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Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 30-May-2024 | Report No: PIDA0318

Public Disclosure Authorized

BASIC INFORMATION

A. Basic Project Data

Project Beneficiary(ies)	Region	Operation ID	Operation Name
Turkiye	EUROPE AND CENTRAL ASIA	P181428	Agriculture Sector Recovery & Rebuilding in Türkiye's Earthquake-affected Provinces
Financing Instrument	**Estimated Appraisal Date**	**Estimated Approval Date**	**Practice Area (Lead)**
Investment Project Financing (IPF)	29-Apr-2024	25-Jul-2024	Agriculture and Food
Borrower(s)	**Implementing Agency**		
Government of Türkiye	Ministry of Agriculture and Forestry		

Proposed Development Objective(s)

The Project Development Objective is to support the resilient recovery of the agricultural sector in Türkiye's earthquake-affected provinces and targeted adjacent areas.

Components

Enabling Service Provision for a Climate Resilient Agriculture Sector Recovery
Climate-Smart Recovery of the Livestock Sector
Project Management, Monitoring and Evaluation (M&E)

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)?	No

SUMMARY

Total Operation Cost	**250.00**
Total Financing	**250.00**
of which IBRD/IDA	**250.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	250.00

Environmental And Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **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 ($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, currency depreciation, corporate and banking sector vulnerabilities, and declines in reserve buffers.

2. **Following the May 2023 elections, the Government has taken steps towards normalizing the economy in a gradual way 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 credit default swaps (CDSs) declining from above 500 basis points (bps) in May 2023 to around 300bps in March 2024. The major rating agencies have upgraded their outlook to positive recently, and both Fitch and S&P upgraded the credit rating to B+. 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, as the monetary, fiscal, and macro-prudential challenges, along with associated economic vulnerabilities, were of such magnitude that despite the significant progress, there is some road ahead.

3. **The earthquakes and aftershocks that struck Southeast Türkiye in February 2023 caused catastrophic devastation, which, compounded by pre-existing pressures, exacerbate food security and poverty challenges.** The earthquakes had tremendous social and economic impacts. Direct earthquake-related damages were estimated at $34.2 billion; a detailed assessment by the Government of Türkiye (GoT)[1] estimated recovery and reconstruction needs at US$81.5 billion. Türkiye was facing important pressures prior to the earthquakes, including a prolonged drought and a significant depreciation of the Lira, which, together with increased input prices, contributed to food price increases, creating food security pressures. The earthquakes have added to these pressures in the affected provinces, where per capita income lags behind the rest of the country and poverty rates are higher.[2] [3]

4. **Beyond Türkiye's vulnerability to earthquakes,[4] the country is also at risk from climate-related disasters with significant social and economic consequences.** The country's exposure to climate-related hazards is high, further contributing to its vulnerability. Moreover, nine of the eleven earthquake-affected provinces encompass vast steppe ecosystems highly susceptible to aridity and desertification. Historically, drought-driven agricultural losses have been observed in these areas, impacting agricultural and livestock production. The trend of rising temperatures and changes in precipitation will continue to pose a significant threat to agricultural production and the livelihoods of rural populations in these areas in the medium and long term.

Sectoral and Institutional Context

5. **Agriculture is a backbone of the Turkish economy, including in the earthquake-affected region, which is part of what is known as the "Fertile Crescent".** Before the February earthquakes, the agricultural sector accounted for 6.4 percent of the national GDP, while the provinces impacted by the earthquakes collectively contributed 15.3 percent of this total.[5] The earthquake-affected area accounted for roughly one-fifth of Türkiye's total agricultural exports and hosted around 14 percent of the national farm holdings.

6. **Estimates of earthquake-related damage to agriculture infrastructure and loss of animals are significant, yet the estimated losses associated with economic disruptions are even higher than the direct damage.** Assessments by the GoT estimate the cost of repairing damaged agriculture-related infrastructure at approximately US$1.5 billion.[6] Damage to off-farm irrigation infrastructure is estimated to result in losses of nearly US$350 million, excluding damage to dams and flood control facilities.[7] Assessments conducted by the Ministry of Agriculture and Forestry (MoAF) and international partners estimate that economic activity disruptions caused by the earthquake could lead to losses of approximately US$5.13 billion in agricultural production alone, excluding agrifood processing stages.

7. **Recovery and reconstruction efforts present an opportunity to rebuild the agricultural sector more robustly, reversing trends in natural capital degradation while enhancing the sector's climate resilience.** This can be achieved by

[1] 2023 Kahramanmaraş and Hatay Earthquakes Assessment Report, Strategy and Budget Office, Government of Türkiye (available at: https://www.sbb.gov.tr/wp-content/uploads/2023/03/2023-Kahramanmaraş-and-Hatay-Earthquakes-Report.pdf). March 20, 2023.
[2] In 2020, the five NUTS2 regions covering the 14 provinces that include the 11 earthquake affected provinces represented 39 percent of Türkiye's poor, but only 16.4 percent of the national population. Poverty rates in the 5 most affected provinces were almost twice the national poverty rate of 9.8 percent (Draft World Bank Poverty Assessment, 2023).
[3] In April 2024, the cost of the Minimum Expenditure Basket (MEB) in earthquake-affected provinces reached 2,782 TRY per individual, from 1,588 TRY in January 2023 (prior to the earthquakes), the two largest contributors to the MEB are rent at 38 percent, and food at 36 percent. World Food Programme and Turkish Red Crescent, April 2024.
[4] Approximately 70 percent of Türkiye's population resides in first- and second-degree seismic zones. Average Annual Losses to GDP from earthquakes in Türkiye are estimated at US$10 billion, and impact 1 million people on average annually.
[5] The earthquake-affected provinces shared 16.2 percent of national crop area; 26 percent of fruits area; 13 percent of the country bovine stock; 17.9 percent of ovine stock; 42.6 percent of the silk worm national production; 12 percent of aquaculture production; and 38 percent of the total trout production in inland waters.
[6] This amount does not consider the costs associated with damage to farm barns, fences, equipment and machinery, storage facilities, on-farm irrigation systems, and greenhouse infrastructure, which are deemed to be significant.
[7] Türkiye's irrigation sector has relatively low performance and inefficiency due to outdated infrastructure, particularly in the earthquake-affected regions Open-channels and flood systems generate significant losses and translate into unsustainable water resource.

applying disaster risk principles to the reconstruction of on-farm and agriculture-damaged infrastructure and integrating enhanced climate adaptation approaches. For instance, improved management of pastures, which have been increasingly affected by severe drought conditions, can help address issues such as poor grazing quality, diminished livestock yields, and compromised animal health. Furthermore, reconstruction efforts in the earthquake-affected areas can facilitate the integration of existing solutions to reduce agriculture-related greenhouse gas (GHG) emissions, which account for 12.8 percent of total 2019 emissions in Türkiye.

8. **Reactivating the agriculture sector in earthquake-affected provinces could positively boost labor opportunities for vulnerable populations, including women and refugees**. Prior to the February 2023 earthquakes, the region's agriculture employment rate was 20.6 percent, with women comprising 36.8 percent of the sector's labor force. Alongside women, refugees also contribute significantly to the sector's labor force. Labor constraints were already a challenge before the earthquakes, affecting not only agriculture but also other sectors. The earthquakes exacerbated these challenges, primarily due to increased emigration. Therefore, prioritizing the reactivation of unskilled and low-skilled job opportunities, including seasonal employment, is crucial in reconstruction efforts.

9. **In conclusion, bolstering the agriculture sector in earthquake-affected regions is vital for achieving a successful economic recovery in the mid- to long term and for facilitating sectoral transitions towards improved climate resilience and mitigation.** Since the immediate aftermath of the earthquakes, MoAF focused efforts on emergency expenditures for a range of activities, and has gradually transitioned from emergency response to recovery efforts largely through adjusting ongoing support programs and investments to enhance participation of earthquake-affected farmers.[8] MoAF's support has been complemented with deployment of subsidized credit to farm enterprises.[9] The proposed project is to complement MoAF's post-earthquake efforts to support a mid- to longer-term rebound and recovery, focusing on higher agriculture resilience.

C. Proposed Development Objective

Development Objective

10. The Project Development Objective is to support the resilient recovery of the agricultural sector in Türkiye's earthquake-affected provinces and targeted adjacent areas.

Key Results

a) Farmers with recovered operating capacity (Number)
b) People (Farmers) with enhanced resilience to climate risks (Number) (Scorecard indicator)
c) Area under improved climate adaptation management (Hectares)

D. Project Description

11. **The project will provide US$250 million in financing to the GoT to support agriculture sector recovery/rebuilding while enhancing the climate resilience of the sector**. Project investments are intended to contribute to restoring agriculture productive activities in the earthquake-affected provinces through ensuring that farmers have continued and enhanced access to key services and are able to recover productive assets. It will promote mid- to longer-term rebound and recovery, focusing on higher agriculture climate resilience, inclusiveness, and environmental and social sustainability.

[8] Kahramanmaraş and Hatay Earthquakes and Reconstruction Progress Report. Presidency of Strategy and Budget Office, Ankara, 2024.
[9] For example, Ziraat launched a disaster relief loan package exclusively designed for the farmers and agriculture enterprises affected by the earthquakes. In December 2023, a US$200 million agreement was signed between the Islamic Development Bank Group and the Turkish Development and Investment Bank (TKYB) to support disaster areas and improve the agricultural food sector.

12. Eligible provinces under the project are the eleven[10] provinces that sustained the greatest damages in the February 2023 earthquakes, as well as targeted adjacent areas for specific pastureland restoration investments.[11] The project includes three components: (i) Enabling services provision for a climate resilient agriculture sector recovery; (ii) Climate-smart recovery of the livestock sector; and (iii) Project management, monitoring and evaluation.

Component 1: Enabling Service Provision for a Climate Resilient Agriculture Sector Recovery (US$110.6 Million)

13. This component is to be implemented by the General Directorate of Agricultural Reform (TRGM) and will focus on rebuilding and enhancing services to farmers to help them reclaim and enhance production capacity while also bolstering climate resilience. It will focus largely on facilitating sustainable irrigation and mechanization services. Component activities are to be implemented through two subcomponents.

14. **Subcomponent 1.1: Irrigation Investments for Enhanced Water-Efficiency and Climate Resilience (US$80 Million)**. This subcomponent aims to facilitate the repair, construction, and modernization of irrigation infrastructure managed by cooperatives in earthquake-affected areas. Its primary focus is on converting open channels into closed, pressurized systems and repairing associated infrastructure such as pipes, valves, and pumping stations. Additionally, it will support the installation of prepaid meters to water intake facilities and the implementation of solar-powered pumps. These investments will lead to the continuity of the irrigation services provided to farmers, while enhancing service reliability and efficiency. This subcomponent will finance irrigation-related civil works, procurement of goods, technical and environmental & social (E&S) studies, as well as training programs for extension officers, irrigation cooperatives, and farmers.

15. The investments to be made under this subcomponent are anticipated to rehabilitate and enhance irrigation efficiency across 9,000 hectares of land. Upon completion of the rehabilitation and improvement efforts, the irrigation infrastructure will be transferred to irrigation farm cooperatives, which will assume responsibility for its ongoing management. Subcomponent activities will significantly contribute to strengthening the climate resilience of 2,500 farmers in the targeted earthquake-affected areas.

16. **Subcomponent 1.2: Improving Access to Mechanization by Promoting Common Machinery Utilization Models (US$30.6 Million).** This subcomponent aims to facilitate access to machinery services for farmers and promote sustainable mechanization approaches in earthquake-affected areas. Acknowledging the size and fragmentation of farmers, which makes individual machinery ownership economically unfeasible, the subcomponent will support models for joint machinery ownership and usage facilitated by agricultural organizations via the establishment of machinery parks.

17. TRGM team will initiate subcomponent implementation through a set of awareness creation workshops, at the provincial level. As a follow-up to the engagement workshops, TRGM will launch a call for expressions of interest to agricultural organizations to participate in the machinery park program. Overall criteria for the selection of beneficiary agricultural organizations will include: i) Registration with TRGM and in existence for at least two years; (ii) A minimum active membership of 25 farmers; (iii) Demonstrated active membership (as per affiliation paid fees); (iv) Demonstrated proper financial management as per the balance sheets; (v) Demonstrated minimum capacity to manage a machinery park; (vi) Availability of land for the location of the machinery park; and (vii) Have administrative buildings to perform administrative functions related to the machinery park, among others.

18. The agricultural organizations that fulfill the criteria will receive technical assistance for the preparation of the detailed investment plans for the establishment of the machinery park. The project will support the implementation of investment plans found economically, technically, and environmentally viable by co-sharing the costs of machinery

[10] Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye, and Şanlıurfa. Ten of these provinces were declared as disaster zones on February 7, 2023 (Presidential Decree no 6785) and Elazığ Province was declared as disaster zone on February 16, 2023.
[11] Recognizing the dynamics of livestock production in the earthquake-affected provinces, efforts on pasture restoration will extend to communal pasturelands in provinces adjacent to, but not directly affected by the earthquake, specifically in Sivas, Kayseri, Erzincan and Mardin.

acquisition and by providing support for machinery repair/maintenance and repair/construction for storing facilities for the machinery equipment. The subcomponent will also support the training of beneficiary agricultural organizations, farmers and machinery operators.

Component 2: Climate-Smart Recovery of the Livestock Sector (US$129.9 Million)

19. The objective of this component is to facilitate the recovery and modernization of the livestock sector in earthquake-affected provinces by adhering to building-back-better principles, under climate-smart livestock approaches. Implementation will be carried out through two subcomponents.

20. **Subcomponent 2.1: Recovered and Enhanced Productive Capacity of Small and Middle Scale Livestock Farm Enterprises (US$79.9 Million).** The subcomponent will be implemented by the General Directorate of Livestock (HAYGEM). Subcomponent activities aim to facilitate recovery of productive capacity, increase production efficiency, and enhance climate resilience among small and medium-scale livestock farm enterprises engaged in cattle, sheep, goat and poultry production systems in earthquake-affected areas. It will do so by supporting targeted farmers on rebuilding and upgrading damaged farm infrastructure and associated equipment through a grant program covering up to 75 percent of the cost of the investment requests by targeted beneficiary farmers. It will also provide training to farmers in the implementation of climate-smart livestock farming practices.

21. In addition to the grant program, the subcomponent will also support MoAF's Provincial Directorates of Agriculture (PDA) and District Directorates (DD) via the provision of mobile veterinary units and other veterinary supplies. These investments will allow enhancement and expansion of service provision to underserved locations. Training sessions for PDA and DD staff will be supported by the subcomponent.

22. **Subcomponent 2.2: Restored and Improved Pastureland for Enhanced Livelihoods and Resilient and Sustainable Animal Production Systems (US$50 Million).** The subcomponent will be implemented by the General Directorate of Plant Production (BUGEM). Subcomponent activities support the sustainable management of pastures/grasslands, and consequently the recovery of rural communities reliant on these natural ecosystems for their livelihoods, while enhancing the provision of ecosystem services these pasture/grasslands provide. Subcomponent activities will cover: (i) Procurement of goods/equipment and services, and small works needed for the implementation of Pasture Management Plans (PMPs); (ii) Implementing a pasture information system; (iii) Carrying out assessments/studies; and (iv) Awareness, training and M&E activities.

23. The subcomponent will finance the implementation of over 400 PMPs prepared by MoAF to improve pasture and grazing conditions. Approximately 150 PMPs will be implemented in adjacent areas to the earthquake-affected provinces (provinces of Sivas, Kayseri, Erzincan and Mardin), with a focus on rehabilitating degraded pasture areas and improving grazing conditions through cultivation, fencing and drainage works.[12]

24. The PMPs have been prepared within the framework of the Pasture Law 4342 and the associated Pasture Rehabilitation and Management regulations and cover a range of investments to be procured directly by BUGEM. The PMPs will be implemented over five years, with most investments in infrastructure and planting completed in the first two years. Beneficiary communities will provide voluntary in-kind contributions. Post-implementation and in accordance with the pasture legislation, maintenance and monitoring of the proper use of pasture will be carried out by the PDAs, while beneficiaries will be responsible for proper use of physical investments and equipment.[13]

[12] Pastures in these adjacent areas play a crucial role meeting the needs of shepherds and farmers in earthquake- affected provinces, especially during the hot summer periods, as they provide access to fresh forage in cool highland pastures. Sixty-one percent of the beneficiaries of subcomponent investments are located in earthquake-affected areas.

[13] Non-compliance of management and established grazing plans/periods (as established in the PMPs) is to be reported by local authorities to the Provincial Governors who have the legal authority for sanctioning transgressors by limiting or revoking the right to pasture use privileges or any other legal actions.

25. In addition, the subcomponent will support the establishment of a digital technology-based pasture information system on the project areas, but with application nationally. Studies will also be financed to identify and propagate climate-adapted native and drought resistant plant species link to implementation of PMPs as well as pasture composition species and other relevant topics. Training events will be organized for technical professionals in MoAF, who will then regularly train farming families and shepherds on the proper management of pastures to enhance their resilience and long-term sustainability.

Component 3: Project Management, Monitoring and Evaluation (M&E) (**US$9.5 Million**)

26. Activities within this component will include: (i) Project management support for the Project Coordinating Unit (PCU) and the implementing General Directorates (GDs), including strengthening technical, fiduciary, environmental and social (E&S) capacities; (ii) Support for E&S risk management compliance, including grievance redress, gender considerations, and citizen engagement (CE); (iii) Maintenance of a project communication and visibility plan; (iv) M&E; and (v) Operational expenses.

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

Summary of Screening of Environmental and Social Risks and Impacts

27. **Both the environmental and social (E&S) risks are rated as "Moderate".** The project is not complex and does not involve activities that have a high potential for harming people or the environment. The potential E&S risks and impacts are predictable and expected to be temporary and site-specific, without the likelihood of impacts beyond the actual footprint of the project. However, adverse residual E&S risks and impacts are expected due to unforeseen implementation challenges caused by the nature of some activities and the post-disaster contexts the project will be operating. Key Environmental risks include i) Higher water use due to higher irrigation needs; ii) Generation of construction waste; iii) Unplanned and excessive use of agricultural chemicals; iv) Soil degradation; v) Emissions of dust and vehicle exhausts; vi) Noise and vibration; vii) Generation of hazardous and non-hazardous waste and soil pollution; and viii) Habitat loss, fragmentation, and alterations in local ecosystems, potentially affecting biodiversity. Key Social risks include i) Land related impacts due to land acquisition and changes in land use patterns; ii) Social exclusion of vulnerable groups (e.g. women, Syrians under Temporary Protection (SuTPs) and other refugees groups) from accessing project benefits; iii) Inadequate stakeholder engagement due to post-earthquake local contexts; iv) Occupational Health and Safety (OHS)-related risks; vi) Associated community health and safety (CHS) risks; and vii) Risks of social tension and conflicts due to adverse impacts on land and social exclusion in the post-earthquake context.

28. **To address potential E&S risks and impacts, MoAF has prepared an Environmental and Social Management Framework (ESMF) including a project-level Environmental and Social Management Plan (ESMP), Resettlement Framework (RF), Labor Management Procedures (LMP) and a Stakeholder Engagement Plan (SEP)**. The ESMF includes eligibility criteria and a screening mechanism to ensure that the project will not finance any activities that may have negative impacts on cultural heritage or located in or near critical or natural habitats, or those with significant biodiversity impacts. The site-specific E&S instruments (ESMPs, Resettlement Plans) will be prepared based on the initial E&S assessments once the investments and their location details are finalized. Based on the environmental and social screening

of the subcomponent activities and investments, either the project level ESMP or the site specific ESMP will be part of the bidding documents and construction contracts. The contractors will be responsible for project or site-specific ESMPs and Labor related risk management measures including a Code of Conduct. MoAF will be responsible for monitoring the implementation of the ESMPs , and report the status of implementation to the World Bank, as agreed in the Environmental and Social Commitment Plan (ESCP). In addition, MoAF will develop its own permanent Environmental and Social Management Unit (ESMU) along with E&S policies (materially consistent with the World Bank's Environmental and Social Framework) and human resources under Component 3 which will ensure enhanced capacity of the MoAF in E&S risk management of its projects.

E. Implementation

Institutional and Implementation Arrangements

29. **Responsibility for the overall project implementation will rest with MoAF through its General Directorates (GDs).** These include the Agricultural Reform GD (TRGM), the Plant Production GD (BUGEM) and the Livestock GD (HAYGEM) holding technical responsibility in the implementation of Components 1 and 2, including overseeing specific component activities and ensuring effective engagement across relevant GD's departments/units and with provincial/local stakeholders. The EU and Foreign Relations DG (ABDGM) will host the Project Coordinating Unit (PCU) responsible for overall project coordination. Project coordinating structures include: the Project Steering Committee (PSC) to ensure effective coordination at a higher level and provide strategic advice; Technical Coordinating Committee (TCM), and M&E Working Group, responsible for close project coordination on a regular basis and with ad hoc representation from MoAF structures at the provincial level. Capacity for implementation will be strengthened, both at the PCU and more directly at the GD levels. This approach aims to achieve a good balance between overall project management functions at the PCU and direct implementation functions by GDs.

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APPROVAL

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