## I. STRATEGIC CONTEXT

### A. Country Context

1. **Chile has a population of 19.5 million**. The population is highly concentrated in the Santiago Metropolitan Region, which represents 2 percent of the territory but accounts for 40 percent of the population. It is characterized by a diverse demographic composition, with indigenous peoples making up 12.8 percent of the population.[1] This demographic complexity contributes to the nation's vibrant cultural tapestry and the ongoing pursuit of social inclusivity. Chile underwent significant social and political changes marked by widespread protests since October 2019, demanding improved social services.

2. **Initially buoyed by the fiscal response to COVID-19, the Chilean economy is now returning to long-standing growth challenges.** Economic activity showed signs of stabilizing in the second half of 2023. Quarterly growth projections indicate a real GDP growth of around 1.5-2 percent in 2024 and 2-2.5 percent in the medium term. At the same time, inflation sharply accelerated in 2022, driven by demand pressures amid an overheated economy. This was exacerbated by high energy prices and global supply shocks.

3. **Chile has lowered income poverty, but inequality remains high.** The proportion of the population living on less than US$6.85 a day (2017, PPP), dropped from 29.9 percent in 2006 to 8.0 percent in 2020, and to 4.8 percent in 2022. Inequality (Gini of .43 in 2022) remains high. Unemployment at 8.5 percent at the end of 2023 is 0.6 percent higher than in 2022.

4. **Climate change is posing an additional threat to Chile's economy and particularly women.** According to the Global Climate Risk Index 2021, the country is in the top 25 of countries most vulnerable from extreme weather changes.[2] Extreme events such as floods and droughts are already having a significant impact on Chile's economy.[3] Between 1965-2019 four major droughts have been recorded in the country with losses that on average exceeded US$ 1 billion. Drought accounted for a 0.69 percent GDP loss in 2019 alone. During the same period, the country also experienced 37 floods with an estimated loss of over US$ 5 billion. Climate models project an increase in frequency of climate change-exacerbated floods (potentially damaging and life-threatening) and drought hazard levels.[4] For example, rainfall data for Central Chile show deficits of 80-90 percent for the year 2019,[5] indicative of dire water availability challenges. As recently reported by the National disaster prevention and response service (*Servicio Nacional de Prevención y Respuesta ante Desastres*, SENAPRED) during June and August, 2023, central southern Chile was inundated with floods that resulted in a "State of Catastrophe" declaration as it was the second major flood in 8 weeks.[6] Moreover, the country faced devastating wildfires in February 2024, which further exacerbated the vulnerability of the population and the economy, particularly affecting rural and indigenous communities where women play a central role in agriculture and family sustenance. In Chile, women are generally affected more adversely by the impact of these natural disasters and climate change as they tend to have less access to emergency shelters and are more vulnerable to gender-based violence, which often increases in disaster situations.

[1] The Mapuche constitute the largest group, numbering nearly 1.8 million individuals, while the Aymara and Diaguita follow with 156,000 and 88,000 individuals, respectively. Current patterns reveal a consistent growth in the urban indigenous population, with 88 percent of indigenous individuals residing in urban areas, in contrast to 12.2 percent living in rural regions.
[2] Kreft, S./ Eckstein, D./ Melchior, I. (2021): Global Climate Risk Index 2021. Available at: https://reliefweb.int/attachments/b6a6928e-214a-3398-bc01-1460f32bb3ad/Global%20Climate%20Risk%20Index%202021_1.pdf
[3] Chile (2020). Nationally Determined Contribution: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/ Chile%20First/Chile%27s_NDC_2020_english.pdf
[4] ThinkHazard! https://thinkhazard.org/en/report/51-chile/DG
[5] Long-Term Drought Parches Chile – NASA https://earthobservatory.nasa.gov/images/145874/long-term-drought-parches-chile
[6] Floodlist, August 2023: Chile – Over 30,000 Evacuate Floods in 6 Regions: https://floodlist.com/america/chile-floods-august-2023

## B. Sectoral and Institutional Context

5. **Water availability is scarce in various areas of the country, and the potential impacts of climate change, combined with water quality issues, may reduce the country's ability to meet growing water demands.** The total availability of renewable surface water is estimated at about 48,286 $m^3$ per capita per year with remarkable differences between the north and south. From the central metropolitan region to the north, water availability per capita[7] is at a mere 800$m^3$ per year. With all surface water resources already allocated, semi-arid regions like Coquimbo face frequent water conflicts and the constant threat of groundwater overexploitation. Between the O'Higgins and La Araucanía regions, water availability improves, but deficits can still occur during dry years. From the Los Rios region to the southernmost point, water is abundant, but demand is low. Climate change projections indicate a high probability of reduced rainfall in the central regions.

6. **The water resources management system has been struggling to manage these growing conflicts and adapt to the changing climate conditions.** Traditionally, the allocation of water resources has been done through a water market system (introduced in 1981 with the enactment of the Water Code). This approach successfully encouraged water-related investments and improved water use efficiency. However, it also gave rise to some water management issues, such as the need to reconcile economic incentives with the protection of the public interest and to balance the role of the State and the private sector in managing a resource that is crucial for sustainable development (World Bank, 2011). Despite undergoing reforms in 2005, 2018, and 2022, water management still requires further strengthening to better cope with growing water resource demand and water extremes, including both floods and droughts (See Technical Assessment Report). Traditionally, decisions on water investment and allocation have been driven by market incentives, often prioritizing short-term economic gains at the expense of long-term sustainability (World Bank, 2012). At the river basin level, planning weaknesses (See Technical Assessment Report) make it difficult to develop sustainable water services, impacting the reliability of these services under future climate conditions and the integration of different investment projects.

7. **Water security is influenced by climate change, water resource mismanagement, and issues in water-related services, disproportionately affecting vulnerable groups, especially women:**

a. **Water supply and sanitation**: Chile has achieved close to universal access to safe drinking water[8] (99.9 percent of the population) and sanitation (96.7 percent) in urban areas with a rate of wastewater treatment of 99.9 percent, making it one of the most advanced countries in the region on this front, along with Uruguay. On the other hand, according to the Socioeconomic Characterization Survey (CASEN) of 2017, 28 percent of rural households do not have access to safe sanitation solutions such as sewerage and septic tanks, while 18 percent of them access water through unsafe sources (water trucks, river, lake, or other source). Water contamination from surface run-off and floods can result in negative public health outcomes for residents, thus creating a climate-linked challenge. Rural Drinking Water Committees (*Comités de Agua Potable Rural*, APRs), responsible for the provision of these services, frequently face difficulties in maintaining and expanding services particularly to dispersed rural areas, due to limited financial resources, technical expertise, and governance capacities. To bridge the water service gap in water scarce areas, the GoC has turned to costly solutions such as water trucks. Between 2010 and 2016, the State spent US$ 130 million on renting water trucks to supply 400,000 people.

[7] Water availability per capita refers to the amount of water resources, typically measured in cubic meters, that is available per person within a specific region or county, and it is one of the most fundamental water-scarcity indicators in the global water resources management agenda.

[8] Urban WSS utilities in Chile are regulated by the Superintendence of Sanitary Services (*Superintendencia de Servicios Sanitarios*, SISS). SISS ensures access to drinking water in quality, quantity and continuity, as well as sanitation as established in the regulations, at a fair and sustainable price, seeking efficient use, caring for the environment, cooperating with the governance of water resources, and promoting transparency in the market.

b. **Irrigation:** Chile has made significant progress in improving the efficiency of water use in agriculture, particularly through the adoption of modern irrigation methods such as drip and microjet systems. The amount of land using these methods has increased from 93,000 hectares in 1997 to approximately 900,000 hectares today (almost 50 percent of the total productive land).[9] This shift to modern irrigation has been supported by the Government and has allowed for an increase in land dedicated to high-value crops such as fruit trees and vineyards. However, modernization has on occasion led to a reduction in water returning to rivers and aquifers, with potential negative consequences for other users and ecosystems. In these cases, farmers in lower parts of river basins have lost access to water that was previously available to them. It is important to note that approximately 57 percent of the irrigation systems in the country are inefficient.[10] Irrigation projects frequently become isolated solutions, lacking assessments of climate risks and their impact across the basin. Therefore, integrated water resource management within watersheds is essential to promote sustainable irrigation practices and prevent resource overexploitation, while continuing to incorporate climate resilience into irrigation projects to better adapt to ongoing climate change-exacerbated water scarcity and rainfall deficits (See Technical Assessment Report). Ensuring irrigation resilience to climate change is vital for social equity. Female farmers, often reliant on farming as their primary income, face greater disaster vulnerability compared to males. Chile has approximately 178,724 women in agriculture (27 percent of the agricultural workforce; 2019).[11] Despite their contributions, women often lack decision-making authority in community water management, even though they play a critical role in water use, conservation, and management.

c. **Flood and landslide risk management:** Climate change also contributes to the occurrence of floods and landslides. In June and August 2023, heavy rainfall caused a national emergency, leading to fatalities, property damage, and disruptions in education and water supply systems. Traditional flood control infrastructures have been the GoC's response. However, with urban sprawl and increasing demand for green and recreational areas, there is a growing need to integrate these solutions with natural solutions that can improve livelihoods and promote biodiversity conservation. Women are not only affected disproportionately by water-related disasters, but they are underrepresented in planning and implementation of interventions for flood and landslide risk management Policies and programs often overlook gender-specific concerns and needs, highlighting the need for increased female involvement in decision-making at both river basin and national levels.

8. **These water security challenges will require improving the capacity and coordination of Government institutions working in water.** In Chile, the Ministry of Public Works (*Ministerio de Obras Públicas*, MOP) is responsible for water resources management and for the provision of rural water supply and sanitation (WSS) services, irrigation infrastructure (with the Ministry of Agriculture, MINAGRI), and flood protection by maintaining, rehabilitating, and developing public infrastructure services and water resources. To achieve these water-related tasks, MOP houses two Directorates, Directorate-General for Water (*Dirección General de Aguas*, DGA) and the Directorate of Hydraulic Works (*Dirección de Obras Hidráulicas*, DOH). DGA is responsible for water use planning, management, and allocation. DOH is tasked with planning, design, and construction of hydraulic infrastructure, including dams, canals, and irrigation systems. Within the DOH, the Sub-Directorate of Rural Water Supply and Sanitation Services (*Subdirección de Servicios Sanitarios Rurales*, SSR) is responsible for infrastructure development as well as for the provision of technical support to rural water supply providers. Additionally, the Ministry of the Environment (MMA) is responsible for water quality monitoring and

[9] Ministerio de Agricultura. 2021. VIII Censo Nacional Agropecuario y Forestal.
[10] *Donoso, G. (2018). Water Policy in Chile. New York: Springer*
[11] ODEPA, 2019. Panorama de la Agricultura Chilena. https://www.odepa.gob.cl/wp-content/uploads/2019/09/panorama2019Final.pdf

climate change adaptation policies. Both Ministries and their corresponding units have been working to keep pace with the above-mentioned challenges in water resources management and water service provision.

9. **Recent reforms have tasked the DGA with growing responsibilities in the management of water resources.** In 1981, the water code assigned to the DGA the responsibility to regulate and oversee water resource allocation, use, and conservation, including the management of water use rights, infrastructure, regulation enforcements, and data collection. The 2018 reform granted the DGA the power to regulate and revoke usage rights, and to establish a system for immediate data transmission from water control and measurement devices.[12] The 2022 reform[13] strengthened the DGA's role, focusing on human consumption, environmental protection, and sustainable management. The DGA can now terminate unused water rights,[14] impose ecological flows,[15,16] and reduce extractions for source sustainability,[17] prioritizing human consumption. Additionally, the DGA manages water resources and monitors aquifers, but resource limitations and data gaps hinder effective oversight. These increased responsibilities require more staff and enhanced technical capacity in order to promote a better coordination and data sharing for informed water management strategies.

10. **Similarly, in 2017 Chile's rural water service provision model transferred responsibilities for rural water supply to the DOH.** The Law N°20,998 (*Ley de Servicios Sanitarios Rurales*), adopted in January 2017 and regulated in 2019, dictates that the DOH and its SSR are responsible for the provision of technical support to rural water supply providers, including the registration of rural WSS service providers, the creation of a single rural WSS investment unit *(Ventanilla Única),* and the design and implementation of a rural WSS Information system. Under this Law, the SSR is now responsible for both rural water and sanitation[18] and for providing technical assistance and training to rural water service providers, which was previously handled by urban water utilities through an "agreement" with DOH. To fulfill this new mandate DOH has been slowly increasing its staff but will still need to develop strong technical capacities. The implementation of the Law continues to encounter challenges, including the reluctance of APRs to achieve registration and licensing targets.

11. **Finally, the GoC has tasked the MMA to play a more prominent role in the management of water resources and contribute to a multisectoral perspective on water management.** Chile's MMA has traditionally played a role in the water sector by developing and enforcing environmental regulations (mostly for water quality), conducting environmental impact assessments for water projects, overseeing conservation efforts to protect water ecosystems,

[12] Law N°21.064, which reforms the Water Code with the aim of strengthening the role of DGA; published on January 27, 2018.
[13] Law N°21,435, which reforms the Water Code, was enacted into law by its publication in the Official Gazette on April 6, 2022.
[14] Article 6 bis from Law N°21,435. The rights of water use shall be totally or partially terminated if their holder does not make effective use of the resource in the terms set forth in Article 129 bis 9 from Law N°21,435. In the case of consumptive rights of water use, the termination period will be five years.
[15] Article 129 bis 1 from Law N°21,435. With respect to the rights to water use to be granted, the DGA shall ensure the preservation of nature and the protection of the environment. To this end, it shall establish a minimum ecological flow, for which it shall also consider the relevant natural conditions for each surface source.
[16] Article 307 bis from Law N°21,435. The DGA may require the installation of systems for measuring the flows extracted, the ecological flow referred to in Article 129 bis 1 and a system for transmitting the information obtained, in accordance with the rules established by the Service, to the holders of rights to use surface water or user organizations that extract water directly from natural channels for public use.
[17] Article 62 from Law N°21,435. If the exploitation of groundwater causes a degradation of the aquifer or a part of it, to the point that it affects its sustainability, the DGA must limit the exercise of the rights of water use in the degraded area at the request of one or more affected parties.
[18] Before Law N°20,998, the legal framework for rural water supply was limited to only one article in the MOP Law N°382 of 1989. The DOH's Subdirectorate of Water was responsible for implementing the Rural Drinking Water Program, with a mandate solely for water. Licenses were renewable and granted for a set period to an organization for water rights, while community organizations (committees and cooperatives) managed and provided water services in concentrated and semi-concentrated areas. Technical assistance was provided by water companies through "agreements" with regional governments for the design, construction, improvement, and expansion of infrastructure. After the regulation of Law N°20.998, a specific legal framework was established for the integral provision of water, sanitation, and wastewater treatment services. The Subdirectorate of Rural Sanitation Services (SSR) was created within the DOH of the MOP with comprehensive responsibilities.

and leading the national policy on climate change mitigation and adaptation. Today, the GoC has requested a more prominent contribution from MMA in water related tasks to broaden a water infrastructure centric vision.

12. **The GoC has designed a transformational US$ 1,872.3 million program which places water security as a top priority in the political agenda.** This program, known as the Just Water Transition *(Transición Hidrica Justa*, THJ) program, aims to tackle both institutional and infrastructure gaps, addressing both water resources management and water service provision challenges. On the institutional side, the aim is to promote river basin governance centered on resilience, ecosystems, and integrated planning. This will lay the ground for the improvement of a river basin governance structure (see Technical Assessment Report) and the development of planning instruments such as the River Basin Strategic Plans (*Plan Estratégico de Recursos Hídrico en Cuencas*, PERHC). To begin this process, river basin working groups are being created. The THJ program also works towards the improvement of water service provision through a renewed vision of water infrastructure development. Closing infrastructure gaps includes continuing to close rural WSS access gaps, ensuring sustainable irrigation practices, and lowering risk of flooding. To move the THJ agenda forward, the GoC has established a new inter-ministerial committee called the Committee for a Just Water Transition (*Comité d Transición Hídrica Justa* or THJ Committee). MMA is acting as the technical secretariat of the THJ Committee. The THJ Committee's mandate is to guide the transition to a more sustainable and equitable management of water resources in Chile, considering the needs and perspectives of all stakeholders.

13. **The GoC has requested World Bank support, through a Program for Results (PforR or Program) operation, to support the implementation of this transformational program**. The THJ program includes many new elements that are novel for Chile—including the creation of participatory water governance at basin level and the needed institutional and legal framework for adequate river basin management, the introduction of changes in the rural WSS service delivery scheme,[19] and the introduction of Nature Based Solutions (NBS) in the traditionally grey hydraulic infrastructure portfolio. The GoC has requested World Bank support to guide the process, bringing international learning and global best practices to inform the implementation of the program.

### C. Relationship to the CPS/CPF and Rationale for Use of Instrument

14. **The proposed Program is in line with the GoC's water agenda objectives as outlined under the THJ.** The GoC's objectives include climate change adaptation, sustainable resource management, and digital transformation. The GoC is deeply committed to achieving water security and ensuring access to water services for the entire population. Chile has presented commitments during the UN Water Conference 2023 to advance global water security.[20] These commitments include integrated water resource management (IWRM), water efficiency promotion, ecosystem restoration, and equitable access to drinking water and sanitation. Chile also aims to reinforce female participation in decision-making and incorporate the principles of Valuing Water in their strategic plans for water resource management (WRM) through the strengthening of river basin governance.

15. **The Program aligns with the World Bank's Country Partnership Framework (CPF) for Chile, FY2023-27.** It addresses CPF Objective 5 to enhance water security by improving rural water supply and sanitation, optimizing water allocation, conservation, and developing green and gray solutions for climate resilience. It also directly supports the CPF's high-level objective (HLO) 2: Enhanced environmental sustainability and climate resilience, promoting comprehensive WRM that balances water demands, encourages sustainable water use, and considers surface and

[19] The THJ program does not consider investments in rural sanitation infrastructure for the next five years; the current priority is to close the water supply access gaps in rural Chile, specifically in semi-concentrated localities.
[20] https://mma.gob.cl/chile-culmina-su-participacion-en-conferencia-mundial-sobre-el-agua-y-asume-compromisos-claves-para-avanzar-en-la-seguridad-hidrica-del-pais/

groundwater availability. The Program also aligns with the World Bank's mission and Climate Change Action Plan, focusing on resilient cities, climate-smart land use, and water security, while contributing to reduce poverty and promote shared prosperity on a livable planet through water-related services for the vulnerable.

16. **The PforR is an optimal instrument to support Chile's national transformational program, allowing the government to focus on results and strengthening country systems.** The PforR instrument aligns financing with results, enhancing sector accountability through defined roles, transparent information, and public participation. Given that Chile's national system has consistently succeeded in achieving development objectives both effectively and efficiently, it is reasonable to capitalize on their strengths instead of introducing a parallel financing mechanism. The PforR creates an avenue to enhance existing governance capacity and facilitate the development of an integrated results-based approach for financial reporting and budgeting in the sector. Additionally, the PforR allows the World Bank to continue its long-standing engagement in Chile around water (see Technical Assessment Report), provide targeted technical knowledge and international experience not only to refine and implement the novel areas of the GoC's water agenda (IWRM, NBS, and rural WSS), but also to reinforce the coordination between inter-ministerial efforts.

17. **The Program aligns with Chile's Nationally Determined Contribution (NDC).** Chile's NDC (published in 2020 and revised in 2022)[21] aims for Greenhouse gas (GHG) neutrality by 2050, emphasizing an equitable transition to a climate-resilient economy. It promotes water security through climate-resilient development and strategic water resource plans for river basins. The Program supports integrated water resources management and climate empowerment, aligning with Chile's transition and sustainable development goals. It increases access to rural water services and enhances adaptability and climate resilience through green and gray solutions. The Program complements Chile's mitigation commitment to reduce GHG emissions to 95 MtCO2eq by 2030,[22] as it focuses on improving water monitoring networks, modernizing systems, and enhancing water allocation efficiency, which can contribute to GHG reduction.

## II. PROGRAM DESCRIPTION

### A. Government Program

18. **The THJ program tackles multiple challenges in WRM and service provision through a water security approach** (See Technical Assessment Report). The aim of the THJ program is to strengthen Chile's water governance, while also ensuring the fulfillment of population, environmental, and economic needs, and securing sustainability for current and future generations in today's changing climate.

19. The government program translates into the below listed seven lines of investment programs with an estimated total value of US$ 1,872.3 million for the 2022-2027 period.

[21] Chile presented the latest National Contribution to the Paris Agreement on April 9, 2020 and in November 2022 the country strengthened its commitments through an annex that incorporates a contribution regarding methane emissions.
https://cambioclimatico.mma.gob.cl/wp-content/uploads/2023/01/Chile-Fortalecimiento-NDC-nov22.pdf
https://cambioclimatico.mma.gob.cl/contribucion-determinada-ndc/
[22] UNFCCC, 2020. Chile's Nationally Determined Contribution. NDC Registry: Chile's_NDC_2020_english.pdf (unfccc.int)

*Table 1. GoC's program lines of investment per THJ program thematic areas*

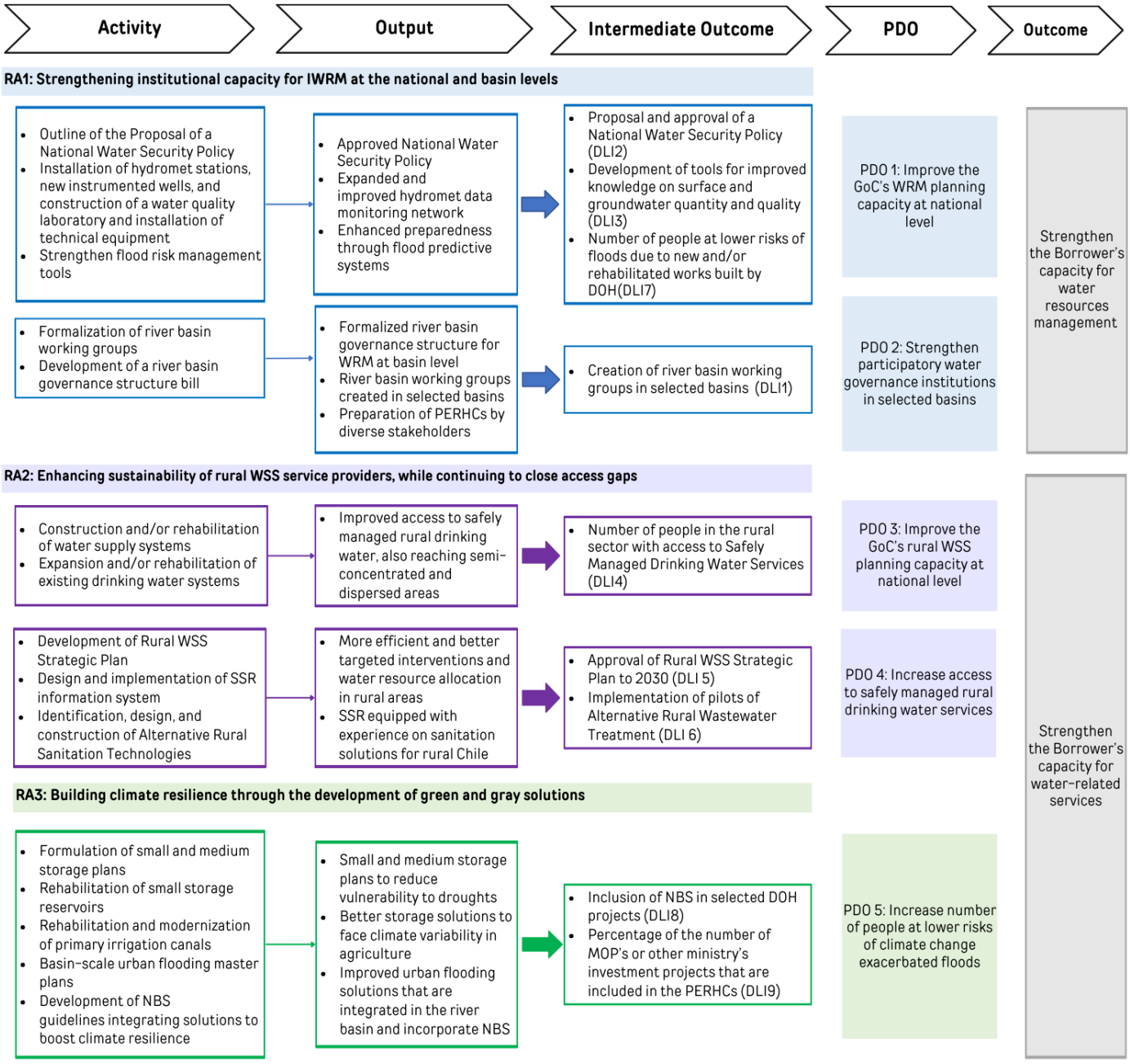
| Government program | | | | World Bank-financed Program |
|---|---|---|---|---|
| **THJ program thematic areas** | **Government programs** | **Government Agency** | **Government budget US$ million** | **Results Area as proposed by Bank Program** |
| (1) Water institutionality including national institutionality and basin institutionality, including the protection of ecosystems | Basin planning, support towards the implementation of basin management institutions, strengthening of water Information System | DGA (MOP) | 82.7 | **Results Area 1: Strengthening institutional capacity for integrated water resources management at the national and basin levels.** |
| | Design of the water resources management (WRM) institutional reform at national and basin level | MMA and MOP | 7.6 | |
| (2) Resilient human consumption, including Human Right to Water and Sanitation | Rural WSS services | SSR (DOH-MOP) | 1,300.0 | **Results Area 2: Enhancing the sustainability of rural water supply and sanitation service providers through institutional strengthening while, continuing to close access gaps.** |
| (3) Multipurpose infrastructure for water transition including the protection of ecosystems | Storage and irrigation canals | DOH (MOP) | 260.0 | **Results Area 3: Building climate resilience through the development of green[23] and gray solutions.** |
| | Urban flooding | DOH (MOP) | 160.0 | |
| | Runoff and sediment management | DOH (MOP) | 60.0 | |
| | Guidelines for Nature Based Solutions (NBS)[24] | MMA | 2.0 | |
| **Estimated Grand Total** | | | **1,872.3** | |

20. **The roll-out of the program is led by an Inter-ministerial THJ Committee.** The THJ Committee is led by the MMA, and composed of the Minister of Public Works, Minister of Agriculture, Minister of Energy, Minister of Science, Technology, Knowledge and Innovation, and the Minister of Mining— demonstrating the THJ program's goal of improving inter-institutional coordination for WRM and incorporating environmental considerations into the sector. The THJ Committee not only seeks to address ongoing water scarcity, but also to move towards the sustainable and equitable management of water. The THJ Committee has an important role to pave the way for Chile's transition in managing water resources and ensuring the sustainable use and equitable allocation to meet the country's growing water challenges amidst climate change. The THJ Committee assigned the MOP and MMA to lead the PforR with the World Bank, as described in Section C below.

21. **Promoting gender-equality, community participation, and beneficiary engagement is key to achieving and sustaining the THJ program results.** The MOP and MMA have introduced participatory tools, placing strong emphasis on citizen engagement to promote participatory governance of water management, where the gender-equity approach will be included as a transversal axis, among others, in the National Water Security Policy.

[23] Green solutions may include NBS.
[24] Implementation of NBS falls under DOH CAPEX investments, as MMA does not implement NBS. The 2 million allocated by MMA to NBS concerns consultancy expenses for the development of NBS guidelines, etc. See detailed Expenditure Framework in the Technical Assessment Report for more information.

## B. Theory of Change



### C. PforR Program Scope

22. **The proposed Bank operation (PforR or Program) will support key activities of the GoC's program.** While addressing climate change-exacerbated droughts, floods, and water scarcity, the PforR will focus on: (i) strengthening institutional capacities for the integrated management of water resources, including the implementation of a participatory water governance approach at basin level; (ii) improving safely managed drinking water and sanitation services in rural areas; and (iii) improving climate resilience through the development of integrated green and gray solutions for irrigation and flooding at basin level. The Program has a national geographic scope but excludes investments in new rural water supply, wastewater treatment, flood control, and irrigation infrastructure on international waterways, as well as investments that finance the expansion or alterations of such schemes in a way that would adversely impact the quantity or quality of water flows to other riparian countries (See paragraph 30). The Program activities have been structured in the following Program Results Areas (RA):

23. **RA1. Strengthening institutional capacity for integrated water resources management at the national and basin levels.** RA1 will support all the Borrower's efforts to implement IWRM at the national and local levels, including the strengthening of the national water authority, the improvement of the water information, and the improvement of river basin governance. To achieve this, the GoC has aligned with international best practices and is taking a two-fold approach, intervening at both national and basin levels.

- **At the national level, the program includes institutional strengthening, water policy development, and water data generation.** An institutional analysis that will serve as the basis for the strengthening of the national water authority (through the strengthening of DGA or the creation of a higher-level water authority), informed by previously conducted World Bank studies. The Program also includes the development of a proposal of a National Water Security Policy, which will guide the GoC's vision and work program, and may also inform future river basin governance. Additionally, the RA includes implementation of a digital strategy to strengthen the Public Water Registry. This includes software development, construction of a water quality laboratory, and enhanced infrastructure for water monitoring, databases, models, and applications to bolster information availability and transparency, and to support water solutions for flood and drought risks at the territorial level and informed climate-responsive management.

- **At the basin level, the Program will support the design and implementation of IWRM key principles.**[25] The activities include the promotion of stakeholder involvement, integrated planning, and sustainable water use to improve quality and increase availability. Specifically, the Program will provide support for: (i) formalizing a river basin governance structure for the management of water resources at basin level; (ii) creating river basin working groups to advance in the improvement of basin water governance in selected basins; (iii) preparing River Basin Strategic Plans (PERHCs) for selected basins with a focus on mitigation of climate change impacts (drought and flood management); and (iv) compiling lessons learned on the process of strengthening water governance at the basin level and the planning exercise for scale up beyond the selected basins.

24. **As part of this RA, the Program also seeks to foster gender-equity, partnerships, and community engagement.** To promote female representation, a Gender Assessment will be conducted by the DGA and MMA to identify barriers and opportunities for female participation in WRM activities and to identify measures that can be taken to promote and facilitate their participation in the river basin working groups. The Program will promote female participation in decision-making through technical trainings, leadership workshops, and awareness campaigns on gender equity in water policies.

[25] The focus in on the implementation of Dublin's Principles II and III on the need of a participatory approach for water management and the role of women. The detail of these principles can be found in GWP 200 TAC background paper.

25. **RA2. Enhancing the sustainability of rural WSS service providers through institutional strengthening, while continuing to close access gaps.** RA2 will encompass all of the SSR efforts to increase access to sustainable rural WSS services, including institutional strengthening activities and investments in WSS systems.

- **Institutional strengthening efforts are geared towards developing a strategic vision for rural WSS.** The Program includes investments in: (i) the development of the Rural WSS Strategic Plan to 2030 to guide investment priorities, including the development of sanitation diagnostic studies, and evaluation of management approaches for rural WSS services which consider climate change effects like droughts and floods; and (ii) the design and implementation of an SSR information system on rural WSS which includes data compiling and reporting, and rural service providers registration. As part of this RA, the Program will gather disaggregated data on women's involvement in APRs and take steps to boost their participation through activities like technical training, leadership workshops, and gender equity awareness campaigns in water services.

- **This RA also seeks to contribute to closing the rural WSS access gap.** The Program aims to improve access to rural water by making substantial investments in the construction and rehabilitation of water supply systems. This includes the design, installation, expansion and/or rehabilitation of drinking water services.[26] Given that rural households generally rely on surface water sources (rivers, springs, estuaries or lakes), groundwater (wells) and water trucks, the investments would potentially allow connection to pre-existing supply lines, reduce water losses and wastage, and therefore reduce vulnerability against future dry shocks. In the sanitation domain, the Program will conduct limited-scale pilots to test rural wastewater treatment solutions tailored to different geographic contexts. These wastewater treatment pilots will validate low-cost technologies for rural areas with sewage systems, manageable for APRs, and promote the incorporation of NBS where feasible. The Program will allow for the identification, detailed design, and construction of three pilots of alternative rural wastewater treatment technologies.

26. **RA3. Building climate-resilience through the development of green and gray solutions.** This RA aims at supporting the GoC's efforts in the development of flood control and irrigation infrastructure. This RA will also promote the incorporation of NBS into traditional hydraulic infrastructure development. The Program will bring a new dimension to the traditional development of hydraulic infrastructure and improve the resilience and impact of hydraulic works.

- **The Program will support the GoC in integrating hydraulic infrastructure delivery as part of a river basin plan approach, improve the focus on infrastructure impacts, and improve the benefits and resilience of gray infrastructure.** The Program includes: (i) the formulation of small and medium water storage plans, to maintain water supply for different uses, reducing the vulnerability to drought impacts; (ii) the rehabilitation of small irrigation storage reservoirs, which can capture runoff and reduce peak flows in rivers during rainfall season, making systems more adaptable to changing climatic conditions; (iii) the construction, rehabilitation, and modernization of primary irrigation canals, optimizing water conveyance systems to reduce water losses and ensure more reliable water availability; (iv) the development of basin-scale urban flooding master plans to identify flood-prone areas and systems that are flexible enough to accommodate changing climate conditions; and (v) the construction and rehabilitation of urban stormwater management schemes to reduce flood risk and landslides.

- **As part of this RA, the Program will develop national NBS guidelines and will promote the incorporation of NBS into at least two PERHCs and/or Flood Risk Management Plans (*Planes de Manejo de Cauce*, PMCauces)**

[26] Ministerio de Obras Públicas, 2023. Manual de Proyectos Agua Potable Rural de la DOH: Criterios de Diseño de Agua Potable Rural.

**and/or Stormwater Master Plans (*Planes Maestros de Aguas Lluvia*, PMALL).** It will also promote the early identification of specific NBS projects and support the incorporation of NBS in at least two project designs. Specifically, the Program will develop urban wetland management plans with a watershed approach in selected river basins.

27. **As part of all Results Areas and the strengthening of MOP, the PforR actively advances gender equity in the sector and has identified indicators to bridge gender gaps in the traditionally male-dominated hydraulic infrastructure sector.** MOP is committed to advancing gender equality across its institutions and the water workforce, having recently released an Ethical Code emphasizing gender equity and balanced representation. To promote the hiring and retention of female professionals within the Ministry, MOP has conducted internal gender analysis, set objectives for each of its institutions, and established labor and sexual harassment guidelines. They are now working on individual Gender-Equity Policies for each institution, and within the PforR seek international insights through the World Bank's Equal Aqua Platform.[27] Focusing specifically on construction employment, MOP acknowledges both the economic and social opportunities within this sector and the existing gender disparity in access to jobs and leadership roles in this male-dominated industry. Between 2019 and 2023, the participation of women in the construction sector rose from 6 percent to 9 percent.[28] Today, only 7 percent of front-line management positions are occupied by a woman, and only 9.7 percent of board seats are held by female professionals in Chilean construction companies.[29] [30] In the first half of 2023, the average participation of women in jobs generated by public works contracts tendered by the MOP was 9.4 percent.[31] The MOP aims to reduce the employment gender gap in construction by implementing various measures for MOP contractors, including: (i) mandatory gender awareness training; (ii) sharing successful practices; (iii) providing unconscious bias training; and (iv) developing standard workplace and harassment protocols for contractor adoption. Progress will be measured through the following indicator: increase in female personnel participation in jobs generated by public works contracts tendered by the MOP, where the baseline is 9.4 percent and the MOP aims for a 15 percent female workforce in national-level public works contracts.

28. **Community participation and beneficiary engagement is key throughout all Results Areas to effectively realize the Program development goals.** Chile's current legislation strongly incorporates citizen participation in public decision-making processes. The MOP and MMA's existing citizen engagement mechanisms have been explored to ensure effective participation and meaningful consultations. The Program includes the implementation of appropriate participatory and consultation processes with all the stakeholders, considering not only the civil works but also the activities that involve the design of plans, policies, and new Institutions for water management at the river basin level. Some DLIs include public consultation or stakeholder consultation milestones, such as the development of the proposal of a National Water Security Policy and drafting of the Rural WSS Strategic Plan to 2030, respectively. To evaluate the effectiveness of RA 1, a beneficiary satisfaction survey of the newly created river basin working groups will be conducted at different intervals of project implementation to assess if participants are comfortable with the participatory decision-making processes employed.

[27] Established by the World Bank's Water Global Practice with support from GWSP and external partners, Equal Aqua aims to promote gender diversity and inclusion in the water sector. EA connects various stakeholders and provides tools to enhance female recruitment, retention, and promotion within water organizations.
[28] INE 2019, 2023
[29] Ministerio de Hacienda, Ministerio de Economía, Fundación Chile Mujeres, OIT, 2023. IV Reporte de Indicadores de Genero en Empresas en Chile.
[30] To bridge the gender gap in construction, the Chilean women's organization highlights the need for: awareness on harassment, strong sanctions, women-friendly infrastructure, work-life balance, mentoring, best practices, and addressing unconscious biases. [Mujeres en Construcción 2019 – 2023. Visibilizar y potenciar el rol de las mujeres que trabajan en sector de construcción]
[31] This is measured through the MOP Employment Viewer. This tool only collects the participation of women in *jobs generated by public works contracts tendered by the MOP* and does not specify the type of position held by women.

29. The below table provides an overview of the GoC's program, and the Program supported with World Bank financing, and how these align.

***Table 2. Overview of the GoC's program and World Bank supported Program***

| | Government program | Program supported by the PforR (PforR Program) | Reasons for non-alignment |
|---|---|---|---|
| **Objective** | To strengthen Chile's water governance, ensuring the fulfillment of population, environmental, and economic needs, while also securing sustainability for current and future generations in today's changing climate.[32] | Strengthening the Borrower's capacity for WRM and water-related services.[33] | Full alignment, except for measures that have high environmental and social risks or which fall outside the PforR implementation period. |
| **Duration** | 2022-2027 | December 2022-December 2028 | The Bank Program's closing date extends beyond the timeframe of the government program to account for the results from the last year of the government program. |
| **Geographic coverage** | Nation-wide | Nation-wide, excluding interventions in transboundary waterways as per description below (see paragraph 30). | Exclusion of investments in new rural water supply, sanitation (wastewater treatment), flood control, and irrigation infrastructure on transboundary waterways, as well as financing to support the expansion or alterations of such schemes in a way that would adversely impact the quantity or quality of water flows to other riparian countries. |
| **Results areas** | The GoC's program as described under the THJ strategy are reflected in the Program's three Results Areas: RA 1, 2, and 3 | RA 1-3 | Full alignment, except for (i) the significant infrastructure projects associated with high social and environmental risks that are not included under the PforR's Results Area 3, and (ii) interventions in international waterways under Result Area 2 and 3 as described below (see paragraph 30). |
| **Overall Financing** | **US$ 1,872.3 million** | **US$ 1,546.04 million** | The difference in overall financing is attributable to infrastructure works with significant environmental and social risks and investments in transboundary waterways as per description below (see paragraph 30). |

30. **International Waterways.** The government program has a national geographical scope, where Chile has 44 shared watercourses with Argentina, 15 shared watercourses with Bolivia, and 5 shared watercourses with Peru. These shared watercourses are considered international waterways for the purposes of the World Bank's Operational Policy regarding Projects on International Waterways (OP 7.50). As agreed with the Government of Chile, the Bank financed Program also has a national scope, but activities on transboundary waterways are limited to rehabilitation investments that would not adversely affect the quality or quantity of water flows of the shared watercourse to other riparian countries or adversely affect other riparian countries' possible water use as specified in the Environmental and Social Systems Assessment (ESSA). More specifically, the Program will exclude financing support to investments in new rural water supply, sanitation (wastewater treatment), flood control, and irrigation infrastructure on international waterways, as well as investments to finance the expansion or alterations of such schemes in a way that would adversely impact the quantity or quality of water flows to other riparian countries. Furthermore, regarding the Government program, the GoC is committed to following established communication protocols with riparian countries and has sought Bank

[32] The national water strategy, '*Transición Hídrica Justa*', consolidates the different government programs of the DOH, DGA, SSR/DOH under the MOP, and MMA program.
[33] Water-related services include water supply and sanitation, irrigation, and flood and landslide risk management.

support to engage more actively on transboundary water matters. The terms of reference for water resources studies related to international waterways supported by the Program will require the assessment of any riparian issues. Accordingly, the Program is processed according to paragraphs 7 (a) and (b) of OP 7.50. The exception to the notification requirement was approved by the RVP on April 12, 2024.

### D. Program Development Objective(s) (PDO) and PDO Level Results Indicators

31. **The PDO is to strengthen the Borrower's capacity for water resource management and water-related services.**

32. **A list of PDO-level results indicators has been identified to measure the achievement of the Program:**

- PDO 1: Improve the GoC's WRM planning capacity at national level
- PDO 2: Strengthen participatory water governance institutions in selected basins
- PDO 3: Improve the GoC's rural WSS planning capacity at national level
- PDO 4: Increase access to safely managed rural drinking water services
- PDO 5: Increase number of people at lower risk of climate change exacerbated floods

### E. Disbursement Linked Indicators and Verification Protocols

33. **The World Bank proposes nine Disbursement Linked Indicators (DLIs) which will trigger disbursements under the Program.** The DLIs concentrate on Program areas with transformation potential. The DLI matrix design (See Annex 1) puts emphasis on advancing needed institutional reform at the national level, providing incentives to advance on a river basin water governance structure, the proposal and approval of a National Water Security Policy, and the approval of a Rural WSS Strategic Plan to 2030. More importantly, incentives are placed on improving the integration of GoC's investment effort with a basin approach, linking disbursement to an increase in percentage of DOH investment in basins with PERHCs. At the local level, DLIs aim to encourage infrastructure investments that are based on achieving results. The Program will include the following nine DLIs:

- DLI1: Creation of river basin working groups in selected basins.
- DLI2: Proposal and approval of a Water Security Policy.
- DLI3: Development of tools for improved knowledge on surface and groundwater quantity and quality.
- DLI4: Number of people in the rural sector with access to Safely Managed Drinking Water Services.
- DLI5: Approval of a Rural WSS Strategic Plan to 2030.
- DLI6: Implementation of pilots of Alternative Rural Wastewater Treatment Technologies.
- DLI7: Number of people at lower risks of flood due to new and/or rehabilitated works built by DOH.
- DLI8: Inclusion of NBS in the design of selected DOH projects.
- DLI9: Percentage of the number of MOP's or other ministry's investment projects that are included in the PERHCs.

## III. PROGRAM IMPLEMENTATION

### A. Institutional and Implementation Arrangements

34. **The Program will be implemented by the MOP and MMA.** In Chile, the budget for water-related issues, is predominantly under the jurisdiction of the MOP. As described in paragraph 8, the MOP —through the DGA, DOH, and SSR— is responsible for WRM and for the provision of rural WSS, irrigation infrastructure, and flood protection. Additionally, the General Directorate of Public Works (*Dirección General de Obras Públicas*, DGOP) is tasked with facilitating back-office support for the planning, design, and supervision of public construction projects carried out by DOH, including rural water supply systems. Figure 1 in Annex 4 shows MOP's organizational structure.

35. **MMA experienced an institutional expansion through the 2022 Exempt Resolution No. 0665 that allowed for the creation of the MMA's Office of Just Socioecological Transition (*Oficina de Transición Socioecológica Justa, OTSJ*), mapped under the Undersecretary of Environment, which acts as a policy coordinating entity for the implementation of the THJ program.** Specifically, the OTSJ is responsible for elaborating and coordinating the design and implementation of the equitable socio-ecological transition strategy; designing methodological tools for the transition process; defining intersectoral sectoral strategies for the installation of equitable socio-ecological transition processes, and following up and reporting on territorial work, providing necessary support for the achievement of defined objectives. Figure 2 in Annex 4 provides an overview of MMA's organizational structure, showing the OTSJ under the Undersecretary of Environment.

36. **Three agencies under the MOP (DGA, DOH, SSR) and the OTSJ in the MMA will be responsible for implementing the Program's Results Areas.** Focal points have been identified in each Result Area, as well as financial, procurement, social and environmental specialists (including occupational health and safety) for each Results Area to facilitate the cross-institutional coordination, especially for Results Areas 1 and 3 which require coordination between the MOP and MMA. In addition, the DGOP, under MOP, will provide additional administrative support to the Results Areas as needed.

- Results Area 1: Implemented by DGA (MOP) and co-implemented by the OTSJ (MMA)
- Results Area 2: Implemented by SSR (MOP)
- Results Area 3: Implemented by DOH (MOP) and co-implemented by the OTSJ (MMA)
- *DGOP provides Financial Management and M&E support to Results Areas 1,2,3.*

37. **Overall, the technical assessment concluded that the capacities within MOP and MMA were sufficient for program implementation (See Technical Assessment Report)[34].** Most of the tasks included in the THJ program are a continuation of the existing work being performed by MOP. Chile's government agencies have demonstrated high performance, reasonable budget planning, and project execution competency. Expanded responsibilities for DGA, DOH, and MMA as described in paragraph 8 are being complemented by an increased staff number. In particular, expanded tasks under RA1 for DGA and MMA regarding the work on river basin governance have been matched by a suitable team of professionals. Similarly expanded water resources oversight responsibilities for DGA have been coupled with budgetary and personnel increases. For RA2, the technical assessment concluded that the SSR will need to review the institutional models for the delivery of rural WSS services as current staffing plans will fall short of meeting program goals by 2027. This activity has been included as part of the program. To meet program goals, the technical assessment concluded that inter-ministerial coordination will also be needed. To achieve this the MMA has created the new sectoral OTSJ, which is currently in the process of being staffed.

38. **A Program Coordination and Reporting Unit (PCRU), located in the DGOP and following the directives of the MOP Ministerial Cabinet, will facilitate administrative tasks and monitoring and evaluation.** DGOP has a supervisory, auditing, and coordination role within the Ministry.[35] The unit will coordinate between participating institutions under MOP and MMA, who will oversee the implementation of the Program. The key responsibilities of the PCRU include: (i) monitor progress towards meeting the Program objectives; (ii) prepare periodic monitoring reports on the progress of the different activities and contribution towards DLIs; (iii) inform both Ministries' offices on progress in Program implementation; (iv) ensure that the different institutions (DGA, DOH, SSR) under MOP and the OTSJ under MMA submit periodic follow-up and evaluation reports, ensuring consolidation of reports where relevant per Results Area; (v) specify

[34] Technical Assessment Report will be available on June 15, 2024, in www.bancomundial.org/es/country/chile/publication/el-agua-en-chile-elemento-de-desarrollo-y-resiliencia.
[35] Ministerio de Obras Públicas. 1998. Decreto con Fuerza de Ley 850.

the reasons for plan deviations, if any, and propose remedial actions; (vi) prepare periodic Program Reports for the Directorate for Budgeting (DIPRES) and for the Independent Verification Agent (IVA); (vii) prepare progress monitoring reports on compliance with the agreed actions in the Program Action Plan; (viii) consolidate financial statements of the Program; and (ix) prepare requests for disbursement of funds based on IVA reports. This unit will consist of a Coordinator, a Monitoring and Evaluation (M&E) Specialist, and a Fiduciary Specialist.

39. **Moreover, an Operations Manual is being prepared before Program effectiveness to ensure smooth and effective implementation.** This manual covers a range of topics, including: (i) the activities and timetable of actions to be carried out under the Program, as well as excluded activities; (ii) the composition and responsibilities of the PCRU; (iii) the roles and responsibilities of all entities participating in the Program; (iv) the fiduciary, technical, and operational aspects as well as procedures for implementing the Program, including financial management and procurement procedures; (v) the DLIs for the Program; (vi) the verification protocols for the DLIs and DLRs (disbursement-linked results); (vii) the Anti-Corruption Guidelines (ACG); and, (viii) the Program Action Plan.

### B. Results Monitoring and Evaluation

40. **The MOP will retain overall responsibility for M&E of Program results.** General Directorates within MOP are requested to provide annual reports on the progress to meet their objectives. To achieve this, each General Directorate has an M&E system to record the year-to-date progress. The MOP is equipped with an M&E system for the tracking of the Ministry's investments housed within the DGOP. The MOP will use this system to track progress of works being implemented by DOH. To facilitate the validation of results, the PCRU will consolidate Program Monitoring Reports before the beginning of each verification period. The reports will summarize the progress in achieving results up to the specific verification date and will be submitted to the IVA as the basic document to work with before conducting the actual verification, as stated in the Verification Protocol instructions.

41. **The MOP through DGOP is contracting an IVA to provide objective and impartial verification of the achievement of results and the disbursement of funds.** MOP is seeking to contract a University as the IVA, as it can easily bring together a multidisciplinary team as needed, and multi-year contracting is possible under MOP's regulations. This is a legal covenant to be met 6 months after effectiveness. The IVA's role is to assess and validate the progress and outcomes of the Program, ensuring that the results achieved by the Program meet the agreed-upon performance indicators and targets. The IVA's reports will be instrumental in determining whether the GoC is eligible for disbursements under the PforR operation.

### C. Disbursement Arrangements

42. **The IVA will be responsible for verifying the accuracy and quality of the results achieved under this program.** The IVA will rely on its own specific Terms of Reference for this Program, which will be included in the Operations Manual. The IVA will periodically[36] prepare a Results Verification Report based on the baseline and annual achieved results.[37] This report will be shared with the PCRU and the World Bank, describing the allocated amounts, baselines agreed between the World Bank and the GoC, yearly targets, conditions of achievement, and payments for prior results. The Results Verification Report will enable the determination of the amount of eligible disbursement to be made. If the World Bank finds that the disbursement request meets the terms of the loan, the corresponding funds will be disbursed to DIPRES, under the Ministry of Finance. The World Bank will verify all prior results to ensure the accuracy and validity

[36] Frequency to be defined in the Operations Manual as well as in the IVA's Terms of Reference.

[37] According to World Bank policy, the Bank may agree to disburse up to 25 percent of the PforR Financing proceeds on account of the DLIs met by the Borrower between the date of the concept review and the date of the legal agreement for the PforR Financing ("prior results"). Therefore, within this PforR, the IVA will also consider results achieved from December 21, 2022, until the Signature Date of the Loan Agreement that could be considered as prior results.

of the information presented and may request additional information to the IVA and government counterparts as needed.

### D. Capacity Building

43. **To contribute towards the success of the Program, the World Bank will provide complementary implementation support as well as technical assistance focused on the following areas:** (i) support to the MMA and DGA for the improvement of the institutionality at the river basin level; (ii) support to the SSR throughout its implementation of Law N°20,998 for improved rural WSS services; (iii) support to the DOH as it introduces resilience by design approaches in irrigation works; and (iv) support to the DOH as it incorporates NBS in flood control works, among others. More details about both levels of implementation support and capacity building can be found in the Technical Assessment Report.

## IV. ASSESSMENT SUMMARY

### A. Technical (including program economic evaluation)

#### Strategic Relevance and Technical Soundness of the Program

44. **The Program structure is designed to close service gaps and to enhance climate resilience through addressing key challenges in WRM, rural WSS, flood and drought risk management.**

- **Key challenges in WRM in Chile involve institutional framework issues.** These challenges include: improving coordination between over 40 water management institutions, enhancing DGA's technical capacity, improving the river basin governance structure, and addressing insufficient water data, information, and planning instruments that limit effective management.

- **Rural areas in Chile face significant challenges in accessing safely managed WSS services.** Access gaps exist particularly in semi-concentrated and dispersed areas. Sanitation services in rural areas are also lacking, posing health and environmental risks. While the SSR plans to continue implementing water supply investments, there are no plans for sanitation investments. SSR's new responsibility for sanitation projects poses challenges in implementation.

- **Chile is increasingly grappling with droughts and floods, and there is a need to improve irrigation and flood protection infrastructure to mitigate these challenges.** At present, 72 percent of the country's territory is experiencing some level of drought; this impacts 38 percent of the population. There has also been an increase in the number of flood victims since 2000; the latest catastrophic flooding took place in August 2023.

45. **Chile lacks a holistic, basin-focused or climate-resilient approach to water management.** For example, there are gaps in irrigation infrastructure that require higher investment for expansion and comprehensive flood protection plans. However, current irrigation projects are typically demand-driven and neglect environmental and climate risks, making projects vulnerable to water shortages and water conflicts. Also, urban flood plans need better integration with river basin planning and more effective ways to consider climate change impacts. Lengthy infrastructure projects (which can take 7-10 years from design to construction phase) can lead to outdated solutions. Despite the proven effectiveness of NBS, they are not consistently incorporated into flood protection designs due to resistance from traditional engineering approaches.

46. **To address these challenges, the three Program Results Areas aim to strike a balance between MOP's traditional functions and the introduction of innovative approaches.** MOP has adopted a phased approach, starting with pilot projects and gradually incorporating new methodologies and perspectives. For instance, while DGA's role has always involved regulating and overseeing water resource allocation, they recognize that the changing climate requires a more integrated approach, emphasizing participatory governance at the basin level. DGA is therefore strengthening its capacity to create river basin working groups. To advance in the sustainability of an improved river basin governance structure, DGA has received a budgetary allocation for the creation of the River Basin Technical Secretariat and has received additional funds from the Innovation Water Fund[38] set up in 2022 to help river basin planning. Similarly, DOH, with its expertise in designing and constructing irrigation and flood infrastructure, acknowledges the need to incorporate an NBS perspective into their projects and has committed to incorporating at least two NBS in its portfolio within the duration of the Program.

47. **Institutional capacity has been growing to accompany these new tasks**. According to the Technical Assessment report, DGA, DOH, and SSR (under DOH) have the required capabilities for their tasks but may need to enhance expertise to introduce innovative approaches.

- Following World Bank advice provided in 2014, the DGA has worked to strengthen its capacity by increasing its staff and pursuing capacity-building initiatives. These efforts include training professionals in various areas related to participatory river basin governance, legislative advice, coordination, technical support, and administrative activities in pilot river basins to form river basin working groups.

- The DOH has established a strong institutional presence nationally and regionally, with dedicated divisions and sub-directorates for different aspects of water projects, including rural water supply, sanitation, drainage, and irrigation.

    i. SSR has actively been enhancing its capacity under Law 20,998, including the hiring of 104 new professionals (till October 2023) and planning to hire more region-based staff in the remainder of 2023 and 2024. Additionally, SRR has continued working on the rural drinking water supply portfolio, considering the changes in regulation. In the same line, as of October 2023, out of a total of 1,168 projects, 47 percent are in progress, 30 percent are in very advanced preparation stages, and 23 percent have been completed during the year. However, challenges arise in implementing rural sanitation projects, a new area for SSR, and sanitation projects have therefore been postponed until 2027 to allow for better planning and capacity building, supported by the World Bank.

    ii. As of 2021, DOH employs 847 staff, with the majority being temporary or consultant staff. This diverse workforce enables flexibility in staffing arrangements and supports DOH's geographically distributed institutional structure. DOH has a history of efficient budget execution, highlighting its ability to manage resources effectively. Going forward, as DOH expands its focus on flood and landslide prevention and on NBS, they recognize the need to expand technical capacity, while improving coordination with other institutions like the SENAPRED and MMA.

48. **Effective coordination between MOP and MMA is crucial to successfully implement these innovative agendas.** MMA's environmental expertise is anticipated to play a significant role in the NBS efforts outlined in RA3. The Program Action Plan (PAP) lists the creation of a Task Force with professionals from both MMA and MOP to facilitate the collaborative development of NBS guidelines.

[38] Fondo para la Investigación, Innovación y Educación en Recursos Hídricos

49. **To implement these innovations, MOP and MMA have actively been learning from global experiences and international best practices.** During Program preparation, the World Bank has been bringing experts and case studies from countries like Mexico, Peru, and Brazil to showcase how they have addressed river basin governance matters. Additionally, a study tour to the Netherlands on NBS was organized for MOP and MMA staff, aiming to stimulate discussions on the practical steps needed to integrate green solutions into traditional infrastructure. This effort also allowed identifying and understanding the regulatory gaps that may hinder the smooth integration of these approaches. The World Bank is committed to continue supporting the GoC as it explores innovative approaches to enhance water security, facilitating global expertise.

50. **The Technical Risk assessment is categorized as moderate.** The Program builds on the successful execution of activities by the main implementing agency, MOP, reflecting its successful budget execution track record. Emerging risks result from new tasks such as the improvement of a river basin governance structure, the expansion on the investment portfolio of rural WSS, and the inclusion of NBS as part of MOP's interventions. To minimize these implementation risks key measures have been included as part of the Program Action Plan. These include: (i) the development of an outreach and communication plan explaining IWRM and river basin governance, benefits and functions; (ii) the development of an advocacy strategy for the passing of a bill to improve the governance structure for IWRM at basin level, as a proposal to modify existing legislation or to issue a new law; (iii) an action plan to improve rural WSS delivery within the context of Law N°20,998; and (iv) the creation of inter-ministerial working group for NBS, among others.

## Expenditure Framework

51. The below Expenditure Framework shows the total Program (PforR) cost (US$ 1,546.04 million), which is the total government program cost (US$ 1,872.3 million as described earlier) excluding (i) large infrastructure works with significant environmental and social risks, (ii) investments in new rural water supply, sanitation, flood control and irrigation infrastructure on international waterways, and (iii) expansion or alterations with adverse impact on the quantity or quality of water flows to riparian countries.

***Table 3. World Bank supported Program Expenditure Framework***

| Title of the sub-program | Expenditure Function | Institution | Subtitle | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|
| **RA1: Strengthening institutional capacity for integrated water resources management at the national and basin levels.** | Personnel | DGA/MMA (*) | 21 | 1.2 | 3.0 | 3.0 | 3.0 | 3.0 |
| | Consultant services/consultar | DGA/MMA (*) | 22.11 | 1.5 | 6.9 | 4.0 | 1.9 | 1.4 |
| | Operational expenses | DGA/MMA (*) | 22 | 3.4 | 7.3 | 7.3 | 7.3 | 3.2 |
| | CAPEX Equipment | DGA | 29 | 3.3 | 6.7 | 9.0 | 7.5 | 3.6 |
| | non consulting activities | DGA | 22 | 1.4 | 0.8 | 0.2 | 0.2 | 0.0 |
| | | | *sub-total* | 10.8 | 24.7 | 23.5 | 19.9 | 11.2 |
| **RA2: Enhancing the sustainability of rural water supply and sanitation service providers, while continuing to close access gaps.** | Personnel | SSR | 21 | 16.5 | 16.5 | 16.6 | 16.6 | 16.5 |
| | Operational expenses | SSR | 22 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| | CAPEX investments | SSR | 31 | 224.4 | 224.4 | 224.4 | 224.4 | 224.4 |
| | CAPEX equipment | SSR | 29 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| | IT services | SSR | 22.11 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| | IT program expenses | SSR | 29.07 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 |
| | | | *sub-total* | 248.1 | 248.2 | 248.4 | 248.4 | 248.0 |
| **RA3: Building climate resilience through the development of green and gray solutions.** | Personnel | DOH/MMA (*) | 21 | 0.5 | 0.7 | 0.6 | 0.4 | 0.4 |
| | CAPEX investments | DOH | 31 | 36.3 | 49.9 | 38.5 | 28.6 | 25.7/23.1 |
| | Consultant services/consultar | DOH/MMA (*) | 22.11 | 6.0 | 8.8 | 8.5 | 6.8 | 5.8 |
| | Operational expenses | MMA | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | *sub-total* | 42.7 | 59.4 | 47.6 | 35.8 | 29.3 |
| | **Total USD** | **1,546.04** | | 301.57 | 332.26 | 319.56 | 304.16 | 288.50 |

(*) See Technical Assessment for a detailed breakdown of the expenses per institution.

### Economic justification of the Program

52. **The economic analysis of the Project reviewed the potential costs and benefits of the government's US$ 1,872.3 million THJ program.** Overall, it shows a positive present value result of US$ 10,340 million along with a benefit-cost ratio of 3.15 and an IRR of 37 percent. Strengthened water resource management through the program will not only yield benefits in different regions across Chile but will also bring benefits to different sectors by increased water security in targeted areas and higher climate change resilience. The analysis identified potential outcomes concerning management aspects; benefits derived from having better water infrastructure; reduction of social costs due to greater water security; environmental benefits regarding conservation efforts and avoided costs of the impacts of extreme weather conditions. The initial identification and evaluation of these benefits was carried out for a horizon of 30 years (2023-2053). For the calculation of costs and benefits, the analysis used the social discount rate of 6 percent, set by the MDSF (2022).

53. **The cost of the program (2022-2027) will be US$ 1,872.3 million.** The investment will be divided into the three areas of results, of which US$ 90.3 million will be allocated to national and local institutional WRM reforms and improving the information system, US$ 1,300 million will be allocated to increase safely managed WSS in rural areas, and US$ 482 million will be allocated to the improvement of climate resilience through the development of gray and green infrastructure, including irrigation and storage projects, urban flooding, runoff and sediment management, and green solutions (including NBS).

54. **Program costs are within an acceptable range when compared to similar programs.** The costs of expanding water-relate infrastructure under RA1 align with the costs of similar efforts; hydrometeorological stations costs in Chile are comparable to other countries like Mexico and Peru. Regarding rural WSS activities under RA2, Chile's costs for rural drinking water projects, on a per capita basis, are relatively low when compared to similar projects in Peru. However, it is important to note that these comparisons only serve as references, as design parameters for the projects may vary. Similarly, project costs for urban flooding control and irrigation are reasonable when compared to international cases and previous projects in Chile. For example, the urban flooding control project costs US$ 13 million and benefits significantly more people than a similar project in Peru. Similarly, irrigation project costs are lower than those of comparable projects in Bolivia and Ecuador.

55. **Benefits.** As detailed in the next table, benefits occurring from the program have been distributed in two main categories: (i) benefits resulting from improved institutional capacity for water resources management and infrastructure planning; and (ii) benefits from the expansion and rehabilitation of water infrastructure.

*Table 4. Evaluation of Project Impacts*

| Type of Benefit | Impacts | Project Benefits (2023-2053) – Qualitative and Quantitative |
|---|---|---|
| Improved institutional capacity for water resources management and infrastructure planning | • Improved efficiency on public expending as a result of better institutional coordination and better investment planning<br>• Improved water resources allocation and investment planning as a result of better water information.<br>• Reduced conflicts over water at basin level.<br>• Indirect environmental benefits from better water quality monitoring and control. | • In 2021, DIPRES carried out an assessment of the potential savings that would result in better institutional coordination for all of Chile's public spending framework. It concluded that a 17.3 percent savings would be possible. Given its comparative weight in the overall public spending this would represent a total of US$ 1,007 million for DOH and DGA for the 2023-2053 period.<br>• The benefits of improved water information include: better decision on hydraulic infrastructure planning, avoided groundwater overexploitation and improvement in the water rights usage. For example, a new information system could help in the process of collection of no-use of water right fees. Only the benefits from these no-use water right fees could, by themselves, could cover for the program's costs.<br>• The benefits resulting from reduced conflicts have been estimated as the time spent by DGA on conflict resolution. According to Rivera et al. 2020, conflicts arise, among others, due to the formalization of water rights. This is the main task of DGA's legal department. According to DGA a better information system could result in a 10 percent time savings. This is estimated as US$ 1.34 million for 2023-2053.<br>• A recent evaluation of the willingness to pay for the provision of ecosystem services in the Aconcagua basin yielded a reference value of US$ 120.6/year/household. This will represent a US$ 3.5 million/year for our program. |
| Expansion and rehabilitation of water infrastructure | • Jobs creation as part of hydraulic infrastructure development<br>• Reduced cost of alternative service provision for the GoC<br>• Avoided social costs from pilot WWT projects.<br>• Benefits from a reduce frequency of flood impacts | • According to ECLAC, in order to universalize access to drinking water and sanitation services before 2030, Chile must invest US$ 7,277 million in the expansion of these systems, and US$ 10,266 million in the rehabilitation of existing infrastructure (ECLAC, 2023). ECLAC estimates that this would represent an increase in jobs of 0.65 percent, which translates in the creation of 224,6 jobs per US$ million. This would represent 290,000 new jobs for the current investment in WSS as part of the program.<br>• As there is currently no data on the willingness to pay for WSS services in rural areas, the benefits from the expansion of WSS services have been compared against the costs of service provision from alternative means which are currently estimated at US$ 26.6 million per year.<br>• Additionally, the development of wastewater treatment systems will result in a total avoided social cost of US$ 33 million.<br>• Based on past data on flood impacts from 1965 to 2019, the avoid costs from better flood protection are estimated in US$ 459,584 million for 2023-2053. |

56. **The economic analysis considered the project's potential outcomes in relation to aspects of management, water infrastructure, reduction of social costs due to greater water security, and environmental benefits in the scope of climate change resilience.** As for the negative impacts, in addition to the costs of program implementation or investment, the analysis included potential social and environmental risks due to the variety of civil works to be implemented by the MOP. However, these risks will be mitigated accordingly with measures in line with national regulation and commonly applied by the MOP.

## Paris Alignment

57. **The proposed Program is aligned with the goals of the Paris Agreement, addressing both adaptation and mitigation objectives.**

58. **Assessment and reduction of adaptation risks.** The main climate and disaster risks likely to affect project investments are floods, droughts, and water scarcity. The Program aligns with Chile's NDC which stipulates that water management and sanitation is one of the two urgent areas to build resilience. The Program addresses these risks by increasing climate resilience through: (i) strengthening the institutional capacity for integrated water resource

management by including enhanced water infrastructure for water monitoring, supporting water solutions for flood and drought risks as well as preparing strategic plans for river basin management; (ii) enhancing the sustainability of rural WSS service providers through institutional strengthening and investments in WSS systems, and (iii) enhancing climate resilience through the incorporation of NBS into hydraulic infrastructure and developing basin-scale urban flooding master plans to identify flood-prone areas and design systems to accommodate changing climate conditions.

59. **Assessment and reduction of mitigation risks.** Chile's 2020 NDC aims for GHG neutrality by 2050, emphasizing a just transition to a climate-resilient economy. The Program complements Chile's mitigation commitment to reduce greenhouse gas (GHG) emissions to 95 MtCO2eq by 2030, as it focuses on improving water monitoring networks, modernizing systems, and enhancing water allocation efficiency, which can contribute to GHG reduction. The installation of sensors and monitoring equipment to automate data capture and storage will improve water management thus increasing water-use efficiency and contributing to GHG emission reduction. The planned wastewater treatment pilots will utilize technologies with lower emission rates. Also, NBS will be integrated into infrastructure projects, thus leading to reduced emissions from water-related activities in the long-run.

### B. Fiduciary

60. **The procurement and financial management systems' capacity and performance, with the implementation of the proposed mitigating measures and agreed actions to strengthen the systems** (see PAP), are adequate to provide reasonable assurance that Program funds will be used for the intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability.

61. **The Borrower confirmed that it does not foresee any high-value contract under this Program.** The Program is not expected to finance any contract at or above the Operations Procurement Review Committee thresholds considering the activities under Low risk, established at a minimum of (i): US$ 200 million for works; (ii) US$ 125 million for goods, information technology and non-consulting services; and (iii) US$ 40 million for consulting services.

62. **MOP and MMA will immediately inform the World Bank (through e-mail and official letter) of any complaint, claim or allegation related to fraud and corruption which they either receive or of which they become aware.** In addition, every semester (together with the Program Monitoring Reports) a report will be prepared containing all alleged cases, with an updated status of the respective actions taken. MOP and/or MMA will immediately provide all records, documentation, and information that the World Bank may request with respect to such issues. If the World Bank decides to conduct its own investigation, the World Bank may request the GoC and/or MOP and/or MMA to exercise its/their legal rights and remedies (under the relevant contract/s) to obtain all information, records, and documentation that the World Bank may request, and provide these to the World Bank. This process does not limit the rights of the World Bank to also make direct requests for information from individuals or contractors who are recipients of World Bank financing. In line with the obligations arising under the Anticorruption Guidelines, the GoC and the MOP and/or MMA should ensure that individuals or firms who are recipients of WB financing are aware that the WB may decide to exercise this option.

63. **If the World Bank determines that it has not been able to receive the documentation, records, or information as requested directly and/or through MOP and/or MMA, the World Bank may declare the relevant expenditure ineligible for World Bank financing under the Program.** Furthermore, should the World Bank conclude that a sanctionable offense has occurred, it may decide to pursue sanctions against the individual or firm in line with World Bank procedures.

64. **The institutional arrangements of the Program are clearly defined; the Program will be implemented by the MOP (through DGA, DOH and SSR) and MMA.** These institutions are expected to hold the fiduciary responsibilities to manage the Program. Based on the Program boundaries and the expenditure framework, a fiduciary assessment has been carried out to evaluate that its procurement and financial management arrangements for the Program – in terms of planning and budgeting, control systems, accounting and reporting, treasury and flow of funds, procurement processes, contracts administration, fraud and corruption systems and auditing – provide reasonable assurance that the Program will achieve the intended results through its procurement and financial processes and procedures. The integrated fiduciary risk is considered Moderate. Complementary information is included in the Fiduciary Systems Assessment.

### C. Environmental and Social

65. **The Program's Environmental and Social Systems Assessment (ESSA) was prepared by the World Bank to meet the requirements of PforR Financing Policy and Directive, following Bank Guidance (OPS5.04-GUID.118).** The draft ESSA Report was informed by ongoing consultations with the Bank's Program counterparts in MOP and MMA, and underwent formal consultation in early September 2023, through virtual focus groups involving diverse Chilean stakeholders, which enhanced and validated the report's content.

66. **The ESSA found that no significant adverse environmental and social (E&S) impacts are expected as a result of the proposed activities under the Program.** The ESSA defines the typology of activities that cannot be included in the Program due to their expected high adverse impacts on the environment and/or affected people. The main positive environmental effects are related to a more efficient use and management of water resources, including the reduction of water losses due to aging rural drinking water infrastructure. The Program would likely have overall positive social impacts mainly on the quality of lives and health of rural communities through the expansion of safely managed water and sanitation services; the health, safety, and economic activities of urban and rural population through the reduction of the risks of urban flooding and drought; better governance of water resources, strengthening transparency and improving stakeholder engagement; and the reduction of conflicts over water through the implementation of a participatory IWRM approach in selected basins.

67. **The overall environmental risks and potential impacts of the Program are considered Substantial.** This classification responds to the wide range of potential environmental risks and adverse impacts expected from the variety of civil works to be implemented by the MOP. The scale of the expected infrastructure will be small to medium and located in both rural and urban areas. Key environmental risks and impacts that could arise from the construction and operation phases of this infrastructure, include: (i) temporary impacts on water and air quality mainly during the construction phase; (ii) contamination risk associated with generation and inadequate management and disposal of non-hazardous and hazardous solid waste (including electronic waste management), generation and discharge of wastewater from civil works, and sludge generation and disposal from water and sanitation works; (iii) health and safety risks to the project workforce and local communities, including from exposure to hazardous materials/wastes; (iv) impacts on natural habitats; and (v) risks and impacts that could derive from inadequate environmental management during the operation and maintenance of the infrastructures. These risks and impacts are envisaged to be mainly temporary and site-specific and will be mitigated with measures required by national regulations and commonly applied by the MOP.

68. **The overall social risks and potential impacts of the Program are considered Substantial.** Potential social risks and adverse impacts include the following: (i) labor management–related issues, considering management of impacts and community risks associated with labor influx, including sexual exploitation and abuse, and sexual harassment

(SEA/SH); (ii) temporary disruption of public services (electricity, water, etc.) that should be relocated due to civil works; (iii) land acquisition leading to temporary or permanent physical and/or economic displacement, or restrictions on land or resource use having adverse impacts on local livelihoods; (iv) impacts on economic activities due to the civil works; (v) possible increases in social conflict due to changes in the management of water resources supported by the Program; and (vi) risk of exclusion of vulnerable population in rural areas who, due to their low incomes, may not be able to afford some of the new water services or tariffs. To mitigate these risks, systematic screening for social risks and impacts will be conducted, and appropriate participatory and consultation processes with all the stakeholders will be implemented. These processes will not only encompass the civil works but also the development of plans, policies, and water management governance at the river basin level.

69. **The ESSA concluded that the national and sectorial E&S existing systems are adequate to effectively manage the E&S risks and impacts of the Program.** The E&S systems applicable to the Program are reasonably aligned with the core principles and key planning elements set out in the PforR Financing Policy and Directive. Regarding the management of risks and impacts expected from civil works, Chile has a robust Environmental Impact Assessment System (*Sistema de Evaluación de Impacto Ambiental*, SEIA), which is administered by the Environmental Assessment Service (*Servicio de Evaluación Ambiental*, SEA) and includes the evaluation of both E&S risk and impacts. The periodic supervision of the E&S requirements and commitments listed in the environmental licenses is widely regulated and carried out by the Superintendency of the Environment (*Superintendencia del Medio Ambiente*, SMA). Both the SEA and the SMA have sufficient institutional capacity to effectively implement the aforementioned processes. Some small-scale projects/infrastructure considered in the Program do not require the development of E&S instruments under Chile's SEIA. However, following MOP's standard procedures, appropriate E&S instruments are also required and developed for these interventions. In all cases, the MOP includes the corresponding E&S specifications and requirements in the bidding documents for construction, and the periodic supervision of the E&S requirements and commitments is carried out by designated specialists (*Inspectores Fiscales*) from each implementing agency within MOP. The MOP has sufficient institutional capacity to ensure compliance with Chile's existing E&S regulatory framework, with E&S teams embedded in the agencies involved in the Program.

70. **The ESSA identifies actions and recommendations to support the effective management of E&S risks during Program implementation.** These include: (i) an exclusion list, with activities that cannot be included in the Program due to their expected significant E&S risks; (ii) criteria for assessing compliance with E&S requirements when evaluating activities considered for payments based on prior results; (iii) recommendations to strengthen the capacity in E&S matters of the SSR; etc. The PAP presented in Annex 2 includes E&S actions. The ESSA also identified processes to be included in the Operations Manual.

71. **Grievance Redress.** Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance mechanism or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted at any time after concerns have been brought directly to the Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit https://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, visit https://accountability.worldbank.org.

## D. Climate Change

72. **Climate change is posing additional threats to the GoC's capacity to manage water resources and increase water security.** Chile ranked 29th out of 181 countries in the 2020 ND-GAIN Index,[39] with a 22nd place in vulnerability and 36th in readiness to improve their resilience.[40] Droughts, floods, and landslides are significantly impacting Chile's current WRM system, exposing strains in planning and highlighting limitations due to a lack of resilience. At the river basin level, poor planning hinders the development of sustainable water services, impacting their reliability and the integration of adaptation strategies in different investment projects. Moreover, current urban flooding master plans are often disconnected from broader river-basin planning.

73. **Chile requires strengthening of its basic water resources management tools to address climate change impacts.** This includes integrated water resource planning, long-term vision, and effective river basin-level decision-making to strengthen risk management practices. Climate resilience can also be enhanced by the expansion of monitoring networks, the improvement of data collection systems, and the integration of NBS. For instance, hydrological monitoring networks can capture important information about basins and enhance understanding of water quantity and quality for continuous service provision during emergencies. The construction of green and gray solutions such as drainage systems, flood plain restoration, riverbank protection, and reforestation can reduce climate-related risks and contribute to the sector's adaptability.

[39] University of Notre Dame (2020). Notre Dame Global Adaptation Initiative: https://gain.nd.edu/our-work/country-index/

[40] The more vulnerable a country is the lower their score, while the more ready a country is to improve its resilience the higher it will be.

**Table 5. Climate Adaptation and Mitigation Measures in the Program**

| DLI | Share of DLI / overall financing | Description |
|---|---|---|
| **DLI1 (US$ 20 million): Creation of river basin working groups in selected basins.** | 8% | Six river basin working groups will be created to start implementing integrated water resources management to boost climate resilience at the river basin level, convening key representatives from the public sector, private sector, civil society–- including academia, and they will collaborate towards achieving water security (DLI1.1). Each representative will bring in different perspectives, which will contribute to the development PERHCs, taking into consideration climate-related risks. |
| **DLI2 (US$ 20 million): Proposal and approval of a Water Security Policy.** | 8% | This DLI incentivizes the Government to elaborate a national Policy on Water Security, describing the main issues and their socio-economic impacts. This proposed policy will establish sustainable water resource allocation practices and promote proactive flood and drought management strategies to better inform PERHCs, and/or PMCauces, and/or PMALLs. |
| **DLI3 (US$ 20 million): Development of tools for improved knowledge on surface and groundwater quantity and quality.** | 8% | This DLI includes the installation of sensors and equipment to automate data capture and storage for fluviometric and meteorological stations (DLI3.1), the construction of new instrumented wells to transmit data online and measure groundwater levels (DLI3.2), and the construction of a water quality analysis laboratory, and installation of its technical equipment (DLI3.3). This will allow better water quality and quantity analysis for both surface water and groundwater, strengthening the sector's monitoring capacity and preparedness for future extreme weather events, especially floods, droughts, and water scarcity. |
| **DLI4 (US$ 45 million): Number of people in the rural sector with access to Safely Managed Drinking Water Services.** | 18% | This DLI tracks the number of people in rural areas with access to safely managed drinking water services, as defined by SDG 6.1 indicator guidelines. The guidelines look at three important factors: (i) whether people have access to improved water sources on their premises, (ii) whether there is sufficient water available when they need it, and (iii) whether the water is free from contamination. Ensuring continuous safe water access will help rural communities adapt to the impacts of climate change, boost positive health outcomes, and increase resilience to future extreme weather events. |
| **DLI5 (US$ 25 million) Approval of a Rural WSS Strategic Plan to 2030.** | 10% | This DLI will measure the approval of a Strategic Rural WSS Plan to 2030 to strengthen the SSR's capacity to plan for sustainable and increased access to rural WSS services, while preserving and maintaining quality services in areas where access already exists. The plan will guide the sector in closing the infrastructure gap in rural drinking water and sanitation, by incorporating measures for resilience against floods and droughts. |
| **DLI6 (US$ 15 million): Implementation of pilots of Alternative Rural Wastewater Treatment Technologies.** | 6% | This DLI includes the identification of three locations that require expanded, rehabilitated, or improved wastewater treatment solutions. The selected wastewater treatment solutions will differ from each other and may include NBS while also being energy-efficient. |
| **DLI7 (US$ 40 million): Number of people at lower risks of flood due to new and/or rehabilitated works built by DOH.** | 16% | This DLI measures the reduced risks of flooding resulting in positive impacts on people's health, safety, and economic activities. It focuses on the construction of green and gray solutions, such as drainage systems, flood plain restoration, riverbank protection, dikes, and reforestation. This will help institutions in the sector to track the number of people benefitting from flood protection (under MOP's responsibility), allowing communities adapt to the impacts of climate change. |
| **DLI8 (US$ 45 million): Inclusion of NBS in the design of selected DOH projects.** | 18% | This DLI is an incentive for DOH to integrate NBS into its infrastructure projects. MMA and MOP will identify current regulatory gaps (DLI8.1) and develop NBS guidelines to incorporate NBS into infrastructure projects (DLI8.2) encouraging PERHCs and/or PMCauces, and/or PMALLs. This will contribute to adaptation strategies as the guidelines will outline the best tools available to respond to climate-related risks and enhance the incorporation of NBS, ensuring PERHCs are integrated into future DOH investment projects. |
| **DLI9 (US$ 20 million): Percentage of the number of MOP's or other ministry's investment projects that are included in the PERHCs.** | 8% | This DLI aims to ensure that hydraulic investments are made in a strategic and coordinated manner, considering the needs and priorities of all stakeholders in the river basin. This will support climate adaptation strategies by providing funding to infrastructure investments such as reservoirs, water storage facilities, and irrigation canals. |

## V. RISK

74. **The overall risk rating for the Program is Substantial.**

75. **Sector Strategies and Policies risks are assessed as Substantial.** The improvement of the governance structure for IWRM at basin level will require changes in the existing legal framework. This could translate into the enactment of a legal framework by Congress—either as a proposal to modify existing legislation or to issue a new law. Its approval will require consensus building on Chile's ambitions and objectives on IWRM. To achieve this consensus, particularly among large water users, a cautious communication strategy will be crucial to ensure dissemination of information and prevent mistrust among existing water users. To mitigate this risk, the GoC's strategy relies on the paced approach working first with river basin working groups at basin level. The GoC will develop a communications strategy with the support of the World Bank to convey the learning collected through the river basin working groups and benefits of the river-basin approach with all users, especially addressing concerned water users, while also bringing in international learning.

76. **Institutional Capacity for Implementation and Sustainability risks are assessed as Substantial.** Several areas of focus within the GoC's initiatives, such as NBS, rural WSS, and river basin management, require increased technical capacity and staffing from the GoC. As described in the Technical Assessment, government institutions have proactively established comprehensive recruitment plans for each of the RAs to include new staff with technical expertise matching these new requirements. In the case of rural water supply, the GoC is working to update and enhance its current delivery model. This has been included as part of the PAP. While the PforR will mitigate this risk through knowledge sharing and global expertise to inform the government program, the GoC will continue to assess institutional capacity and collaborate with the World Bank to address emerging needs, ensuring implementation preparedness as the program advances.

77. **Environment and Social risks are assessed as Substantial.** As detailed in section IV. C, this classification responds both to the wide range of potential E&S risks and adverse impacts from the variety of civil works to be implemented under the Program, and to the diverse activities supported by the Program that imply changes in the current management of water resources and could increase the social conflict around this issue. The draft ESSA concluded that the national and sectorial E&S existing systems are adequate to effectively manage the E&S risks and impacts of the Program, and that the MOP has sufficient institutional capacity to ensure compliance with Chile's existing E&S regulatory framework. The expected E&S risks and impacts of the civil works will be adequately managed applying the E&S instruments required under the Chile's SEIA and those provided for in MOP procedures. Nevertheless, the ESSA identifies specific actions and recommendations to further support the effective management of E&S risks during Program implementation, which are reflected in the PAP and will be detailed in the Operations Manual.

78. **Stakeholder risks are assessed as Substantial**. Consensus around the institutional setup that will improve water resources management at basin level among stakeholders requires consensus among stakeholders. To address this, the GoC is creating river basin working groups to demonstrate the benefits of an IWRM approach, especially within today's changing climate and water scarcity. The GoC will collaborate closely with the World Bank to develop a Stakeholder Outreach Plan, addressing user concerns, clarifying the river basin framework benefits, and promoting participatory water management across government, private sector, civil society, and indigenous communities.

## ANNEX 1. RESULTS FRAMEWORK MATRIX

### Program Development Objective(s)

To strengthen the Borrower's capacity for water resource management and water-related services.

### PDO Indicators by Outcomes

| Baseline | Closing Period |
|---|---|
| **Strengthen the Borrower's capacity for water resource management** | |
| **Improve the GoC's WRM planning capacity at national level (Text)** | |
| Dec/2022 | Dec/2028 |
| - | Enhanced GoC's capacity to plan for integrated and sustainable WRM |
| **Strengthen participatory water governance institutions in selected basins (Number)** | |
| Dec/2022 | Dec/2028 |
| 0 | 6 |
| **Strengthen the Borrower's capacity for water-related services** | |
| **Improve the GoC's WSS planning capacity at national level (Text)** | |
| Dec/2022 | Dec/2028 |
| - | Enhanced GoC's capacity to plan for sustainable and increased access to rural WSS services |
| **Increase access to safely managed rural drinking water services (Number)** | |
| Dec/2022 | Dec/2028 |
| 0 | 100,000 |
| **Increase number of people at lower risk of climate change exacerbated floods (Number)** | |
| Dec/2022 | Dec/2028 |
| 0 | 1,100,000 |

### Intermediate Indicators by Results Areas

| Baseline | Closing Period |
|---|---|
| **Strengthening institutional capacity for IWRM at the national and basin levels** | |
| **Female personnel participation in jobs generated by public works contracts tendered by the MOP (Percentage)** | |
| Dec/2022 | Dec/2028 |
| 9.4 | 15 |
| **Gender Assessment of female participation in river basin working groups completed. (Yes/No)** | |
| Dec/2022 | Dec/2028 |
| No | Yes |
| **Enhancing the sustainability and resilience of rural WSS service providers, and closing access gaps** | |
| **Rural Water Supply and Sanitation Information system designed and approved by MOP (Yes/No)** | |
| Dec/2022 | Dec/2028 |
| No | Yes |
| **People provided with water of which 100% is safely managed (Number)** | |
| Nov/2022 | Nov/2028 |
| 0 | 100000 |

## Disbursement Linked Indicators (DLI)

| Period | Period Definition |
|---|---|
| Period 1 | Prior Results |
| Period 2 | Program period |

| Baseline | | Period 1 | Period 2 |
|---|---|---|---|
| **1 : Creation of river basin working groups in selected basins (Number )** | | | |
| 0 | | 0 | 6 |
| 0.00 | | 0.00 | 17,575,000.00 |
| DLI allocation | 17,575,000.00 | As a % of Total DLI Allocation | 4.5% |
| ➢ 1.1 : DGA has confirmed the formalization of (6) River Basin Working Groups with at least three (3) non-governmental stakeholders members each (Number ) | | | |
| 0 | | 0 | 6 |
| 0.00 | | 0.00 | 10,000,000.00 |

| | | | |
|---|---|---|---|
| DLI allocation | 10,000,000.00 | As a % of Total DLI Allocation | 2.56% |
| ➢ 1.2 : A Decree regulating the elaboration, revision and update of the PERHCs, monitoring PERHCs' implementation, and formalizing the participation of river basin stakeholders for river basin planning, has been issued and published in the Official Gazette (Yes/No ) | | | |
| No | | Yes | No |
| 0.00 | | 3,787,500.00 | 0.00 |
| DLI allocation | 3,787,500.00 | As a % of Total DLI Allocation | 0.97% |
| ➢ 1.3 : The Council of the Ministers for Sustainability and Climate-Change has approved the National Water Security Policy, including the objective, criteria, and scope to advance Water Security (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 3,787,500.00 |
| DLI allocation | 3,787,500.00 | As a % of Total DLI Allocation | 0.97% |
| **2 : Proposal and approval of a Water Security Policy (Yes/No )** | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 20,000,000.00 |
| DLI allocation | 20,000,000.00 | As a % of Total DLI Allocation | 5.13% |
| ➢ 2.1 : The THJ Committee has approved a proposal for a National Water Security Policy, describing objectives, criteria, and scope to advance Water Security (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| ➢ 2.2 : MOP and MMA have submitted the proposed National Water Security Policy, including the objective, criteria, and scope to advance Water Security, to public consultation through its publication on their respective websites (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 10,000,000.00 |
| DLI allocation | 10,000,000.00 | As a % of Total DLI Allocation | 2.56% |
| ➢ 2.3 : The Council of the Ministers for Sustainability and Climate Change has approved the National Water Security Policy, including objective, criteria, and scope to advance Water Security (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| **3 : Development of tools for improved knowledge on surface and groundwater quantity and quality (Number )** | | | |
| 0 | | 5 | 226 |
| 0.00 | | 555,556.00 | 19,444,444.00 |
| DLI allocation | 20,000,000.00 | As a % of Total DLI Allocation | 5.13% |

| | | | |
|---|---|---|---|
| ➢ 3.1 : 140 fluviometric and meteorological monitoring stations have been modernized with automated data transmission (Number ) | | | |
| 0 | | 0 | 140 |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| ➢ 3.2 : 90 new Instrumented Wells transmitting data online have been installed (Number ) | | | |
| 0 | | 5 | 85 |
| 0.00 | | 555,556.00 | 9,444,444.00 |
| DLI allocation | 10,000,000.00 | As a % of Total DLI Allocation | 2.56% |
| ➢ 3.3 : A water quality laboratory has been constructed and equipped with technical equipment (Number ) | | | |
| 0 | | 0 | 1 |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| **4 : Number of people in the rural sector with access to Safely Managed Drinking Water Services (Number )** | | | |
| 0 | | 900 | 99,100 |
| 0.00 | | 405,000.00 | 44,595,000.00 |
| DLI allocation | 45,000,000.00 | As a % of Total DLI Allocation | 11.53% |
| **5 : Approval of a Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No )** | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 25,000,000.00 |
| DLI allocation | 25,000,000.00 | As a % of Total DLI Allocation | 6.41% |
| ➢ 5.1 : SSR has approved a baseline on the situation of water supply and sanitation service delivery in rural areas (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| ➢ 5.2 : SSR has prepared a report consolidating the comments submitted by specialists from the rural water and sanitation sector on the Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 10,000,000.00 |
| DLI allocation | 10,000,000.00 | As a % of Total DLI Allocation | 2.56% |
| ➢ 5.3 : MOP has approved the Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No ) | | | |
| No | | No | Yes |
| 0.00 | | 0.00 | 10,000,000.00 |

| | | | |
|---|---|---|---|
| DLI allocation | 10,000,000.00 | As a % of Total DLI Allocation | 2.56% |
| **6 : Implementation of pilots of Alternative Rural Wastewater Treatment Technologies (Number )** | | | |
| 0 | | 0 | 3 |
| 0.00 | | 0.00 | 15,000,000.00 |
| DLI allocation | 15,000,000.00 | As a % of Total DLI Allocation | 3.84% |
| ➢ 6.1 : SSR has identified the locations for the carrying out of three (3) pilot works of Alternative Rural Wastewater Treatment Technologies (Number ) | | | |
| 0 | | 0 | 3 |
| 0.00 | | 0.00 | 3,000,000.00 |
| DLI allocation | 3,000,000.00 | As a % of Total DLI Allocation | 0.77% |
| ➢ 6.2 : SSR has approved the design of three (3) pilot Alternative Rural Wastewater Treatment Technologies, in accordance with the technical criteria established by MOP (Number ) | | | |
| 0 | | 0 | 3 |
| 0.00 | | 0.00 | 3,000,000.00 |
| DLI allocation | 3,000,000.00 | As a % of Total DLI Allocation | 0.77% |
| ➢ 6.3 : SSR has finalized three (3) pilot of Alternative Rural Wastewater Treatment Technologies that provide a water treatment level meeting the design standards approved under DLR#6.2 (Number ) | | | |
| 0 | | 0 | 3 |
| 0.00 | | 0.00 | 9,000,000.00 |
| DLI allocation | 9,000,000.00 | As a % of Total DLI Allocation | 2.31% |
| **7 : Number of people at lower risks of flood due to new and/or rehabilitated works built by DOH (Number )** | | | |
| 0 | | 0 | 1,100,000 |
| 0.00 | | 0.00 | 40,000,000.00 |
| DLI allocation | 40,000,000.00 | As a % of Total DLI Allocation | 10.25% |
| **8 : Inclusion of NBS in the design of selected DOH projects. (Yes/No )** | | | |
| 0 | | No | Yes |
| 0.00 | | 0.00 | 45,000,000.00 |
| DLI allocation | 45,000,000.00 | As a % of Total DLI Allocation | 11.53% |
| ➢ 8.1 : THJ Committee has approved a report developed by MMA identifying the gaps for developing NBS (Yes/No ) | | | |
| No | | Yes | No |
| 0.00 | | 5,000,000.00 | 0.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| ➢ 8.2 : MMA and MOP have published in their respective websites NBS guidelines developed by a multidisciplinary and inter-ministerial task force including specialists of MOP, MMA, MINAGRI and MDSF (Yes/No ) | | | |

| | | | |
|---|---|---|---|
| No | | No | Yes |
| 0.00 | | 0.00 | 5,000,000.00 |
| DLI allocation | 5,000,000.00 | As a % of Total DLI Allocation | 1.28% |
| ➢ 8.3 : MOP has included NBS into two (2) PERHCs and/or PMCauces and/or PMALLs in accordance with the NBS guidelines published under DLR#8.2 (Number ) | | | |
| 0 | | 0 | 2 |
| 0.00 | | 0.00 | 15,000,000.00 |
| DLI allocation | 15,000,000.00 | As a % of Total DLI Allocation | 3.84% |
| ➢ 8.4 : DOH has included NBS in the design of two (2) projects in its portfolio in line with the NBS guidelines published under DLR#8.2 (Number ) | | | |
| 0 | | 0 | 2 |
| 0.00 | | 0.00 | 20,000,000.00 |
| DLI allocation | 20,000,000.00 | As a % of Total DLI Allocation | 5.13% |
| **9 : Percentage of the number of MOP's or other ministry's investment projects that are included in the PERHCs (Percentage )** | | | |
| 0 | | 0 | 20 |
| 0.00 | | 0.00 | 20,000,000.00 |
| DLI allocation | 20,000,000.00 | As a % of Total DLI Allocation | 5.13% |

## Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

| Monitoring & Evaluation Plan: PDO Indicators | | | | | |
|---|---|---|---|---|---|
| **Indicator Name** | | | | | |
| **Program Development Outcome** | **Definition/Description** | **Frequency** | **Data** | **Indicator Name** | **Responsibility for Data Collection** |
| **Outcome 1: Strengthen the Borrower's capacity for water resources management** | | | | | |
| PDO 1: Improve the GoC's WRM planning capacity at national level | Enhance GoC's capacity for effective water resource management planning by strengthening data collection mechanisms and planning tools | Annual | THJ Committee | Report from THJ committee | DGA (MOP) |
| PDO 2: Strengthen participatory water governance institutions in selected basins | 6 river basin working groups will be created to start implementing IWRM at the river basin level | Annual | Ministerial Resolution | Ministerial Resolution | DGA (MOP) |
| **Outcome 2: Strengthen the Borrower's capacity for water related services** | | | | | |
| PDO 3: Improve the GoC's WSS planning capacity at national level | Enhance the GoC's capabilities in water supply and sanitation planning, with a focus on closing access gaps and improving rural service delivery | Annual | SSR | Report from SSR | SSR (MOP) |
| PDO 4: Increase access to safely managed rural drinking water services | Number of people in rural areas with access to safely managed drinking water services, as defined by SDG 6.1 indicator guidelines | Bi-annual | water user committees | Reports requested from rural water user committees | SSR (MOP) |
| PDO 5: Increase number of people at lower risk of climate change exacerbated floods | Number of people with improved flood protection risk | Annual | DOH | Technical characteristics of the flood protection works | DOH (MOP) |

## Monitoring & Evaluation Plan: Intermediate Results Indicators by Results Areas

| Monitoring & Evaluation Plan: Intermediate Results Indicators | | | | | |
|---|---|---|---|---|---|
| **Indicator Name** | **Definition/Description** | **Frequency** | **Data source** | **Methodology for Data Collection** | **Responsibility for Data Collection** |
| **RA1: Strengthening institutional capacity for IWRM at the national and basin levels** | | | | | |
| Female personnel participation in jobs generated by public works | This indicator will measure growth in female representation | Annual | MOP | Report from MOP | MOP |

| | | | | | |
|---|---|---|---|---|---|
| contracts tendered by the MOP (Percentage) | in MOP's public works contracts | | | | |
| Gender Assessment of female participation in river basin working groups completed | This indicator measures female participation in river basin working groups | Annual | MOP | Report from MOP | MOP |
| **RA2: Enhancing the sustainability and resilience of rural WSS service providers, and closing access gaps** | | | | | |
| Rural Water Supply and Sanitation Information system designed and approved by MOP | This indicator will measure progress of the Rural WSS information system development | Annual | MOP | Report from MOP | MOP |

## Verification Protocol Table: Disbursement Linked Indicators

| | |
|---|---|
| 1 : Creation of river basin working groups in selected basins. (Number) | |
| Formula | DLI 1.1 + DLI 1.2 |
| Description | Six river basin working groups will be created to start implementing integrated water resources management at the river basin level. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | See procedures for DLI 1.1 and DLI 1.2 |
| 1.1 : DGA has confirmed the formalization of (6) River Basin Working Groups with at least three (3) non-governmental stakeholders members each. (Number) | |
| Formula | The DGA issues an official letter to the members of the river basin working group confirming the participation of at least 3 non-governmental stakeholders per basin = US$ 1,666,666. Evidence of participation is attached as part of the letter. |
| Description | A minimum of 3 non-governmental stakeholders adhere to the voluntary commitment to work in a river basin working group, reflected in the DGA official letter. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | IVA verifies the DGA official letter that confirms the composition of the members of each river basin working group and that there are at least 3 non-governmental stakeholders in each river basin. |
| 1.2 : A Decree regulating the elaboration, revision and update of the PERHCs, monitoring PERHCs' implementation, and formalizing the participation of river basin stakeholders for river basin planning has been issued and published in the Official Gazette (Yes/No) | |
| Formula | MOP has approved through decree # 58 published on January 4, 2024, a regulation to elaborate, revise, update the PERHCs and monitor their implementation, formalizing the participation of river basin stakeholders = US$ 3,787,500 |
| Description | This regulation describes the roles and responsibilities of MOP, DGA and the basin stakeholders which are grouped and formalized as part of new local basin institution called Strategic River Basin Water Resources Table (Mesa Estratégica de Recursos Hídricos de la Cuenca). |
| Data source/ Agency | MOP |
| Verification Entity | World Bank team |
| Procedure | World Bank verifies the content, composition and functions of the Strategic River Basin Water Resources Table. |
| 1.3 : SEGPRES has submitted to Congress a bill (signed by the Borrower's President) to improve the governance structure for integrated water resources management at basin level, as a proposal to modify existing legislation or to issue a new law (Yes/No) | |
| Formula | SEGPRES will submit to Congress a bill to improve the governance structure for integrated water resources management at basin level = US$ 3,787,500 |
| Description | This bill will first be presented to SEGPRES by MOP, and SEGPRES will subsequently present this to Congress for its processing. |
| Data source/ Agency | MOP |
| Verification Entity | IVA |
| Procedure | IVA verifies that SEGPRES submits the bill to Congress for its processing. |
| 2 : Proposal and approval of a Water Security Policy (Yes/No) | |
| Formula | DLI 2.1 + DLI 2.2 + DLI 2.3 |
| Description | The National Water Security Policy will outline the main water security issues and their socio-economic impacts in the context of overall government priorities, laying out the strategies to address them and guide PERHCs and Flood Risk Management Plans. |
| Data source/ Agency | THJ Committee |

| | |
|---|---|
| Verification Entity | IVA |
| Procedure | See procedures for DLI 2.1, DLI 2.2 and DLI 2.3 |
| 2.1: The THJ Committee has approved a proposal of a National Water Security Policy, describing objectives, criteria, and scope to advance Water Security (Yes/No) | |
| Formula | Proposed objective, criteria, and guidelines for a National Water Security Policy = US$ 5,000,000 |
| Description | The THJ Committee will approve a document describing the objective, criteria, and guidelines as a first step in the elaboration of a National Water Security Policy. |
| Data Source/ Agency | THJ Committee |
| Verification Entity | IVA |
| Procedure | IVA verifies that the document describing the objective, criteria, and guidelines is approved by the THJ Committee. |
| 2.2: MOP and MMA have submitted the proposed National Water Security Policy, including the objective, criteria, and scope to advance Water Security, to public consultation through its publication on their respective websites (Yes/No) | |
| Formula | Public consultation of the proposed National Water Security Policy = US$10,000,000 |
| Description | A draft of the proposed National Water Security Policy will be submitted to public consultation through a publication on the MOP and MMA website. The proposal will describe the main water security issues and their socio-economic impacts in the context of the government's overall priorities, laying out the strategies to address them and guide PERHCs and Flood Risk Management Plans. |
| Data Source/ Agency | THJ Committee |
| Verification Entity | IVA |
| Procedure | IVA verifies that the National Water Security Policy approved by the THJ Committee is published in each institional website as described under 'Description'. |
| 2.3: The Council of the Ministers for Sustainability and Climate-Change has approved the National Water Security Policy, including the objective, criteria, and scope to advance Water Security (Yes/No) | |
| Formula | Approval of the National Water Security Policy through Resolution of the Council of Ministers for Sustainability and Climate Change describing the main water security issues and their socio-economic impacts in the context of the government's overall priorities, laying out the strategies to address them and guide PERHCs and Flood Risk Management Plans = US$ 5,000,000 |
| Description | Once received the feedback from public consultation, the proposed National Water Security Policy will be updated and submitted to the Council of the Ministers for Sustainability and Climate Change for their approval. |
| Data Source/ Agency | THJ Committee |
| Verification Entity | IVA |
| Procedure | IVA verifies that the final version of the National Water Security Policy is approved by the Council of the Ministers for Sustainability and Climate Change through Resolution. |
| 3 : Development of tools for improved knowledge on surface and groundwater quantity and quality (Number) | |
| Formula | DLI 3.1 + DLI 3.2 + DLI 3.3 |
| Description | Improved knowledge on surface and groundwater quantity and quality will be measured through the automation of fluviometric and meteorological monitoring stations (DLI 3.1), the increase of instrumented wells (DLI 3.2) and the construction of a new water quality laboratory (DLI 3.3). |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | See proceedures for DLI 3.1, DLI 3.2, and DLI 3.3 |
| 3.1 : 140 fluviometric and meteorological monitoring stations modernized with automated data transmission (Number) | |
| Formula | 1 monitoring station = US$35,714.29 |
| Description | This involves the installation of sensors and equipment to automate data capture and storage for 140 fluviometric and meteorological stations. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | IVA will review the National Information System and verify historic data transmision from the automated monitoring stations. |

| 3.2 : 90 new Instrumented Wells transmitting data online installed (Number) | |
|---|---|
| Formula | 1 new instrumented well = US$111,111.11 |
| Description | This involves the construction of 90 new instrumented wells to transmit data online to measure groundwater levels. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | IVA will review the National Information System and verify historic data transmision from the new wells |
| 3.3 : A water quality laboratory constructed and with technical equipment installed. (Number) | |
| Formula | 1 operational laboratory= US$ 5000,000 |
| Description | This involves the construction of a new water quality analysis laboratory and the installation of its technical equipment. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |
| Procedure | IVA carries out a field visit to the laboratory 6 months after the final reception of the final works and verifies the installation of technical equipment. |
| 4 : Number of people in the rural sector with access to Safely Managed Drinking Water Services (Number) | |
| Formula | 1 person in the rural sector with access to safely managed drinking water services = US$ 450 |
| Description | This indicator measures the number of people in the rural sector that have gained access to safely managed drinking water services either through new or rehabilitated water systems, where safely managed drinking water refers to an improved water source that is accessible on premises, available when needed and free from fecal and priority chemical contamination (SDG 6.1.1; WHO/UNICEF). (baseline: 0 / number of target beneficiaries: 100,000) |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | SSR provides a list of systems completed to IVA for verification. From this list, IVA selects a random sample of households that is statistically representative, verifying whether this rural population receives safely managed drinking water services, as defined in SDG 6.1.1: (i) whether people have access to improved water sources in their facilities, (ii) whether enough water is available when they need it, and (iii) whether the water is free of contamination. |
| 5 : Approval of a Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No) | |
| Formula | DLI 5.1 + DLI 5.2 + DLI 5.3 |
| Description | This indicator measures the approval of a Strategic Rural WSS Plan to 2030 to strengthen the SSR's capacity to plan for sustainable and increased access to rural WSS services, while preserving and maintaining quality services in areas where access already exists. This indicator is measured through 3 progress indicators: the creation of a baseline on the situation of rural service providers, the sharing of the plan for feedback from key stakeholders and the approval of the plan by a ministerial resolution issued by MOP. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | See procedures of DLI 5.1, DLI 5.2, and DLI 5.3 |
| 5.1 : SSR has approved a baseline on the situation of water supply and sanitation service delivery in rural areas (Yes/No) | |
| Formula | Yes = US$5,000,000 |
| Description | The SSR will approve a baseline of characterization and information on water and sanitation in rural areas, including the estimation of the service gap through the SSR resolution (DOH). |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | IVA reviews the SSR approval resolution (DOH). |
| 5.2 : SSR has prepared a report consolidating the comments submitted by specialists from the rural water and sanitation sector on the Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No) | |
| Formula | Yes= US$10,000,000 |
| Description | Elaboration of a report that consolidates the comments sent by specialists in the sector to the draft of the Rural WSS Strategic Plan to 2030. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |

| | |
|---|---|
| Procedure | IVA reviews the report provided by SSR consolidating the comments received by sector specialists on the draft for the consideration of the Rural Water Supply and Sanitation Strategic Plan to 2030. |
| 5.3 : MOP has approved the Rural Water Supply and Sanitation Strategic Plan to 2030 (Yes/No) | |
| Formula | Yes= US$ 10,000,000 |
| Description | This sub-indicator measures the approval of the Rural Water Supply and Sanitation Strategic Plan to 2030 by MOP. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | IVA reviews MOP's approval of the Rural Water Supply and Sanitation Strategic Plan to 2030, through resolution of approval from DOH. |
| 6 : Implementation of pilots of Alternative Rural Wastewater Treatment Technologies (Number) | |
| Formula | DLI 6.1 + DLI 6.2 + DLI 6.3 |
| Description | This indicator measures the selection, design, and operation of 3 pilots that test alternative rural wastewater treatment technologies. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | See procedures for DLI 6.1, DLI 6.2, and DLI 6.3 |
| 6.1: SSR has identified the locations for the carrying out of three (3) pilot works of Alternative Rural Wastewater Treatment Technologies (Number) | |
| Formula | 1 pilot location selection = US$1,000,000 |
| Description | This sub-indicator confirms that the locations of pilot works of Alternative Rural Wastewater Treatment Technologies by SSR have been identified through an official letter (per pilot) from the SSR to the DGOP. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | IVA verifies that an official letter from the SSR has been submitted to the DGOP with the identification of the pilot sites of Alternative Rural Wastewater Treatment Technologies. |
| 6.2: SSR has approved the design of three (3) pilot Alternative Rural Wastewater Treatment Technologies, in accordance with the technical criteria established by MOP (Number) | |
| Formula | 1 pilot design = US$1,000,000 |
| Description | Official approval of the pilot design for Alternative Rural Wastewater Treatment Technologies to be developed by SSR, which encompasses water quality standards. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | IVA verifies that the SSR has approved the design of the Alternative Rural Wastewater Treatment Technologies pilot. |
| 6.3: SSR has finalized three (3) pilot of Alternative Rural Wastewater Treatment Technologies that provide a water treatment level meeting the design standards approved under DLR#6.2 (Number) | |
| Formula | 1 operational pilot = 3,000,000 |
| Description | Pilots of Alternative Rural Wastewater Treatment Technologies in operation complying with the water quality standards included in the design of pilots of Alternative Rural Wastewater Treatment Technologies approved in DLI 6.2. |
| Data source/ Agency | SSR |
| Verification Entity | IVA |
| Procedure | IVA verifies that the pilots of Alternative Rural Wastewater Treatment Technologies comply with the water quality standards included in the design approved in DLI 6.2. |
| 7 : Number of people at lower risks of flood due to new and/or rehabilitated works built by DOH (Number) | |
| Formula | 1 person = US$ 36.36 |
| Description | Currently, there are 1,100,000 people living in flood risk areas. This indicator measures the population identified in the design stage, according to the Initiative Investment (IDI) sheet, with a reduced risk of flooding due to the protection provided by projects built by DOH. Responsibility for flood protection lies within the DOH (MOP). |
| Data source/ Agency | DOH |
| Verification Entity | IVA |

| | |
|---|---|
| Procedure | IVA verifies the technical specifications of the projects built to estimate the flood protection area based on the design return period. Based on this area, it estimates the population with the lowest risk resulting from the works. This number is compared with the people identified in the design stage, according to the IDI sheet. |
| 8 : Inclusion of NBS in the design of selected DOH projects (Yes/No) | |
| Formula | DLI 8.1 + DLI 8.2 + DLI 8.3 |
| Description | Incentive for DOH to integrate NBS into its infrastructure projects |
| Data source/ Agency | DOH |
| Verification Entity | IVA |
| Procedure | See procedures for DLI 8.1, DLI 8.2 and DLI 8.3 |
| 8.1 : THJ Committee has approved a report developed by MMA identifying the gaps for developing NBS (Yes/No) | |
| Formula | Gap report = US$5,000,000 |
| Description | The MMA will develop a report identifying the technical, regulatory, institutional, legal, methodological, and economic evaluation gaps for the development of NBS and MOP will review it. The report developed by MMA and reviewed by MOP will be approved by the THJ Committee through minutes. |
| Data source/ Agency | MMA |
| Verification Entity | IVA |
| Procedure | IVA reviews the minutes of the THJ Committee meeting approving the report. |
| 8.2 : MMA and MOP have published in their respective websites NBS guidelines developed by a multidisciplinary and inter-ministerial task force including specialists of MOP, MMA, MINAGRI and MDSF (Yes/No) | |
| Formula | NBS guideline = US$ 5,000,000 |
| Description | MMA will form an NBS multidisciplinary and inter-ministerial working group (MMA, MOP, MINAGRI, MDSF) to create a guideline for integrating NBS into the hydraulic infrastructure portfolio. The NBS guideline developed by the multidisciplinary and inter-ministerial task force will be published by MMA and MOP on their respective institutional websites. |
| Data source/ Agency | MMA |
| Verification Entity | IVA |
| Procedure | IVA verifies the publication of the NBS guideline on MMA and MOP's institutional websites. |
| 8.3: MOP has included NBS into two (2) PERHCs, and/or PMCauces and/or PMALLs in accordance with the NBS guidelines developed under DLR#8.2 (Number) | |
| Formula | 1 PERHC and/or PMCauces and/or PMALLs including NBS= US$ 7,500,000 |
| Description | This indicator measures the numbers of plans that include NBS according to the definition of NBS established in the Framework Law on Climate Change (Article 3, letter t). |
| Data source/ Agency | MOP |
| Verification Entity | IVA |
| Procedure | IVA verifies that two of the PERHCs and/or PMCauces and/or PMALLS include NBS in their projects |
| 8.4: DOH has included NBS in the design of two (2) projects in its portfolio in line with the NBS guidelines developed under DLR#8.2 (Number) | |
| Formula | 1 project with NBS = US$ 10,000,000 |
| Description | This sub-indicator measures the number of projects that incorporate NBS in its design according to the definition of NBS established in the Framework Law on Climate Change (article 3, letter t). |
| Data source/ Agency | MOP |
| Verification Entity | IVA |
| Procedure | IVA verifies that two of DOH's projects incorporate NBS in their design. |
| 9 : Percentage of the number of MOP's or other ministry's investment projects that are included in the PERHCs (Percentage) | |
| Formula | 1% = US$ 1,000,000 |
| Description | This indicator measures the percentage of the number of projects in the portfolio of MOP or other Ministry that form part of the PERHCs. The goal is 20%. |
| Data source/ Agency | DGA |
| Verification Entity | IVA |

| | |
|---|---|
| Procedure | IVA verifies the portfolio of MOP or other Ministry that form part of the PERHCs and compares it with the projects plans in the PERHCs. |

## ANNEX 2. PROGRAM ACTION PLAN

| Action Description | Source | DLI# | Responsibility | Timing | | Completion Measurement |
|---|---|---|---|---|---|---|
| MOP shall create an Outreach & Communications Plan explaining the purpose and benefits of an integrated water governance structure at the basin level and to address stakeholder concerns. | Technical | NA | DGA (MOP) | Due Date | 30-Jun-2025 | Outreach & Communications Plan designed and ready for implementation. |
| MOP shall create an advocacy strategy on the bill to improve the governance structure for integrated water resources management at basin level, where the bill may be a proposal to modify existing legislation or to issue a new law | Technical | NA | DGA (MOP) | Due Date | 31-May-2025 | Advocacy strategy has been developed and is being implemented. |
| MOP shall define an action plan to improve the rural water supply and sanitation service delivery model, within | Technical | NA | SSR (DOH/MOP) | Due Date | 30-Jun-2025 | Action Plan has been developed and will inform development of the national 2030 Rural Water |

| | | | | | | |
|---|---|---|---|---|---|---|
| the context of Law 20.998. | | | | | | Supply and Sanitation Plan. |
| MOP and MMA shall form a multi-disciplinary and inter-ministerial Nature-Based Solutions (NBS) Working Group to create guidelines for integrating NBS into its hydraulic infrastructure portfolio. | Technical | NA | MMA | Due Date | 30-Jul-2024 | Working Group is established, and a Coordinator is appointed. |
| MOP shall designate Environmental Specialist(s) with expertise in occupational health and safety, and Social Specialist(s) as focal points to manage and supervise the environmental and social aspects of the activities of the three RA. | Environmental and Social Systems | NA | MOP | Due Date | 01-Apr-2025 | Environmental and Social Focal Points designated under each Results Area. |
| MOP and MMA shall ensure that no expenses under the Program arise from a contract awarded to a company or | Fiduciary Systems | NA | MOP and MMA | Other | Throughout Program Implementation | List of contracts awarded to firms and individuals is sent to the Bank annually. |

| | | | | | | |
|---|---|---|---|---|---|---|
| individual debarred or suspended by the WB. | | | | | | |
| MOP and MMA shall include the World Bank ACGs's fraud and corruption provisions, as appropriate, in the bidding documents and contracts. | Fiduciary Systems | NA | MOP and MMA | Other | Throughout Program Implementation | Inclusion of the World Bank ACGs's fraud and corruption provisions in the bidding documents and contracts. |
| MOP/MMA shall inform the WB of F&C allegations and provide information requested. | Fiduciary Systems | NA | MOP and MMA | Other | Biannually throughout Program Implementation. | Full information, records and documentation the case submitted to the World Bank as the World Bank may request. |
| Regarding civil works that involve land acquisition, restriction to land use, or involuntary resettlement, (if not excluded from the Program), the MOP shall ensure that the three conditions as described in the ESSA, are covered as appropriate. | Environmental and Social Systems | NA | MOP | Recurrent | Continuous | Successfully implemented strategies to address and reduce adverse economic and social impacts resulting from land acquisition or restricted access to natural resources for communities, individuals, or groups with limited legal resource rights. |

| | | | | | | |
|---|---|---|---|---|---|---|
| MOP shall create a Program Coordination and Reporting Unit (PCRU) to facilitate administrative tasks and monitoring and evaluation of the Program. | Technical | NA | MOP | Due Date | 01-Apr-2025 | MOP has created the unit consisting of at least a Coordinator, a monitoring and evaluation (M&E) Specialist, and a Fiduciary Specialist. |

## ANNEX 3. IMPLEMENTATION SUPPORT PLAN

1. **The World Bank will offer complementary (1) support for program implementation and (2) technical assistance for the PforR, through the following actions aimed at facilitating Program execution:**

**Support for program implementation**

- Collaborate closely with the PCRU to evaluate the progress of Program implementation, assess the attainment of Program results and DLI, and review the execution of the PAP.
- Monitor the capacity of the PCRU and assist the Borrower in enhancing institutional capabilities and addressing implementation challenges, offering assistance in resolving any operational concerns tied to the Program.
- Review documentation and offer feedback as necessary before using it as evidence to demonstrate the fulfillment of DLIs, as appropriate.
- Collaborate closely with the PCRU to ensure effective communication on the World Bank Program objectives and messaging, ensuring clear and cohesive communication strategies are in place.
- Oversee compliance with legal agreements, maintain records of risks, and suggest corrective actions to enhance Program performance, if necessary.
- Support the Borrower and government counterparts in monitoring changes in risks to the implementation of the Program.
- Monitor the performance of fiduciary systems and potential shifts in fiduciary risks associated with the Program.
- Supervise the preparation of the Program's financial statements and provide support to the Borrower as required.
- Examine the Program's annual financial audit report, engage in discussions with the Borrower, and oversee the implementation of auditor recommendations. Based on audit report findings, assess and analyze changes in the Program's fiduciary performance, proposing corrective measures as needed.

**Technical assistance for PforR implementation**

2. **The World Bank will provide complementary technical assistance towards Program implementation, although the Borrower has exclusive responsibility for Program implementation and achievement of DLIs.** The Program activities to be implemented by the Borrower, as organized under the three Results Areas and described throughout this PAD, are sufficient to reach the Program's objectives and DLIs. The additional technical support described below is complementary to the Government's efforts, in view of bringing international learning and global experiences to Chile. The technical assistance is contingent upon the presence and availability of additional complementary or supporting BETFs.

    a. **Support towards the MMA and DGA for the improvement of a river basin governance structure.** Building on the existing institutions at basin level and the existing water rights market, Chile has taken on a new ambitious task of improving its river basin governance structure for the integrated management of water resources. The GoC is seeking global expertise and international best practices on this front.

    b. **Support towards the SSR throughout its implementation of Law N°20,998 for improved rural WSS services.** The SSR has requested World Bank support to improve its delivery model, where they will identify areas for technical capacity strengthening to effectively take on the new tasks. Support has also been requested to gather international experience to enhance their capacity to supervise and inspect the quality of WSS services. This includes learning how to establish technical standards, including the implementation of rural WSS information system; the provision of technical assistance and training to

operators, administrators, and communities; and guaranteeing the sanitation systems' efficient operation and maintenance. The World Bank will leverage its knowledge to guide the GoC in defining the content and strategic areas to be included in the Rural WSS Strategic Plan to 2030.

c. **Support towards the DOH as it introduces resilience by design approaches in irrigation works.** The GoC is seeking support to enhance the adaptability of irrigation works to current water challenges such as climate variability and scarcity. This involves integrating resilience principles, new technologies, flexible management practices, and social-environmental factors. The World Bank will bring in international experience to support the GoC to introduce resilience by design approaches in order to make irrigation systems sustainable and functional in unpredictable events. Such approaches also will contribute to the efforts to mitigate climate change impacts on the country's agriculture and improve food security.

d. **Support towards the DOH as it incorporates NBS in flood control works.** Chile is highly vulnerable to floods, which are becoming more frequent and severe due to climate change and has relied on traditional gray infrastructure solutions, such as dams. While gray infrastructure has been effective in meeting water needs in the past, it has also shed light on several limitations in changing conditions, particularly those associated with climate change. Thus, the DOH has requested the World Bank support in the creation of an enabling environment for NBS in flood works and will develop a regulatory and institutional framework with a defined portfolio as well as funding for integrated green and gray solutions. The World Bank will provide global learning and technical assistance to combine natural and engineered solutions in order to improve the effectiveness and resilience of Chile's flood management systems and reduce its vulnerability to extreme events.

**Main focus of Implementation Support**

| Time | Focus | Skills Needed | Resources Estimate | Partner Role |
|---|---|---|---|---|
| First twelve months | - Compliance with PAP actions.<br>- Capacity building for the PCRU if needed to operate as defined in the Operations Manual, including on strengthening understanding of the PforR process.<br>- Ensure arrangements for IVA are clear, and ensure common understanding of verification protocol among involved institutions.<br>- Strengthen monitoring and evaluation system.<br>- Roll-out of technical assistance activities for the three Results Areas. | - WSS<br>- WRM<br>- Monitoring and evaluation<br>- Financial<br>- Legal<br>- Procurement and financial management<br>- E&S | Three implementation support missions, three technical missions<br><br>*6 missions x 8 people x 1 week = 48 person weeks over the first 12 months* | None foreseen. |
| 12-48 months | - Review implementation progress.<br>- Monitor performance of financial management and E&S systems.<br>- Continue roll-out of technical assistance activities for the three Results Areas, adjusting the technical assistance lines of work as needed. | - WSS<br>- WRM<br>- Monitoring and evaluation<br>- Financial<br>- Legal<br>- Procurement and financial | Two implementation support missions per year, two technical missions per year, Mid-Term Review<br><br>*2 x 4 years x 8 people x 1 week* | None foreseen. |

| | | | | |
|---|---|---|---|---|
| | | - management<br>- E&S | *= 128 weeks*<br>*2 x 12 people x 1 week = 48 weeks*<br>*5 people x 2 weeks = 10 weeks*<br><br>*Total 186 weeks over 48 months* | |
| Other | - Independent audit and assessment of verification of results | Independent technical expertise | 3 people x 6 weeks = 18 weeks | None foreseen. |

### Task Team Skills Mix Requirements for Implementation Support

| Skills Needed | Number of Staff Weeks | Number of Trips | Comments |
|---|---|---|---|
| Technical: WRM (TTL) | 50 | 14 | Region-based |
| Technical: WSS (Co-TTL) | 50 | 6 | Country-based |
| Technical: WSS | 20 | 10 | Region-based |
| Legal | 10 | n/a | Region-based |
| Financial management | 30 | 13 | Region-based |
| Procurement | 30 | 13 | Region-based |
| Social | 30 | 13 | Region-based |
| Environment | 30 | 13 | Region-based |
| Monitoring and evaluation | 30 | 10 | Region-based |

### Role of Partners in Program Implementation

| Name | Institution/Country | Role |
|---|---|---|
| **Global Water Security and Sanitation Partnership (GWSP)** | Multi-donor (Bank-managed programmatic trust fund) | GWSP is providing technical assistance to support PforR Program technical assistance activities. |
| **Quality Infrastructure Investment Partnerships (QII)** | Japan (Bank-managed programmatic trust fund) | QII is providing technical assistance to support PforR Program technical assistance activities. |

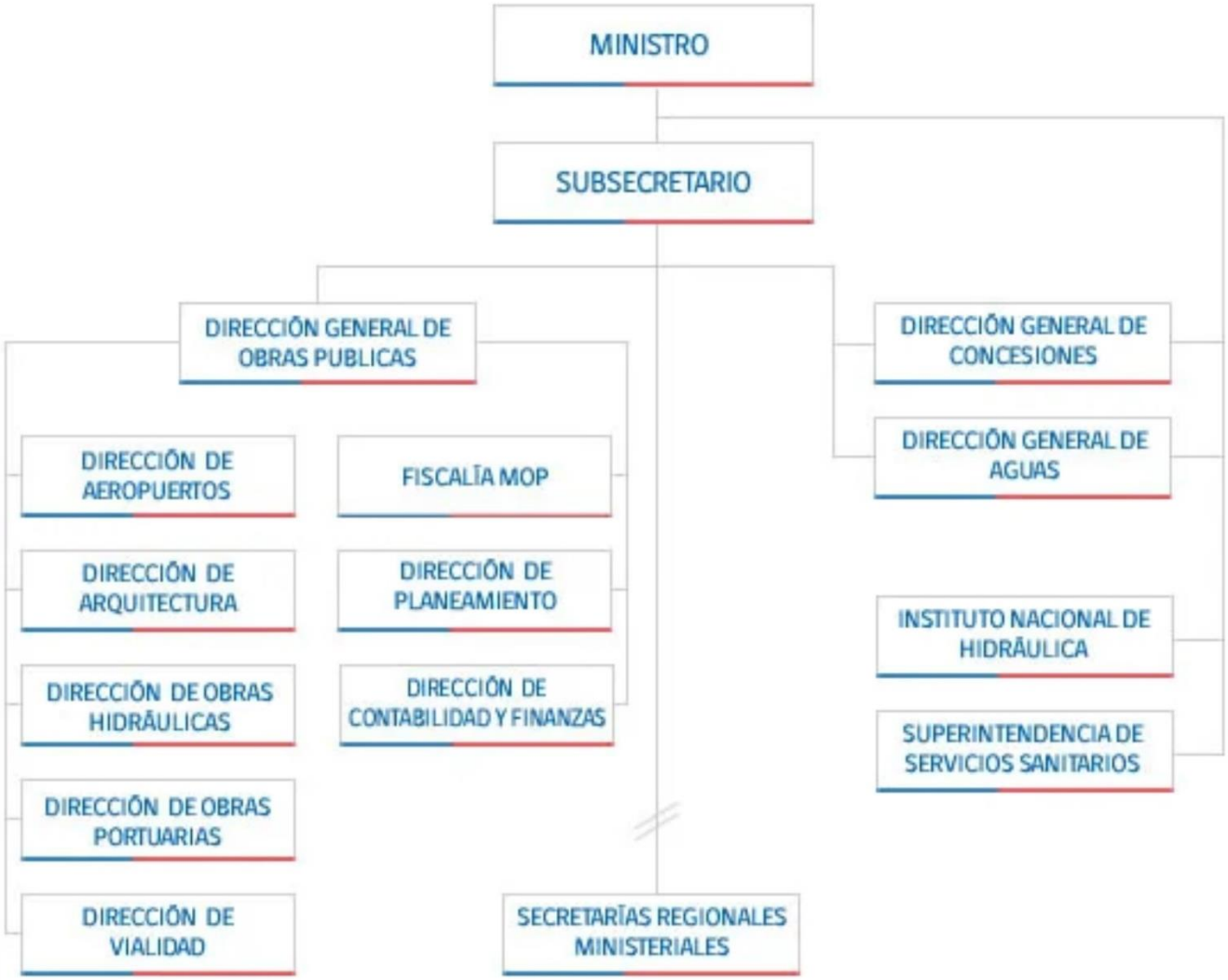
## ANNEX 4. ORGANIZATIONAL STRUCTURE OF IMPLEMENTING INSTITUTIONS

1. **The Program will be implemented by the Ministry of Public Works (MOP) and the Ministry of Environment (MAA).** As mentioned earlier, the Ministry of Public Works (MOP) plays a vital role in managing water resources and providing essential rural water supply services, irrigation infrastructure, and flood protection. Their responsibilities encompass maintaining, rehabilitating, and developing public infrastructure services and water resources. To effectively carry out these tasks, the MOP is internally divided into two Directorates: the Directorate General of Water (DGA) and the Directorate of Hydraulic Works (DOH). The DGA holds responsibility for water use planning, management, and allocation, while the DOH focuses on the planning, design, and construction of hydraulic infrastructure, including dams, canals, and irrigation systems. Working in unison, these two directorates ensure the efficient and sustainable management of water resources in Chile.

2. **Another essential agency, the Ministry of the Environment (MMA), is tasked with the formulation and implementation of policies that promote the sustainable utilization of natural resources, including water**. Moreover, the MMA is dedicated to mitigating the adverse impact of human activities on the environment. As part of its commitment, the MMA collaborates with other government agencies and stakeholders to monitor compliance with environmental regulations concerning water management. The aim is to ensure the long-term viability and health of Chile's water resources. An important initiative under the leadership of the MMA is the Transición Hídrica Justa (THJ) Committee, which further emphasizes their dedication to the sustainable management of water resources in Chile. The MMA's increasing collaboration with various stakeholders indicates a collective effort towards preserving and safeguarding the country's water resources for future generations.

3. Figure 1 below illustrates the MOP's organizational structure.

**Figure 1.** Organizational Structure of the Ministry of Public Works

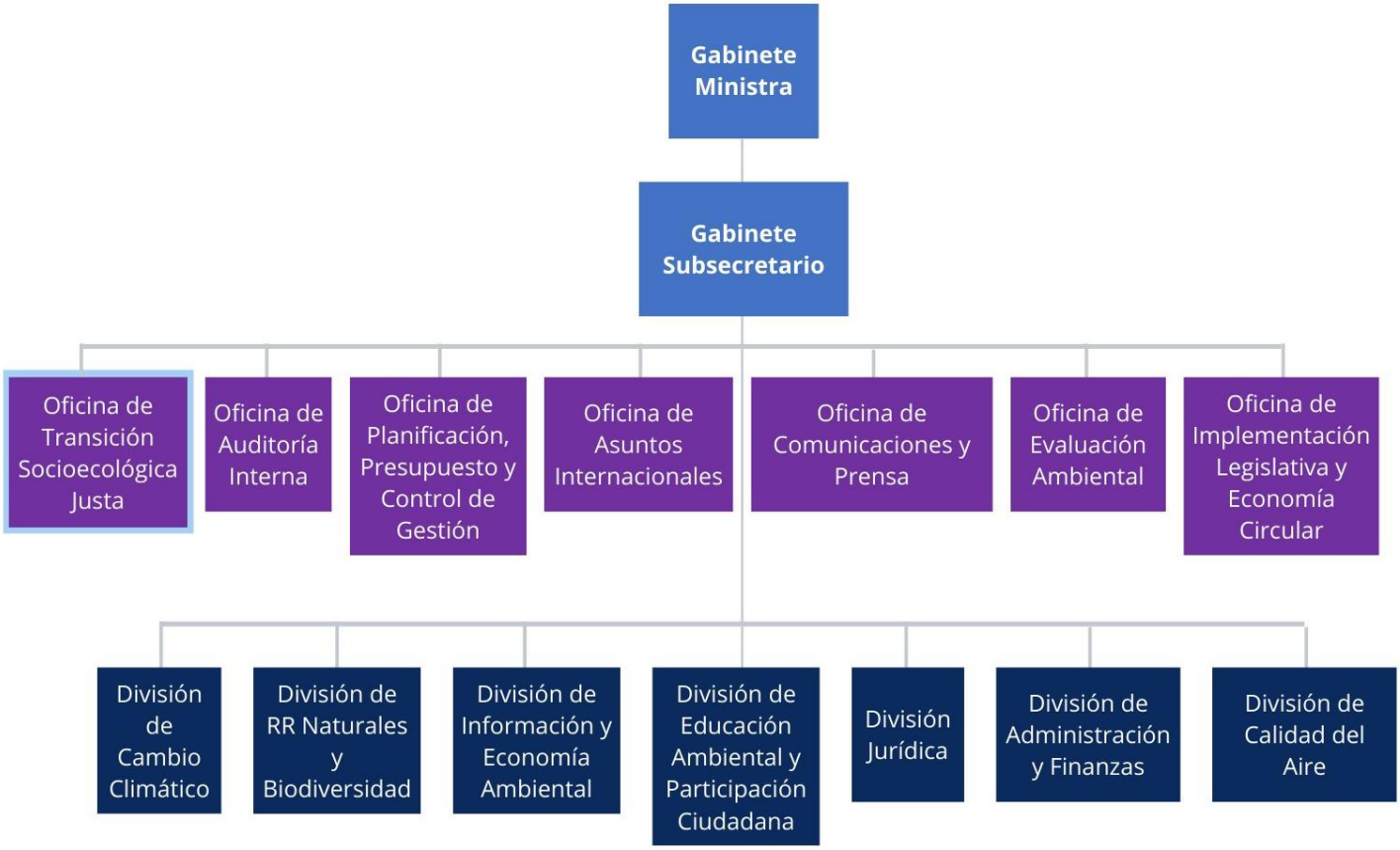



**Source:** MOP

4. **Exempt Resolution No. 0665 marked a significant milestone in the Ministry of the Environment's (MMA) efforts towards water management and sustainability by establishing the Office of Just Socio-ecological Transition (Oficina de Transición Socioecológica Justa, OTSJ), mapped under the Undersecretary of Environment.** This specialized unit assumes the primary role in driving the THJ strategy. The main objective of the OTSJ is to lead and facilitate the implementation of the THJ strategy in a well-coordinated manner. The responsibilities entrusted to the OTSJ are multi-faceted and crucial for achieving a successful socio-ecological transition. The OTSJ is in charge of formulating, coordinating, and closely monitoring the design and execution of the just socio-ecological transition strategy. This comprehensive approach ensures that all aspects of the transition process are carefully planned and effectively executed. Furthermore, the OTSJ plays a central role in defining, coordinating, and providing support to various sectoral strategies carried out under the broader THJ strategy. By aligning sectoral efforts, the OTSJ promotes synergy and

maximizes the impact of each initiative. Figure 2 below illustrates the MMA's organizational structure, including the placement of the OTSJ under the Undersecretary of Environment.

**Figure 2.** Organizational Structure of the Ministry of the Environment's Undersecretary of Environment




**Source:** MMA

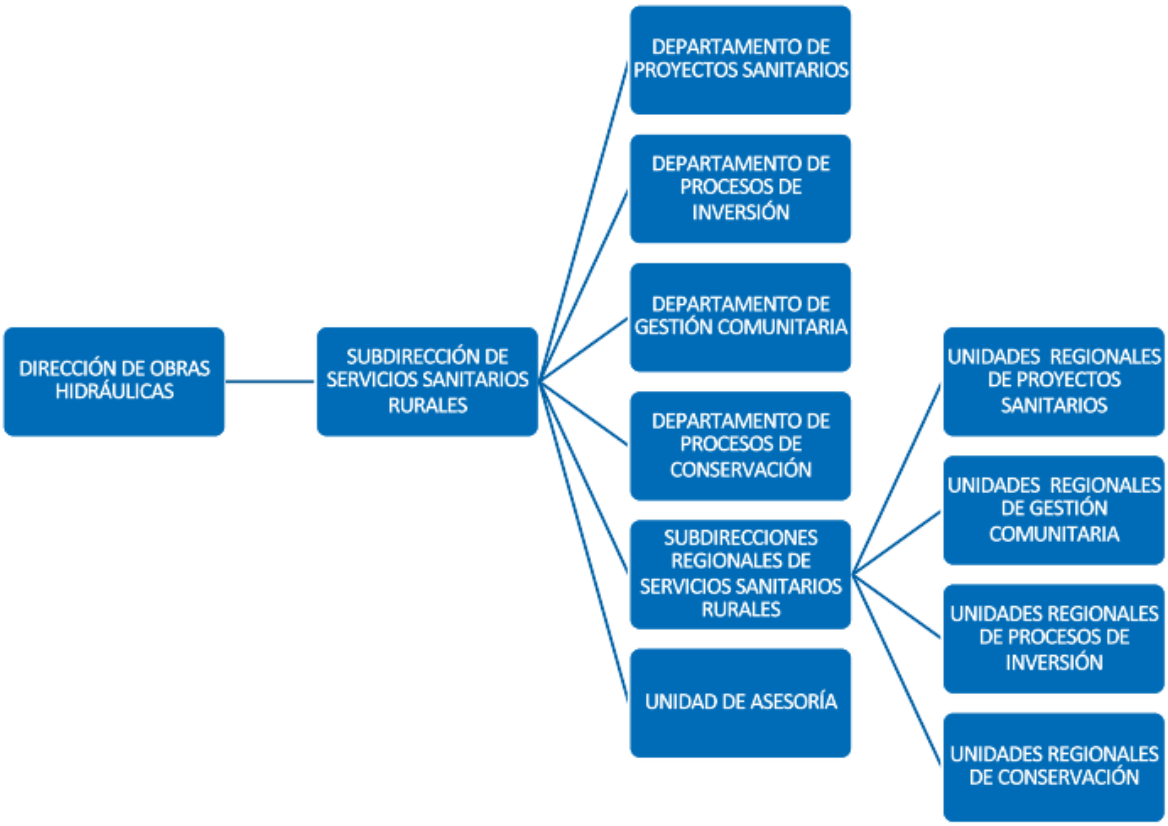
*Note: The MMA only counts with one undersecretary*

5. **In addition, the OTSJ designs methodological tools tailored to the unique challenges of the just socio-ecological transition.** These tools facilitate a systematic and efficient approach to the process, making it more accessible to stakeholders and the public. Recognizing the need for holistic coordination, the OTSJ also takes the responsibility of defining and designing strategies for the installation of just socio-ecological transition processes. This task involves fostering collaboration between sectors and ensuring that all transition-related efforts are well-integrated and mutually reinforcing. As the implementation progresses, the OTSJ keeps an eye on territorial work, consistently monitoring and following up on the initiatives. Such monitoring enables timely interventions and adjustments, ensuring that the objectives set for the just socio-ecological transition are met successfully. Moreover, the OTSJ plays a critical role in reporting progress and outcomes related to the THJ strategy. The transparent reporting mechanisms serve to keep all stakeholders informed and engaged, while also ensuring accountability and transparency throughout the process.

6. **Therefore, the establishment of the OTSJ through Exempt Resolution No. 0665 represents the MMA's dedication to sustainable water management.** By spearheading the THJ strategy and undertaking diverse responsibilities ranging from planning and coordination to monitoring and reporting, the OTSJ is at the forefront of Chile's efforts to achieve a just socio-ecological transition.

7. **It is important to mention that the DOH houses the Sub-Directorate of Rural Water Supply and Sanitation Services (SSR).** The SSR is responsible for the provision of technical support to rural water supply providers, including the registration of Rural WSS service providers, the creation of a One Stop Shop rural WSS investment unit *(Ventanilla Unica),* and the design and implementation of a Rural WSS information system. Law N°20,998 states that the SSR is now responsible to provide this assistance for both rural water and sanitation service providers, which were previously provided by urban water utilities through "agreements" with DOH. Figure 3 below illustrates the SSR's organizational structure.

**Figure 3.** Organizational Structure of the Sub-directorate of Rural WSS Services




**Source:** DOH