



Non -Technical Summary

Water Transfer Reinforcement in Tunisia

On behalf of European Bank for Reconstruction and Development

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Acronyms and Abbreviations

ACRONYM	MEANING
AOI	Area of Influences
CHS	Community Health and Safety
CHSS	Community Health, Safety and Security
CLO	Community Liaison Officer
CSR	Corporate Social Responsibility
E&S	Environmental and Social
ESMS	Environmental and Social Management System
EHS	Environmental Health & Safety
ESDD	Environmental and Social Due Diligence
ESG	Environmental and Social Governance
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
GBVH	Gender-Based Violence and Harassment
GRM	Grievance Mechanism
IFC	International Finance Corporation
LAP	Land Acquisition Plan
LRP	Livelihood Restoration Plan
PAP	Project Affected Person
PK	Point Kilometre, in French
PS	Performance Standards
QHSE	Quality, Health, Safety and Environment
RAP	Resettlement Action Plan
SEAH	Sexual Exploitation, Abuse and Harassment
SEP	Stakeholder Engagement Plan
SoW	Scope of Works



1.0 Introduction

1.1 Overview

This document is the Non-Technical Summary (NTS) of the Water Transfer Reinforcement Project associated with the National Water Storage, Transfer and Flood Protection Programme (“STPCI II” or “the Programme”) located in Tunisia. This Non-Technical Summary intends to facilitate the understanding of the Project by a non-specialist audience and members of local communities, as well as to inform on the primary environmental and social impacts – positive and negative – generated by the Project.

1.2 Why developing the Project?

Against the backdrop of increasing climate variability and growing pressure on water resources, Tunisia faces significant regional disparities in water availability, with northern regions benefiting from comparatively abundant resources while central regions remain structurally water stressed.

Against this challenge, the Tunisian Government launched the Water Storage, Transfer and Flood Protection Programme (“STPCI II”), aimed at strengthening inter-basin water transfers and securing irrigation and potable water supply through reinforcement of the overall national water transfer system, including:

- The installation of a fourth water transfer pipeline - approximately 82km long - between the Sejnane Dam and the Medjerda–Cap Bon Canal;
- The reinforcement of the existing transfer infrastructure components developed under previous phases of the Programme; and
- The improvement of water conveyance capacity and supply reliability toward downstream demand areas.

1.3 Who is developing the Project?

The Tunisia Water Transfer Reinforcement Project between the Sejnane Dam and the Medjerda–Cap Bon Canal in Tunisia is being developed by the General Directorate of Dams and Major Hydraulic Works (DGBGTH) which operates under the Ministry of Agriculture, Water Resources and Fisheries (MoA), which acts as the contracting authority during the study, design and construction tendering phases of the Project.

The DGBGTH is responsible for overseeing the preparation of technical studies, environmental and social documentation, and procurement processes. Environmental and social studies, including the Environmental and Social Impact Assessment (ESIA), Land Acquisition Plan (LAP), Livelihood Restoration Plan (LRP) and SEP (Stakeholder Engagement Plan), were prepared with the support of the Tractebel–STUDI Consortium acting as Project consultant.

The construction phase will be managed by a dedicated Project Implementation Unit (PIU), to be established by decree, and supported by a Technical Assistance Consultant responsible for technical, environmental and social supervision of works, including review and validation of contractors’ deliverables and monitoring of Environmental & Social (E&S) performance. Construction activities, including detailed engineering, trench excavation, pipeline installation and associated civil works, will be undertaken by an Engineering, Procurement and Construction (EPC) contractor to be appointed through a dedicated tender process.

The operational phase of the Project will be under the responsibility of SECADENORD, a state-owned entity in charge of water commercialization and operation of the transfer infrastructure.



1.4 Who is financing the Project?

The European Bank for Reconstruction and Development (EBRD) is considering providing a loan to the MoA. EBRD is owned by 67 countries, as well as the European Union and the European Investment Bank. The EBRD provides financial support for various types of projects, including but not limited to energy, agribusiness, infrastructure, and transport sectors.

1.5 What is the project categorisation?

EBRD is considering the Tunisia Water Transfer Reinforcement Project between the Sejnane Dam and the Medjerda–Cap Bon Canal in Tunisia Project as a Category B project under the EBRD Environmental and Social Policy 2024 (ESP 2024). This classification reflects that the potential adverse environmental and social impacts are generally site-specific, of medium magnitude, and can be readily identified and mitigated through well-defined management and monitoring measures.

1.6 Is there an opportunity to comment on the Project?

Community members and any other stakeholders are invited to comment on the Project. Please see below contact details of the Project Proponent should you have any comments or queries associated with the Tunisia Water Transfer Reinforcement Project.

Table 1 : Contact details for comments or queries associated with the Project.

NAME	XXX
Email	XXX
Website	http://www.agriculture.tn/
Address	<i>Direction Generale Des Barrages et Des Grands Travaux Hydrauliques. 30 , AV Alain Savary1002. Tunis</i>
Telephone	XXXX

It should be noted that the DGBTH has appointed an E&S Senior Official, who can be contacted for any inquiries or grievances at the following contact details:

Table 2 : Contact details for grievances related to the Project

NAME	XXXX
Email	XXX
Website	www.agriculture.gov.ma



Address	<i>Direction Generale Des Barrages et Des Grands Travaux Hydrauliques. 30 , AV Alain Savary1002. Tunis</i>
Telephone	X

1.7 Stakeholder engagement

A Stakeholder Engagement Plan has been established for identifying stakeholders including project affected people and other interested parties and details the grievance redress mechanism, which is implemented for the Project. In case of any complaints or grievances related to the Project, please contact the DGBGTH via the contact details provided above.



2.0 The STPCI II Programme

2.1 What is the Project

The STPCI II programme comprises several infrastructure components, including:

- **Supply and installation of pipes over 82 kilometres (DN1800, nominal capacity of 4m³/s);**
- Construction and equipment of two pumping stations with an individual capacity of 4 m³/s and their loading basins;
- Rehabilitation and equipment of a mini-hydroelectric power plant with a capacity of 2x743kW;
- Installation of a photovoltaic park - if necessary, floating technology- with a capacity of 2,000 kW
- Construction of main hydraulic structures; and
- Small hydraulic structures and transitional structures.

The component considered for the financing by EBRD, and which is the sole comment of this NTS under consideration, is limited to **the supply and installation of a 82 km water transfer pipeline** (The Project), designed to convey water from the Sejnane Dam either by gravity or through pumping, depending on topographical conditions to the Medjerda–Cap Bon Canal. Construction activities would primary involve trench excavation of approximately 15 metres in width and up to 3 metres in depth for the installation of a single pipeline with an estimated diameter of 1.8 metres.

2.2 Where is the Project located?

The STPCI II Programme is located in northern Tunisia, while the Project (Segment 2 - *Tronçon 2*, illustrated by Figure 1 below) is located between the Sejnane Dam and the OM3 node, within the governorates of Bizerte and Manouba.

The Project will, to the extent possible, be developed within the public domain and alongside the three existing water transfer pipelines already in operation, in order to minimise land acquisition and environmental impacts. Nevertheless, temporary and permanent acquisition



of agricultural land will still be required in certain sections to allow for trench excavation, pipeline installation and associated construction works.

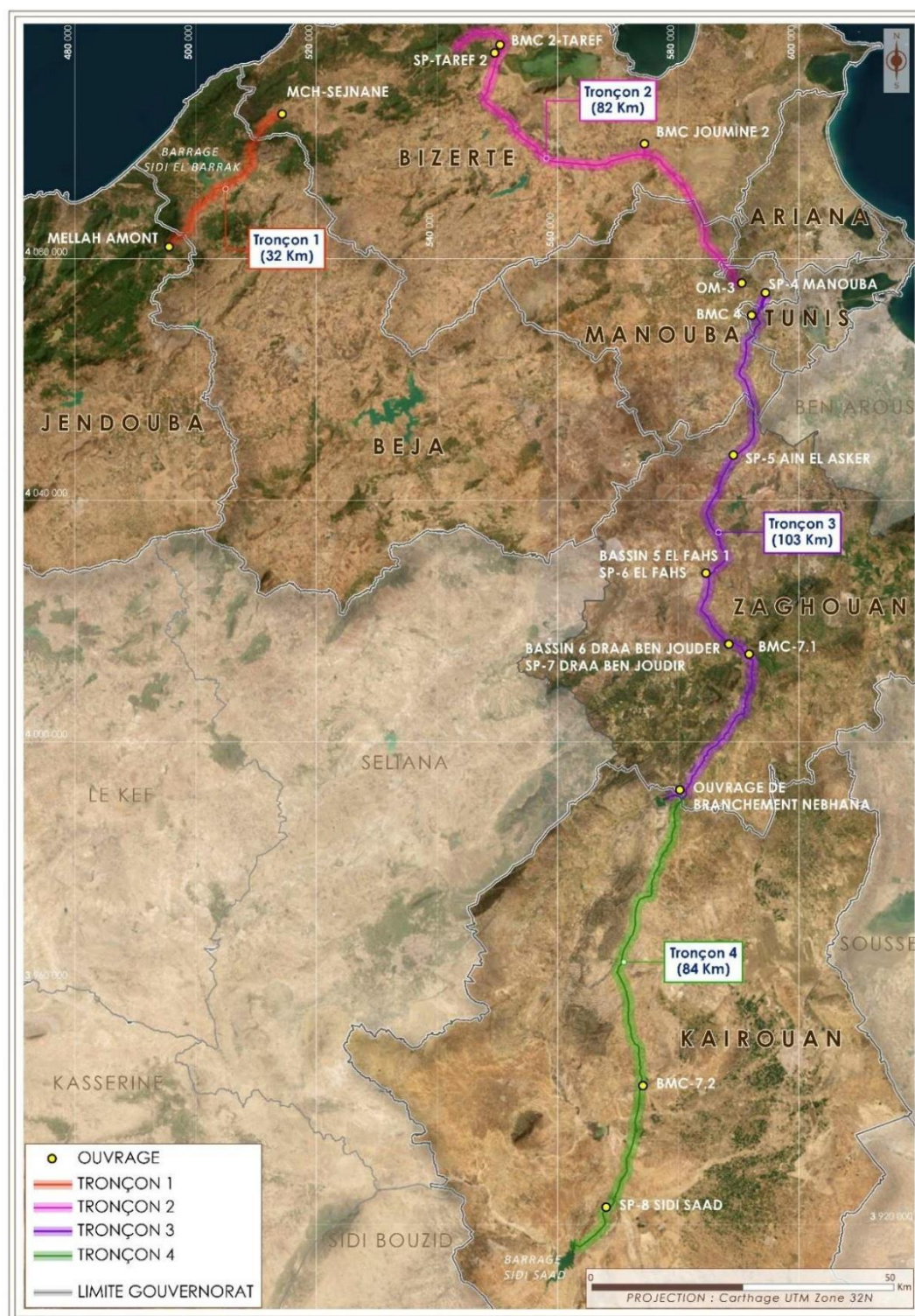


Figure 1: Map of the Project location (Tronçon 2 – to be financed by EBRD) – Source Studi-Lamheyer.



2.3 Are there any alternatives of the Project?

According to international environmental and social standards, projects of significant importance shall compare different options, including the possibility of doing nothing, before deciding on the best solution.

The ESIA, prepared by the Tractebel–STUDI consortium in July 2024, assessed **THREE** alternative transfer corridors and routing options for the Project. The alternatives assessment considered technical, economic, environmental and social criteria in order to identify the most suitable alignment for the water transfer infrastructure. The assessment notably considered the following criteria:

- Minimisation of transfer distance and pumping requirements to reduce energy consumption and operational costs;
- Avoidance, to the extent possible, of inhabited areas, olive groves, river and wadi crossings, and major road crossings;
- Preference for alignments located alongside existing roads and infrastructure corridors;
- Avoidance of environmentally sensitive areas, including forests and protected areas;
- Reduction of hydraulic losses and optimisation of technical design requirements; and
- Limitation of land acquisition requirements and associated environmental and social impacts.

In total, three main transfer corridors comprising nine sub-variants were identified and compared. The analysis has also considered construction and operational costs associated with pumping stations, electrical infrastructure, pipelines, crossings, access roads and temporary construction facilities, together with environmental and social considerations, including land acquisition and management of construction-related impacts. Overall:

- Variant 3 was identified as the least favourable option due to the highest specific water transfer costs and the lowest transferable water volumes;
- Variant 1 presented the largest transfer range and the highest transferable water volumes;
- For transfer volumes up to 110 Mm³/year, the “2.0 Plus” variant presented the lowest specific transfer costs, estimated between approximately 2.0 and 2.7 TND/m³;
- For transfer volumes exceeding 110 Mm³/year, Variant 1 presented the lowest specific transfer costs, estimated between approximately 2.5 and 3.0 TND/m³.

Based on this comparative assessment, Variant 1 was retained as the preferred Project option.

2.4 How will people and the environment be affected?

A collated summary of the principal environmental and social risks, together with the proposed mitigation measures are introduced below:

2.4.1 Employment and commercial opportunities

The Project is expected to generate positive socio-economic impacts during both the construction and operational phases. In the short term, construction activities are anticipated to create employment opportunities, particularly for unskilled and semi-skilled workers from nearby communities, while also generating business opportunities for local contractors, transport providers, suppliers and service companies involved in civil works and infrastructure development. Increased workforce presence is also expected to support small local businesses and commercial activities within the Project area.



In the longer term, the Project is expected to strengthen the reliability of water supply for both irrigation and potable water purposes in downstream regions through reinforcement of the national water transfer system. By improving the availability and security of regulated surface water resources, the Project is expected to contribute to enhanced water resource management and support agricultural activities in beneficiary areas.

2.4.2 Land use

To the extent possible, the Project alignment has been designed to remain within the public domain and alongside the three existing water transfer pipelines already in operation. Nevertheless, the construction of the Project infrastructure will still require temporary and permanent acquisition of agricultural land, with potential impacts on farming activities and land access. A Resettlement Action Plan (RAP) will therefore be implemented to ensure compensation at full replacement cost, consultation with Project-Affected Persons (PAPs), and the implementation of livelihood restoration measures, particularly for vulnerable groups.

2.4.3 Water resources

The Project will reinforce the existing northern water transfer system by increasing the transfer capacity between the Sejnene Dam and the OM3 node. The transferred water will support both irrigation and potable water supply in downstream regions. Under the reinforced configuration, the system will be able to transfer up to 8 m³/s, corresponding to approximately 30 million m³ of water per year depending on hydrological conditions and operational needs.

The Project will improve the reliability and flexibility of water transfers within the existing regulated system, particularly during periods of increased water demand. Several simulations were undertaken during the design phase to assess transfer volumes, reservoir levels and downstream allocations under different operational scenarios.

The Project does not involve new water abstraction points but rather improves the efficiency of the existing transfer infrastructure. By increasing the availability of regulated surface water for irrigation, the Project is also expected to reduce pressure on groundwater resources currently used in downstream agricultural areas.

2.4.4 Greenhouse emissions

The Project will generate greenhouse gas (GHG) emissions during both construction and operation phases, mainly from construction equipment, vehicle traffic and electricity consumption required for pumping water.

Based on preliminary estimates, electricity consumption associated with the pumping stations could generate around 20,400 tCO₂e per year. A detailed greenhouse gas assessment will therefore be carried out during the Project development process to better quantify emissions and identify measures to improve energy efficiency and increase the use of renewable energy where feasible.

2.4.5 Transport

Construction activities will lead to increased heavy vehicle movement through rural and residential areas, raising risks of road accidents, noise, and dust. The Project will deploy a dedicated Traffic Management Plan, including mapping of sensitive receptors, installation of speed limit signage, use of traffic marshals nearby villages, and awareness campaigns targeting both drivers and local populations to reduce risk of collision.

2.4.6 Vibrations and noise

Excavation, trenching, and heavy machinery operations may generate vibrations and generate elevated noise levels during the construction phase. Contractors will schedule high-noise



activities during less sensitive hours, implement vibration-dampening methods and maintain a complaint register for noise-related grievances for ensuring responsive mitigation measures

2.4.7 Ambient air quality

Dust emissions from excavation activities and unpaved roads may affect ambient air quality and damage agricultural crops in neighbouring areas (dust). To mitigate this, regular watering of construction sites and access roads will be scheduled, with particular attention during dry and windy conditions. Covering of transported materials and vehicle speed controls will also be enforced.

2.4.8 Biodiversity

The Project is mainly located within agricultural and modified habitats. However, some rivers, wadis and natural areas crossed by the pipeline may host sensitive habitats and protected species. The pipeline alignment also passes near the Ichkeul area, which is a protected area and Key Biodiversity Area (KBA), although the Project does not cross the protected site itself.

A Biodiversity Management Plan will also therefore be developed for the construction and operation phases, including measures to minimise impacts on watercourses and natural habitats, monitor sensitive areas during construction, and implement appropriate construction methods for river and wadi crossings.

2.4.9 Liquid effluent management

There will be limited generation of liquid effluents during construction; however, the potential for fuel spills, equipment washing, and accidental discharges still exist. Contractors will implement a wastewater management protocol covering designated washing areas with impermeable flooring, proper containment systems, and emergency spill kits available on-site.

2.4.10 Solid waste management

The Project is likely to produce construction debris, packaging materials, and hazardous waste streams such as used oil and filters. All contractors will ensure that segregation, storage, and regular collection practices are in accordance with good international industry practice. Dedicated areas with impermeable floors and secondary containment systems will be established for hazardous waste streams, with labelling and waste traceability documentation in place.

2.4.11 Cultural heritage

The Project is not considered to pose a risk to archaeological, heritage, or cultural assets. However, A Chance Find Procedure will be established by the contractors during the construction phase of ensuring that all workers are trained to recognise and report potential finds.

2.5 How will local communities be informed and consulted?

DGBGTH will implement a structured and continuous information disclosure process throughout the Project lifecycle to ensure that stakeholders are informed in a timely, transparent, and accessible manner.

Information dissemination: meaningful stakeholder engagement will be supported through the early dissemination of comprehensive project information, including the Project's purpose, scope, duration, potential environmental and social risks and impacts, proposed mitigation measures, consultation activities, and grievance management procedures. DGBGTH will provide periodic updates to affected communities on the implementation of Action Plans,



changes to mitigation measures, project progress, and the management of stakeholder concerns and grievances, thereby supporting continuous engagement and transparency regarding the Project's environmental and social performance.

Language: information will be communicated in relevant local languages (Arabic, Derja, French, as relevant) and through culturally appropriate formats, taking into account the specific needs of vulnerable or disproportionately affected groups.

Communication channels: to maximise accessibility and outreach, the Project will rely on a combination of communication channels, including newspapers, radio, television, printed materials, public meetings, information centres, official correspondence, websites, and social media platforms.



