

## PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC18156

<b>Project Name</b>	CL Integrated Water Resources Management & Infrastructure Development (P152319)
<b>Region</b>	LATIN AMERICA AND CARIBBEAN
<b>Country</b>	Chile
<b>Sector(s)</b>	General water, sanitation and flood protection sector (60%), General transportation sector (20%), Public administration- Transportation (10%), Public administration- Water, sanitation and flood protection (10%)
<b>Theme(s)</b>	Water resource management (65%), Other public sector governance (15%), Administrative and civil service reform (10%), Infrastructure services for private sector development (10%)
<b>Lending Instrument</b>	Investment Project Financing
<b>Project ID</b>	P152319
<b>Borrower(s)</b>	Ministry of Finance-DIPRES
<b>Implementing Agency</b>	Ministry of Public Works
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared/ Updated</b>	07-Jan-2015
<b>Date PID Approved/ Disclosed</b>	29-Jan-2015
<b>Estimated Date of Appraisal Completion</b>	14-May-2015
<b>Estimated Date of Board Approval</b>	25-Aug-2015
<b>Concept Review Decision</b>	Track II - The review did authorize the preparation to continue

### I. Introduction and Context

#### Country Context

1. Chile is the strongest emerging economy in South America, becoming, in 2010, the first country in the region to join the Organization for Economic Cooperation and Development (OECD). The country has enjoyed sustained economic growth for the past 20 years (on average 5 per cent, per year), building on a solid macroeconomic framework, characterized by prudent fiscal and monetary policies, as well as a sound banking system. Even though Chile has achieved strong growth rates in recent years, the country's per capita income has yet to converge with that of the high income countries. In 2013, per capita income<sup>[1]</sup> of US\$21,990 was still well below the OECD countries' average of US\$ 37,986.

2. Chile has achieved important reductions in poverty and income inequality. In 2000, 23 percent of the population was considered poor (living on less than US\$4 per capita per day). This proportion has declined steadily since then, reaching 9.9 percent in 2011.[2] From 2003 to 2011, the average income of the bottom 40 percent increased by 4.28 percent, considerably higher than overall income growth (2.46 percent). However, reducing inequality remains a key challenge in Chile. The Gini index remains high (0.52), above the LAC average of 0.48, and 1 in 4 Chileans report that they cannot afford to buy sufficient food (OECD, 2014). Ensuring Chile remains on a high growth trajectory is critical to further reducing poverty and inequalities and to raise average incomes to OECD levels.

3. The new administration's program of priorities presented on May 21, 2014, states that sustainable and inclusive growth will require a reduction of the high energy costs, bridging the gaps in public infrastructure to reach high-income country service standards and introducing substantive improvements in the legal and institutional framework for water resources management.

4. To support the implementation of this program, the Government requested the World Bank to: (a) conduct further analytical work through the Chile-World Bank joint-study program on water resources management and infrastructure concessions; (b) accompany the implementation of some of the key recommendations of this analytical program through the proposed Project.

### **Sectoral and Institutional Context**

#### **Water resources management**

5. As stated in the Government program presented in May 2014, improving the institutional and legal framework for water resources management is a critical element to sustainable and inclusive economic growth. This statement is supported by the 2011 Water Resources Management Assessment (first joint study program with the World Bank on water) and the 2012 National Water Resources Management Strategy. Government urgency to act has been triggered by a 6-year long drought, causing important social and economic concerns and high political pressure.

6. During the last three decades, the situation with regard to water resources in Chile has changed profoundly. The strengthened role of the market and the move toward an export-oriented economy based on products such as copper, fresh fruit, wood pulp, lumber, salmon, and wine—all of which use significant amounts of water in their production processes—; and the heavy reliance on hydropower for energy generation, has led to sharp increases in the use of water, in particular in the relatively water-poor basins in the northern and central parts of the country. At the same time, water availability is being constrained by worsening water quality from industrial, mining and agriculture contamination and the effects of climate change in some river basins. As a result of these developments, the interdependencies among water users (including the environment), the competition for water and associated conflicts have grown; affecting disproportionately the weakest segments of the population and of the economy, as well as the environment. Many of these trends are likely to continue in the short to medium-term.

7. The Water Code (Código de Aguas) enacted in 1981 is the main legal basis for the management of water resources in Chile (República de Chile, 2010). It provides for strong private and tradable property rights over water use and a limited role of the State in the management of water resources (the General Directorate for Water within the Ministry of Public Works is the main

public agency responsible for WRM). While the Water Code succeeded in encouraging water-related investments and improved water use efficiency, it gave rise to a number of water management problems related to the need to reconcile economic incentives with the protection of the public interest and to balance the role of the state and the private initiative in the management of a resource that is crucial for development.

8. More specifically, major challenges in WRM include: (i) protecting better the water use rights of vulnerable groups and the water requirements for ecosystems and associated services; (ii) regulating water markets to limit negative externalities and improve fairness in price setting; (iii) maintaining the “hydraulic” security of water rights avoiding over exploitation of the resource, especially in aquifers; (iv) continuing progress in ensuring the beneficial use of water rights; avoiding hoarding and speculation; (v) expanding the measures already taken to improve water quality; (vi) improving water information with regard to availability, actual use, quality, expected effects of climate change, water rights allocated and market transactions; (vii) strengthening the role, power and means of the national water authority (DGA) and of Water Users' Organizations; (viii) improving of intra and inter sectorial coordination; (ix) initiating basin-scale, integrated, participatory WR planning and management; (x) increasing infrastructure investments to better regulate supply and to respond to increasing water demands in all sectors and, (x) improving water conflicts management and (xi) improving the safety of hydraulic infrastructure.

9. Addressing those challenges require primarily, (i) strengthening the institutional framework; (ii) revising the water law and its application decrees; (iii) upgrading the water information system and (iv) developing water infrastructure. Following the 2011 WRM assessment, subsequent joint-study programs provided detailed assessments and recommendations on those four topics . One of those recommendations is the creation of a sub-secretariat for WRM, with DGA becoming a department within this Sub-secretariat. The Proposed project would support the Ministry of Public Works implement some of these recommendations.

#### Infrastructure development and concessions

10. As mentioned, another pillar of the Government program for sustained and shared economic growth, but also to improve the quality of life of its citizens, is to bridge the public infrastructure gap with high-income countries. “Chile 2030 Agenda: Infrastructure, Development and Inclusion”, published in 2014 by the Ministry of Public Works, lays out the challenges that the country faces in the field of public infrastructure, and identifies the investments required to close this infrastructure gap by 2030, while prioritizing inclusion and regional integration. The Agenda seeks to increase investments in public infrastructure from the current level at 2.5% to 3.5% of GPD per year. A total of US\$28 billion infrastructure investments would be carried out between 2014 and 2021 by the Ministry of Public Works. They include primarily transport, dams and coastal development. About US\$10 billion will be executed through concessions and the balance, directly by the Ministry.

11. In order to successfully implement this growing infrastructure program, it is necessary to: (i) strengthen the Ministry’s capacity in infrastructure project planning, programming, management and evaluation and (ii) strengthen the capacity of the Infrastructure Concession Coordination Unit of the Ministry (CCOP) to improve the performance of the concession program, particularly in terms of volume and quality. CCOP operates under a flexible framework that allows delivering the concession projects in an efficient manner: CCOP mandate, budget and staff are renewed every year to better respond to the size and nature of the portfolio at hand. This flexible organizational structure

has nevertheless some limitations including the lack of streamlined incentives and the absence of checks and balances . An on-going joint-study program will provide key recommendations to improve the performance of the concession program.

12. The proposed Project will support the Ministry of Public Works capacity to bridging the public infrastructure gap by strengthening its capacity in infrastructure planning and concession.

#### **Relationship to CAS**

13. Relationship to CPS. The objectives of this Project are fully consistent with those set in the FY11-FY16 joint Bank-IFC Chile Country Partnership Strategy (CPS), particularly the “public sector modernization” strategic area.

14. Relationship to the World Bank twin goals. The Project will contribute to the World Bank twin goals of poverty reduction and shared prosperity. Here are some examples: The Project will (a) strengthen the role/capacity of the Water Authority to (i) regulate the water market; thereby reducing negative impacts on third parties and the environment that unchecked water use rights transfers can cause; (ii) monitor and control water abstractions; limiting the risks of over-exploitation that usually affects the poor disproportionately; (b) upgrade the water information system and its public access, thereby supporting (i) improved DGA decision-making related to, for example, the issuance of new water rights, reducing the risk of over-allocation or the effective regulation of water market transactions (see above); (ii) reduced information asymmetry in water rights market transactions that has prevented the less economically strong parties (such as farmers, the poor) from getting a fair price for their water; (iii) improved protection of vulnerable groups by having their water rights properly registered, (iv) increased implementation of integrated, participatory, basin-scale planning in key river basins where the poor and less economically strong users will have a voice. Additionally, by strengthening the capacity of the Ministry to deliver its growing public infrastructure program which has been designed in part to reduce inequalities, the Project will contribute to elevating the quality of public services to the level of high-income countries, with particular emphasis in lagging areas thereby positively impacting the poor, or lower income households who tend to live in underserved areas.

15. Relationship to previous projects. The proposed operation builds on progress made in the field of infrastructure planning and financing, under the previous Institutional Strengthening of the Ministry of Public Works DPL (report 39306-CL) and associated Technical Assistance Loan (TAL) approved in 2007. It also builds on a series of studies carried out under the Joint Chile-World Bank Study Program since 2010 (already referred to above), including: (i) the 2011 water resources management assessment; (ii) the 2012 water resources management institution reform program, (iii) the 2013 plan for strengthening DGA; (iv) the 2013 water infrastructure planning assessment study, (iv) the on-going water resources management legal and regulatory framework assessment and (v) the Infrastructure Concession study.

## **II. Proposed Development Objective(s)**

### **Proposed Development Objective(s) (From PCN)**

The Project Development Objective (PDO) is to strengthen the capacity of the Ministry of Public Works for water resources management and public infrastructure development at national level and in selected river basins.

### **Key Results (From PCN)**

The achievement of the PDO will be monitored through the following indicators:

- (i) New organizational structure for WRM and infrastructure concession designed and under implementation;
- (ii) Number of participative, basin-scale, integrated WRM plans formulated and adopted;
- (iii) Number of river basins with established mechanisms for participatory, integrated and basin-scale planning and management;
- (iv) Total number and value of concession contracts issued per year;
- (v) Number of concession contracts re-negotiations per year.

#### Main beneficiaries

The immediate beneficiary of the Project will be the Ministry of Public Works, more specifically DGA and CCOP, and their clients, i.e., the users of water resources and of public infrastructure under concession contracts; as well as the private sector managing those public infrastructure.

### III. Preliminary Description

#### Concept Description

Component 1: Water Resources Management (US\$35 million)

This component aims at improving WRM, through the strengthening of the Ministry of Public Works' capacity for participatory, integrated, basin-scale WRM, at central level and in selected river basins. It will include 4 sub-components:

- (a) Modernization of the institutional framework for water resource management. This activity is aimed at improving the Ministry's capacity at the central and basin levels by supporting the implementation of new WRM institutional arrangements proposed by the joint-study program and adopted by the Government, i.e., the creation of a Water Resources Sub-secretary under MOPW and the strengthening of the current DGA that will be under it. More specifically, the Project will finance, through consulting services and training: (i) the detailed design of the new water resources management organizational structure at national and basin levels; (ii) the revision and improvement of related regulatory instruments; operating guidelines, procedures and manuals; (iii) the identification and development of WRM financing mechanisms and (iv) the formulation of a human resources capacity building program and its partial financing.
- (b) Strengthening the National Water Information System. This activity will finance: (i) the upgrading of the national water information system, including observation networks (water quantity, quality and use); studies/modelling (groundwater and surface water modelling in priority basins); and water information platform; and (ii) the updating of the National Water Use Rights Registry and the development of a water market transaction information system.
- (c) Development and improvement of WRM instruments. This activity will finance: (i) the methodology for and the formulation of the national water plan and the regulatory instruments insuring its effective use; (ii) the methodology for the formulation of participatory, integrated, basin-scale plans and the regulatory instruments insuring their effective use; (iii) the design and implementation of a strengthened water users control and enforcement system, and (iv) large hydraulic infrastructure inventory, safety assessment and risk management plan formulation of selected dams.
- (d) Improving WRM in selected basins. This subcomponent aims at supporting the implementation of the new institutional framework and WRM tools developed in (a), (b) and (c) in selected river basins. More specifically, the Project will support: (i) the formulation of participatory, integrated,

basin-scale planning; (ii) the establishment of stakeholders participatory mechanisms for basin planning and management; (iii) the updating of the water rights registry; (iv) the implementation and testing of the water market transaction information system and (v) the implementation and testing of the strengthened water users control and enforcement system.

Component 2: Infrastructure Planning and Concession (US\$8 millions). This component aims at strengthening MOPW capacity to implement its growing public infrastructure program through the following activities:

(a) Infrastructure Planning. This activity will strengthen the MOPW capacity for infrastructure, including concession, planning at national and sub-national level. This will include revising the methodology and its implementation in selected regions.

(b) Institutional and regulatory framework for infrastructure concessions. This activity is aimed at improving the institutional capacity (CCOP) and regulatory framework for the generation and management of infrastructure concessions.

(c) Infrastructure concessions monitoring and information systems. This activity will improve internal and external (other government agencies and general public) access to information for project monitoring, control and evaluation. It will include the development of grievance mechanisms.

(d) Contract management. This activity will strengthen the management of infrastructure concession contracts during both construction and operation phases, insuring that feedback and lessons learned are generated and used in the development and structuring of future concession contracts.

Component 3: Project implementation (US\$2 million). This component will finance overall project implementation, monitoring and evaluation.

#### IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04			x
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10			x
Involuntary Resettlement OP/BP 4.12			x
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

#### V. Financing (in USD Million)

Total Project Cost:	45.00	Total Bank Financing:	45.00
Financing Gap:	0.00		
<b>Financing Source</b>		<b>Amount</b>	
Borrower		0.00	
International Bank for Reconstruction and Development		45.00	
Total		45.00	

**VI. Contact point****World Bank**

Contact: Marie-Laure Lajaunie  
Title: Sr Water Resources Spec.  
Tel: 473-9733  
Email: mlajaunie@worldbank.org

**Borrower/Client/Recipient**

Name: Ministry of Finance-DIPRES  
Contact:  
Title:  
Tel: 562-282862583  
Email:

**Implementing Agencies**

Name: Ministry of Public Works  
Contact: Jose Miguel Torres  
Title: Jefe de Asesores MOPW  
Tel: 56224493002  
Email: jose.torres.v@mop.gov.cl

**VII. For more information contact:**

The InfoShop  
The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 458-4500  
Fax: (202) 522-1500  
Web: <http://www.worldbank.org/infoshop>