

## STRENGTHENING OF THE PUBLIC WORKS CONCESSION SYSTEM

(TC-95-04-20-1)

### EXECUTIVE SUMMARY

**EXECUTING AGENCY:** The Ministry of Public Works, through the Concessions Coordination Office

**BENEFICIARY:** The Republic of Chile

**OBJECTIVES:** To support the Government of Chile in its efforts to strengthen the institutional framework and administrative capacity of the Public Works Concessions System and bring the private sector into the provision of transport infrastructure. The specific purpose of the program is to provide technical assistance to enhance the ability of the Concessions Coordination Office of the Ministry of Public Works, particularly the Supervision and Development Unit, to perform its role in all the stages of a transport-infrastructure concessions program. It is expected that this will foster the expansion of private enterprise and expedite the concessions approach. The results are also expected to be useful to other countries.

**DESCRIPTION:** The program will promote the institutional development of the Concessions Coordination Office's Supervision and Development Unit (CGC/UESD) in areas pertaining to business promotion and management, financing, legal aspects, the development of tendering and regulatory mechanisms, training, the environment, and the gaining of knowledge with regard to international experience. It encompasses the implementation of three inter-related subprograms: (i) institutional strengthening of the CGC/UESD; (ii) specific studies on various problem aspects in the management of the concessions process; and (iii) investment promotion.

The operation is aimed at extending support to Chile's policy of providing for the expansion of infrastructure without increasing public expenditures. The effective implementation of such a policy has become an urgent need, given the fact that the country's population and economy have grown at a rapid pace in recent years while the volume of public investment in transport infrastructure has grown very slowly, a problem that hampers expansion of the economy in the intermediate term. The government has given priority to this area and, specifically, to

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this operation, and has accordingly established a team within the CGC/UESD with the capacity to coordinate and absorb the results of the consultants' work. The government is covering 48% of the cost of the components that are specific to the program - by providing offices that it is leasing and equipping - as well as the cost of the study on Chile's experience with concessions, which will be performed upon project completion.

<b>FINANCING:</b>	Modality:	Grant
	Beneficiary: (48%)	US\$1,332,000
	MIF: (52%)	US\$1,468,000
	Total:	US\$2,800,000

<b>CONTRACTUAL CONDITIONS:</b>	Disbursements from the MIF will be made in accordance with the Bank's procedures, and the first disbursement will be subject to the executing agency's presentation of evidence that it has: (a) established the Project Executing Unit (PEU); (b) appointed the staff of the PEU; (c) submitted an initial plan for execution of the project, by components, including as a minimum: (i) the schedule of activities, by six-month periods; (ii) definitive terms of reference for all the consultants to be hired and studies to be performed with project funds and for the staff to be hired with local counterpart funds, and a timetable for bringing the latter on board.
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<b>ENVIRONMENTAL CLASSIFICATION:</b>	The Environment Committee, at its meeting of August 29, 1995, classified this as a Category II operation.
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<b>PROJECT TEAM:</b>	Charles Wright (RE1/FI1), Project Team Leader; Héctor Santos (RE1/FI1); Carlos Melo (LEG/OPR); and Mauricio de la Barra (COF/CCH).
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## I. COUNTRY ELIGIBILITY

- 1.1 On October 6, 1993, the Donors Committee declared Chile eligible for MIF financing under all modalities.

## II. THE PROGRAM

### A. Background

- 2.1 The Chilean economy has undergone a significant transformation over the past two decades as a result of the country's efforts to accomplish an integral reform of its productive structure within the framework of an open-market economy and a structural adjustment program emphasizing the growth of exports, investment and savings. Chile has changed from a country characterized by heavy State participation and high inflation levels at the start of the 1970s into a nation with one of the most open and competitive economies and one of the lowest inflation rates in Latin America in the 1990s. This process of transformation is based on a reduction and redefinition of the role of the State in the economy and a curtailment of public expenditures and a redirection thereof toward the social sectors.
- 2.2 Current fiscal and tariff policy in Chile considers taxes on fuels and other motor-transport inputs as an element of general tax revenues rather than tying them to a highway fund. This has left the transport sector exposed to the policy of reducing public expenditures. The consequent level of investments has created a significant gap between the demand for services and the supply of urban and interurban road infrastructure and, in certain cases, of railroads, general cargo ports, and airport passenger terminals.
- 2.3 The sluggish growth of investments in road infrastructure has been in contrast to the rapid increase in the demand for services stemming from the growth of the population and economic activities. In real terms, outlays for highway infrastructure in 1994 came to only 68% of what was spent in 1970, although the population had grown by approximately 50%, GDP by 70%, and the vehicle fleet had tripled over the same period. In some areas, deficiencies in the roads and ports systems are becoming potential constraints on the competitiveness of Chilean products in foreign markets.
- 2.4 As a means of fostering the requisite infrastructure expansion without increasing public expenditures, the government is seeking to replace public investments with private investments under a system of concessions. The Ministry of Public Works (MOP) is in charge of granting such concessions, which are governed by the following legal provisions: Public Works Concessions Act (DFL MOP 164 of 1991); Regulations of the Public Works Concessions Act

(DS MOP 240 of 1991); Law 19,252 amending the Public Works Concessions Act; and the specific tendering bases for each project.

- 2.5 The concessions program was begun at the start of the 1980s with the establishment of an appropriate legal and regulatory framework for private investment in energy and telecommunications, which was followed by the privatization of public enterprises in both sectors. Action under the concessions program has recently been stepped up for the construction, operation and maintenance of transport infrastructure. The goal is to increase the supply of transport infrastructure without increasing taxes or the allocation of public resources for the purpose.
- 2.6 The system of public works concessions is characterized by the private financing of road-, port- and airport-infrastructure projects and supplies of other public services. A concession may involve no cost to the State or only a minimal State subsidy (less cost to the State). In the latter case it takes the form of a "mixed" financing by the private sector and the State. In either case a contractual relationship is established between the concessionaire and the State on the basis of a pooling of mutual interests and objectives. The system's primary objectives are: (a) to reduce the public infrastructure deficit in Chile; and (b) to foster private investment in the production and operation of public infrastructure facilities. Objective (b) is to be accomplished through the creation of mechanisms for collecting fees from the users, who would thereby pay directly for the development, maintenance and operation of the infrastructure. It is also hoped to increase the efficiency of investments as a result of the private sector's assumption of responsibility for the construction and maintenance of facilities and its participation in the determination of priorities and identification of construction techniques for projects proposed by the State. Companies will even be at liberty to submit projects of their own, which the state will be obliged to analyze, giving its opinion with respect to the advisability of inviting bids on them.
- 2.7 The system of concessions is currently at a stage of consolidation and improvement. The existing legal framework is generally familiar to the various economic agents that participate in the process. The objective now, at the end of two years of actual operation of the concessions system and of learning about the problems involved in the process, is to update the legislation on the basis of experience gathered in Chile and elsewhere. At the same time, the government has presented a bill to amend the laws pertaining to the capital market so as to facilitate the financing of public-use infrastructure.
- 2.8 The 1993-2000 Concessions Plan encompasses a total of 45 works with a an investment value of US\$2,865 million (see Annex I). The authorities and the public at large have generally shown an interest in the topic. The following works have been tendered

since 1991: the El Melón tunnel, the Puchuncaví-Nogales road, the Camino de la Madera and Camino del Ripio, the northern approachway to Concepción, the Santiago-San Antonio road, and improvements to the Iquique and Puerto Montt airport terminals.

- 2.9 However, the initial stage of the concessions-award process (only one concession has advanced to the stage of operation) has brought to light a number of obstacles and difficulties that need to be resolved if the concessions program is to attain its objectives. The concessions process is complex and covers a number of mutually interacting areas. Moreover, it is a slow process: even though the legal basis was secured in 1991 and awards have now been made for six works (August 1995), only one work, the El Melón tunnel, has been inaugurated (September 15, 1995). It is important to conduct the various stages of the process effectively and, whenever possible, improve on the deadlines for individual stages and the overall process.
- 2.10 This requires the availability of a team of skilled, properly trained professionals devoting themselves exclusively to the job at hand and working with appropriate facilities and equipment. With this in view, a group entitled the Coordinación General de Concesiones [Concessions Coordination Office] (CGC) has been established within the MOP. The CGC in turn has a Supervision and Development Unit and three operations units: Urban Concessions, Route 5, and Megaprojects. Professionals have been selected for each of these units. These professionals, many of whom have completed graduate studies, have reviewed the available literature on concessions and the regulation thereof during their relatively brief time on the job. They have also acquired some experience with the procedures used in Chile in the matter of concessions. They do not, however, have first-hand knowledge of international experience in this area. They have identified key areas with respect to which there is no experience in the CGC and others in which it will be necessary to reinforce the in-house staff by hiring consultants for periods ranging from 6 to 18 months to organize and systematize the work that will later become routine. These latter areas include legal matters, rate-setting, regulation and incentives, supervision, financing and management of new works, and environmental concerns. These problems require the hiring of consultants, training of in-house staff, and performance of studies. In addition, the CGC has a shortage of equipment, particularly for data processing, a problem which has been hard to resolve in view of the current institutional constraints. A satisfactory solution to these problems is crucial to the successful operation of the concessions process, in which it is necessary to act with assurance and speed in the hiring of consultants and commissioning of studies. The proposed MIF operation will make it possible to perform these functions with the requisite speed and will place the Bank's relevant experience at the disposal of the CGC.

- 2.11 The literature on practical experience with road concessions in particular is scarce, since this is a relatively new concept. Nearly all of the international experience with concessions for the construction of new highways and city streets is fairly recent. This experience has occurred in different institutional environments and - more important - many of the projects have yielded less-than-anticipated results. It is necessary, therefore, to examine the available international experience in order to gain an adequate understanding of the key elements in the successful efforts and identify the factors leading to failure or undesirable situations. The areas which up until now have presented specific problems in Chile include legal aspects, rate-setting, regulation and incentives, supervision of engineering, financing and management of new works. Adequate coordination among the various agents participating in the process is hard to achieve and requires substantial preparation of the professionals who will be left in charge of managing the concessions.
- 2.12 Performance of the basic and conceptual studies for getting the complex concessions process under way on a serious and effective footing is a task that calls for a high degree of precision. It is a time-consuming task and one that needs to be approached with a clear initial understanding of the major premises underlying the process as a whole.
- 2.13 In order to approach this job in an adequate way, the MOP - the agency responsible for conducting the concessions process - has begun a process in 1995 which is aimed at defining the institutionality and organization of the system to be put in place for this purpose. Within the MOP, the CGC would be in charge of maintaining effective coordination among the various agencies of the Ministry as well as relations between the Ministry and other public institutions concerned with concessions and liaison with the private sector at large. The CGC has four executing units:
- a. **Executing Unit for Route 5** (the principal Chilean highway, which traverses the country north to south from the Peruvian border to Puerto Montt): Its mission is to award concessions during the period from 1995 to 1997 for nine projects involving a total investment of over US\$1 billion.
  - b. **Executing Unit for Urban Concessions:** Its mission is to award concessions during the period from 1995 to 1999 for 15 urban projects in Santiago and other major Chilean cities with estimated investments totaling more than US\$750 million. These concessions call for the installation and operation of a toll system on certain beltways or other heavily traveled roads. The public transit systems are operated by other enterprises whose concessions will not be affected by the urban road concessions referred to here.

- c. **Executing Unit for Megaprojects:** Its mission is to award concessions over a five-year period for a series of projects that require substantial initial investments and/or will exert a strong domestic impact in the areas of ports, airports, and roads, along with such private initiatives as the country may require in the future and that are eligible for the concessions approach. The amount of investment estimated to date for such projects comes to more than US\$500 million.
- d. **Executing Unit for Supervision and Development:** The mission of this unit is to support the work of the above three units by determining the scope of activities pertaining to regulation, rate-setting, financing, the environment, and legal concerns. The unit is also responsible for all promotion of business-concession activities, both in Chile and abroad, and for the supervision and monitoring of concession contracts once concessions are operative. Finally, this unit exercises administrative and budgetary supervision over the concessions system.

B. Objectives

- 2.14 The program proposed herein is aimed at supporting the efforts of the Government of Chile to strengthen the Public Works Concessions System and to bring the private sector into the provision of transport infrastructure.
- 2.15 The specific purpose of the program is to provide technical assistance to increase the ability of the CGC and its units to accomplish all the stages of the Public Infrastructure Concessions Program. It is expected that this will foster an expansion of private enterprise and will expedite the concessions approach. The experience acquired is also expected to be useful to other countries in the region.

C. Activities

- 2.16 The program will promote the institutional strengthening of the CGC's Supervision and Development Unit in the areas of business management and promotion, financing, legal aspects, development of tendering and regulatory mechanisms, training, the environment, and the gaining of knowledge with regard to international experience.
- 2.17 The program calls for the implementation of three inter-related subprograms (a summary of the program is given in Annex II): (i) institutional strengthening of the CGS and, in particular, the UESD; (ii) specific studies; and (iii) investment promotion.

1. Subprogram A: Institutional strengthening of the CGC/UESD  
(US\$1,178,000)

2.18 This subprogram involves the award of consulting-services contracts, the study of international experiences, and the procurement of data-processing and communications equipment and software.

2.19 The consulting services will supplement the performance of tasks already under way at the CGC. Each consultant will work under the supervision of the coordinator and in close collaboration with the professional responsible for each subject area for a period of six months or longer so as to ensure that the in-house staff is able to absorb the results of the consultancy. Consultations with the private sector will be included in this process. The consulting services will cover the following areas:

a. Project financing (US\$96,000)

The consultant will be an expert in capital markets who will analyze the risks faced by the various participants in the concessions process. The expert will help to: determine operational formats acceptable to private participants and the manner of operation of each source of financing available nationally and internationally; and determine the volume of resources for the concessions program in accordance with the available instruments.

b. Legal affairs (US\$36,000)

An expert in the area of expropriations in connection with transport-works concessions will be hired to: (i) examine the difficulties that have been encountered with projects already tendered; (ii) develop procedures that will make it possible to expedite expropriations and facilitate the physical delivery of expropriated land or goods; and (iii) analyze the changes to be proposed in existing laws and tendering bases.

c. The environment (US\$36,000)

The CGC includes environment-related provisions in all concessions and has two environmental professionals on its regular staff. The consultant will provide support in preparing terms of reference for the commissioning of environmental impact studies on each of the concessible projects and will collaborate in the review and monitoring of the environmental studies commissioned.

d. Transport models (US\$77,000)

The services will cover the following areas: traffic measurements, zoning, timing, origin-and-destination matrices, preferences, demand projections, traffic allocation, and social evaluation of projects. Given the impracticality of each prospective interested



party developing its own urban transport model, the CGC will need to compile the basic information. Chile already has a model that would be suitable for this purpose, but the CGC would require assistance in adapting it to a concession-based approach. The model is conceptually more advanced than other traditional models used in Chile, and the CGC's staff would need training and assistance in implementing it and in performing the initial simulations.

e. Urban planning (US\$60,000)

Advisory assistance will be provided to the CGC in analyzing the setting of urban-road projects, including the baseline situation of projects for which concessions are to be awarded and their future urban, environmental and social impacts. The expert will also assist in the development of mitigation measures found to be needed, as well as of the necessary urban planning instruments and standards for the consideration of pertinent initiatives from the private sector and the public at large.

f. Supervision and monitoring systems (US\$230,000)

The consultants to be hired will help the CGC and the MOP establish procedures for the situation peculiar to Chile wherein the MOP is in fact responsible for tendering the construction, operation and maintenance of a public work and pays the contractor through the concession for its operation. It will be necessary to define what it is that the MOP is to inspect, the depth of the inspection, its form and control, and the relations between the fiscal inspector and the concessionaire. It will also be necessary to determine the authority and responsibilities of the fiscal inspector, and the types of reports the concessionaire is to submit to the inspector.

g. Data-processing development (US\$170,000)

All the concessible projects involve the management of substantial volumes of information. Since there are certain types of information and procedures which are common to several projects or to all of them, it will be necessary to systematize and automate their management. The areas include the information system for project control, the general traffic database, and the graphic consultation system. The aims of the consulting services are: (i) to optimize the control of studies and projects; (ii) to assist in the management of traffic statistics for concessible projects pertaining to interurban highways, urban streets, airports and ports; and (iii) to implement the geographic information system and AUTOCAD engineering projects library.

h. Training and information on international experiences  
(US\$350,000)

This component covers the following areas:

- (i) Training of 40 professionals from the public and private sectors (US\$80,000)

Training will be provided by means of workshops or short courses covering the major topics pertaining to concessions and the privatization of services and operation of infrastructure, BOT arrangements, as well as specific topics such as training in the use of particular types of software.

- (ii) Invitation of international experts (US\$190,000)

This component is divided into five subject areas: legal and regulatory aspects, including legal standards governing concessions currently in effect in Spain, Mexico, France and other countries, as well as incentives and legal requirements for participating in bids for concessions. International experts will be invited to go to Chile to participate in workshops and short courses and to assist in the analysis of the topics covered by subprogram B, described below. The experts will be selected in such a way as to provide expertise on the most relevant experiences in terms of geographic areas and institutional aspects, as well as in terms of transport modes, with emphasis on urban and interurban roads, ports and airports.

- (iii) Information on experience elsewhere in Latin America (US\$80,000)

Although the team of professionals at the CGC are academically well-qualified, are acquainted with the pertinent literature and have participated in the initial phases of the Chilean concessions process, they have not been exposed to the experience of other countries. Within the region, there are several experiences that have yielded interesting results or procedures. Argentina may be the country that has made the widest use of concessions in highway, port and railway projects. In Brazil, the concessions approach has been used in some major highway projects (restoration and operation) and in the construction of a private port in the state of Rio Grande do Sul and a railway (FERRONORTE). Panama has progressed in port terminals and road projects. Likewise, the City of São Paulo has awarded concessions for the implementation and operation of priority lanes for urban buses. In Mexico, concessions have been awarded for operations in the port of Veracruz and for a broad program of freeways. These experiences provide information both on positive features that might be considered for

inclusion in the Chilean process and, in some cases, on serious problems that should not be repeated. This component calls for *in situ* study and observation of the experiences described and of others that prove to be interesting by professionals from the various units of the CGC.

2.20 Procurement of equipment (US\$123,000)

This component includes procurement of 25 computers, 10 laser printers, accessories and software, four photocopiers, two slide projectors, a scanner, a plotter, and a data display device. The equipment will be destined primarily for installation and use at the Supervision and Development Unit.

2. Subprogram B: Specific studies (US\$550,000)

- 2.21 This subprogram consists of the financing of studies and specific research to help the CGC improve its decision-making capacity and optimize the concessions process. It is possible that private-sector participants in concessions activities may provide a share of the funding for some of these studies. The comments in paragraph 2.19 on terms, teamwork, and the ability of in-house staff to absorb the results of the studies are applicable here. Studies in the following areas will be considered:

a. Rate-setting, allowing for local conditions (US\$70,000)

This study is aimed at clarifying the inter-relations of a concession-operated road with local traffic, specifically as this relates to Route 5. Alternative rates will be examined for short- and long-distance users, for frequent and occasional users and for users under congested and un-congested conditions.

b. Optimization of tendering mechanisms (US\$40,000)

The objective is to weigh the pros and cons of the various types of bidding and determine whether a particular one is better under different circumstances and whether there are more appropriate methods for various types of problems.

c. Legal aspects and financing (US\$25,000)

The objectives of the study are: (i) to strengthen the Legal Department for Concessions, which advises the various units at every stage of a concession process; (ii) to perform a legal study envisaging the creation of a Superintendency of Public Works Concessions, including a determination of how the CGC or the future superintendency would become self-sustaining in the future by collecting an administrative fee or by other means; (iii) to compare the legislation of other countries and their experience in

this field with those of Chile; (iv) to provide a system for the legal control and review of administrative actions under the procedures established for concessions; and (v) to examine new legal formats for legislative initiatives to encourage the execution and operation of works by concession in accordance with the experience of other countries.

d. Regulatory schemes (US\$25,000)

The objective is to examine the various existing regulatory methods and the problems they present, adapting them to the particular case of road concessions, and to suggest specific methods (if needed) for the groups of projects proposed.

e. Study on the projection of demand by advanced econometric methods (US\$70,000)

The margin of error in traffic projections is a problem for all the participants. To provide a better understanding of the matter, this component will consider advanced econometric techniques. The objectives are: (i) to present the different econometric techniques for estimating demand; (ii) to develop a model for estimating the demand for travel in urban and interurban areas, as well as the demand for cargo and passenger transportation at domestic airports; and (iii) to apply and evaluate the model in specific cases and report on its pros and cons to the interested parties.

f. Toll charge systems (US\$200,000)

The objective is to evaluate the various technologies in the light of other countries' experience and the results of field tests and a pilot plan focused essentially on the performance of each technology. Such a study is of fundamental importance, given the large number of road concessions to be tendered independently, which necessitates compatibility between the systems implemented by different concessionaires, at least along their interconnected segments. While some technological specifications have been worked out, it is still necessary to design a technology-evaluation scheme, evaluate the various technologies through pilot or field trials, select and prioritize the different technologies, and assess the impact on prospective users.

g. Port-concessions mechanisms (US\$30,000)

The objective is to compare and evaluate direct public-administration models vs. leasing arrangements vs. privatization of ports, examining the legal consequences of each and monopoly-regulation schemes, and performing an analysis of the implications. The analysis will be used in the formulation of proposals for port infrastructure and operation concessions.

h. Study of an environmental management plan (US\$40,000)

The CGC will include an environmental-impact analysis in all concessions and needs to establish the relevant procedures. The principal aim is to design an environmental management plan and suitable mechanisms for transferring environmental responsibility to the concessionaire.

i. Rate-setting under urban concessions (US\$50,000)

The objective is to evaluate existing rate-setting mechanisms in terms of their effectiveness as a means of determining optimal rates for the urban transport system and to develop a specific rate-setting proposal.

3. Investment promotion component (US\$461,000)

2.22 This component includes the following activities:

a. Two national workshops (US\$50,000)

These workshops will be targeted to the private sector as a means of informing prospective interested parties about the concessions program and its components and procedures and providing them with an opportunity to take part in discussions on projects and procedures.

b. Consultancy on concessions promotion strategies (US\$200,000)

The objective will be to provide information on opportunities and procedures, during the life of the program, with respect to the US\$2,865 million in transport-sector works to be placed under concessionary arrangements. This activity represents an effort to supplement the information on requirements and procedures to be worked out in accordance with paragraph 2.19 (a) with a practical exercise involving the implementation of all the measures required to publicize the concessions abroad and provide the technical assistance needed for monitoring and guiding the process.

c. Publicity materials, pamphlets and printing (US\$125,000)

This component will cover the costs of preparing materials needed for subparagraph (b) above.

d. Organization of four promotional missions abroad (US\$86,000)

These missions will familiarize potential investors in North America, Europe and Asia with concessible Chilean projects in an endeavor to increase competition on the supply side. This item will be financed exclusively with local counterpart funds.

D. Cost and financing of the project

- 2.23 The total cost of the project is estimated at US\$2,800,000, including US\$1,468,000 (52%) in the form of nonreimbursable funding requested from the MIF. The Government of Chile, for its part, will provide a local contribution equivalent to US\$1,332,000 (48%), as well as office space, personnel and equipment for regular staff of the CGC.
- 2.24 A summary of the estimated budget is given below and presented in greater detail in Annex III.

PROGRAM BUDGET (in US\$ thousands)	MIF	LOCAL	TOTAL
INSTITUTIONAL STRENGTHENING			
Consulting services	585,000	120,000	705,000
Training and international experiences	190,000	160,000	350,000
Equipment	123,000		123,000
Subtotal	898,000	280,000	1,178,000
Specific studies	275,000	275,000	550,000
Investment promotion	215,000	246,000	461,000
Program coordination		346,000	346,000
Contingencies	80,000	185,000	265,000
TOTAL	1,480,000	1,332,000	2,800,000

E. Administration and execution

- 2.25 The executing agency for the project will be the MOP, acting through its CGC (see paragraphs 2.4 and 2.13). The duties of the CGC are: (i) to implement the Concessions Act (DFL MOP 240 of 1991); (ii) to identify public works that can be executed and supervised by the private sector under the concessions system; (iii) to propose plans for seeking bids for the execution of studies, projects and works by the private sector under concession arrangements, prioritize the concessioning of such works and prepare the budget of the CGC itself; (iv) to define criteria and standards to govern administrative supervision under concession contracts; (v) to approve or reject proposals for possible concessions submitted to the MOP by the private sector; (vi) to propose measures for strengthening the existing concessions system; and (vii) to promote the dissemination and exchange of information in Chile and abroad to facilitate private-sector participation in the concessions process applied to public works.

- 2.26 The project team and the CGC agreed on the need to establish a Project Executing Unit (PEU) because of the large number of consulting and promotional activities and studies the project includes. The PEU will be established by the MOP and will operate directly under the responsibility of the General Coordinator of the CGC.
- 2.27 The PEU will be responsible for all matters pertaining to the programming, organization, coordination, administration, oversight and control of the project. This includes responsibility for: (i) invitations to bid; (ii) amendment of terms of reference; (iii) verification of works progress; (iv) authorization of payments; (v) preparation of all documentation to be submitted by the executing agency to the Bank in accordance with the agreement for this operation; (vi) coordination of consultants, government officials and other agencies having a direct or indirect link to the project; and (vii) liaison of the executing agency with the Bank throughout the project execution period.
- 2.28 The PEU must have at least the following staff to perform the tasks enumerated in the preceding paragraph: an operations manager; an engineer specialized in economics; a commercial/administrative engineer; and a secretary. <sup>1/</sup> The operations manager (or project coordinator) will be the head of the PEU and, hence, of its staff and of any consultants hired with project funds. Since the coordinator will be a CGC staff member, his salary will not be included in the local counterpart. The other two specialists, however, will be hired especially for the project. One of these specialists will be in charge of the project's technical features, including responsibility for ensuring productive exchanges between consultants and CGC staff; the other specialist will mainly oversee program administration, including the supply of all documentation required by the Bank. The cost of running the PEU for the 18-month period has been estimated at US\$250,000. This amount does not include the coordinator's salary but does include the cost of providing the physical plant for the PEU and the consultants, who will need to be located within the CGC in order to ensure that their work meshes with that of the CGC's staff and that knowledge is absorbed by CGC professionals.

F. Disbursements, procurement of goods and commissioning of consulting services

- 2.29 Disbursements of MIF funds will be made in accordance with the Bank's procedures, and the first of these will be contingent upon submission of evidence by the executing agency that it has: (a) established the above-mentioned Project Executing Unit (PEU); (b) designated the employees who are to serve in the PEU; and (c) presented an initial project execution plan, by components,

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<sup>1/</sup> See agreement.

including as a minimum: (i) the schedule of activities, by six-month periods; (ii) definitive terms of reference for all consultants to be hired and studies to be commissioned with project funds and for employees to be hired with local counterpart funds; and (iii) a timetable for bringing the latter on board. 2/ The CGC has drawn up draft terms of reference for each of the project components. This draft will be reviewed by the project team, and the CGC has agreed to forward the definitive version of each set of terms of reference for Bank approval before October 11, 1995.

- 2.30 The timetable for execution of the project will last 18 months, and the period for disbursement of funds will be 24 months, both periods to run from the effective date of the agreement. 2/ The PEU may request that the Bank make direct payments for the procurement of goods and services for the program and for the hiring of consultants. The procurement of goods and hiring of consulting services described in Annex III will be done in accordance with the Bank's procedures.
- 2.31 Resources from the Bank will be used solely for the purpose of financing the relevant percentage of the items shown in the costs table for this operation.

G. Supervision

- 2.32 Execution of each of the project's components requires close coordination between the PEU and the Bank. The Bank's supervision will be exercised through periodic meetings of the responsible sector specialist from the Bank's office in Chile with the executing agency and the coordinator of the PEU and through six-month reports to be prepared and submitted to the Bank by the CGC within 30 days of the close of each six-month period. These reports are to include, *inter alia*: (i) a summary of the activities carried out during the six-month period just ended; (ii) information on the extent of accomplishment of the project's objectives; (iii) information on any difficulties encountered in executing the project and measures taken to resolve them; (iv) recommendations on any reallocation of funds among budget items, provided, however, that the recommendations may not change the modality or increase the amount of financing; and recommendations on possible reprogramming of activities in the light of problems encountered, such recommendations being subject to approval by the Office of the MIF and the project team; and (v) a plan of action for the ensuing six-month period. In addition, the consultants' reports and the preliminary and final reports on specific studies are to be delivered to the Bank for review and approval at the time of completion of each.

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2/ See agreement.



- 2.33 Within the six months following program completion, the executing agency is to submit a final report containing a summary of the activities carried out, together with information on the use made of MIF and counterpart funds, results achieved, decisions taken as a consequence of the program and results expected to flow from those decisions. Similarly, the technical cooperation agreement should specify the executing agency's obligation to submit the financial statements of the program, certified by independent auditors acceptable to the Bank and prepared in accordance with generally accepted auditing standards.
- 2.34 The estimated operating expenses of the PEU come to a total of US\$346,000 and will be financed with funds from the local contribution to the project. Except for the coordinator's salary, all of these counterpart costs are specific to the project and represent additional outlays by the Chilean government for the project's execution.

#### H. Feasibility and risks

- 2.35 The operation is designed to support the Government of Chile's Infrastructure Concessions Program by strengthening the Ministry of Public Works' Concession Coordination Office (CGC). This will complement the efforts already put forth by the CGC by enabling it to examine the problem areas already identified. It will also make available to the CGC support from the IDB, the consulting services required for these tasks, and the training it has requested. The UESD and the other three technical units of the CGC have the requisite staff for coordinating the consulting activities and studies, monitoring them on a participatory basis and absorbing their results (paragraph 2.19).
- 2.36 The operation will provide the complementary support needed for resolving the pending technical problems and will also provide a better foundation for the political debates being triggered by the proposals to amend existing legislation with a view to improving the concessions process.
- 2.37 The Executive Branch is firmly resolved to move ahead with the concessions program. The Legislative Branch, for its part, has cooperated by adopting constructive measures aimed at facilitating the process. Nonetheless, the process continues to be subject to implicit constraints on which there is little information at this time. These include the inability of the private sector to implement, at its own expense, works that fail to yield sufficient revenue to cover the concessionaire's opportunity costs, and the difficulty of extending the collection of tolls beyond a few specific segments of an urban road system. The proposed operation will help the agency in charge of the process to better identify the opportunities and limitations inherent in road-infrastructure concessions.

### III. COMPLIANCE WITH PROJECT ELIGIBILITY CRITERIA

#### A. General project eligibility criteria

- 3.1 The provision of MIF financing for execution of the project to strengthen the concessions system in Chile is compatible with the MIF's general objective, which is to foster an increase in private-sector investment and participation with the aim of speeding up growth and socioeconomic development. The proposal is also consistent with the MIF guidelines for the Technical Cooperation Facility that call for the priority allocation of MIF resources for projects to support the expansion of private investment in the infrastructure area.

#### B. Project eligibility criteria under the Technical Cooperation Facility

- 3.2 The proposed project is also compatible with the project eligibility criteria of the Technical Cooperation Facility according to Article 3, Section 2 (c), of the MIF Agreement, which provides that grants may be made to governments to finance advisory services required for the purpose of establishing or strengthening regulatory agencies.

### IV. COMPATIBILITY WITH THE BANK'S COUNTRY PROGRAM

- 4.1 The technical cooperation proposed is consistent with the priorities agreed upon by Chile and the Bank. These include notably, among others, consistency between the priority given by the government and by the Bank to the provision of governmental support to private-sector participation in road- and port-infrastructure investments. Also noteworthy is the priority accorded to public-sector financing to spur private-sector activity and strengthen private-sector participation through privatizations or concessions in the transportation and other sectors, together with the strengthening of public institutions and of regulatory frameworks for the private sector.

### V. AVAILABILITY OF MIF RESOURCES

#### A. Type of financing

- 5.1 The project will be financed with nonreimbursable funds in light of the following considerations: (a) the Donors Committee declared the country to be eligible for all types of MIF financing on October 6, 1993; (b) Chile's compliance with the eligibility

criteria for obtaining grants at the national level is reflected in detail in Section 3 of the country eligibility memorandum; and (c) the proposed project will exert a catalytic impact on private investments in infrastructure, as required under Article 3, Section (a), of the MIF Agreement, inasmuch as its aim is to foster private-sector participation in the supply of infrastructure and the operation of transport services. The validity of these criteria was confirmed by the Donors Committee at a meeting held on March 30, 1994 (document MIF/GN-23). Moreover, the experience acquired by Chile in this area will serve as an interesting pilot program both for other countries in the region and for the Bank. Chile's counterpart contribution will be used to fund studies on this issue, which will be available to all interested parties. The CGC, for its part, will hire independent consultants to undertake an evaluation of this experience (see section VI).

B. Use of MIF resources

- 5.2 The allocation of MIF resources for this program is justified by the fact that it underscores the Bank's support for the policy of fostering private investments in the provision and operation of transport infrastructure. More specifically, the program will extend support to the organization in charge of implementing the entire public works concessions process; it will make it possible to perform the essential tasks with the requisite speed; and it will improve the quality of a number of products with which the Bank has specific experience.

VI. EVALUATION

- 6.1 In order to ensure proper follow-up to the project and to take full advantage of its results, a report will be drafted covering the entire range of Chile's experience with the concessions process. The executing agency will submit this report for Bank approval four months after the final disbursement. The report is to be prepared by independent consultants hired by the executing agency with the project's local counterpart funds. Accordingly, the executing agency is to submit for Bank approval the respective terms of reference for the report and for the consultants to be hired to draft the report six months prior to the date of last disbursement.

**MINISTRY OF PUBLIC WORKS  
1993-2000 CONCESSIONS PLAN**

PROJECTS BID UPON (bid commitment made or bidding carried out)	ESTIMATED INVESTMENT (in millions of US\$)
El Melón Tunnel	25
Camino de la Madera	21
Northern approach to Concepción	170
Route 78, Santiago-San Antonio	95
Camino del Ripio	1
Puchuncaví-Nogales road	7
Approach to CAMB airport, Santiago	6
Iquique airport	4
Puerto Montt airport	5
<b>Subtotal</b>	<b>334</b>
<b>ROUTE 5 UNIT PROJECTS</b>	
Route 5, Los Vilos-Santiago	110
Route 5, Talca-Chillán	117
Route 5, La Serena-Los Vilos	180
Route 5, Santiago-Talca	72
Route 5, Santiago-San Fernando highway	106
Route 5, Chillán-Collipulli	150
Route 5, Collipulli-Temuco	103
Route 5, Temuco-Río Bueno	100
Route 5, Río Bueno-Puerto Montt	138
<b>Subtotal</b>	<b>1,076</b>
<b>MEGAPROJECT UNIT PROJECTS</b>	
La Dormida highway and Route 68, Santiago-Valparaíso	250
Route 57 CH, Santiago-Los Andes	70
Cartagena-Quintay road network	40
Carriel Airport, Concepción	8
Penco-Talcahuano road	6
Farellones road	8
Termas de Chillán road	5
Corral road	36
Bio-Bio River embankment	33*
CAMB Airport, domestic passenger service	25
Placilla Port (surrounding area)	9
Los Andes customhouse	3
Chacalluta customs complex	4*
El Loa Airport	2*
La Florida Airport	3
<b>Subtotal</b>	<b>502</b>

ANNEX I

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**URBAN CONCESSIONS UNIT PROJECTS**

Route 78, Route 5-Mallico Fork segment	60
Américo Vespucio Avenue	120
North Coastal Avenue	120
Santiago North-South Freeway	43
General Velásquez Avenue	50
Route 68, Mapocho River-Las Rejas	10
President Kennedy Avenue	20
Pie Andino Avenue, Las Condes-Route 5 South	110
Sector Orbital-Route 5 Road	17
Isabel Riquelme-Rodrigo de Araya Avenue	52
Las Industrias-La Serena road	44
Beltway, Alameda-Las Rejas-Departamental segment	40
<b>Subtotal</b>	<b>753</b>
<b>GRAND TOTAL</b>	<b>2,865</b>

\* Private initiative.

## EXPECTED RESULTS

<b>MIF – FACILITY I – CHILE: STRENGTHENING OF THE PUBLIC WORKS CONCESSION SYSTEM</b>		
<b>General objective of the project</b> – To promote private-sector participation in the supply of infrastructure and the operation of transport services.		
<b>Specific objective of the project</b> – To upgrade and expand the capacity of the Concessions Coordination Office, particularly the Supervision and Development Unit.		
<b>Subprogram</b>	<b>Activities</b>	<b>Expected results*</b>
<b>INSTITUTIONAL STRENGTHENING</b>	Hire consultants in the following areas: project financing, legal affairs, the environment, transport models, urban planning, supervision and monitoring system, and data-processing development	Consultants hired by 3/96 and work completed by 2/97
	Training and acquisition of knowledge concerning international experience in the areas of financing, traffic management, design engineering, rate-setting and toll-collection technology, and concessions management	Courses and workshops completed by 4/97
	Procurement of computer hardware, software and communications equipment for the Supervision and Studies Unit and the units reporting to it	Equipment procured and installed by 03/96
<b>SPECIFIC STUDIES</b>	Financing of specific studies and research to help the CGC improve its decision-making capacity and optimize the concessions process	
	Studies on rate-setting for Route 5, with consideration given to local conditions	Report completed by 8/96
	Study on optimization of tendering mechanisms	Report completed by 8/96
	Legal and financing studies	Report completed by 10/96
	Study of regulatory schemes	Report completed by 7/96
	Study on projection of demand by advanced econometric methods	Manual and software ready by 3/97
	Study and simulation of toll-collection systems	Simulation and report completed by 10/96
	Study of port concessions	Report completed by 11/96
	Study of Environmental Management Plan	General procedures ready by 12/96
	Studies on setting rates for urban concessions	Report ready by 12/96
<b>INVESTMENTS PROMOTION</b>	Organize two workshops targeted to the private sector	Workshops held by 4/97
	Consultancy on development of a strategy for national and international promotion of the concessions system	Consultant hired by 6/96 and work completed by 4/97
	Publicity materials, pamphlets and printing	Materials produced between 3/96 and 4/97
	Organization of promotional missions abroad	Missions carried out between 6/96 and 4/97

\* To be defined when the project is prepared.

**CHILE**  
**PROGRAM TO STRENGTHEN THE PUBLIC WORKS CONCESSIONS SYSTEM**  
**ESTIMATED BUDGET (in US\$)**

ACTIVITY	MIF	LOCAL	TOTAL
<b>SUBPROGRAM A – INSTITUTIONAL</b>			
1. Consulting services			
1.1 Project financing	96,000		96,000
1.2 Legal matters	36,000		36,000
1.3 The environment	36,000		36,000
1.4 Transport models	77,000		77,000
1.5 Urban planning	60,000		60,000
1.6 Supervision and monitoring systems	180,000	50,000	230,000
1.7 Data-processing development	100,000	70,000	170,000
2. Training and acquisition of knowledge on international experiences			
2.1 Training of 40 public-sector and 40 private-sector professionals	50,000	30,000	80,000
2.2 Invitation of international experts	100,000	90,000	190,000
2.3 Knowledge of other Latin American experiences	40,000	40,000	80,000
3. Equipment			
3.1 25 PC computers: 486 DX, 66 MHZ, 300 KB	75,000		75,000
3.2 10 laser jet printers	7,000		7,000
3.3 Computer equipment	10,000		10,000
3.4 Photocopier and 2 slide projectors	7,000		7,000
3.5 Scanner, plotter and data show device	24,000		24,000
Subtotal, Subprogram A	898,000	280,000	1,178,000
<b>SUBPROGRAM B – SPECIFIC STUDIES</b>			
Rate-setting, under local conditions	50,000	20,000	70,000
Optimization of tendering mechanisms	30,000	10,000	40,000
Legal aspects and financing	12,500	12,500	25,000
Regulatory schemes	12,500	12,500	25,000
Demand-projection	40,000	30,000	70,000
Study and simulation of toll-collection systems	70,000	130,000	200,000
Port-concession mechanisms	15,000	15,000	30,000
Environmental Management Plan	20,000	20,000	40,000
Setting rates for urban concessions	25,000	25,000	50,000
Subtotal, Subprogram B	275,000	275,000	550,000
<b>SUBPROGRAM C – INVESTMENT PROMOTION</b>			
Two national courses targeted to the private sector	40,000	10,000	50,000
Consultant on development of national and international promotional strategies	100,000	100,000	200,000
Publicity material, pamphlets and printing	75,000	50,000	125,000
Organization of four promotional missions abroad		86,000	86,000
Subtotal, Subprogram C	215,000	246,000	461,000
<b>PROGRAM COORDINATION</b>			
First professional for program support		72,000	72,000
Second professional for program support		48,000	48,000
Secretary		18,000	18,000
Other costs 1/		112,000	112,000
Subtotal		346,000	346,000
Evaluation: ex post report	-	96,000	96,000
CONTINGENCIES	80,000	185,000	265,000
<b>TOTAL</b>	<b>1,468,000</b>	<b>1,332,000</b>	<b>2,800,000</b>

1/ 26% of the total of US\$430,000 for rentals, remodeling of offices, and procurement of project-specific furniture.

PROPOSED RESOLUTION

CHILE. NONREIMBURSABLE TECHNICAL COOPERATION FOR THE  
PROJECT TO STRENGTHEN THE PUBLIC WORKS  
AWARDING SYSTEM

The Donors Committee of the Multilateral Investment Fund

RESOLVES:

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Multilateral Investment Fund, to enter into such agreements as may be necessary with the Republic of Chile and to take such additional measures as may be pertinent for the execution of the plan of operations referred to in Document MIF/AT- with respect to a technical cooperation for the project to strengthen the public works awarding system.

2. That up to the amount of US\$1,468,000 is authorized for the purpose of this resolution, chargeable to resources of the Technical Cooperation Facility of the Multilateral Investment Fund.

3. That the above-mentioned sum is to be provided on a nonreimbursable basis.