



Approaches for Systematic Planning of Development Projects: Transportation



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What are “Approaches for Systematic Planning of Development Projects”?

The “Approaches for Systematic Planning of Development Projects” series of reports is part of JICA’s efforts aimed at enhancing its country-specific and region-specific approaches. The series aims to deepen basic understanding of the overall picture of individual development issues, and of the effective approaches for dealing with those issues. Individual development issues are systematized, and the reports describe how JICA should be tackling those issues. Apart from being used to evaluate project formulation and cooperation programs, the reports are also utilized as reference materials to provide a view of the relevant issues. The appendices are intended to be practically useful, providing a summary of items that should be checked in relation to the evaluation and implementation of projects, such as outcomes of JICA’s cooperation in the relevant field, and the activities of other donors. Structured concisely under the concept of “available when required,” the reports are appropriate as entry-level references for understanding development issues in developing countries.

What is the “Development Objective Chart”?

The “Approaches for Systematic Planning of Development Projects” series of reports systematizes various development issues into tree diagram (Development Objective Chart), aiming to present an overview of relevant issues and possible approaches for their resolution in an easy-to-understand manner. This is a

major characteristic of these reports. The table presented on the reverse side is an excerpt from the Development Objective Chart for the Transportation Sector. The Development Objective Chart shows, in a hierarchical and logical fashion, the fundamental objectives pertaining to transportation (*Development objectives*), the *Mid-term objectives* crucial for achieving these *Development objectives*, and the *Sub-targets of Mid-term objectives* crucial for achieving these *Mid-term objectives*. The chart also shows steps and examples of methods for achieving the Sub-targets of Mid-term objectives. In short, the chart has been created as a tool for understanding the overall picture comprised of the various development issues, and for investigating and evaluating policies, directions, and details of cooperation activities with a view to the effective resolution of problems.

These System Charts also aim to provide a comprehensive understanding of strategies at the *Examples of Activities for Achieving Sub-target* level. Therefore, similar information and information to be considered when investigating programs and projects even for other Development objectives may also be included. When utilizing the Development Objective Chart, be sure to review the overall structure before studying them. In the real world, the states of problems in developing countries and the causes of those problems are complex and include various elements. Please note that to examine and determine the details and specific actions involved in cooperation using the Development Objective Chart, a certain degree of ingenuity and a view to resolving issues by synthesizing the various actions aimed at achieving objectives are essential.

The “Approaches for Systematic Planning of Development Projects” Series of Reports

Basic Education (2002), Higher Education (2004), Anti-HIV/AIDS Measures (2002), Reproductive Health (2005), Water Resources (2005), Transportation (2007), Information and Communication Technology (2004), Promotion of Small and Medium Enterprises (2002), Trade and Investment Promotion (2004), Rural Development (2002), Agricultural and Rural Development (2005), Urban and Regional Development (2006), Poverty Reduction (2004), Water Pollution (2007), Air Pollution (2007)

* The year given in parentheses after each title indicates the year of publication.

* The reports may be downloaded from JICA’s website in PDF format: <http://www.jica.go.jp/>

Development Objective Chart (Transportation - excerpt)

Development Objective	Mid-Term Objective	Sub-Target of Mid-Term Objective
1. Capacity Development of the Transportation Sector	1-1 Strengthening of Transportation Sector Administration	Clarification of Authority and Responsibility as well as Capacity Development of Central Government for Transportation Administration; Capacity Development of Local Governments in the Progressing Decentralization for Transportation Administration; Promotion of Private Sector Participation in the Development of Transportation Infrastructure and Provision of Transportation Services
	1-2 Updating of Transportation Laws and Regulations	Revision of Laws and Regulations regarding Provision of Transportation Services; Revision of Laws and Regulations with a view to Market Economy and Decentralization; Revision of Laws and Regulations as well as Capacity Development with a view to Promoting Private Sector Participation
	1-3 Strengthening of Transportation Sector Financing	Diversification of Financial Sources of the Government; Appropriate Distribution of Transportation Fund to Central and Local Governments; Introduction of the Benefit Principle; Utilization of Private Capital
	1-4 Human Resource Development	Human Resource Development of the Public Sector; Human Resource Development of the Private Sector
2. Toward Internationalization and Regionalization (Cross-Border Transportation)	2-1 Facilitation of International Movement of People and Goods	Development of International Transportation Network (Road/Railway/Airport/Port); Standardization and Modernization of Technologies Applied to International Transportation Network; Strengthening of Safety and Security Measures
	2-2 Expedition of Cross-Border Processing	Application of International Standards; Facilitation and Expedition of Import/Export Processing; Improvement of International Border-Crossing Systems
3. Toward Balanced Development of a Whole Country (National Transportation)	3-1 Improvement of Road Transportation	Improvement and Development of Trunk Road System; Strengthening of Road Maintenance System; Normalization and Standardization of Roads and Road Traffic; Improvement of Road Transportation Services
	3-2 Improvement of Railway Transportation	Restoration, Improvement and Development of Railway Network; Strengthening of Railway Maintenance System; Normalization and Standardization of Railway System; Management Improvement and Privatization
	3-3 Improvement of Maritime Transportation	Restoration, Improvement and Development of Ports and Port Facilities; Strengthening of Port Maintenance System; Normalization and Standardization of Port System; Improvement of Port Operation and Management; Promotion of Maritime Transportation
	3-4 Improvement of Air Transportation	Improvement and Development of Airport Facilities; Improvement and Development of Aeronautical Navigation Aid System; Strengthening of Airport Facility Maintenance System; Normalization and Standardization of Air Transportation System; Improvement of Airport Operation and Management
	3-5 Strengthening of Intermodal Transportation as well as Improvement of Issues Common to All Modes of Transportation	Development and Introduction of Intermodal Transportation System; Facilitation of Intermodal Connection; Transportation Safety Measures; Disaster Management; Improvement and Development of Intermodal Terminals to Contribute to Regional Development
4. Toward Sustainable Urban Development and Improvement of Urban Life (Urban Transportation)	4-1 Improvement and Development of Urban Transportation Infrastructure	Traffic Capacity Increase of Arterial Roads, Intersections and Bridges under the Jurisdiction of Central Government; Restoration and Improvement of Secondary Roads and their Maintenance Systems under the Jurisdiction of Local Government; Promotion of Private Sector Participation in Urban Transportation through PPPs
	4-2 Improvement and Development of Urban Public Transportation Services	Improvement of Bus Services; Introduction of Rail-based Public Transportation Services; Management Improvement of Public Transportation Service Providers
	4-3 Transportation Demand Management (TDM)	Promotion of Modal Shift from Private Cars to Public Transportation Services; Optimization of Urban Transportation Demand; Improvement of Urban Transportation Operation and Management
	4-4 Enhancement of Transportation Safety	Traffic Safety Education; Enforcement of Traffic Safety Laws and Regulations; Improvement of Traffic Safety Technology
	4-5 Prevention/ Improvement of Environmental Deterioration due to Urban Transportation	Exhaust Gas Emission Control; Improvement of Road Infrastructure and Facilities in view of Preventing Environmental Degradation; Introduction of Policy Measures to mitigate Urban Environmental Degradation
5. Toward Sustainable Rural Development and Improvement of Rural Life (Rural Transportation)	5-1 Improvement of Rural Transportation Infrastructure	Provision of Basic Transportation Infrastructure and Services to Secure the Civil Minimum; Enhancement of Transportation Safety and Reliability
	5-2 Improvement of Rural Public Transportation Services	Maintenance and Improvement of Public Transportation Services with a view to Satisfying the Civil Minimum; Provision of Transportation Services for Better Living Standard; Improvement of Safety and Reliability of Public Transportation Services
	5-3 Enhancement of Sustainability of Rural Transportation Systems	Improvement of Funding Mechanisms for Rural Transportation; Supporting Private Sector and Technicians to Study Technologies Suitable for the Locality; Establishment of Road Development and Maintenance System based on Participation of Local People

Source: Excerpt from the report

Development Objective Chart (Transportation sector)

The objective of transportation is to “facilitate the smooth movement of people and goods, thereby promoting economic development and improving living standards.” In order to provide a comprehensive view of the important development issues to achieve this objective, this report systematizes issues based on the particular characteristics of movements in and around the different types of spatial areas. This approach is chosen because there are limitations on the human and financial resources that can be allocated to transportation infrastructure projects and development facilities in developing countries. It is therefore essential to assign relative priority levels to issues to be resolved, based on an appropriate understanding of the different types of movement. In addition, capacity development of the partner countries is very important in resolving the increasingly diversified and complicated transportation issues. With these points in mind, the following five Strategic Objectives for Development were decided: (1) capacity development of the transportation sector, (2) cross-border transportation, (3) national transportation, (4) urban transportation, and (5) rural transportation.

Chapter 2 describes the discussion of effective approaches

for the transportation sector based on the items presented in the Development Objective Chart.

Towards Future Effective Cooperation in the Transportation Sector

This report identifies the following basic concepts in relation to JICA's cooperation activities aimed at improving transportation, and we intend to move forward with further cooperation based on these concepts. Major issues and tips for implementation in relation to each Development Strategy are also given.

<Eight Basic Concepts in the Transportation Sector>

- Human centered approach
- Selectivity and strategic focus based on local circumstances
- Fostering ownership, capacity development
- The best mix of program preparation and input
- Cooperation and alliance with other international cooperation agencies
- Study of the most appropriate modal mix
- Consideration of remote areas
- Rapid and flexible activities towards emergency relief and recovery



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