



@#&OPS~Doctype~OPS^blank@pidaprcoverpage#doctemplate

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 29-Apr-2024 | Report No: PIDIA00341



BASIC INFORMATION

A. Basic Project Data

Project Beneficiary(ies)	Region	Operation ID	Operation Name
Türkiye	EUROPE AND CENTRAL ASIA	P179313	Türkiye Flood and Drought Management Project
Financing Instrument	Estimated Appraisal Date	Estimated Approval Date	Practice Area (Lead)
Investment Project Financing (IPF)	22-Apr-2024	01-Jul-2024	Water
Borrower(s)	Implementing Agency		
Ministry of Treasury and Finance	State Hydraulic Works, General Directorate of Water Management		

Proposed Development Objective(s)

The project development objective is to increase flood protection for people living in selected areas of Türkiye and to strengthen the Country's institutional capacity for flood and drought risk management.

Components

- Component 1: Flood Management
- Component 2: Drought Management
- Component 3. Capacity Development and Institutional Strengthening
- Component 4. Project Management

PROJECT FINANCING DATA (US\$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)? No

Is this project Private Capital Enabling (PCE)? Yes

SUMMARY

Total Operation Cost	600.00
Total Financing	600.00
of which IBRD/IDA	600.00
Financing Gap	0.00



DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	600.00
--	--------

Environmental And Social Risk Classification

Substantial

Decision

Other

B. Introduction and Context

Country Context

- Türkiye’s development achievements over the past two decades have been remarkable.** Real gross domestic product (GDP) growth averaged 5.4 percent between 2002 and 2022, resulting in income per capita (in real terms) that was more than doubled over the same period. Moreover, growth was accompanied by rapid poverty reduction, with the poverty rate (US\$6.85 2017 PPP poverty line) halving from above 20 percent in 2007 to less than 10 percent in 2021. As in other countries, the COVID-19 pandemic had a negative impact on growth in 2020, but the country was one of the few that did not register a GDP contraction that year, instead growing 1.9 percent. This performance was due, to a large extent, to the government’s economic policy response to the pandemic, which focused on loosening monetary policy and rapid credit expansion. Moreover, supported by domestic and external demand, Türkiye achieved double-digit GDP growth in 2021 (11.4 percent) and maintained significant momentum in 2022 (5.5 percent) and 2023 (4.5 percent).
- However, the policy framework that ensured a strong economic performance during and after the pandemic also heightened macroeconomic risks.** As a result of the loose monetary policy, the country has been suffering from high inflation (with annual inflation reaching 65.8 percent in March 2024 after having peaked at 85.5 percent in October 2022), currency depreciation (77 percent against the US\$ between January 2020 and January 2024), corporate and banking sector vulnerabilities, and declines in reserve buffers.
- Following the May 2023 elections, the Government has taken steps towards normalizing the economy in a gradual way in order to manage risks associated with the adjustment process.** This includes monetary policy tightening, with interest rates increasing from 8.5 percent in May 2023 to 50 percent in March 2024, the unwinding of distortive financial regulations, and fiscal revenue measures to curtail the fiscal deficit. Markets are reacting positively with 5-year CDSs declining from above 500 basis points (bps) in May 2023 to around 300bps in March 2024, two of the major rating agencies upgrading their outlook to positive recently, and one of them (Fitch) upgrading the credit rating (to B+) on March 8, 2024. The authorities are also contemplating how to complement



these actions with structural reforms that may help with growth prospects going forward. These efforts will need to be sustained and supported in the coming months because the monetary, fiscal, and macro-prudential challenges and associated economic vulnerabilities were of such magnitude that despite the significant progress, there is some road ahead. Türkiye development path is also threatened by significant climate and disaster risks. As highlighted in the Türkiye Country Climate and Development Report (CCDR¹), the intensification of climate-related events in recent years—including floods, droughts and forest fires—and the potential implications of accessing funds from the European Union (EU) Green Deal for Türkiye’s economy have contributed to the urgency of the country’s climate change agenda.

4. **The CCDR highlighted that the country is experiencing food security issues, increasing water stress, and unprecedented disaster events, such as the 2021 forest fire season.** This vulnerability is due to a combination of climate factors, population exposure (for example, a high share of the population exposed to floods and forest fires), and socioeconomic factors (such as a high share of agriculture in the economy). A recent World Bank (WB) study² on water also estimates that in the event of a 100-year flood, more than 3 percent of GDP (or US\$20 billion) and 3 million people could be affected. The CCDR recommends complementing the water management plans and regulations with modernized irrigation and drainage and diversified freshwater sources as part of economy-wide approach allowing for the country’s economic growth to be more climate resilient and sustainable. The Country has identified very high and high priority flood and drought management measures in its updated NDC along with achieving net zero emissions by 2053. Türkiye is also highly exposed to non-climate disasters: excluding the events in February 2023, the 39 earthquakes with a magnitude of 5 and above since 1990 have resulted in approximately 20,000 fatalities, impacting a total population of 4.4 million, and causing direct damages exceeding US\$43 billion. On February 6, 2023, two significant earthquakes, measuring 7.8 and 7.5 in magnitude, struck southeast Türkiye and Syria. The combined impact of these events resulted in 50,000 casualties and affected more than 3.3 million people.
5. **Building resilience to climate-related risks is key for sustainable growth, macroeconomic stability, and poverty reduction – to safeguard public finances, reduce financial sector vulnerabilities, protect productive assets and livelihoods, and improve momentum in poverty reduction (considering the disproportionate climate risk exposure and vulnerability of the poor).** Climate-related disasters have already been striking with greater frequency and intensity in the past two decades, and climate models predict this intensification will continue, with more frequent extreme weather and flooding, more protracted droughts and wildfires, sea level rise, and extreme heat. Türkiye’s geographic and socioeconomic conditions make it particularly vulnerable to climate change – assessed as highly vulnerable in 9 out of 10 climate dimensions in the Türkiye CCDR (including extreme heat and agricultural yield losses), compared with the Organization of Economic Co-operation and Development (OECD) median of 2 out of 10, in the Türkiye CCDR.

Sectoral and Institutional Context

6. **Floods are considered as the second most impactful natural hazard after earthquakes in Türkiye, with almost 30 percent of all natural disasters in the country consisting of flood events.** Floods and landslides frequently occur and cause significant localized losses across all parts of Türkiye. In the event of a 100-year flood, more than 3 percent of GDP (or US\$20 billion) and 3 million people (or 3 percent of the population) is predicted to be affected. Floods from 2021 to 2023 caused extensive damages in different regions of the country from Marmara, Black Sea to Eastern and Southern Türkiye with an impact to multiple provinces covering metropolitan municipalities. The floods even caused

¹ <https://documents1.worldbank.org/curated/en/099006106072214169/pdf/P1774790a4024b0400b9340c1a5836a23df.pdf>

² Taheripour, F, Tyner, W E, Sajedinia, E, Aguiar, A, Chepeliev, M, Corong, E. de Lima, C Z and Haqiqi, I. 2020. *Water in the Balance: The Economic Impacts of Climate Change and Water Scarcity in the Middle East*. Washington DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/34498>.



damages to temporary accommodation areas established for earthquake survivors. Most recently, flash floods struck northern districts of Istanbul on September 5, 2023 with an impact to more than 1,700 houses and workplaces, and 31 injuries and 2 casualties were reported by Türkiye Ministry of Interior's Disaster and Emergency Presidency (AFAD)^{3 4}.

7. **Drought is another key challenge for Türkiye especially as a large part of the country already has a semi-arid climate.** Since Türkiye is located in the Mediterranean macroclimate region in the sub-tropical zone, rainfall variations occur from year to year. This causes regional and widespread drought impacts in various intensities, a challenge that has been notably exacerbated in the past decade due to the influence of climate change. Consequently, meteorological droughts have emerged as a prominent factor contributing to heightened water stress across various regions in Türkiye.
8. **Structural and non-structural measures for flood and drought management are implemented by DSI:** DSI's flood and sediment control works are carried out in three stages: (i) Pre-flood risk prevention activities and management – structural & non-structural activities; (ii) Response during flood; and (iii) post disaster rehabilitation activities. DSI's responsibilities for flood management also include ground observation studies, flood monitoring, forecasting and warning, flood hazard and risk mapping, and capacity building and training in the context of disaster cycle management.
9. **Flood monitoring, forecasting and early warning efforts are at early phases of development in terms of infrastructure and capacity.** Efforts are currently underway to enhance the quality and quantity of data with an emphasis on expanding coverage to more areas of the country for better preparedness and response. DSI has outdated observation stations that require modernization and not all risky areas are covered with the station network.
10. **There is need to improve the existing implementation framework for flood management activities conducted by different agencies.** The Turkish Court of Accounts (TCA) Report on Flood Risk Management, which was published in January 2022, lists the findings regarding the flood risk management system in Türkiye. The report stated that: (i) DSI needs to undertake its activities by addressing risks in a holistic manner, based on hazard and risk maps, when planning for flood control; (ii) Due to the lack of an efficient resource planning for undisputed site handover in creek rehabilitation projects, projects cannot be planned in an integrated manner at the basin level, resulting in delays in implementation; (iii) There is a need to develop the existing organizational structure and operating system in order to effectively manage flood risks at the basin scale; (iv) There is a need to systematize the work of the boards and committees set up within the framework of the basin management model, and that it is important to follow up the issues discussed on the agenda more effectively; and (v) Zoning plans are sometimes prepared without obtaining the opinion of DSI on flood risk or prepared contrary to the opinions provided.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

11. The project development objectives are to increase flood protection for people living in selected areas of Türkiye and to strengthen the country's institutional capacity for flood and drought risk management.

Key Results

³ <https://www.reuters.com/world/middle-east/floods-hit-Turkiyes-northwest-five-killed-2023-09-06/>

⁴ Source: <https://floodlist.com>



- (i) population benefiting from flood control structures (number, gender disaggregated),
- (ii) population benefiting from flood monitoring and forecasting systems under the Project, (Number),
- (iii) Farmers benefitted from drought monitoring data (Number) and
- (iv) establishment of a DSI-DGWM coordination mechanism (with a shared information system or DSS) for flood forecasting and early warning (Yes/No).
- (v) People with enhanced resilience to climate risks (Number).

D. Project Description

12. The Project has four components to be implemented by DSI and DGWM.

13. **Component 1. Flood Management (indicative cost: US\$540 million):** This Component will be implemented by DSI and DGWM to mitigate the climate change exacerbated flood risk in selected basins through improvement and expansion of the existing flood control infrastructure and flood monitoring, forecasting and warning systems in selected parts of Türkiye. DSI will undertake implementation of flood control structures (Subcomponent 1.1.) and DSI and DGWM will improve and expand their existing flood monitoring, forecasting and warning systems and seek options for synchronizing and optimizing their activities to avoid any overlaps and/or conflicts (Subcomponent 1.2).

14. **Subcomponent 1.1: Flood Control (indicative cost: US\$490 million):** This Subcomponent will finance consultancy services, goods, and works related to construction and O&M of flood control structures by DSI to mitigate flood risks that are projected to increase due to climate change in selected river basins and improve flood risk management through an optimal combination of structures (e.g., check dams, levees, retaining walls, embankments, reservoirs, polders, etc.). The investments will focus on development of new infrastructure. The provisional list of 29 flood control works proposed for financing under this Subcomponent are located in 7 basins: North Aegean, East Black Sea, Kizilirmak, Buyuk Menderes, West Mediterranean, East Mediterranean and West Black Sea.

15. **Subproject Eligibility:** Investments to be financed under this Component will be located in flood-prone areas of Türkiye⁵ (integrating future climate change risk scenarios) and included in DSI's pipeline of flood control works, including the list of 29 flood control works proposed by DSI. DSI, in close consultation with and based on demand from the Regional Directorates, identified a list of 29 possible subprojects based on the agreed criteria: (i) impact, (ii) simplicity, (iii) readiness for implementation, and (iv) economic viability. The list of subprojects might be revised and updated by DSI during Project implementation, in agreement with the WB, the Presidency of Strategy and Budget and MoTF, to be able to respond to the urgencies and needs of the climate change exacerbated flood-prone areas in Türkiye, provided that they meet the sub-project eligibility criteria as described above. The final investments to be financed under the Project will be confirmed, based on the detailed technical and economic analysis of each subproject.

Priority will be given to the subprojects that (i) do not require land acquisition, (ii) have prepared engineering design, and (iii) design includes combination of grey and green (Nature Based Solutions, NBSs) measures for flood control. Based on the preliminary assessment, eight subprojects among the list of 29 fulfill the first three eligibility criteria given above as well as the prioritization criteria, and therefore, they are considered as priority investments for

⁵ A "Flood prone area" refers to a geographic area susceptible to flooding as established in the Flood Risk Management Plans prepared by DG Water Management, based on flood information from various sources, in line with European Union Directives related to water. Flood risk of each basin is assessed in the FRMPs based on the preliminary flood risk assessments, flood history in the basin, flood hazard and risk maps. The impact criterion is used to confirm that the proposed Project locations are flood prone.



implementation. The assessment and determination of the economic viability of the priority subprojects is intended to be completed by the effectiveness of the loan.

16. The works to be implemented under these eight subprojects include construction of bridges, check dams, permeable check dams, levees, culverts, flood control channels, reinforced concrete channels, open channels with trapezoidal cross-section, open channels with retaining walls and railings. All the investments will be new construction. Under this Subcomponent, NBS will be piloted and innovative techniques for management of floods that are projected to increase due to climate change are aimed to be implemented at river basin scale.
17. During the first year of project implementation, DSI will complete the missing designs and fulfill the land acquisition related requirements for the remaining very high/high/moderate risk subprojects proposed by DSI. Additional subprojects will be selected from the list of subprojects that are not included in the FRMPs but for which DSI has provided technical justifications that meet a minimum standards on the impact for investments as explained in the list of eligibility criteria..
18. For demonstration of comprehensive flood and drought risk optimization using the EPIC approach⁶, one Subproject has been selected in Konya basin, where the design will ensure complementarity between grey infrastructure, NBS, Flood Monitoring and Forecasting (Subcomponent 1.2) and drought monitoring system to be established under Component 2.
19. **Subcomponent 1.2: Flood Monitoring, Forecasting and Warning Systems (indicative cost: US\$50 million):** This Sub-component is designed to strengthen flood monitoring and forecasting systems which includes climate change data on floods for past, current and projected trends to support warning decisions as a part of Early Warning Systems (EWS) within Türkiye to better protect people's lives and livelihood. This Sub-component will finance (i) expansion and modernization of flow observation stations for DSI maintained TEUS and its monitoring and flood forecasting capacity, (ii) expansion of river basins covered under TATUS and strengthening Flood Forecasting and Early Warning Centre (TATUM) operated by DGWM, and (iii) assessment of the status and gaps of the existing national warning systems to synchronize and optimize activities implemented by DSI and DGWM. (iv) activities enhancing complementarity of TEUS and TATUS such that both systems provide complementary warnings and alerts at different lead times. The systems will be optimized and expanded by the additional field monitoring equipment to be installed under the project. The Project will further support capacity building of DGWM in engaging the public and local communities in flood risk assessments.
20. DSI will expand and strengthen TEUS by modernizing existing 800 flow observation stations and increasing observational (remote sensing and ground truth) data input to TEUS through installation of 360 water level observation stations, expanding the current flow rate, river level gauge, and upgrading the ICT software and equipment.
21. DGWM will upgrade TATUM, flood forecasting and early warning centre and expand the areas covered by TATUS, flood forecasting and early warning system. TATUM will provide operational oversight and co-ordinate the optimization and synchronisation of flood forecasting to provide consistent and accurate advice to communities and responders via a range of communication methods, including those for people with hearing and vision disabilities. For country wide use of TATUS until 2028, DGWM will undertake flood modelling studies for 24 river basins with 2D flood modelling to delineate high flood risk zones integrating climate model projections where timely and accurate early warning needs to be provided. This modelling study will include flood forecasting of more than 800 settlements within the target river basins

⁶ EPIC Response Framework: An Innovative Governance for Flood and Drought Risk Management (a joint initiative by the World Bank Water GP/GWSP, DRM GP/GFDDR, and Deltares).



22. DSI and DGWM will jointly undertake an assessment and review of the existing flood forecasting and early warning mechanisms with a view to synchronisation and optimization of the TEUS, TATUS, and other relevant early warning mechanisms to develop a strategy for effective functioning, expansion, and improvement
23. The activities under this Subcomponent will be implemented jointly and collaboratively by DSI and DGWM with support from SMS within the TATUM located within DGWM. As the primary responder organization, AFAD is expected to provide input on their requirements in connection to their HAY tool (e.g., formats, lead times, decision making process, and feedback mechanisms) as the systems are put in place and user-led outputs agreed.

Component 2. Drought Management (indicative cost: US\$50 million)

24. This Component will support DSI in drought monitoring and help reduce the vulnerability of population to climate change exacerbated drought in selected basins through implementation of non-structural measures under the following activities:
25. **Technical Study on Drought Monitoring in Türkiye:** DSI will engage a consultancy firm to: (i) assess the existing state of drought monitoring in Türkiye; (ii) identify gaps and overlaps in the drought monitoring efforts carried out by various institutions (e.g. DGWM and DGAR); and (iii) develop a framework and an action plan for a pilot activity in Ceyhan Basin with the intention to scale up and expanding it to encompass other basins in the future.
26. **Pilot for Real-Time Drought Monitoring and Forecast in Ceyhan Basin:** Under Component 2, various indices were identified to monitor and analyse meteorological, agricultural and hydrological drought, assessing their severity, spread and duration detecting sudden agricultural droughts. The pilot will include: (i) Installation of Stations: meteorological stations, soil moisture monitoring stations, current observation stations, lake observation stations, and other off-farm near-real-time data sources in Ceyhan Basin to optimize irrigation water usage and enhance drought resilience, and (ii) Development of Tools: Creating drought monitoring map and an information platform to assist farmers in improving water use efficiencies, crop diversification, and irrigation efficiency. This will support optimizing reservoir operations in coordination with DG Agricultural Reform and DGWM.
27. **Scaling-up the Real-Time Monitoring and Drought Forecast System:** Following completion of the pilot, an Action Plan will be developed for scaling up the activities to the other basins. Building upon the results of the Pilot project in the Ceyhan Basin and based on the Action Plan, DSI will expand and implement the system nationwide, taking into account basin-specific drought conditions and requirements.
28. **Technical Studies for designing larger-scale future investments for drought management:** This Component will also finance consultancy services for preparation of feasibility studies, technical reports and designs to identify future investments for integration of flood and drought management in at least one basin such as (i) irrigation modernization in Ceyhan Basin, (ii) construction of recharge basins for underground storage, and (iii) Integrating SCADA systems to automatically close all well connections to the canals during heavy rainfalls, as well as shutting down canal headings, and remotely activating all spillways to prevent stormwater from entering irrigation canals, thereby mitigating potential damage and sediment buildup.

Component 3. Capacity Development and Institutional Strengthening (indicative cost: US\$6 million)

29. **Institutional Strengthening of related DSI Departments:** This Component will further support institutional strengthening of the DSI Flood Control Department established in December 2022 for implementation of Component 1, and the O&M Department for implementation of Component 2 of the Project. The Survey, Planning and Allocations Department will also benefit from this Component due to their significant role in implementation of both components. The activities will include (i) improvement of the technical capacity of the recently established Flood Modelling Unit under the Flood Control Department through procurement of hardware and software, and (ii) Development of Technical Guidelines.



- 30. **Establishment of an Environmental and Social Management System (ESMS) for DSI.** An Environmental and Social Management System (ESMS) will be established at DSI. The ESMS will include establishing an Environmental and Social Management Unit (ESMU) at DSI/PIU. The ESMU staff will be trained adequately so that DSI have a pool of its own E&S specialists having relevant experience, qualifications, skills, and competence to manage E&S issues under the project. The ESMU will also develop E&S policy and procedure for DSI that will be materially consistent with the WB’s Environmental and Social Framework (ESF).
- 31. **Trainings and Study Visits.** This activity will support institutional capacity-building activities including knowledge exchange workshops, study tours, training, awareness raising, and other activities aimed at promoting innovation and learning and sharing of best practices for sector institutions at central and regional levels, including DSI, DGWM and DGAR on aspects relating to the promotion of efficient climate change exacerbated flood and drought management.
- 32. **Technical Study on Impact of Climate Change on Water Resources (US\$2M):** The DGWM, through consultancy services, will conduct a technical study for a deep assessment of the impact of climate change on water resources. The Study will integrate global climate models, downscaling approaches and hydrological models based on earlier studies conducted by DGWM.

Component 4. Project Management (indicative cost: US\$4 million):

- 33. This Component will include consulting and non-consulting services for DSI and DGWM for implementation of the Project according to WB policies and guidelines. This support will also include (i) preparation of site-specific ESF instruments (e.g., ESIA, ESMP, RAP, etc), (ii) hiring individual consultants by DSI and DGWM for various aspects of project implementation including procurement and financial management (FM) aspects, technical and contract management, Environmental and Social Management and Monitoring and Evaluation (M&E) system. DGWM, under their own budget, will also increase number of staff assigned for operation and maintenance of TATUS and TATUM to be upgraded under the Project.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

- 34. Environmental and social risks are rater as Substantial. The environmental risk rating will be reviewed during implementation phase and will be revised to High if there will be any dam structures above 15 meters to be financed within the scope of the project. Component 1 aims to mitigate the flood risk in selected basins through improvement and expansion of the existing flood control infrastructure and early warning systems in selected parts of Türkiye focusing on Areas of Potential Significant Flood Risk (APsFR), as per the implementation of the existing Flood Risk Management Plans. DSI will undertake implementation of flood control structures under Subcomponent 1.1. and DSI and GDWM will improve their existing EWSs and seek options for integration their activities to avoid any overlaps and/or conflicts under Subcomponent 1.2. Component 2 will support DSI in



drought preparation and management and help to reduce the vulnerability of population to drought in selected basins. The structural measures under this component include increase of storages, rehabilitation of ongoing schemes, modernization of irrigation systems from open channel to pressurized pipes to minimize water losses, reuse of treated wastewater for irrigation, and comprehensive water use monitoring. Non-structural measures would also be implemented such as hydrologic studies, monitoring, irrigation planning, awareness raising, and irrigation water source status analysis. This Component will support DSI's efforts for drought management through (i) installations of soil moisture sensors and air humidity sensors, and other off-farm near-real time data providers in drought-prone areas to comprehensively assess plant water needs to optimize irrigational water uses, and (ii) development of remote-sensing-supported drought monitor map and Water Accounting platform, inspired by the recent study tour to the US for drought management, to help farmers to improve efficiencies in water uses, diversify crop selections, and optimize reservoir operations in coordination with DG Agricultural Reform and GDWM. Components 3 and 4 are the soft components covering capacity building, institutional strengthening and project management, which do not include civil works and thus, do not pose any adverse environmental and social impacts. Thus, the potential environmental and social risks and impacts will be mostly relevant to Components 1 and 2 and be comprised of impacts on aquatic and terrestrial habitats due to construction of flood management structures, river bed alteration, water pollution, land clearance and impacts on floodplain habitats and vegetation, use of borrow and aggregate material as well as typical construction risks and impacts such as air and noise emissions, waste management, soil management, labor and working conditions, occupational health and safety risks, community health and safety (including traffic safety), risk of increased SEA/SH incidents due to labor influx; increased transmission risks of COVID-19 from incoming workers; structural safety of the flood protection structures depending on the size, habitat disturbance due to construction and economic displacement due to the required land acquisition for construction activities. Physical displacement is not expected. The project will consider and assess the distance and location of the sub-projects to the residential areas in order to keep the impact on the livelihoods of the communities limited and to avoid potential physical displacement and minimize land acquisition. The potential risks and impacts listed are expected to be temporary and predictable, medium to large in magnitude, which are expected to be mitigated through good management practices. In this respect, the potential environmental and social risks and impacts will be addressed and managed within the scope of the project scale Environmental and Social Management Framework (ESMF), Resettlement Framework (RF) and Labor Management Procedures (LMP) which have been prepared, as well as by strengthening DSI's capacity to address these risks and impacts. In addition, a Stakeholder Engagement Plan (SEP), citizen engagement strategy and grievance mechanism (GM) have been developed to guide project design and implementation, particularly with regards to the ensure involvement of community members and stakeholders to project design and receiving regular feedback from project beneficiaries. It would be ensured that the GM to be established for the Project will have necessary and applicable channels to receive SEA/SH grievances through a survivor centric approach. To be able to ensure this capacity of the GM, DSI will be supported by the Bank through trainings and guidance to be provided and the SEP will include measures for DSI to develop project-specific procedures to manage SEA/SH grievances. In the ESMF, procedures for sub-project level environmental and social risk screening, relevant mitigation and monitoring measures, development of environmental and social assessments, as well as roles and responsibilities are laid out. The sub-projects that will adversely affect the critical and sensitive habitats, as well as cultural heritage and may lead to any type of exclusion of any group amongst the communities will not be eligible for financing; the exclusion list in the ESMF will screen those out. The project will also support preparation of feasibility studies, designs and review of existing technical documents to ensure integrated flood



management at the river basin scale considering the impacts of climate change. In the Terms of Reference (ToR) of such studies, the ESF provisions will be included. These instruments, of quality acceptable to the World Bank, will be disclosed in English and Turkish languages before project appraisal and publicly discussed and consulted upon with stakeholders. DSI has previous experience with implementing WB projects, however the PIU will be trained on the Environmental and Social Framework (ESF) and will be strengthened by hiring dedicated social and environmental specialists.

E. Implementation

35. **The Project will have one Loan Agreement with the Borrower and be implemented by two agencies.** A Loan Agreement for the Project will be signed between the World Bank and the MoTF. The Law on Public Finance and Debt Management No. 4749 (the Debt Law) describes the procedures for international borrowing in the Republic of Türkiye. The Debt Law classifies the international borrowing under three categories: allocation, on-lending, and guarantee. The debt law authorizes the MoTF to allocate foreign-financed loans to DSI (which is a special budget institution) and MoAF, DGWM.
36. **The Project will be implemented by DSI and DGWM under the MoAF.** In DSI, the Subcomponent 1.1 will be implemented by the Flood Control Department established in December 2022. For the Subcomponent 1.2, DSI's Survey, Planning and Allocations Department will be responsible for implementation jointly with DGWM. The Operation and Maintenance Department will implement the Component 2: Drought Management. The Land Acquisition Department will be responsible for preparation of LAPs and RAPs for related schemes and will guide the respective regional directorates of DSI for land acquisition applications. DSI and DGWM will be responsible for implementation of their related activities under Components 3 and 4. The Department of International Relations will be responsible for overall coordination of the project activities within DSI.
37. **The Project will establish two Project Implementation Units (PIUs) – one in DSI and the other in DGWM, governed by a project Director General (DG).** Given the importance of close coordination with other stakeholders, a Project Steering Committee will be formed onset of the Project by DSI and DGWM and the key stakeholder agencies including SMS, DG Agricultural Reform, and AFAD. The Committee will provide advice to the Project and will convene on a regular basis to support the implementing agencies for capacity building, data sharing, and inter-agency coordination. Project funds will be allocated separately to DSI and DGWM and procurements will be conducted by each PIU.



CONTACT POINT

World Bank

Canan Yildiz Uz
Senior Water Resources Management Specialist

Salih Bugra Erdurmus
Senior Disaster Risk Management Specialist

Ahmed Shawky Mohamed Abdelghany
Senior Water Resources Management Specialist

Borrower/Client/Recipient

Ministry of Treasury and Finance

Kerem Donmez
Acting Director General
kerem.donmez@hmb.gov.tr

Implementing Agencies

State Hydraulic Works

Mehmet Akif Balta
Director General
mabalta@dsi.gov.tr

General Directorate of Water Management

Afire Sever
Director General
suyonetimi@tarimorman.gov.tr

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL



Task Team Leader(s):	Canan Yildiz Uz, Salih Bugra Erdurmus, Ahmed Shawky Mohamed Abdelghany	
Approved By		
Practice Manager/Manager:		
Country Director:	Alfonso Abel Loureiro Caamano	29-Apr-2024