

Chapter 3 Directions of JICA's Cooperation

JICA's Priorities and Points for Concern

3-1 JICA's Priorities and Points for Concern

3-1-1 Fundamental Concepts

In order to respond to the diverse and complex issues involved in transportation, it is essential to properly understand the needs of each developing country and region, and provide support for the inhabitants of these countries in a timely fashion. It is essential to ensure that activities are selected appropriately given the particular characteristics of the transportation issues that individual countries and regions are facing, to enhance their strategic focus, and to take as the primary principles the human-centered approach, field-oriented approach, and effectiveness, efficiency, and speed espoused by JICA.

Based on the above, the fundamental concepts of JICA's cooperation are described here. By displaying the issues that developing countries themselves need to resolve in a general, yet comprehensive fashion, the Transportation Development Objectives Chart shown in Chapter 2 has been created as a useful reference for program design. This likewise provides the fundamental materials for consideration when carrying out the following support:

Providing support that demonstrates the development based on the Human-centered Approaches

Establishing more efficient transportation systems by making appropriate decisions based on local circumstances

Confirming the importance of partner country's Ownership and Capacity Development in relation to activities

- (1) Human-centered approaches: JICA reaffirms its mission in transportation infrastructure as "Infrastructure for the People," and remains aware of considerations relating to the human-centered approaches. It is important to accurately determine the effects of transportation-related assistance, and in particular the way in which people's behavioral patterns and lives change, and to provide necessary transportation services. It is essential to focus on the consensus-building process from the planning stages, and to give increased consideration to safety, environmental preservation, and social effects.
- (2) Selection and strategic focus based on local circumstances: The necessity of transportation infrastructure is influenced by people's behavioral patterns and preferences. And the viability of construction depends on topographical conditions. The possibility of achieving these projects also depends on the systems, organizations, human resources, and finances of partner countries. In order to provide support for the construction of more efficient transportation systems, it is important to undertake strategic activities that are selected appropriately given local circumstances. Making decisions that correspond to local circumstances is fundamental to guaranteeing efficiency and speed.
- (3) Fostering Ownership and Capacity Development: Since transportation infrastructure has a long life, and it is important to ensure that activities are not limited to one-way contributions from Japan, JICA focuses on

Aiming at higher efficiency and speed through comprehensive activities for each program

Importance of coordination and cooperation with other donors and other Japanese cooperation efforts

Supporting activities that take the optimum modal mix into account aiming at establishing efficient transportation systems

Providing many and various people with opportunities for progress by developing transportation infrastructure considering other sectors and services

fostering capacity development and ownership by relevant parties in partner countries as part of the support process. Fostering ownership and providing support for capacity development are imperative if the desired effects of cooperation are to be achieved.

- (4) Best combination and creation of programs: It is essential to clarify overall visions and scenarios of cooperation activities, to comprehensively tackle important issues identified from the Development Objectives Chart at the individual program level, and to cultivate management capacity. Efficiency and speed must be increased by creating programs and implementing the best combination of investments in correspondence with the Development Objectives Chart, while continuously ensuring the flexibility of support.
- (5) Coordination with financial cooperation: In order to resolve issues in the transportation sector where the needs for improvements are enormous but resources that can be invested are limited, it is imperative to promote coordination and cooperation with the international efforts being undertaken by other international agencies, donor countries, and other parties. Until now, JICA's aid activities have consisted mainly of Development Studies. And consequently, advancing coordination and cooperation with other domestic Japanese grant aid, concessional loans, and technical cooperation should yield better outcomes and improve the efficiency of cooperation.
- (6) Considering the optimum modal mix: In order to increase overall efficiency, it is necessary to consider the optimum modal mix when undertaking aid activities. To establish efficient transportation systems, and achieve efficient operation of transportation systems, JICA will undertake support that emphasizes the following:
 - 1) Activities that promote fair competition among transportation modes based on their relative advantages
 - 2) Activities that increase the possibility of being complementary to services provided for different transportation modes
 - 3) Activities that reduce the need for frequent facility renewals (reconstruction, expansion, etc.), and maintenance activities that improve the requirement for long-term expenses
 - 4) Activities that introduce the principles of market competition into the areas of infrastructure, the provision of services, and management and maintenance
 - 5) Activities that expand capacity, and improve quality and productivity of transportation through the enhancement of applied technologies and modernization
- (7) Consideration for remote areas: Transportation infrastructure provides opportunities for economic and social progress to a wide range of people. Particular consideration to improvements in remote areas is therefore given. However, opportunities for such progress cannot be provided without social services and infrastructure in other sectors, so it is essential to seek a balance with other services when carrying out the aid activities.

Responding flexibly and rapidly to emergency relief and recovery activities, meeting the needs of partner countries

(8) Emergency relief and recovery: Particularly in relation to conflict resolution, relief and recovery from a disaster, promptness will be emphasized, while appropriately responding to the needs of partner countries rapidly and flexibly. In countries where conflicts have been resolved, recognizing that long-term economic progress and investments in poverty reduction and social development play a large part in avoiding conflicts and securing regional stability, JICA will undertake support for peace-building that is also coordinated with activities in other areas.

Priority Issues

3-1-2 Priority Issues

In this section, JICA's transportation priority issues described in relation to each Development Objective, based on the discussions in Chapter 2 and Section 3-1-1. Development Objective 1 is particularly important, and should be regarded as a common objective towards achieving Development Objectives 2 to 5. Regarding these objectives, given that there are limitations in sources of funds, human resources, and the like in relation to transportation infrastructure development, good selection and a strategic focus are important.

Determining the development bottlenecks and strategically combining various schemes to provide comprehensive support

In particular, it is important to first determine, from the following, which central issues are proving to be bottlenecks to development: new infrastructure construction; the operation and maintenance of the existing infrastructure; the provision of transportation services; the enhancement of strategies in relation to transportation safety, disasters, the environment and the like; and capacity development and securing funding sources. It is very important to determine precisely where bottlenecks lie, and to implement comprehensive support by strategically combining various schemes.

(1) Development Objective 1: Capacity Development of the Transportation Sector

<Capacity Development>
Importance of cooperation aiming at reforming and enhancing transportation administration and expanding competition.

It is essential to actively pursue cooperation in relation to strengthening and reforming transportation sector administration, and increasing competitiveness.

Reforms to transportation administration to achieve good governance.

Good governance, which enhances transparency and accountability, is generally being emphasized as one of the administrative issues in developing countries. Furthermore, large changes in the transportation sector, such as (i) the transition to market economies, (ii) private sector participation, and (iii) decentralization, are progressing and culminating towards a paradigm shift, and it is imperative that transportation administration is reformed so as to be able to cope.

As part of this process, Development Objective 1 aims to enhance general systems capacity in transportation so as to facilitate the achievement of Development Objectives 2 to 5. It is essential to strengthen administrative capacity that includes improvements and enhancements to legal systems, implementation capacity, human resources, finances, and so forth. In the future, it will be essential to remain aware of linkages with support for other issues, and to strengthen coordination aimed at the relevant development in the transportation sector.

Flexible system upgrades aiming at the promotion of private-sector participation and the importance of capacity development.

Furthermore, since the transition from traditional restrictive administration systems to more flexible administration systems that place emphasis on market needs is required, capacity development is extremely important. As part of flexible administration systems, new initiatives such as deregulation and PPPs which encourage private-sector participation are being pursued in an effort to strengthen and supplement the shortage of the public sector in relation to financing, technology, and business capacities. In the future, where private-sector participation is desired, it is also essential that the various systems for expanding market competition be improved and upgraded so that the intended purpose of such participation can be adequately achieved.

(2) Development Objective 2: Toward Internationalization and Regionalization (Cross-border Transportation)

<Cross-border transportation> Importance of transportation sector cooperation that takes global trends in regional economic integration into account.

It is essential to engage in cooperation that reduces cross-border processing time by standardizing customs documentation and seeking uniformity in cross-border systems. It is also essential to focus on cooperation that demonstrates an awareness of economic zones that cover wide regions and several countries.

In response to the movements towards regionalization through FTAs in ASEAN, SADC, and the like, and economic globalization due to a rise in WTO member countries, Development Objective 2 aims to provide ancillary support for movements towards internationalization and regionalization by minimizing barriers to transportation. “*Chiiki teki wakugumi wo tujita sekkyoku tekina gaiko*” [*Positive Diplomatic Relations through Regional Frameworks*] and “*Gurobaruka no shinten ni taio suru kokusai tekina ruru zukuri*” [*The Creation of International Rules in Response to the Progress of Globalization*] are taken up in the “*Wagakuni no jutten gaiko seisaku (2005 nendo)*” [*Japan’s Major Foreign Policies of Fiscal 2005*]. And these may also be regarded as development objectives requiring future attention.

When considering individual cooperation activities, it is becoming necessary to assume that the range over which effects will manifest themselves extends to regional economic zones. Where large economic zones made up of several countries can be envisioned, it is important to select and improve important routes that, from the perspective of economic globalization, may act as major international transportation trunk routes. Since transportation routes that contribute to the overall economic progress of wide regions are also the most important routes within the countries, these types of routes are also of high priority within the framework of bilateral cooperation.

(3) Development Objective 3: Toward Balanced Development of a Whole Country (National Transportation)

<National transportation> Scrutinizing the necessity of activities from a national minimum perspective utilizing all transportation modes. Focusing on cooperation that emphasizes not just new constructions, but improvements to, and maintenance systems for, existing infrastructure, and the problems of inadequate financing also.

JICA will continue to implement cooperation that facilitates transportation over major trunk routes since this forms the basis for national progress, and in particular, it will be essential to strengthen efforts aimed at establishing and operating efficient maintenance systems. It will also be essential to strengthen approaches towards encouraging fair competition between transportation modes

through deregulation, and towards safety and security measures.

The aim of Development Objective 3 is to establish the basis for a balanced development of whole countries by utilizing all available transportation modes, including roads, railways, airlines, and shipping. In the future, from the viewpoint of avoiding excessive investments, it is particularly important at the project formation stage to scrutinize whether the actions in question are really necessary from the national minimum perspective.

In order to reduce investment costs but increase effects, it is essential to not just focus on new constructions, but to consider activities that include strengthening major existing transportation routes, and management and maintenance. Considering the objective of coordinating and cooperating with other donor's activities, it will also be essential to focus on cooperation aiming at establishing and operating efficient management and maintenance systems for existing infrastructure.

Furthermore, in conjunction with transportation infrastructure development, it will also be essential to improve transportation services through competition brought about by deregulation. In the future, JICA will focus on how to overcome transportation financing inadequacies in developing countries. Strengthening of safety and security measures will also be essential.

(4) Development Objective 4: Toward Sustainable Urban Development and an Improvement of Urban Life (Urban Transportation)

Important issues in relation to everyday movements in urban areas (urban transportation) include easing road traffic congestion during peak hours, and promoting a transition from individual automobile transportation to public transportation services through the improvement of bus and rail-based public transportation services, while at the same time managing demand for individual automobile transportation.

Development Objective 4 aims at resolving the transportation issues in the capital and other major cities. Population and economic activities in developing countries are concentrating in large cities, and combined with the rise of motorization, this is leading to concentrated traffic and congestion in urban areas, as well as disorganized urban sprawl into outer suburban areas. There is a limit to increasing the transportation capacity in limited urban areas, and the transition from individual automobile transportation to public transportation is crucial. Improving public transportation services and managing demand for individual automobile transportation are fundamental to achieving this. There are various stakeholders in urban transportation, including numerous central government agencies, and numerous local government bodies that make up urban regions, making consensus-building extremely difficult, so that delayed implementation is commonly a problem. In the future, it is imperative to focus on increasing implementation rates for proposed projects, and on strengthening systems capacity on the premise of promoting participatory approaches.

<Urban transportation>
In an environment where motorization is expanding from central to outer areas, the transition from individual transportation to public transportation, and the management of demand for individual transportation are important.

Since there are various stakeholders involved, it must be noted that consensus building takes a long time.

(5) Development Objective 5: Toward Sustainable Rural Development and Improvement of Rural Life (Rural Transportation)

<Rural transportation>
In rural areas where demand is low, it is essential to examine the form of public transportation.

It is important to promote transportation infrastructure improvements that take poverty reduction and local resident participation into account.

Points for Concern

Considering activities taking administrative reforms, as well as regional characteristics and transportation characteristics into account.

A major issue in relation to everyday movements in rural areas (rural transportation) is the provision of public transportation services to sparsely populated remote communities in an environment where motorization continues to rise. And it will be essential to consider the current state of poverty reduction and official assistance.

The aim of Development Objective 5 is transportation infrastructure development in regions that have fallen comparatively behind in development. Major targets include road disaster prevention and improvements to rural roads and small-scale bridges that do not meet national standards. Furthermore, at the international level the importance of infrastructure development aimed at rural poverty reduction is being emphasized. As demonstrated by the Poverty Reduction Strategy Paper (PRSP), there are efforts by local construction companies to make improvements to rural roads and their management and maintenance which are important pillars of regional vitalization. There are also initiatives such as the provision of construction materials through official assistance so that local residents can perform improvements and carry out management and maintenance, and initiatives that involve remuneration for labor to residents that participated in construction work. Moving forward, in providing support it is imperative to look at how these improvements to infrastructure and services will reduce rural poverty, and focus on participation and cooperation of local residents.

3-1-3 Points for Concern

When creating programs using the Development Objectives Chart, it is essential to base this process on the characteristics of each Development Objective and on the characteristics of each transportation mode.

In particular, it has become necessary to undertake more thorough consideration when planning grant aid activities. And two important points to consider are the actual whereabouts of problems and analyses of the underlying causes. It is necessary to determine in which regions smooth transportation is being obstructed, and where safety and reliability have been lost, and to accurately understand the root cause of these problems.

It is also necessary to consider the relevance of implementation from the viewpoints of gaps among regions, social gaps (poverty, gender bias, etc.), and environmental considerations. It is also important to consider sustainability, effectiveness, and efficiency from a long-term perspective, based on the overall lifecycle (planning, construction, operation/repairs/maintenance, evaluation and renewal) of transportation infrastructure.

Development Objective 1 is a common objective that enables Development Objectives 2 to 5 to be achieved. And it is also essential to consider the possibility of introducing administrative reforms and competition in relation to transportation infrastructure and services.

While Development Objectives 2 to 5 aim for the efficient provision of

basic transportation services, since the effects expected of each of these Development Objectives have their own characteristics, it is essential that these characteristics be taken into account and that priority issues requiring resolution be accurately discerned when providing support. For example, it is necessary to determine whether economic development is being emphasized, whether social development is being emphasized, whether the national minimum is being sought, or whether a civil minimum is being sought, and to accurately determine which Development Objectives partner countries are focusing on.

Below, for each Development Objective, points for concern in relation to the priority issues given in Section 3-1-2 are described. In general, it might be assumed that once the national minimum is achieved that transportation sector support is complete. However, since national minimum standards are changing, making such judgments is difficult. Furthermore, it is also necessary to remain aware that where aid activities are based in a particular urban or rural area, the civil minimum is of greater concern than the national minimum.

(1) Development Objective 1: Capacity Development of the Transportation Sector

Appropriately determining the differing circumstances in each country, and promoting transportation administration reforms that can cope with these local circumstances.

With regard to transportation administration in developing countries, there are large differences from country to country in the actual circumstances surrounding activities related to (i) decentralization, (ii) deregulation and private sector participation, and (iii) poverty reduction and environmental preservation. There are also large gaps in the human and financial resources that are available to be allocated to transportation infrastructure and facilities improvements. Therefore, it is important to determine whether changes that are likely to bring about a paradigm shift with regard to traditional transportation administration are progressing in the relevant country, and to promote transportation administration reform that will be able to cope with such changes.

It is also important to understand the legal structures related to transportation in the relevant country, and methods and systems of contracting related to transportation. In order to improve transportation and facilitate smooth operation, it is important to allocate tasks to, and clarify the responsibilities and authority of supervisory authorities, local governments, construction consultants, construction companies, suppliers of construction materials, facility managing bodies, and other related entities, and to move forward by appropriately building a consensus while maintaining transparency. From a good governance standpoint in particular, it is important to give attention to equity and transparency in the work execution and bidding process in partner countries.

Cooperation that incorporates a consensus building process is important.

It is essential to analyze transportation infrastructure development, legal systems that regulate services, and related entities, to give consideration to how decision making and information communication should be carried out, and to engage in cooperation that incorporates a consensus-building process, not just in relation to Development Objective 1, which is directly related here, but also in relation to cooperation concerning Development Objectives 2 to 5.

It's essential to understand and analyze current situations in a number of countries, cities, and at several borders.

(2) Development Objective 2: Towards Internationalization and Regionalization (Cross-border Transportation)

With regard to cross-border transportation, it is essential that circumstances surrounding transportation between capital and other major cities in several countries and at border crossings be properly understood. It is also imperative to properly understand the international conventions, bilateral arrangements, and the like, that countries have concluded, the design standards related to each transportation mode, the situation with respect to conformity with international standards, customs arrangements, and so forth. Since transportation-related systems such as customs in airports, ports, and harbors, transportation services, road rules, signages, railway track gauges, and so forth differ among countries, it is essential to take into account these differences in transportation systems that span international borders.

Although it is difficult for JICA to provide direct support in relation to this Development Objective since it currently focuses mainly on bilateral cooperation, where obstructions to cross-border transportation exist within a particular country, it is highly possible to undertake support that simplifies cross-border transportation.

It is important to understand which are the potential major transportation routes in relation to visions for regionalization over wide areas. Since major international transportation routes form part of major transportation networks within the relevant countries, they are commonly of high priority at the domestic level also. It is essential to consider whether the effects of individual cooperation activities will be felt over whole regional economic zones.

(3) Development Objective 3: Toward Balanced Development of a Whole Country (National Transportation)

Determining the most appropriate modal mix in national transportation through free competition among these different modes is important. In order to secure continuously efficient transportation at the national level, it is essential to fully understand transportation between capital and major cities, and among major cities themselves. It is important to understand the characteristics of transportation of people and goods in the relevant country, and to determine the relative advantages of each transportation mode (land, water, air). Since the type of transportation infrastructure and services required differ depending on transportation distances, quantities, and speed (frequency) and since existing transportation modes differ depending on areas, it is essential to note that the level of services required for each transportation mode depends on the state of development in the country.

Since taking alternate routes can be difficult when such facilities have ceased to function, it is essential that adequate management and maintenance systems, safety and reliability be present, and that adequate consideration must be given to this at the planning stage. It is also important to envision and consider the necessity of and strategies for disaster prevention, reconstruction, expansion, and the like, at an early stage.

Since JICA focuses on bilateral cooperation, direct support is difficult. However, since important regional transportation routes are also generally major domestic transportation routes, it is essential to assume that route shave effects over whole regional economic blocks.

It is essential to take all of the transportation modes in a particular country into account, and to understand the characteristics and current state of transportation in between cities.

Table 3-1(1) Utilization of Transportation Modes in Japan (Travel)¹⁷

Type of Transportation (OD* and Purpose)			Transportation Mode		Aircraft	Railway			Automobile		Passenger Vessels/ Ferries	Motorcycles Bicycles	
						Bullet-train (Shinkansen)	Heavy Rail	Medium Capacity Rail	Buses	Passenger Vehicles			
Wide-area Transportation	International Transportation	Business/Personal			-	-	-	-	-	-	-	-	
		Tourism			-	-	-	-	-	-	Luxury Liner	-	
	Long-distance Transportation (farther than 400-500km)	Business/Personal	●	●								-	
		Tourism	●				-	●	Private Charter Bus			-	
	Medium-distance Transportation (between 80-100km and 400-500km)	Business/Personal		●			-					-	
		Tourism					-		Private Charter Bus	●		-	
Urban Transportation	Metropolitan Transportation (10 to 80km)	Business	-	-							-	-	
		Work Commuting	-								-	-	
		Personal	-	-							-	-	
	City Transportation	Large City Transportation (0.8-1 mil. people or more)	Business	-	-					●	-		
			Work Commuting	-	-							-	
			Personal	-	-							-	
		Medium City Transportation (between 100,000 and 700,000 people)	Business	-	-							-	
			Work Commuting	-	-							-	
			Personal	-	-					●	-		
	Small City Transportation (100,000 people or less)	Business	-	-	-	-					-		
		Work Commuting	-	-	-	-			●	-			
		Personal	-	-	-	-			●	-			
Local Area Transportation	Business	-	-	-	-	-	-	-	-	-			
	Personal	-	-	-	-	-	-	-	-	-	●		
Rural Transportation	Transportation to Rural Areas (islands, etc.)	Business		-		-					-		
		Personal		-		-					-		
	Transportation within Rural Areas	Business	-	-	-	-		●	-				
		Personal	-	-	-	-				-	●		

*OD: origin and destination

 Indicates appropriate range for railway use

- Extremely suitable, and used by most people
 ● Very suitable
 ○ Suitable

Used some areas
 Indicates OD that span the Seto Inland Sea or that cross seas between isolated islands.

Source: Amano, Maeda, and Miwa (2001)

¹⁷ Refer to Chapter 2, pages 26-30, for the characteristics and relative advantages for each transport mode. Table 3-1 categorizes the characteristics of each transport mode according to transport volume and distance. However, it is also possible to assign advantages based on energy efficiency, transport costs, etc.

Table 3-1(2) Utilization of Transportation Modes in Japan (Goods)

Transportation Mode		Aircraft	Railway		Automobile			Shipping	
Type of Transportation (OD* and Purpose)			Direct Container Transportation	Direct Individual Item	Heavy Trucks	Medium and Light Trucks	Vans/ Light Vehicles	Cargo Ships/ Tankers/ Ore Ships	Ferries
Wide-area Transportation	International Transportation		-	-	-	-	-		-
	Long-distance Transportation (400-500 km or farther)						-		
	Medium-distance Transportation (between 80-100 km and 400-500 km)	-							
Urban Transportation	Metropolitan Transportation (10 to 80 km)	-	-	-		●		-	-
	Inner-city Transportation	-	-	-	-	●		-	-
Rural Transportation		-	-	-	-				

*OD: origin and destination

[] Indicates appropriate range for railway use

- Extremely suitable, and used by most people
 ● Very suitable
 ○ Suitable

Used some areas
 Indicates OD that span the Seto Inland Sea or that cross seas between isolated islands.

Source: Amano, Maeda, and Miwa (2001)

In order to establish transportation networks that are efficient overall, and to provide efficient services, it is essential to enhance transportation services by carrying out improvements that are absolutely necessary from a national minimum perspective, and also to consider the possibility of introducing competition through deregulation. In order to efficiently allocate scarce resources, it is important to consider coordination and cooperation with other donors, and methods of establishing and operating efficient management and maintenance systems.

(4) Development Objective 4: Toward Sustainable Urban Development and Improvement of Urban Life (Urban Transportation)

Considering the optimum modal mix

In urban transportation, a shift from individual automobile transportation to public transportation is particularly important. Traffic congestion “at work and school commuting hours” is a major issue in urban areas, where the quantity and speed (frequency) of transportation are important all at once. It is essential to consider the optimum modal mix based on a thorough understanding of the current state of, most importantly, automobile transportation, public transportation (buses and railways), and pedestrian movements, and clear future visions for the city and the lives of residents. It is also essential to consider demand management, and the facilitation of smooth transfers at transportation nodes.

Importance of consistency with land-use plans and transportation safety measures

Since the space available for transportation infrastructure development in large cities is limited due to the concentration of population and economic activities, it is important to consider whether necessary transportation infrastructure and services can be provided or not while staying consistent with

Consensus building between the various stakeholders is essential in the implementation of tasks, which is also one aspect of support activities.

land-use plans, aside from wanting to improve public transportation services. Furthermore, since traffic accidents have become a common problem, it is imperative that this issue be investigated also.

Since there is a wide range of government's offices, other organizations and agencies involved in urban transportation, extending from central to local level, it is essential to clarify the breakdown of roles designated/mandated to these entities, and to increase the prospects for tasks to be implemented by building a consensus among them. In order to clarify future visions for cities, consensus-building involving residents is also essential. Therefore, it is important to incorporate this into support frameworks as well.

(5) Development Objective 5: Toward Sustainable Rural Development and Improvement of Rural Life (Rural Transportation)

It is essential to consider infrastructure improvements not just from the perspective of achieving civil minimums, but also to consider whether they will lead to the revitalization of the rural economy. Also remember that measuring the effects is difficult with old indicators alone.

It is essential to understand rural transportation needs, and the situation with regard to access to trunk transportation. Among other issues, it is essential to determine whether access to social facilities essential for the lives of residents is ensured, whether residents are suffering a disadvantage due to inability to access trunk transportation, whether the area is attractive enough to entice people in if access to trunk transportation was secured, and whether the area has products to sell to other areas. Then, under the central theme of improving livelihoods in the rural area in question, it is important to consider whether regional revitalization and improvements in the quality of lives can be achieved through improvements to roads, ferries, and the like. It is also important to incorporate into the support framework systems such as those for public assistance in relation to the procurement of construction machinery and materials, and those for remuneration for locally provided labor. Finally, it is crucial to remember that it is difficult to measure the actual effects of support for rural transportation with old indicators based on old paradigms that focus on economic effects such as Internal Rates of Return (IRR) and cost-benefit ratios.

Issues for Future Consideration

3-2 Issues for Future Consideration

There are various issues that may be mentioned in relation to the Guidelines for Environmental and Social Considerations, emergency relief and recovery support, the diversification of implementation methods and the applicability of PPPs, pro-poor design, and so on. However, in this section, issues for future consideration in relation to JICA's overall cooperation efforts in the transportation sector are dealt with.

(1) Strengthening Capacity to deal with Issues

We will pursue support efforts using the program approach and improve the capacity of overseas offices.

In order to strengthen JICA's capacity to deal with individual issues, it will be essential to further accumulate and organize the experience acquired through cooperation, and to utilize this in Country Programs and individual corporation programs/projects. Since JICA is currently undergoing a process of moving from cooperation that has the single objective of making facility improvements to

cooperation that aims to resolve issues, moving forward, it will be imperative to implement actual cooperation using the program approach, and to consider the form of process management most appropriate for programs and projects. Furthermore, in order to strengthen support efforts that take a field-based perspective, it is essential that it enhance transportation sector knowledge management to improve the independent capacities of overseas offices.

(2) Continuous Evaluation of Approaches to Issues

Transportation issues are diverse and complex, priority issues differ across cooperation programs/projects, and the central issues involved in cooperation programs commonly vary with the passage of time. Trends in international assistance for infrastructure also continuously undergo vigorous changes. Taking heed of this diversity and variability, it is essential that in conjunction with the strengthening of JICA's capacity to deal with issues, it continuously consider improvements and revisions to the Thematic Guidelines, Development Objectives Charts, and so forth.

(3) Region-Specific Approaches

Economic zones over wide areas have been continuously forming in recent years in response to economic globalization, and it is essential that a grand design exist for the transportation sector since it supports progress in these regional economic zones. In response to this, it is essential to consider region-specific approaches for Asia, Central and South America, Africa, and so forth, independent of the overall Thematic Guidelines. The African region in particular is receiving much attention, and there is a pressing requirement for the consideration and evaluation of cooperation measures here.

The evaluation of region-specific approaches, and above all, the evaluation of approaches to the African region, are matters of urgency.

(4) Cooperation That Is More Human-Centered

In order to achieve further outcomes from JICA's cooperation efforts, it is essential to consider transportation from a more human-centered perspective. Based on significant outcomes achieved through past cooperation, it is imperative to consider what sort of influence this cooperation in the transportation sector had on people's lives, how that influence should be perceived, and what sort of role the governments of developing countries and JICA fulfilled in relation to that process, and this experience should be reflected in future cooperation activities.

Utilizing JICA's past cooperation experience, we will implement cooperation that takes a more human-centered perspective.