

## TECHNICAL COOPERATION PROFILE

### PERU

May 25, 2004

Project name: Development of a Sustainable Public Transportation System in Chiclayo

Project number: TC-0201019

Country Team: Leader: Alejandro Taddía (RE3/FI3); other members: Marelia Martínez (RE3/FI3), Rodolfo Huici (RE3/FI3), Juan Manuel Leaño (COF/CPE); and Julio Melgar (Consultant).

Executing Agency: Direction of Traffic and Transportation

Beneficiary: Municipal Government of Chiclayo (MGC)

Financing plan:

IDB (Danish Consultants Fund):	US\$	500,000
Local:	US\$	<u>100,000</u>
Total:	US\$	600,000

Tentative dates:

Loan Committee	July, 2004
Approval	August, 2004
Execution period:	12 months
Disbursement period	18 months

### I. BACKGROUND

- 1.1 The city of Chiclayo, located on Peru's upper northern coast, has a present population of 750,000 (metropolitan area), and has been growing at approximately 5% per year. In recent decades there has been an upswing in urban migration, resulting in a necessary but unorganized expansion of the urban area. The level of commercial activity conducted within the city has also dramatically increased during this period, particularly within the downtown area. The Municipal Government of the Province of Chiclayo (MGC) has the responsibility for the designing and implementing of the urban development plan for the metropolitan region. Their most recent version of this plan was completed in 1992.
- 1.2 The provincial municipal governments of Peru are solely responsible for horizontal/vertical signage, traffic signals and the construction and maintenance of all roads not classified as national highways. In addition, they determine the use of physical roadway space (parking, circulation and pedestrian facilities).
- 1.3 The provincial municipal governments of Peru are also exclusively responsible for the regulation of urban public transportation services. They have the right to establish the

route structure for services and, upon declaring a street/area "congested", they can exert stronger control over pertinent services. However, due to a national sector deregulation law passed in 1992, they may not limit vehicle age or entry into the operating market.

## **II. BANK STRATEGY AND EXPERIENCE**

- 2.1 Strategy of the Bank in the transportation sector in Peru, as expressed in the latest Country Paper, is to support decentralization of infrastructure management and publicly financed improvement in urban infrastructure with socially oriented focus, while facilitating the creation of financially feasible modalities allowing private investment in infrastructure, equipment or operations.
- 2.2 During the last decade the Bank has supported improvement of inter-urban transportation infrastructure in Peru, including the rehabilitation of some roads of the national roadway network (LO 836/OC-PE, 1150/OC-PE) and the improvement of the rural roads system (LO 901/OC-PE, 1328/OC-PE). Road maintenance, institutional strengthening and level of service improvement of the road system were addressed in these operations.
- 2.3 The Bank recently approved an operation (Loan 1501/OC-PE) to support the Metropolitan Municipal Government of Lima in the development of an Urban Transportation Program, focused on the implementation of a trunk network for public transportation, based on the construction or allocation of exclusive bus lanes on the city's main thoroughfares. The Bank is also pursuing improvement of urban transportation in some intermediate-sized cities of Peru. The studies financed by a technical cooperation (ATN/JC-7636-PE), benefiting the Provincial Municipal Government of Arequipa, are about to be completed and the resulting short-term (3 year) urban transportation improvement program, will be considered within a larger operation to be financed under a potential Bank loan, which will also include similar programs to be developed in Trujillo and Chiclayo. Preparation of the Trujillo program is currently on their way, financed by another technical cooperation approved by the Bank (ATN/DC-8385-PE).

## **III. JUSTIFICATION**

- 3.1 Urban transportation confronts serious difficulties in certain areas of the city of Chiclayo because of insufficient road capacity and missing links in some of its main transit corridors. Most of them are wide enough to support the existing traffic, but there are bottlenecks and/or a lack of adequate connections between them. In addition, due to road design standards, in most of the fast growth residential areas some major roads are clearly oversized, and limitations of municipality finances determine that a significant proportion of such roads lack pavement thus limiting the coverage and efficiency of urban transport services. Chiclayo is one of the busiest cities in the northern region of Perú and most of the commercial activity is concentrated within the downtown area. For that reason, heavy trucks delivering merchandise, buses, taxis, private automobiles and non motorized vehicles, as well as informal street vendors and pedestrians, compete for the limited roadway space in the center of the city. To make this problem worse, there is a shortage of parking facilities and the available space is not managed effectively in this area.

- 3.2 Geometric characteristics of some road intersections and lack of traffic signs and traffic control devices in other areas of the city originate conflicts and accidents that interfere with the normal circulation of vehicles worsening the traffic congestion that occur during peak hours and increasing the travel time in those periods. Although the congestion have not yet reached critical levels in most of the conflict areas, timely attention to these problems is required in order to design and implement proper low cost measures to improve the present situation and to prevent the development of major future problems that will require greater investments to be solved.
- 3.3 The size of the fleet providing public transportation services is notoriously overdimensioned, according with the standards prevailing in Latin American cities and with the actual demand. There are near 90,000 vehicles registered and circulating within the Province of Chiclayo; almost 20,000 of these units provide urban public transportation services and most of them are taxis and low capacity fixed-route vehicles (minibuses and small vans). Despite the large size of that fleet, the service delivered to customers is quite poor, mainly because route patterns do not match well with demand flows or do not reach up to the lower income population settlements. The quality of such services is also bad given financial and organizational weaknesses of transport operators. Finally, the ownership of the public transportation units is very diverse and fragmented, consisting of a combination of large companies and individual operators.
- 3.4 The MGC has assigned a high priority to the solution of the problems or urban transportation and is willing to adopt effective short term measures to eradicate or mitigate those problems. Municipal authorities, in coordination with public transportation operators, have begun a process to modernize the fleet and to improve the quality of the services provided to the customers introducing modifications on their route patterns and improving the organization and management of the operations. Nevertheless, it is still necessary to establish a comprehensive legal, institutional and financial framework in order to solve structural problems and to provide the required technical expertise to the MGC in order to develop a consistent planning system, prepare a short term investment plan, and to carry out the improvement initiatives recommended in that plan.

#### **IV. OBJECTIVES AND DESCRIPTION**

##### **A. Objectives**

- 4.1 The main objective of this TC is to support the MGC in its effort to create an effective, efficient and sustainable urban transportation system, with emphasis on public transportation. The fostering of such a system will have far reaching benefits for all of the city dwellers, but particularly the population with the more scarce resources, which represents a large segment of the public transportation users.
- 4.2 The purpose of this TC is to provide technical assistance to the MGC in order to develop the institutional, technical and economic studies required to prepare a short-term (3 year) urban transportation program with emphasis in the improvement of public transportation services. This technical assistance will also address the strengthening of the institutional, legal and financial capacity of the MGC to properly manage and execute the program.

## **B. Description**

4.3 This TC will include the following components and activities:

### **1. Diagnosis of urban transportation system**

4.4 A comprehensive analysis of all the factors that negatively affect the efficient and sustainable operation of the urban transportation system shall be performed in order to identify the most acute problems and recommend suitable solutions to eliminate or mitigate them. Such analysis will include: (i) the assessment of the suitability of the legal and regulatory framework for vehicle registration and traffic control, as well as for the provision and operation of public transportation; (ii) the adequacy of the urban roads infrastructure to support existing and future traffic flows, particularly of those used for the public transportation system; (iii) the quality of the public transportation services and the organization and financial capacity of the operators; (iv) the capacity of the MGC and local law enforcement authorities to exercise proper control of the quality of the public transportation services as well as vehicle control and traffic management; and (v) the technical and financial capacity of MGC to ensure the proper execution and sustainability of an investment program aimed to improve the urban transportation system.

### **2. Development of an immediate and a short-term (3 year) action plan**

4.5 Both an immediate and a short term action plan for urban transportation will be developed, encompassing the following aspects: (i) recommendations for legal framework adjustments or modifications; (ii) recommendations for institutional reorganization and strengthening of MGC and other agencies involved in the operation and control of the transportation system; (iii) recommendations to improve organization and managerial skills of public transportation service providers; (iv) identification of main transportation corridors and feeder roads, evaluation of present condition and recommendations for road infrastructure improvements aimed at facilitating the future implementation of a high capacity public transportation system; (v) recommendations for a redistribution of routes and changes on the circulation patterns of the public transportation services; and (vi) recommendations to increase the resources of the MGC to be allocated for improvement and maintenance of the urban roads infrastructure.

4.6 The immediate action plan will mainly be composed by administrative and organizational actions, changes of public transportation routes, and low cost and high impact infrastructure improvements to properly direct and/or segregate conflicting traffic flows, implementation of speed control, use of seat belt, safety measures, etc.

### **3. Preparation of projects to be included in the short term program**

4.7 Technical, economic and environmental studies, as well as conceptual engineering designs will be done in order to confirm the viability and priority of the projects proposed for the short-term investment program aimed at improving urban transportation in the city of Chiclayo. Projects with higher impact in the reduction of traffic accidents and/or in the facilitation of access to areas occupied by low-income population shall be given priority.

#### **4. Institutional strengthening/training**

- 4.8 An institutional strengthening plan to improve MGC's capacity for managing (planning and regulating) the public urban transportation system will be prepared and implemented. Seminars, workshops and on the job training should be considered for managerial and technical staff of MGC. Other agencies involved in the administration and control of the transportation services could also benefit from this training program.
- 4.9 Presentations to provide information to the public transportation providers and other stakeholders about the scope of the short-term program and the specific projects to be implemented shall be performed.
- 4.10 The expected products of this TC are: i) Diagnostic and development strategy for urban transportation, ii) Immediate action plan, iii) Short term action plan, iv) Implementation strategy, v) Institutional strengthening program, and vi) Preparation of projects.

#### **V. BENEFITS**

- 5.1 The consulting services financed by this TC will provide to the MGC a set of projects, organized into a coherent short-term urban transportation program that could be submitted to the Bank to be financed through a potential future loan operation. The implementation of such program will result in lower transportation economic costs for both passengers and goods within the urban area, and will contribute to poverty alleviation and improvement of living conditions of low-income population through facilitating access to job markets and social services, and reducing travel time.
- 5.2 Additionally, improvements implemented as a consequence of this technical cooperation will result in more efficient and effective use of vehicles and public urban space; will substantially reduce air pollution and noise; and will improve road safety.

#### **VI. SOCIAL AND ENVIRONMENTAL IMPACTS**

- 6.1 Significant negative environmental impacts resulting from this TC are not expected. Consequently specific strategies or actions do not need to be proposed to deal with this subject.
- 6.2 Considerable social and economic benefits (improved safety, reduced air and noise pollution, fuel savings and increased energy efficiency) are anticipated from the implementation of the short-term urban transportation program to be prepared under this TC. These activities will promote environmentally sustainable urban transportation solutions, and prevent overexpansion of road infrastructure and excessive use of private transportation.

## **VII. TENTATIVE SCHEDULE AND EXECUTION**

- 7.1 It is estimated that the TC's Plan of Operations will be presented to the Loan Committee in July 2004 and to consideration of the Board of Directors during the month of August 2004. Execution of the TC shall be performed over a 12 month period.

## **VIII. BUDGET**

- 8.1 The total amount required for financing of the proposed will be equivalent to Six Hundred Thousand Dollars (US\$600,000). An amount equivalent to US\$500,000 will be funded with resources provided by the Danish Consultants Fund (DCF). The remaining US\$100,000 will be covered with counterpart funds provided by the MGC in the form of wages for the local counterpart personnel, and logistical support services such as office space, local transportation, secretarial services, etc. Details of the basic assumptions for estimated budget are provided on Annex I.
- 8.2 Procurement will be done in accordance with Bank's procedures and the requirements of the Danish Consultants Fund. Under the guidance of the Finance and Basic Infrastructure Division of Regional Operations Department 3 (RE3/FI3) the Bank will advertise an Expressions of Interest (EOI), in cooperation with the Danish Funds team. A short list of Danish firms will then be prepared and a Request for Proposals (RFP) will be sent to those firms. The Bank will select and hire the consultants for this TC, in coordination with the MMC.
- 8.3 Disbursement of funds will be administered by RE3, with FI3 providing technical coordination for this administration. The disbursement will be subject to approval of the corresponding consultant report by both the MMC and Bank Project Team.

## **IX. RESPONSIBILITY WITHIN THE BANK**

- 9.1 The Finance and Basic Infrastructure Division of the Regional Department 3 (RE3/FI3) has the responsibility for preparing and managing this TC. The officer with direct technical responsibility and for approval of disbursement is Alejandro Taddia (RE3/FI3) - Telephone: (202) 623-3258 and e-mail: alejandrota@iadb.org.