularly so for private investment in infrastructure. In order to promote infrastructure investment, the government should make utmost efforts to keep stabilizing macro economy and to make their policy foreseeable for the investors. This would become the foundation of credible, predictable and transparent invest climate.

Political intervention (and effective control of the government body by a small politically-powerful group) is a non-negligible factor that undermines effective and efficient transport investment: Lack of appropriate policy and laws, coupled with low administrative capacity (which is especially related to the accountability of policy enforcement and budget management of government officials), allow politics to negatively influence rational decision-making, both in choosing transport and ICT infrastructure projects, and during their implementation. Lack of long-term rational thinking coupled with short-term rent-seeking exacerbates this tendency. This is particularly the case for local governments, which do not have sufficient expertise in development management. For the construction of transport facilities, decentralization and the support to communities or of community-based organizations, are considered to be the ways to reduce political intervention and to improve effectiveness. For transport services provision, strict application of commercial principles with transparent incentive structures to encourage competition and accountability of such structure are considered to be the way. For such services provision, privatization of publicly-owned companies is considered to be an alternative option. Establishing a transparent and robust institutional framework and developing human capacity are ways of dealing with unwanted political intervention. Such a framework includes a long-term rational development plan based on a) the assessment of needs and a clear development strategy of the national economy, b) budget allocation in accordance with those plans and c) strategy and designing, constructing and maintaining of the individual projects materializing such plan and strategy. Support by donors (dispatch of real experts) is expected to be useful in establishing such an institutional framework and training those who will manage the institutions. A combination of technical and financial assistance is likely to be most useful.

Participatory approaches encourage local ownership and involvement in infrastructure projects, and are essential for their sustainability: Starting with wide consultation with various stakeholders at the early stages of project development, key elements of success include transparency of information, consultation on the entire scope of project from design to maintenance, as well as consultation on the appropriate

burden-sharing by beneficiaries. The partner country government officials need to understand the effectiveness of such method while the donors should consider applicability of such method at the different levels of transport network.

(2) Summary of the discussion

At the second workshop of Infra Poor Task Team, several key issues were discussed by the Sector Working Group on Transport/ICT. The discussion during the session for Governance is summarized as follows.

Firstly, all participants recognized that **governance is essential to poverty reduction**. Three issues were considered important within the context of governance; they were (1) participation of the poor, (2) corruption and (3) good management of the government institutions in charge of transport infrastructure. The importance of the regulatory body was stressed for lessening negative political interventions. Both negative impact on the poor of the procurement procedure and the appropriate management of both the government institutions and the transport services providers have been emphasized.

Secondly, concerning **promotion of participatory approaches**, it was pointed out that participatory approaches were effective to make the infrastructure projects pro poor when the governments were not capable in providing administrative services related to planning, implementing and maintaining the infrastructure projects, but should be open as a choice to the local people. The poor were expected to be involved not only in based-based works, but also in prioritizing, planning and maintaining local infrastructure projects to enhance efficiency and sustainability of the projects.

Thirdly, **importance of regional networks and regional governance** was discussed. It was underlined that nationwide network-type transport infrastructure would stimulate regional trade and regional integration and cooperation. To enhance the regional economic cooperation, participants emphasized the importance of dealing with governance related problems in the regional context.

References

Ioannis N. Kessides (2004), "Reforming infrastructure, Privatization, Regulation and Competition", A World Bank Policy Research Report, World Bank, Washington D.C.

World Bank (2002), "World Development Report 2002: Building Institutions for Markets", World Bank, Washington D.C.

World Bank (2004), "World Development Report 2002: Making Service Work for Poor People", World Bank, Washington D.C.

Appendix

Appendix 1: Rural Infrastructure Improvement Project in Bangladesh (Germany)

Appendix 2: Greater Colombo Telecommunications Network Improvement Project (Japan)

Appendix 3: Vietnam's Transport Strategy Study: VITRANSS (Japan)

Appendix 4: Greater Faridpur Rural Infrastructure Development Project in Bangladesh (Japan)

Appendix 1

PROJECT NAME: Rural Infrastructure Improvement Project

DONOR: German Federal Ministry for Economic Cooperation and Development (BMZ)

PARTNER COUNTRY AND EXECUTING AGENCY: Bangladesh; Local Government Engineer Department (LGED)

IMPLEMENTING AGENCY: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) in cooperation with ADB, KfW

SECTOR: Rural Infrastructure; Transport

PROJECT SCOPE:

The Project assists the Government to reduce rural poverty through sustainable economic growth, rural development and improved infrastructure. This objective contributes to the Government's goal to promote economic development and reduce poverty through rural infrastructure development.

PROJECT OBJECTIVES:

The Project improves (i) rural road infrastructure; (ii) rural infrastructure such as growth center markets, boat landings and ferry facilities; (iii) the operation and maintenance of rural road and other infrastructure; (iv) strengthens LGED capacity and improves local governance for efficient and participatory planning, management, and operation and maintenance of rural infrastructure; and (v) provides the resources necessary to support efficient project management.

SPECIFIC MEASURES ADDRESSING THE THEMES:

Decentralization: project supports the improvement of local governance by training union council members and staff, union market management committee members, and members of market trade associations in local government, market management, and participatory processes, including participatory monitoring, particularly in 32 pilot union councils.

Gender: addressed in project activities by (i) creating scope for women's participation in project activities at the level of 30% of total membership, from the participatory project planning to implementation, monitoring and evaluation stages, (ii) establishing benchmarks for employing women in different construction and maintenance works through labor contracting societies, and (iii) supporting women entrepreneurship by reserving market stalls for women and creating linkages with various micro finance resources.

In the precursor project, during the initial project implementation phase, destitute women were contracted for light road improvement schemes, such as roadside repairs and tree planting, for a period of three years. In order to ensure sustainable employment possibilities, under the auspice of the GTZ, a training program was set up, with the aim of generating employment prospects after the three-year phase. In order to ensure the success of this innovative approach in the long-term, additional training programs aimed at helping women set up their own small independent businesses are being planned in co-operation with local NGOs.

Sustainable service delivery to the poor: the lack of affordable access deprives the poor of the ability to take advantage of job opportunities and even of very basic social services. Reliable access to schools and

health services for the poor contributes directly to accumulation of human capital, which is a key factor in sustainable **poverty reduction**. Improved access helps to reduce poverty by (i) increasing labor mobility, particularly to distant markets; (ii) increasing employment opportunities offered; (iii) reducing loss of perishables, thereby allowing for increased farm gate prices; (iv) improving access to rural areas by health, school, veterinary, and rural development workers; and (v) stimulation of the creation of transport-associated small businesses such as service stations, wayside footstalls, and guesthouses. Poverty reduction aspects of the Project include plans to hire affected communities and provide first priority to employment of the poor and disadvantaged in the actual construction of subprojects.

HOW IT WORKED OR DID NOT WORK:

The project has recently started, but there is some experience from the precursor project:

(+)

Joint and coordinated technical (road maintenance) and financial (road rehabilitation) cooperation proved very useful.

The strategic approach used, rehabilitation and maintenance along the supply chain, from the farm to the markets, was extremely successful, in particular for local market development.

Inclusion and participation of the poor also worked very well: in road maintenance planning and organization the poor were involved through committees and in the implementation phase destitute women were hired and small and very small business were involved.

(-)

Unexpected and enduring challenges arose because of local user conflicts with regards to the rehabilitated roads. Traffic was obstructed by farmers who laid out their fruits for drying and angrily prevented vehicles from passing through their harvest and by small businesses, which sprout alongside the road and took up more and more space.

OBSERVED IMPACT OR RESULT OF INTERVENTION:

Observed impacts of the precursor project:

Average transportation costs were reduced by approximately 50%, travel times by an impressive 56%. At the same time, there has been a drastic increase in road users, especially by non-motorized traffic (bikes, rickshaws) mainly resorted to by the poorer population sector. To date, not a single road forming part of the program is in a bad condition.

The results of the project on the regional economy: doubling of the amount of transported goods since the project's beginning, rise in the number of market users, and thus customers generating demand, by 15%, the number of vendors by 22%, whereas the value of good sold has nearly increased by two-thirds, more than 3,000 person years of employment as well as 178 permanent jobs alone in road maintenance schemes and marketplace organization (surveillance, service, cleaning) were generated.

Appendix 2

PROJECT NAME: Greater Colombo Telecommunications Network Improvement Project

DONOR: JBIC

PARTNER COUNTRY AND EXECUTING AGENCY: Sri Lanka; Sri Lanka Telecom Ltd.

IMPLEMENTING AGENCY: Japan Bank for International Cooperation (JBIC).

SECTOR: ICT

PROJECT SCOPE:

The project consisted of reinforcement of relay transmission lines and improvement of subscriber cables in the Greater Colombo area as well as improvement of tall relay radio transmission systems, expansion of local relay radio transmission system, reinforcement of local transmission line, improvement of both subscriber cables and switching equipments in the suburban area.

PROJECT OBJECTIVES:

This project intended to develop and enhance the telecommunications facilities in the Greater Colombo and suburban areas with the aim to respond to the drastically increasing demand for telephone services and to improve the quality of calls.

SPECIFIC MEASURES ADDRESSING THE THEMES:

Sustainable service delivery to the poor:

The privatization scheme introduced during the implementation of this project included measures to decrease regional disparities between rural and urban areas by giving incentives to the private service provider.

The implementing agency of this project, Sri Lanka Telecom Ltd. was transformed from a public corporation into a limited liability corporation during the project implementation period. In general, when private corporations take part in the management of public services, their new investment tends to concentrate in urban areas where relatively high profitability can be expected. However, the Government of Sri Lanka has been adopting the policy for dissolving the regional disparity in terms of telecommunication. In order to achieve that objective, a management contract was concluded between the implementing agency and the private corporations and that management contract included the incentive schemes for the private sector to expand its operation in the rural areas.

HOW IT WORKED OR DID NOT WORK:

Under the management contract effective for five years, the implementing agency accepted four members of the board, including the chief executive officers (CEO) of the private corporations to improve its operation management. That management contract stipulated such business goals as correction of inter-regional disparity (i.e. the increase of the subscriber cables and resolving the problem of the waiting list in both the city and rural areas) and improvement in the quality of telephone calls. The management contract specifies that the private company will gain parts of the implementing agency's earnings as a management fee, but if the above-mentioned business goals are not achieved, a fixed amount will be deducted from the incentive fee. In order to achieve these business goals, the implementing agency is actively building up telecommunication

network in the rural area.

OBSERVED IMPACT OR RESULT OF INTERVENTION:

After the sales of the stocks of the implementing agency in 1997, the ratio of subscribers in the rural areas in the entire Sri Lanka increased from 18% in 1996 to 26% in 1999. The telephone density improved from 1.1% in 1995 to 2.8% as of May 1999 in Sri Lanka as a whole. Furthermore, the call completion rate reached 34.5% in 1998, which is an improvement in the quality of the telephone calls compared to 28% in 1994. In terms of the number of increase in new subscriber lines each year, here as well, the ratio of subscribers in the rural areas has been increasing since 1997. While the growth rate of the subscriber line has been increasing, the growth rate of the waiting list is decreasing. It can thus be said that the regional differences in the telecommunication levels between the city and rural areas are being corrected. The impact of achieving the target level of the project described in the management contract could be given as one background factor.

Appendix 3

PROJECT NAME: Vietnam's Transport Strategy Study (VITRANSS) , the rehabilitation of the national highway No.5 and of the Haiphong port, rural infrastructure development and living standard improvement project

DONOR: JICA/ JBIC

PARTNER COUNTRY AND EXECUTING AGENCY: Vietnam; Ministry of Transport

IMPLEMENTING AGENCY: Japan International Cooperation Agency (JICA), Japan Bank for International Cooperation (JBIC)

SECTOR: Transport

PROJECT SCOPE:

The study aims to elaborate a comprehensive transport master plan with strategic focus of the regions in Vietnam by taking into consideration of the regional dimension of the Vietnamese economy. It also elaborates feasibility studies for the projects necessary to be implemented in short term. The study developed the various database such as socio-economic database, traffic and transport demand database, transport network database and other transport-related database of the entire geographical area of Vietnam. The study also includes the transfer of technology for elaborating master plan and feasibility study.

PROJECT OBJECTIVES:

The objectives of the study include:

- 1) the formulation of long-term development strategies for the national transport sector up to the year 2020;
- 2) the formulation of a national transport development master plan up to the year 2010;
- 3) the identification of prioritized projects up to the year 2005 and formulation of a short-term investment program based on the above plan; and,
- 4) a contribution to strengthening planning capabilities of transport agencies and conducting necessary technology transfer.

SPECIFIC MEASURES ADDRESSING THE THEMES:

Complementarity of Infrastructure for achieving MDGs:

The creation of a master plan for nation-wide transportation is one way to ensure that infrastructure project addresses all levels of infrastructure needs and to balance between national and local level infrastructure development. Vietnam's Transport Strategy Study identified 27 transport corridors as the most important transport network in Vietnam. In selecting those corridors, nationwide economic activities were taken into consideration. Those corridors have various characters from support to export oriented industry to provision of access to the hinterland. In addition, development strategy of each corridor was elaborated after examining it in terms of current constraints, future traffic demand and development opportunities and potentials.

Following the master plan, the rehabilitation of the national road network has been conducted based on the corridor concept described in the master plan. For instance, the national highway No.5 between Hanoi city and the Haiphong Port liaises the industrial parks in the suburban areas of Hanoi city and the others

along the way with the containerized port in Haiphong. This corridor was thereby given the highest priority in the master plan. The combination of the container port rehabilitation and the development of this corridor are expected to strengthen the linkage between the domestic industry and the international market.

Japan financed not only the rehabilitation of national highway No.5 (National Highway No.5 Improvement Project) and that of Haiphong port, but also the construction of rural roads accessing to the highway, parallel to the rehabilitation of the national highway. With this combination, the hierarchical road network structure is materialized alongside with the national highway. The construction of lower grade road network accelerated the diversification and activation of economic activities of the project area, thereby contributing to the poverty reduction.

HOW IT WORKED OR DID NOT WORK:

The provinces on the national highway No.5 vigorously adopted, during the same period as the highway rehabilitation, the policy for structurally improving the agricultural production within the province and used JBIC financing for the “rural infrastructure development and living standard improvement project” as the sources for investment. The latter targets the poor areas in Vietnam. This policy of structural improvement of the agricultural production was implemented within the framework of national agricultural economy transformation policy. Without such national policy and JBIC’s strategy to support rural infrastructure development, the effect of the national highway rehabilitation would not be so drastic to the agricultural development in the provinces alongside with the highway.

OBSERVED IMPACT OR RESULT OF INTERVENTION:

Concurrent development of the highway No.5 and its access roads greatly expanded business opportunities for the local households. Many farmers started supplying high valued and often fragile fresh products to the urban markets using the improved roads. The improved transport network also enable local bank staff or middlemen to come inside villages, so the farmers get better access to financial service as well as wider market opportunities. Agricultural extension services, which have been additionally provided by the local agricultural authorities, were extremely effective to promote local farmers to modernize and transform their production.

With the development of transport infrastructure in the Northern Vietnam, a number of foreign investors have been attracted to the industrial estates around the highway, creating over fifty thousands jobs. Development of industrial estates by private firms and the provincial authorities should be an accelerating factor to promote investment. The expansion of vocational training programs by local public and private institutions has also helped.

The transport project has caused a massive inflow of FDI to the Northern Vietnam (Red River Delta area) after 2000. The quantitative assessment showed that the existing FDI inflow to four provinces along the highway increased the gross regional product in the Red River Delta by 7.9% in 2002. This rapid economic growth resulted in considerable reduction of poor households in the region. The reduction in the number of poor households from 1998 to 2000 was 54% in the Red River Delta area, while that of the whole country was 36%.

Appendix 4

PROJECT NAME: The Greater Faridpur Rural Infrastructure Development Project

DONOR: JBIC

PARTNER COUNTRY AND EXECUTING AGENCY: Bangladesh: Local Government Engineering Department (LGED)

IMPLEMENTING AGENCY: Japan Bank for International Cooperation (JBIC)

SECTOR: Rural Infrastructure (roads, village market places and village administration facilities)

PROJECT SCOPE:

The project is composed of the following sub-components: (1) rehabilitation of the major rural roads and farm to market roads (improvement into all weather road, such as pavement, installment of culverts and bridges and implantation of road side trees), (2) rehabilitation of village market places (including the market place exclusive for women), (3) construction of village administration facilities (for village meetings and administrative offices for agriculture extension and family planning services), (4) maintenance of unpaved roads, (5) training of the village officials in terms of participatory project implementation method and operation and maintenance.

PROJECT OBJECTIVES:

This project aims to reduce poverty in the greater Faridpur area where the proportion of the poor population exceeds the national average and the degree of agricultural development is inferior to the other region, by constructing economic infrastructure, such as rural roads, village market places and the facility for rural administration to stimulate the regional economic activities, while improving the poor's access to social services. The project adopts the participatory methods to assure the sustainability of the project. At the same time, it provides job opportunities for the poor and capacity building for the local administrative staff to sustain the mechanism adopted in this project.

SPECIFIC MEASURES ADDRESSING THE THEMES:

Gender dimensions of infrastructure:

Conducted in the rural area of the country where Islam is the national religion, the gender issues have been one of the central themes of this project. In this project, following measures were adopted from the gender point of view. (1) the creation of market places exclusive to women: the rural market place is male dominated and it was not easy for women to access to the market. By creating exclusive places for women, their access to market was improved. (2) the creation of employment opportunity by employing labor intensive methods for the rural road maintenance: training programs such as technical training and living standard improvement were provided within the project in order to make the poor, especially the women, to be employed with priority for maintaining the agricultural roads. In order to maintain the sustainability of the project, the project included the capacity building components to be implemented in association with the NGOs and to be targeted to the local administrative staff for the participatory project planning and implementation, as well as for the road rehabilitation works and its relevant administrative works.

HOW IT WORKED OR DID NOT WORK:

The village administration facilities were constructed and operated by the beneficiaries based on the participatory method. This was due to active support by the administrative offices for agriculture extension or family planning services, who frequently visited the villages and provided various instructions to the beneficiaries in collaboration with the local NGOs.

OBSERVED IMPACT OR RESULT OF INTERVENTION:

This project is under implementation, and no evaluation has been done so far.

Issue Note for Sector Discussions

BACKGROUND AND MAJOR ISSUES IN THE SECTOR / THEME RELATED TO ACHIEVING BETTER RESULTS IN POVERTY REDUCTION THROUGH ECONOMIC INFRASTRUCTURE:

- Transport/ICT infrastructure can be typified as nationwide network-type and local area network-type, in terms of purpose, function, and effectiveness. *Local area network-type* transport infrastructure, which improves the poor's access to transport services, directly contributes to poverty reduction by enabling local production resources to be moved and allocated efficiently. This creates opportunities for the poor to participate in economic growth, thus, to escape the poverty trap, if they are capable of leveraging these opportunities to increase their welfare. *Nationwide network-type* infrastructure, on the other hand, contributes to poverty reduction indirectly: integration of various regional economic circulations within its national territory and a nation's economy into the global economy are expected to expand new employment opportunities. It also contributes to strengthening the social and cultural cohesion unity of a country, which is fundamental for national economic development.
- The purpose of poverty reduction goals is not only to achieve them once, but also to keep it over time. To do so, national economic growth must be sustained, taking account of and the factors in regionally balanced growth balance within a country. Transport/ICT infrastructure, particularly the nationwide network-type, plays a major role in supporting such national economic growth and in balancing regional income distribution.
- Infrastructure has both demand and production effects on poverty reduction. The demand effect emerges during the construction period of the infrastructure facility, as employing low-income, unskilled labor in public investment projects, for example, causes a short-term direct reduction of poverty. The production effect, on the other hand, emerges once the infrastructure facilities are in operation: widespread quality infrastructure network services contribute to private sector investment, which in turn can trigger indirect mid-term or long-term poverty reduction.
- In order to maximize the (longer term) production effect, infrastructure facility development and associated services should respond to market needs. However, infrastructure might also be developed in anticipation of market needs, and take into account regional disparity alleviation. Such "advance" investment will normally coincide with other policies, such as industrial estate development, in view of developing a target region or area.

Sector: Transport·ICT

EMERGING CONSENSUS ON INFRAPOOR GUIDING PRINCIPLES FOR DONORS:

Decentralization:

Central government has roles to play under decentralization: Even under decentralized schemes, central governments play an essential role, and the respective roles and responsibilities of central and local governments should be clearly defined. Central and local levels of government need to coordinate with each other according to a clear-cut division of role and authority. The central government needs to provide an overall framework for territorial development to achieve balanced development of the country, within which national transport and ICT plans should be elaborated and executed. Nationwide network-type infrastructure, which connects an entire region of a country, must be planned, constructed and maintained, with adequate international linkages, by the central government ministry or agency, since it concerns the circulation of passenger, freight and information at international and national level. The “essential facilities” such as local loop in telecommunication lines or railway trucks must be provided by the public sector, while proper regulation of access charges is essential for ensuring the level playing field, and must be enforced by the central governments. It should also provide guidance and technical support to the local governments.

Local government has potential to satisfy the needs of its constituents but lacks appropriate institutional setting and capacity: Local government should plan, build and maintain the local area network-type infrastructure in their area of jurisdiction, within the framework of a national territorial development plan. Individual projects by local governments should be planned and implemented according to the economic and social priorities of the targeted areas or sub-national regions and should take into consideration the needs of local people. However, local governments often lack adequate institutions, human resources, and financial resources to rise up to the job. As a prerequisite to making local government services accountable to the constituents, necessary institutions and human capacity must be developed, with the support of donors.

Lack of government’s financing is a serious issue especially for the sub-national governments: A major issue is that financial resources for the construction, operation and maintenance of roads, are insufficient. This is apparent in the counterpart funding of both new investments and maintenance. The *maintenance* funding problem stems from government officials’ lack of awareness of maintenance needs. And the problem of *both* new investment and maintenance funding is even more serious for lower-class roads at sub-national level. In situations where local governments depend on central governments for financial resources, budget allocations must take into consideration these new infrastructure-related responsibilities. When dealing with transportation projects at the sub-national level, donors should address the maintenance funding issue with central

Sector: Transport·ICT

government ministries. As to the partner countries, they should factor in that new investments generate new maintenance expense, and should themselves take the responsibility of planning and providing budgets for maintenance costs.

Service Delivery to the Poor and Private Sector Participation:

Infrastructure facility provision is the prerequisite of transport and ICT service delivery: Building and maintaining well-functioning transport and ICT infrastructure facilities is the prerequisite to delivering transport and ICT services. It is the public sector's role to provide such infrastructure facilities especially in areas where financial return-on-investment is unacceptably low for the private sector and that are the bottlenecks of network. For nationwide network-type infrastructure where the associated services have revenue-generating potential, the private sector can also participate in designing, building and operating the facilities under auspice of the public sector. To provide access to transport facilities to the poor segment of the population, existing socio-economic surveying can be used as a proxy for geographical targeting. To design, build and maintain local area network-type transport infrastructure that meets local needs, a participatory approach involving local communities and NGOs is crucial and the use of labor intensive methods create demand effect.

The beneficiary-pay principle should be the basis and subsidy must be introduced due to affordability consideration: The "beneficiary-pay" principle should be applied for both transport infrastructure facilities and service provision. The corresponding costs should be recovered in various ways. For the national road network, although road funds, created through vehicle registration fees, fuel levies and toll road tariff are introduced in several countries, they are incapable of financing the totality of maintenance needs. Similar cost recovering mechanisms must be enforced or introduced for other transport facilities such as ports, airports and canals. For transport services, this beneficiary-pay principle assures financial sustainability of the service providers and, if properly managed, also gives appropriate pricing signals that help maintain the efficiency and quality of the services. It is generally assumed that the beneficiaries' contribution ought to cover at least operation and maintenance costs. However, in providing transport services to the poor or in rural areas where the poor are dispersed, it should be recognized that the poor cannot afford normal commercial tariffs. Subsidies are therefore necessary to enable the operation's financial viability and must be funded from government budget, from special funds financed by a tax or service charge on the relevant sector. It is important to note that cross-subsidies can no longer be used efficiently when competition is introduced (cream-skimming). Universal access fund in telecommunication is one of the innovative mechanisms.

Regulatory framework is important to enable competition leading to efficient service delivery with quality and the role of government changes accordingly: *Private sector*

Sector: Transport·ICT

entities are generally expected to deliver more efficient transport and ICT services than the public sector. In addition, *competition* between several private firms is expected to increase efficiency and quality of services. However, to enable private sector participation and competition in transport and ICT infrastructure, the government must put in place the appropriate regulatory framework, and must have the capacity to enforce the law, particularly to avoid “bottleneck monopoly” situations. This involves major changes in the traditional role of public transport authorities, and thereby necessitates human resource development. While private sector participation in transport and ICT service delivery is very desirable, some geographical areas may not be financially viable and thus not attractive for private sector investment and/or operation. In such areas, even though the public sector must continue to provide services, services should be delivered on a commercial basis to minimize public sector inefficiency, by striking a right balance between economic efficiency and social equity through needed regulation and competition and relevant regulations should be enacted and applied.

Governance Issues to Strengthen Pro-Poor Project Design and Implementation:

Long-term macroeconomic stability and predictable government policy are the important elements for infrastructure investment; it is particularly so for private investment in infrastructure. In order to promote infrastructure investment, the government should make utmost efforts to keep stabilizing macro economy and to make their policy foreseeable for the investors. This would become the foundation of credible, predictable and transparent invest climate.

Political intervention (and effective control of the government body by a small politically-powerful group) is a non-negligible factor that undermines effective and efficient transport investment: Lack of appropriate policy and laws, coupled with low administrative capacity (which is especially related to the accountability of policy enforcement and budget management of government officials), allow politics to negatively influence rational decision-making, both in choosing transport and ICT infrastructure projects, and during their implementation. Lack of long-term rational thinking coupled with short-term rent-seeking exacerbates this tendency. This is particularly the case for local governments which do not have sufficient expertise in development management. For the construction of transport facilities, decentralization and the support to communities or of community-based organizations, are considered to be the ways to reduce political intervention and to improve effectiveness. For transport services provision, strict application of commercial principles with transparent incentive structures to encourage competition and accountability of such structure are considered to be the way. For such services provision, privatization of publicly-owned companies is considered to be an alternative option. Establishing a transparent and robust institutional framework and developing human capacity are ways of dealing with unwanted political intervention. Such a framework

Sector: Transport·ICT

includes a long-term rational development plan based on a) the assessment of needs and a clear development strategy of the national economy, b) budget allocation in accordance with those plans and c) strategy and designing, constructing and maintaining of the individual projects materializing such plan and strategy. Support by donors (dispatch of real experts) is expected to be useful in establishing such an institutional framework and training those who will manage the institutions. A combination of technical and financial assistance is likely to be most useful.

Participatory approaches encourage local ownership and involvement in infrastructure projects, and are essential for their sustainability: Starting with wide consultation with various stakeholders at the early stages of project development, key elements of success include transparency of information, consultation on the entire scope of project from design to maintenance, as well as consultation on the appropriate burden-sharing by beneficiaries. The partner country government officials need to understand the effectiveness of such method.

ISSUES REQUIRING FURTHER DISCUSSIONS

Decentralization:

- Under the decentralized scheme, the central government's role includes (1) development of overall framework of territorial development with due consideration of international linkages and regional balance within a country, (2) planning, construction and maintenance of nation-wide network infrastructure and of essential facilities and (3) provision of guidance and of supports to the local governments. The importance of those responsibilities does not seem to attract much attention from donors under decentralized regimes. Do the participants share this view on those roles of central government? And do the participants view these roles as important? If not, what other functions are expected of central governments?
- What are the appropriate types of transport and ICT infrastructure facility and services which are more responsive to the local needs? How does this concept apply to various subsectors of transport and ICT?
- Local government should develop a plan, and then construct and maintain the local area network-type infrastructure within their areas of jurisdiction, preferably with their own financial resources. The local governments are not well equipped with appropriate institutional settings, sufficient financial resources and human capacity. What institutional settings or mechanisms does the local government need to be equipped? How and what kind of support should or can donors provide in building such institutional settings and human capacity?

Sector: Transport·ICT

- Inadequate financial resources, especially for road construction, operation and maintenance, are a major issue. Counterpart funding for both new investment and maintenance must be included in allocating local government budgets, but in most cases this is not always practiced. How should the donors address this issue to the partner countries? Do the donors agree to establish special budget accounts for maintenance purposes as solution or do they prefer the general budget? How does this issue apply to the other subsectors of transport?

Service Delivery to the Poor and Private Sector Participation:

- To secure the sustainability of services, it is recognized that the principle of beneficiary-pays should be adhered to recover at least the full amount of maintenance cost through the burden sharing of the beneficiaries. Is the uniform adoption of such a principle considered appropriate? And how much such burden should be asked?
- In case of road sectors, road funds are established in various countries but fail to recover the full costs of maintenance. The road funds cannot cover the 100% of required maintenance through its revenue. This situation gets worse as the partner countries prefer to finance new investments with the resources kept under road funds. To what extent the donors think it appropriate to cover the investment from road funds, average cost or marginal cost? What should the donors do to overcome the current situation with which road funds are facing? How does this issue apply to the other subsectors of transport?
- If the full maintenance cost recovery is applied as a principle to the investment in transport facility and services for the poor (in both urban and rural areas), most probably the poor cannot afford to pay the tax or tariff achieving economic efficiency. Subsidies must therefore be introduced to compensate a part of tariff structure, which is designed to assure financial viability of the operation. Cross-subsidy has been used as the traditional method to relieve the burden of the poor but at the cost of losing the competitiveness of productive sectors. This is also against the principle of “beneficiary-pay”. What should subsidy cover and what would be appropriate design in that case? And what is the most appropriate way to deliver such subsidy? Are there any good practice examples?
- For the areas where the financial return of private investment is low, the public sector is expected to provide both infrastructure facilities and services. In this case, at least maintenance costs shall be recovered through “beneficiary-pay” principle with possible additional financing through government subsidy. Then, how can the donors avoid the inefficiency of the public sector management and maintain accountability of subsidies?

Sector: Transport·ICT

- Private sector entities are expected to deliver more efficient transport and ICT services than the public sector. However, most of the privatized transport infrastructure is owned and operated by private companies of the developed countries or their subsidiaries in the developing countries, and little argument is made on the development of domestic industry to take over the operation and maintenance of transport infrastructure. Is it appropriate, in a longer perspective, to give maximum opportunities to the multinational companies to take over the operation of transport infrastructure and not to help develop domestic capacity or to help invent alternative ways? How should the donors approach this issue? What are the specific impediments for domestic transport service industry to be developed?

Governance Issues to Strengthen Pro-Poor Project Design and Implementation:

- Good governance with long-term macro-economic stability and predictable government policies are the building blocks of infrastructure development. It is often observed that the macro-economic goals, constraints and strategies addressed by the national planning agency are not consistent with its budget allocation among implementing ministries, nor consistent with their prioritization of infrastructure projects. The ministries tend to favor short-term visions and to seek short-term returns. How can the coordination between national planning agency and technical ministries be improved, and how can donors assist in the decision-making process? Under the overall budget constrain situation and the needs to maintain macro economic stability, how should the donors balance the budget allocation among new investment, expansion, rehabilitation and maintenance? How much should be allocated to the “advanced” investment?
- Political intervention is a non-negligible factor that undermines efficient and effective investment in transport facilities. It is recognized that establishing a transparent and robust institutional setting and building public sector human capacity are the ways to reduce political intervention. Privatization and decentralization have been introduced to deal with them, but to date with limited success. Is it appropriate to address both institutional settings *and* capacity building to alleviate political influence at the various stages of infrastructure projects, as has been done in the past? Are there other ways of dealing with political influence, such as changes in incentive schemes? How far is the participatory approach effective to get rid of political intervention?
- The participatory approach is believed to enhance local ownership of infrastructure assets and quality of service delivery, both considered to be essential for the sustainability of infrastructure service. What kind of infrastructure is pertinent for participatory planning, and with which implementation methods? Given the resource constraints, up to what level of transport and ICT network infrastructure the participatory

Sector: Transport·ICT

methods should be employed? How far can the donors be efficient to implement participatory method?

GENERAL RECOMMENDATIONS FOR CROSS-CUTTING ISSUES

As already mentioned, it should be emphasized that ultimately, the development community's goal is not just to attain the MDGs, but to sustain --better yet, to advance-- that state of achieving it in the medium and long term. The achievement of MDGs implies the development of human resources which is necessary for the economic growth. It is expected that further virtuous cycle of economic development and human resources development positively affects the dynamics of long term economic development. The transport and ICT sectors play an essential role in that virtuous cycle.

In this process, along with well articulated economic policy management and systems, the transport and ICT sectors play a major role in supporting economic growth and are crucial to attract foreign investment resources, as well as to mobilize domestic resources. Particularly in East Asian countries, those three elements, human resources development, appropriate government policies and systems and investment capital have been well articulated with strong international market linkage, and have resulted in strong growth accompanied by substantial poverty reduction.