

Action Document for EU Trust Fund to be used for the decisions of the Operational Board

1. IDENTIFICATION

Title/Number	EUTF contribution to the West Irbid Waste water network construction project	
Total cost	Total estimated cost: EUR 53,200,000 Total amount drawn from the Trust Fund: EUR 20,200,000	
Duration	54 months maximum	
Country	Jordan	
Locations	West Irbid villages (see Annex 2)	
Implementing Partner(s)	EBRD	
Main Stakeholder(s)	Ministry of Planning and International Cooperation (MOPIC) Ministry of Water and Irrigation (MWI). Water Authority of Jordan (WAJ)	
Aid method / Method of implementation	Project approach: Indirect management with EBRD	
DAC-code	14022 Sanitation	<u>Sectors:</u> Water and Sanitation
Objectives	<p>The Overall Objective is to strengthen Jordan’s resilience to the Syrian crisis by increasing access to wastewater services in 15 towns in West Irbid, where the existing infrastructure is insufficient to cope with the influx of refugees and where the quality and dependability of municipal services are vital for economic development, environmental sustainability and health and safety.</p> <p>The Specific objectives are to construct new wastewater networks and connections while improving the sector operational and financial sustainability. The investment will provide new sewerage networks in all 15 towns and connect them to the Wadi Al Arab WWTP, including:</p> <ul style="list-style-type: none"> • Provision of sustainable and first-time sewerage infrastructure to 105,000 people/20,000 households, of which 18 per cent are Syrians. • Provision of sustainable and first-time sewerage infrastructure to ca. 105,000 people in West Irbid, of which ca 18 per cent are Syrians; • Improvement of living standards and public health of the population in West Irbid by (i) reducing wastewater supply/demand gap; (ii) limiting their exposure to water borne diseases; and (iii) freeing up higher quality water for irrigation; • Improvement of environmental conditions in West Irbid: decrease the amount of untreated sewage discharged into wadi’s; • Income generation and enhancement of the overall economic sustainability resulting from the sanitation improvement in West Irbid: job creation and improved access to formal employment, specifically in the construction sector but also in operations and maintenance; and, • Improved understanding of responsible water use by the beneficiary population. 	

Main Activities	<ul style="list-style-type: none"> • Construct new wastewater networks and connections in 15 specific areas of West Irbid where there are currently rudimentary services, resulting in increased access to wastewater services, offering a practical, timely and effective solution to insufficient municipal services, in line with the Government’s priorities to enable the delivery of efficient and safe municipal services – complementing humanitarian assistance. • The Project will set out to improve access to formal employment, vocational training and related skills verification for vulnerable groups, including youth and refugees, in regions that are most affected by the crisis or where the numbers of refugees are highest. • Comprehensive stakeholder engagement programme to improve responsible water use in the Project area. The stakeholder engagement programme will comprise awareness raising and educational programmes for the beneficiary population surrounding responsible water use.
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2. RATIONALE AND CONTEXT

2.1. Summary of the action and its objectives

The Action will provide over 20,000 households with access to a new wastewater network, where the current practices are posing serious risk to human health and the environment. The network is being constructed in 15 towns in the west of the Governorate of Irbid in the north of Jordan, where the influx of a large number of Syrian refugees has exacerbated already strained municipal services.

2.2. Context

2.2.1. Country context

Jordan is facing a severe humanitarian and development crisis that threatens both its short- and long-term development. Recurring political crises in the region have forced a large number of displaced people (currently mainly from Syria) to seek refuge in Jordan.

The influx of Syrians since the war broke out has put a substantial burden on Jordanian cities’ municipal infrastructure and service delivery, as 90 per cent of refugees live outside camps and within Jordanian cities. This is of particular importance in the wastewater sector, which is characterised by a lack of technical and financial capacity and is unable to expand the network to densely populated areas that generate increasingly substantial wastewater flows, due to the refugee influx as well as general demographic growth.

Municipalities are burdened with the increasing cost of hosting such a large population of refugees and the available budget for municipal infrastructure improvements, other than minimal emergency repairs, is limited. Tariff increases are politically and socially sensitive given the high percentage of low-income population. In order to allow the delivery of safe and reliable municipal services, crucial investments need to be financed from a blend of loan, investment grant and technical assistance to lower the overall financial burden on stressed budgets and address existing affordability constraints. Please see Annex 1 for more information of the affordability constraints of the population.

The 1.3 million Syrians living outside of refugee camps are direct users of municipal services, including water supply and sanitation. The massive inflation of populations in the northern municipalities has placed unprecedented stress on infrastructure assets. Municipal services, already lacking in capacity and quality, are severely affected by the increased population and are failing to meet basic standards of operation. In the northern governorates, it is estimated that only 36 per cent of the population is connected to the wastewater network. The crisis has induced increased pressure on sewage systems and communal waste facilities in the north of Jordan.

In order to support Jordan's efforts to accommodate such a population increase, EBRD has engaged with government agencies, including the Ministry of Water and Irrigation ("MWI"), the Water Authority of Jordan ("WAJ"), the Greater Amman Municipality ("GAM") and the Ministry of Planning and International Cooperation ("MOPIC") to design a series of investments that will benefit both, refugees and host communities alike and are in line with the objectives of the Jordan Response Plan for the Syria Crisis ("JRPSC").

2.2.2. Sector context: policies and challenges

Jordan is one of the poorest countries worldwide in water resources with available water at 95 m³/capita/year (in 2014), which is far below the internationally recognised poverty line of 1,300 m³/capita/year. The water supply is intermittent with water delivered once a week on average in larger cities while some areas receive water only once every two weeks. In 2014, households received an average of 62 litres/capita/day against a worked supply of 126 litres/capita/day. Nearly 64 litres/capita/day (or 51 per cent of water supplied) is lost due to physical and administrative losses (non-revenue water).

The increasing population and the climatic conditions of the country have put significant pressure on the limited water resources and created severe water shortages. The increase in demand from the Syrian refugees is further reducing the amount and frequency of water available. In some locations, water availability is reaching such low levels that tensions between refugees and Jordanians are rising. The increased demand for water and wastewater resources also results in increased pressure for electricity, which represent up to 60 per cent of operating costs in the water and wastewater sector of Jordan.

Municipalities have limited financial and institutional capacity to finance water and wastewater infrastructure. Despite MWI and WAJ putting a lot of effort into improving the overall quality of the services, the financial and operational performance of the sector still needs improving. Even taking into account the forthcoming increase in wastewater tariffs by 15 per cent, combined water and wastewater tariffs are insufficient to cover operating costs in the majority of areas with the exception of Aqaba, which benefits from a flatter terrain (thus lower electricity costs for pumping) and a client base consisting largely of hotels and industrial customers.

The aggregate water and sanitation sector investment needs, identified as part of JRPSC for 2017-2019, to minimise the environmental impacts of the Syrian refugee crisis on vulnerable ecosystems and communities amount to over JOD 635 million. In 2015, the MWI estimated that direct costs to the water sector of hosting Syrian refugees amounted to an additional JOD 140 million and the total net economic cost was reported at JOD 365 million.

In sanitation, the key challenge household access to sewer systems or other sanitation facilities as well as the capacity of wastewater treatment plants relative to the demand. Wastewater collection and treatment services were provided to approximately 63 per cent of the population in 2014, producing about 140MCM of treated wastewater annually reused primarily for irrigation. The remaining population uses septic tanks and cesspits in rural and dispersed settlements. With the growing population and the country's social and economic development, the amount of treated wastewater is estimated to increase to 235MCM by 2025. As available freshwater resources become increasingly limited, treated wastewater will play an increasingly important role.

In 2016, MWI issued the Water Sector Capital Investment Plan 2016 – 2025 (in line with the Jordan Vision 2025). The Plan aims to increase water metered per capita by 105 (l/c/d) by 2025, to reduce water losses to 30 per cent and to enhance the energy efficiency usage to 3.66 kWh/m³ of water pumped by 2025. According to MWI's National Strategic Wastewater Master Plan 2014, the percentage of the population provided with adequate wastewater collection and treatment facilities should increase from 63 per cent in 2014, to 80 per cent in

2025 and to 86 per cent by 2035, creating a huge investment need to upgrade and increase the capacity of the network.

Wastewater reuse is a priority for the Ministry of Water, given the increasing wastewater flows, primarily due to the influx of Syrian refugees, and the scarcity of fresh water, it is deemed important to maximise water reuse where possible. There are currently 33 wastewater treatment plants in Jordan that discharge 137 MCM of effluent each year, which is estimated to increase to 240 MCM by 2025, of which currently 91 per cent are discharged into wadi's (rivers). The agricultural industry uses approximately 52 per cent of the water resources in Jordan, and ideally ground water would be reserved for drinking purposes, therefore there is a need to convert the wastewater discharge into usable water.

2.3. Lessons learnt

From a technical standpoint the project is designed to respond to the need to reduce energy usage in Jordan, to provide a system that will be possible to operate and maintain and to ensure compliance with relevant standards. The project has therefore been designed by international and local consultants working together to ensure that best practice and local knowledge are taken into account in the design.

EBRD has provided technical assistance to WAJ to ensure compliance with the EBRD procurement policies and rules; this is to ensure that the tender process is conducted correctly and within the given timeframe. It is our experience that this process also provides a good opportunity knowledge transfer between the experts and the client's staff.

The cost of the project should be conservatively estimated up front, to ensure the financing available is adequate to finance the most suitable solution. In this case, consultants have been mobilised to work with WAJ to determine the preliminary design and tender specifications to ensure that the tender attracts responsive and good quality bidders.

2.4. Complementary actions

The Project will provide support for the main pillar that the EBRD has proposed to contribute to the EU-Jordan Compact, which resulted from the Syrian Refugee Crisis Response Conference held in London in February 2016 Syrian. The Project is focused on areas in which EBRD has extensive experience that can be capitalised on in the Jordan context: primarily infrastructure (specifically municipal services) development.

The Project directly responds to the needs identified in the 'Supporting Syria and the Region' conference by enabling investments that provide host communities and refugees with access to safe and reliable municipal services.

The Project is designed to also support the concrete objectives of the JRPSC 2017-2019, which is also aligned with the objectives and projects of the Jordan Executive Development Plan 2016-2018 and of the Governorate Development Plan 2016-2018. The JRPSC highlights the budget requirements needed to meet the humanitarian needs of Syrian refugees and of the Jordanian population impacted by the crisis, including through the delivery of crucial municipal services such as in the water and sanitation sectors. In order to provide these services, the JRPSC places specific emphasis on "local administration's capacity and responsiveness, [and] service delivery performance", emphasising the importance of strengthening municipal and local administrative capacity to enable resilience and responsiveness. The Project will address these issues by providing the needed long term financing for the investment needs and at the same time supporting municipalities to enhance their financial and operational sustainability. The Project supports the WASH objective of the JRPSC, specifically sanitation services expanded and improved, of which Res 2.2 is complimentary to this Project.

Jordan's recently published National Water Strategy 2016-2030 focuses on building a resilient sector that is able to meet the challenges of a growing national water demand, and the changing geo-political scenarios as well as the need to prepare for a water-secure future for all Jordanians. The National Water Strategy builds on the vision that by 2030, Jordan water sector will be resilient, have access to safe, affordable and adequate water supply and sanitation, and will offer adequate wastewater collection and treatment facilities. The Strategy also aims to protect public health and the environment and to ensure efficient and productive use of water through (i) Integrated Water Resources Management; (ii) Water, sewage and sanitation services; (iii) water for irrigation, energy and other uses; (iv) institutional reform; and (v) sector information management and monitoring. The Project will support the objectives of the National Water Strategy by contributing to building a resilient water sector that is better prepared for future pressures on water supply, sanitation coverage and ultimately, the achievement of sustainable utilisation of national water resources.

The Project supports Jordan's 2025 Vision, whose basic principles include promoting the rule of law and equal opportunities, increasing participatory policy making, achieving fiscal sustainability and self-sufficiency. The vision seeks to increase GDP growth rate from 3.1 per cent in 2014 to 7.5 per cent in 2025. Moreover, the vision aims at increasing the renewable energy share in energy mix from 1.5 per cent in 2014 to 11 per cent in 2025. The Vision is based on 20 developmental priorities derived from four pillars representing the key players in the plan: citizens who are highly motivated to participate in the development process, a secure and stable society, a dynamic private sector that is able to compete internationally, and a competent and effective government sector. Ultimately, the most important goal is to improve the welfare of citizens and the basic services provided to them, to create a balanced society where opportunities are available to all and to bridge the gap between governorates. EBRD seeks to contribute in achieving this goal by enabling municipalities to provide better and more effective services to populations residing in Jordan.

The investment will be accompanied by policy dialogue at national, municipality and utility levels in close cooperation with the EU Delegation and other IFIs and donors active in the respective areas (particularly the new USAID supported capacity building programme). In the water and sanitation sector, EBRD is coordinating efforts closely with other stakeholders, including through the Water donor coordination meetings, as well as on a bilateral basis. The Project is complimentary to the KfW/AFD wastewater programme that will be implemented in East Irbid and is the beneficiary of a MADAD grant. Other donors are also financing some improvements to the Wadi Al Arab wastewater treatment plant ("WWTP"), to which this network will connect. In addition, the Project will build on the first phase of a national benchmarking programme to the wider region, to enable Jordanian water utilities, including Yarmouk Water Company to benefit from regional experience of managing KPIs – this work will be closely coordinated with larger donor programmes that are on-going with Yarmouk.

Finally, the Project is fully in line with EBRD Sector Strategy for Municipal and Environmental Infrastructure, which states, "...Urban population growth, industrialisation and the effects of the climate change are creating new challenges. Improving water supply and sanitation in urban areas will require major investments, supported by sound policies and effective, accountable institutions..." and stresses that "...The Bank will aim to improve the sustainability of the sector by focusing on... decreasing the amount of untreated sewage discharged into watercourses...". The Project is also in line with the EBRD Jordan Country Strategy, which states that the "...Focus of the Bank's investments in the infrastructure area will be on water and wastewater...operational efficiency, a gradual shift towards cost recovery tariffs (taking into consideration affordability and access for more vulnerable households and groups), and to accompany the improvement in service quality and reliability as a result of capex investments...". In addition, the Project is fully aligned with the Bank's strategy for responding to the Syrian refugee crisis through addressing infrastructure challenges in affected countries and attracting private sector engagement to help solve the immense challenges.

2.5. Donor co-coordination

The EBRD is coordinating activities in the municipal sector with the EU Delegation in Amman and the Jordan Desk in Brussels. Regular meetings are held with the relevant staff from the Delegation to provide updates, ensure transparency and avoid duplication.

In addition, the EBRD and the EU are working together on two projects: the first is the waste to energy facility at the Amman transfer station, for which the EU are providing a EUR 5 million grant to be blended with an EBRD loan. The second is the photovoltaic panels (“PVs”) for water pumping stations, for which the EU grant is EUR 30 million and the EBRD is managing and administering the grant on behalf of the Delegation.

The EBRD is coordinating closely with the Ministry of Water and Irrigation and the Ministry of Planning and International Cooperation, as well as with the Water Authority Jordan with respect to this project. The EBRD team based in Amman are responsible for the project and are supported by the technical experts based in EBRD HQ in London. The team on the ground meet with the relevant staff at MWI and WAJ at least once each week.

In addition, the team are liaising closely with AFD and KfW, who are implementing a similar project in East Irbid and who are financing some improvements to the Wadi Al-Arab WWTP.

3. DETAILED DESCRIPTION

3.1. Objectives

The **Overall Objective** is to strengthen Jordan’s resilience to the Syrian crisis by increasing access to wastewater services in 15 towns in West Irbid, where the existing infrastructure is insufficient to cope with the influx of refugees and where the quality and dependability of municipal services are vital for economic development, environmental sustainability and health and safety.

The Specific objectives are to construct new wastewater networks and connections while improving the sector operational and financial sustainability. The investment will provide new sewerage networks in all 15 towns and connect them to the Wadi Al Arab WWTP.

Specific Objectives include:

The investment is expected to upgrade the existing wastewater network within all 15 towns and connect them to the Wadi Al-Arab WWTP.

- Provision of sustainable and first-time sewerage infrastructure to 105,000 people, of which 18 per cent are Syrians.
- Improvement of living standards and public health of the population in West Irbid by (i) reducing wastewater supply/demand gap; (ii) limiting their exposure to water borne diseases; and (iii) freeing up higher quality water for irrigation
- Improvement of environmental conditions in West Irbid: decrease the amount of untreated sewage discharged into watercourses.
- Income generation and enhancement of the overall economic sustainability resulting from the sanitation improvement in West Irbid: job creation and improved access to formal employment, specifically in the construction sector but also in operations and maintenance
- Ensure participation and ownership of the project by the beneficiary population; increase responsible water use.

In this context, the **Project will**:

- Strengthen the resilience of Jordan to the Syrian refugee crisis by addressing needs of host communities and Syrian refugees for urgently needed municipal infrastructure construction and rehabilitation.
- Also work to improve the sectors' operational and financial sustainability, and long-term resilience to the on-going refugee crises. The provision of first time, reliable, wastewater services to approximately 105,000 people, of which 18 per cent are Syrians, will enable improved collection of fees, which has been shown to be the case many times over where service level are improved significantly, contributing to the financial sustainability of the water sector.
- Construct new wastewater networks and connections in 15 specific areas of West Irbid where there are currently rudimentary services, resulting in increased access to wastewater services, offering a practical, timely and effective solution to insufficient municipal services, in line with the Government's priorities to enable the delivery of efficient and safe municipal services – complementing humanitarian assistance.
- Also provide access to employment in the construction sector, including improving access to employment opportunities for vulnerable groups, including refugees. The Project will set out to improve access to formal employment, vocational training and related skills verification for vulnerable groups, including youth and refugees, in regions that are most affected by the crisis or where the numbers of refugees are highest. This is particularly relevant given the high proportion of female-headed households amongst the Syrian population. See Annex 2 for more details on the project area and population. It is expected that EBRD will cooperate with one or more international humanitarian agencies working in the Project area.
- Be accompanied by a comprehensive stakeholder engagement programme to improve responsible water use in the Project area. The stakeholder engagement programme will comprise awareness raising and educational programmes for the beneficiary population surrounding responsible water use.

Affordability constraints will be addressed through grant financing for household connections where needed. Capital grant co-financing is needed to mitigate affordability constraints among the population, which are exacerbated by the rapid population growth caused by the influx of Syrian refugees.

The absence of a public wastewater management system creates a financial burden on households having to pay for cesspit installation and wastewater removal. Wastewater trucks are used to remove wastewater and sewage from cesspits. The installation of the cesspits and the frequency of maintenance and sewage removal increase household expenditure. Poorer households often cannot afford to install good quality cesspits or locate them in suitable locations, and often lack financial means to fix wastewater problems, to regularly empty the cesspits, to bring in wastewater trucks if cesspit overflows and to undertake proper maintenance. Household sewage cesspits can overflow and the disposal cost can become prohibitive due to the distance of treatment plants from rural areas. There is a risk of contamination of underground water and aquifers with sewage in some localities. Wastewater issues in urban areas include a lack of proper planning, maintenance and installation of the sewage systems for the increasing population using the sewage network causing system failures and leakages. The lack of a general wastewater management system affects entire communities, especially regarding health and wellness. The high cost of disposal makes it difficult for poorer households to afford the cost of emptying their cesspits, thus leading to wasted water, and the proliferation of bad smells, insects and vermin.

Beneficiary Population

The census, which took place in Jordan in December 2015 registered considerable demographic changes during the past decade with the highest effect being due to the Syrian refugee influx. Currently, there are 9.5 million people (6.5 million Jordanians and 3 million

non-Jordanians) residing in the country – an unprecedented 86 per cent increase in population numbers compared to the last census records of 5.1 million people in 2004. Amman’s population has doubled, increasing from 1.9 million in 2004 to over 4 million in 2015.

Currently, there are an estimated 1.3 million Syrians living in Jordan, of which less than 21 per cent live in official camps. As of September 2017, approximately 655,000 refugees have been registered with UNHCR. The highest concentrations of refugees living outside of camps are in northern and central Jordan in the cities of Amman (34 per cent), Irbid (27 per cent), Mafraq (16 per cent), and Zarqa (14 per cent). The total population to benefit from the Action consists of the host communities and refugees living in West Irbid, in total 105,000 people of which 18 per cent are Syrians.

Affordability constraints among the population are high in the north of Jordan and are exacerbated by the refugee influx. Grant support, particularly in the municipal sector, allows municipalities and utilities to meet high service or environmental standards while respecting affordability constraints. In the current context in Jordan, and to facilitate the urgently required improvements to municipal infrastructure, a significant grant to loan ratio for investments is required. If the grant co-financing were to be replaced by increased loan amounts, the required tariff increases would be well beyond affordability limits for both the lowest decile and average income families. Therefore, by creating a relationship between banks and bilateral and international donors, to arrange relatively high grant co-financing amounts, it facilitates the implementation of urgent upgrades without imposing additional hardship on the population.

The inclusive employment component will target vulnerable groups, including Syrians, in the Project area to improve access to formal employment. The target number of jobs created during the construction phase is estimated to be approximately 1,400. In Jordan, women’s participation in the labour market is low despite high levels of education. Jordan has one of the world’s lowest rates of female participation, comprising 13 per cent of the workforce (USAID, 2017). Gender occupational segregation in the workforce is prevalent with women making up significant proportions of certain professions considered more socially acceptable, including education, health care, agriculture, welfare, or volunteer work. This has created gender gaps in the fields of technology, engineering, and business administration. Likely contributing factors include cultural perceptions that women’s roles centre around household duties and taking care of their families, being unable to spend long hours away from home as well as concerns about personal safety in certain industries such as in hospitality, manufacturing and domestic work. The Project will work with local initiatives to provide employment opportunities, including work permits and training where necessary, to men and women in the Project area.

The stakeholder participation will target the entire beneficiary population through schools, local user groups, NGOs to enhance public ownership by encouraging water conservation, increasing public participation in the provision of water services (service quality, rehabilitation activities, tariffs integrating poverty and social issues) and raising public awareness on issues related to the project implementation and water use through establishment of the user groups. The programme will ensure meaningful participation of all concerned stakeholders, men and women alike, in the consultation. Lastly, the SPP will raise knowledge and awareness of climate change implications among end-users of water.

3.2. Expected results

The **expected results** are:

- First time wastewater network services provided to over 105,000 people, including ca. 19,000 Syrians, which involves the construction of house connections, local sewerage networks, trunk sewers, pumping stations and rising mains and connection to the existing Wadi Al Arab WWTP, covering an area of 21km²

- 1,400 job opportunities created in the construction sector: people (men and women) receiving relevant training.
- Improved financial sustainability of the water sector through a 15 per cent increase in the residential and non-residential wastewater tariffs.
- Increased awareness of water scarcity and water saving measures through a comprehensive awareness raising campaign.

3.3. Risks and assumptions

The main risks and mitigating measures are:

Political instability: The Projects is a high priority not only for the Government but also forms part of the JRPSC, which has remained the primary and constant source for determining priority investments since the start of the refugee crisis.

Economic: Affordability constraints of the population to pay increased tariffs and the Government's ability to take on debt. Due to the MADAD grant, the Project will be able to be implemented without placing unaffordable tariff increases on the population. The proposed loan/grant ratio takes into account the limited ability of the Government to take on additional sovereign debt.

Financial: Jordan's creditworthiness as borrower – Jordan has selected a number of investments that are priorities for the Kingdom to be proposed to the Government's debt committee, including this project, which was approved in 2016.

Social: There are some risks associated with construction and implementation of the Project. An ESAP has been developed for the Project and includes actions necessary to meet applicable provision of EBRD's Performance Requirement and EU standards. Adoption by MWI/WAJ of an ESAP that is acceptable to the Bank will be a Condition Precedent to the first disbursement of the loan.

In addition the stakeholder participation and awareness raising campaign will aim to ensure that the population is aware of the construction timetable and forewarned of the inconvenience it may cause.

Environmental: There are some risks associated with construction and implementation of the Project. Environmental risks will be addressed through appropriate mitigation measures and implementation of the ESAP by the PIU with support of the Project implementation consultant to be selected.

Implementation: There is a risk of non-completion of the Project, or to a lesser extent of construction delays and/or cost overruns. The Project will be implemented by a competitively selected firm, who demonstrate a strong track record in the construction of similar projects. The Project will also be supported by external consultants to assist MWI/WAJ to administer the Project.

The assumptions for the success of the project and its implementation include:

Commitment of the Government to the Project: the Government have demonstrated their commitment through supporting the grant applications, including the projects in the JRP and engaging fully with the consultants designing the technical solution.

3.4. Cross-cutting issues

Social: The Project will tackle the major ongoing environmental and social issues created by inadequate, and in parts non-existent, wastewater services in Irbid. The population growth resulting from the refugee influx has placed an unprecedented strain on the already poor infrastructure, which creates the severe risk of an environmental disaster. The Project will reduce the risk of a health and safety hazard. The existing wastewater disposal system in Irbid consists of cesspits or septic tanks that generally serve each property and are usually located in the garden, backyard or under the house itself. Once filled, the cesspits are emptied by sewage tankers in a burdensome and often hazardous process. The investment

will upgrade the existing wastewater network within all 15 towns and connect them to the network to reduce the risk of an environmental disaster. The influx of refugees in large numbers puts pressure on the infrastructure, safety and security of the facilities, health and safety conditions at the community sites and affordability of the municipal services. The Project will improve environmental conditions in local communities, and improved health and safety of workers. In addition, a part of the proposed grant will be used directly for health and safety measures to increase public health.

Furthermore, thirty four per cent of refugee households in Jordan are headed by women, however, unemployment rates for women are double that of men (28 and 14 respectively) and therefore increasing access to employment for men and women, providing services that enable women to have more free time from household tasks for example and ensuring adequate education for children are key. The EBRD has two dedicated teams, the Legal Transition Team and the Gender Team, who will work with the project team to take these agendas forward within this Project.

The Project seeks to tackle some of the growing tensions between refugees and the host communities. The Government reported that citizens in host communities have felt left out and neglected, and expect a more prominent response to their own needs from state institutions and local authorities. Tensions between host communities and Syrian refugees are palpable in the Northern Governorates, where Irbid is located, where socio-economic problems created by the Syrian refugee influx are the most acute, exacerbating already existing feelings of marginalisation and vulnerabilities among Jordanians. This is threatening the social contract between state and society. Moreover, the increased pressure on public services is also threatening social cohesion as access and quality of the services is being negatively affected as a result of the increased demand. The Project is responding to this issue by providing services to both refugees and host community citizens, and the stakeholder participation programme will facilitate communication and work to improve social cohesion in the project region.

Project quality and standards: The financing of the Project with EU funds, GCFP concessional financing and an EBRD loan will ensure that it follows European standards on key aspects (procurement, environmental and social, project financial control, reporting, etc.). EBRD will promote the adoption of European environmental standards with respect to the construction of the network and processing of wastewater.

Innovation: The EU grant will facilitate the adoption of innovative technologies for the construction and upgrade of the wastewater network. The awareness raising technical assistance project will promote innovation by utilising technology to reach the population.

Sustainability: The Project will contribute to environmental, health and social sustainability through the construction of safe and hygienic wastewater collection infrastructure. Improved access to wastewater services not only brings immediate health and hygiene benefits but also facilitates the economic improvement of households and regions.

The stakeholder participation and awareness raising technical assistance project is a key component towards ensuring that the Project provides long-term benefits to the population. It will promote responsible water use in an area of acute water scarcity as well as promoting community ownership by harnessing capabilities and resources of existing local, community-based CSOs to increase awareness among water and sanitation service consumers. The cost of implementing such a comprehensive programme across 15 towns is considerable and would not be possible without the MADAD grant to finance the capex. The MADAD grant is therefore crucial in the realisation of the sustainability of the wastewater sector sustainability in the Project area, promoting the implementation of more transparent and efficient utility practices as well as demonstrating the benefits of well-structured wastewater capex programmes that can later be replicated on other projects.

Environment: The MADAD grant through the Project aims to address the significant shortfalls in the current wastewater collection and treatment infrastructure in large parts of West Irbid. The investment will improve the health standards for un-served beneficiaries as well as the treatment of wastewater and consequently water reuse. The Project will decrease

pollution levels in the West Irbid area, while limiting the risk of diseases among the population, in particular amongst women and children. In the absence of the grant funding, the Project would be delayed and the wastewater management practices will further deteriorate with severe environmental and public health consequences. The MADAD grant will promote the adoption of European environmental standards.

EBRD will support the Government's **reform momentum** in promoting and facilitating private sector partnerships to increase the financial and operational sustainability of the sectors. Based on the EBRD's experience working directly with municipalities, investments combined with technical assistance and policy dialogue can lead to financially and operationally sustainable operations. It also lays a solid foundation for policy dialogue at all levels, as sector improvement is demonstrated up front and this makes the EBRD a highly trusted partner. The Project will support WAJ to engage the private sector in the operation of the 3 largest wastewater treatment plants in the north of Jordan within the Project's construction phase. The Bank's focus on the policy side is practical, thus complementing EU and other stakeholder led policy dialogue at ministerial and government level.

3.5. Stakeholders

The Ministry of Planning and International Cooperation (MOPIC) is mandated to “develop the Jordanian society economically, socially and culturally in addition to enhancing the human development aspect, in light of the existing and future needs in order to improve Jordanians' standards of living, through participatory planning on both local and national levels, and to provide and coordinate assistance through an integrated framework in cooperation with the government institutions, international donor community and civil society organizations”. MOPIC are responsible for the majority of international involvement in government entities in Jordan, including municipalities responsible water and sanitation services.

The Ministry of Water and Irrigation (MWI) is the official body responsible for the overall monitoring of the water sector, water supply and wastewater system and the related projects, planning and management, the formulation of national water strategies and policies, research and development, information systems and procurement of financial resources. Its role also includes the provision of centralised water-related data, standardisation and consolidation of data. MWI are responsible for all investment in the water sector and have therefore overseen the implementation of numerous donor funded and IFI projects.

The Water Authority of Jordan (WAJ) is a state-owned corporation under the jurisdiction of MWI. WAJ is the main implementation partner for this Project. The responsibility of water and wastewater services in Jordan rests with WAJ, which is subordinated to MWI. WAJ provides water and wastewater services directly and indirectly through its subsidiaries: 1, MWC provides services mainly in the Governorate of Amman; 2, Yarmouk Water Company provides services in the northern governorates of Jordan; and 3, Aqaba Water Company provides services in the southern part of Jordan. WAJ has direct responsibility for the provision of water supply and sanitation services and is therefore involved at the management and technical level for investments in the water sector, be it small or large. EBRD and a number of other donors have on-going programmes with WAJ to support their capacity to react to the Syrian refugee crisis, manage investments and involve the private sector where possible. More specifically, EBRD has mobilised a number of technical assistance initiatives to assist WAJ to build their capacity to manage private sector participation in the water sector. EBRD is working closely with WAJ and other stakeholders to ensure the complementarity of initiatives that support WAJ and the water sector's resilience. Coordination meetings with other IFIs, donors, and bilateral development agencies active in the water sector are regularly organised on the ground to ensure there is no duplication of technical assistance measures and agree on coordinated investment programmes.

4. IMPLEMENTATION ISSUES

4.1. Financing agreement, if relevant

Lead IFI and project financier: EBRD. The following agreements will be signed:

- Loan Agreement between EBRD and the Ministry of Planning and International Cooperation
- Delegation Agreement between EBRD and the EU (MADAD) under the conditions of Pagoda 2
- Grant Agreement(s) between EBRD and the Ministry of Planning and International Cooperation (for each of the GCFF, EU and EBRD SSF grants)
- Project Agreement between EBRD and the Water Authority Jordan

The EUR 20 million grant from the EUTF in response to the Syrian Crisis is requested to provide the majority of the grant funding gap given the low levels of affordability in the region.

In addition to the EU grant, the capex programme will be financed by a long term loan from EBRD, a EUR 2.3 million contribution for the Global Concessional Finance Facility (“GCFF”) and a further EUR 5.9 million grant from the EBRD Shareholder Special Fund. The EBRD will provide a EUR 25 million sovereign loan to the Government of Jordan.

The EBRD is the lead finance institution. The EBRD will receive the MADAD grant funds from the EC for the investment grant. The EBRD will lend directly to the Jordanian Government, and sign a Grant Agreement with regard to the proposed EU MADAD investment grant with the Jordanian Government (represented by MOPIC) (which will be the EU grant beneficiary). The EBRD loan funds will be disbursed in line with the construction timeframe and based on signed off works by the construction supervision engineer.

With regards to the capex grant, a safeguarding system ensuring utility control over funds is built into the EBRD disbursement mechanism. The counterpart will tender for goods and works. Disbursements under awarded contracts will be done directly from EBRD to the contractor/supplier. The counterpart is the recipient of the goods or services. Thus, the role of MOPIC and the Ministry of Finance are to approve the project financing structure. We have used this system in the water sector over the last decade in the majority of EBRD Countries of Operation and confirm that the counterpart maintains control over funds.

4.2. Indicative operational implementation period

The Project will be implemented directly by WAJ with support of external consultants as described below.

To ensure effective technical and managerial capacity, WAJ will receive TA support for project implementation (PIU support, i.e. detailed design, tender support) as well as support for a Stakeholder Participation Programme. Further details on the focus of the TA are as follows:

- Project Implementation Support Programme to assist WAJ with project implementation including engineering design, procurement, preparation and evaluation of tenders, construction supervision, contract award and administration, financial control, project management, construction supervision and reporting;
- Stakeholder Participation Programme aimed at enhancing public awareness and ownership by encouraging water conservation, increasing public participation in the provision of wastewater services (service quality, rehabilitation activities, recycling activities, tariff setting within affordability constraints) and raising public awareness on issues related to the project implementation. Furthermore, the

SPP will integrate poverty, gender and social issues and thereby assisting WAJ to improve their corporate governance and transparency.

Implementation Period

Indicative Project Calendar	Date
Completion date of feasibility study	September 2017
Completion date of environmental and social impact assessments	September 2017
Appraisal mission	Frequent from 2016 onwards
Dates of approval by EFIs Boards: ➤ Lead Financier ➤ Other co-financing EFIs	Q4 2017 n/a (GCFF approved April 2017)
Dates of signature of the loans with the beneficiary: ➤ Lead Financier ➤ Other co-financing EFIs	Q4 2017 n/a
Target date of signature of EU Delegation Agreement with EBRD	Q4 2017
Target date of signature of EU Grant Agreement between EBRD and the Government of Jordan	Q4 2017
Start of activities financed by the EU grant	Q3 2018
End of activities financed by the EU grant	Q4 2019
End of project activities	Q4 2021
Comments	The construction period is expected to last 4 years in total and will be phased.

4.3. Implementation components and modules

The Project will finance household connections, approximately 80 km in total and for local sewerage, approximately 230 km in total. This comprises the purchase of goods and the works necessary to complete the:

- House Connections (Boundary only) DN 150 mm, EUR 9 million
- Local Sewerage System DN 200 – 400 mm, EUR 31 million
- Trunk sewers and rising mains DN 500 mm, EUR 11.2 million
- Pumping Stations, EUR 2 million

(please note that the above figures are estimates and subject to change between lines)

The network will connect to the Wadi Al Arab WWTP: Located in Doaqarah, the WWTP was built in 1999 with an extended aeration treatment process. The WWTP serves areas to the south-west and east of the city. The plant's design hydraulic capacity is 21,000 m³/d with a BOD capacity of 21,000 kg/d. In 2012, the plant received an average flow of 10,700m³/d (51% of the design capacity) and a biological load of 9,700 kg/d (46% of the design load). The plant currently serves a population of about 213,500 and has a design population of 321,500. Note that while the plant has six parallel process streams, two of these have never been in operation and the mechanical and electrical components scavenged for maintaining the other four streams. As such, the current design capacity represents only 2/3 of the original design capacity.

WAJ will be the procuring and implementing partner for both the investment grant and the technical assistance grants. All TA activities will be paid out by EBRD in accordance with the deliverables set out in the respective contracts.

All procurement will be carried out in line with EBRD Procurement Policies and Rules (“PPRs”) for Public Sector Operations (Chapter 3) and will use EBRD's standard tender documents. Open tendering is a default method for all components, although shopping and simplified tender documents may be used for some geographically scattered small works such as water pipes replacement or rehabilitation of waste collection points subject to prior approval by EBRD. All contracts are subject to the prior review by the EBRD. Draft procurement plans for each component specifying contract type and procurement method for

each contract are prepared by the EBRD procurement specialist and amended by the Clients prior to commencement of procurement. Any amendments are subject to the EBRD prior review and approval. Please see Annex 3 for more information on the specific projects' procurement plan.

A Project Implementation team will be set up within the PMU in the Water Authority of Jordan (with a link to the Yarmouk Water Authority), with the responsibility for the execution of the Project according to the implementation plan. WAJ will form a Project Implementation Unit comprising of technical and financial expertise and staffed with a PIU head and their own utility staff, who are partially assigned to project implementation (i.e. typically work PIU staff work half time on their normal tasks and half time on project implementation). This is a way to build capacity in the counterpart and ensure knowledge stays within the organisation after the project has been completed. WAJ and YWC will also assign representatives to participate in the implementation as a way to ensure that the counterpart benefits from knowledge sharing.

This group of municipality staff work closely with Implementation support Consultants, selected to support them during the implementation of the Project. The Consultants provide both formal and on the job training and ensure that best practice solutions are implemented, support tender preparation, evaluation, contacting and supervision. Typically a municipality requires more support during the early stages of project implementation and then they continue more independently. The Consultants will also assist WAJ/YWC with supervision of works done by local contractors to ensure quality. Local contractors, in particular, take interest in quickly adopting best practice solutions as a way to enhance competitive advantage in the local market, leading to general market improvements. In addition, EBRD's procurement expert assigned to the projects regularly visits the clients and runs training sessions.

Tendering and consultant selection for technical assistance will be carried out in accordance with the EBRD's PPRs. Where the client is the direct beneficiary of the assistance and the clients will manage the Consultant, the Client will carry out the procurement. When the procurement for each assignment is ready for launch, the Procurement Notices will be published on EBRD's and EU's web sites in parallel.

For technical assistance that supports component implementation, including procurement support and contract supervision and corporatisation programmes, the counterpart will be the managing party, with support from EBRD; and a Grant Agreement would be signed between EBRD and the client and a Consultancy Contract would be signed between the client and the consultant.

In terms of ensuring wider co-operation and sharing of results with other stakeholders on capacity building and project formulation, the Bank will continue to participate in all donor and coordination meetings. During these meetings practical project preparation and implementation issues are discussed, as well as policy dialogue. The Bank liaises closely with donors engaged in the same sectors, and with those working in the same cities (regardless of sector) to coordinate efforts.

4.4. Indicative budget

Type / Sources	EU MADAD	EBRD loan	GCFE concessional finance	EBRD SSF grant	Other financing	Total (€M)
Technical assistance: - preparation phase					0.7	0.7
- investment phase					1.5	1.5
Investment Costs: <i>House Connections</i> <i>Local Sewerage System</i> <i>Trunk sewers and rising mains</i> <i>Pumping Stations</i>	20.0	25.0	2.3	5.9		53.2
Communication	0.2					0.2
Evaluation, audit						
Total Uses (€M)	20.2	25.0	2.3	5.9	2.2	55.60

4.5. Performance monitoring

The Project will be monitored according to the EBRD's standard procedures.

Information meetings between the EBRD and the Commission shall be organised in principle annually or when needed in order to review the progress of the project.

A close coordination with the EU delegation to Jordan will be ensured in various stages of project formulation and implementation.

EBRD will be responsible for evaluation according to its procedures. The following external evaluations appear recommendable:

- a mid-term evaluation mission;
- a final evaluation, at the beginning of the closing phase;
- an ex-post evaluation.

In addition and in relation to the MADAD grant, monitoring shall be ensured primarily through EU Delegations in-country and in particular with the assistance of specific Trust Fund field & liaison officers posted within the EU Delegations. In addition, the EU Trust Fund is launching an independent M&E exercise to accompany all Fund programmes and ensure that targets are met and lessons learnt can be incorporated into other EUTF actions. The purpose of the MADAD EUTF Monitoring and Evaluation Framework would be to assess, across various levels, the degree to which the Overall Objective of the Trust Fund has been achieved. Partners implementing this Action will comply with the ad hoc Monitoring and Evaluation Framework developed for the MADAD Fund as well as with the quarterly progress reporting requirements and tools being developed by the EU Trust Fund. The monitoring and evaluation exercises mentioned above will represent milestones in the implementation of the activities. These regular assessments will constitute a basis for a possible decision of suspension or revision of activities, should the conditions on the ground not allow for their proper implementation.

4.6 Evaluation and audit

If necessary, ad hoc audits or expenditure verification assignments could be contracted by the European Commission for one or several contracts or agreements.

Audits and expenditure verification assignments will be carried out in conformity with the risk analysis in the frame of the yearly Audit Plan exercise conducted by the European Commission. The amount dedicated in the budget for external Evaluation and Audit purposes is EUR. Evaluation and audit assignments will be implemented through service contracts,

making use of one of the Commission's dedicated framework contracts or alternatively through the competitive negotiated procedure or the single tender procedure.

4.7 Communication and visibility

Communication and visibility of EU support is a legal obligation for all external actions funded by the EU. Beneficiaries, host communities and administrations in Syria's neighbouring countries, the European public, EU Member States and other stakeholders of the EU Madad Fund need to be informed about the EU's efforts as a leading donor in the Syria crisis response.

The communication and visibility plan for the entire duration of the Action is presented below. The related costs will be covered by the project budgets. Appropriate contractual obligations shall be included in, respectively, procurement and grant contracts.

The global objective of the Communication Plan is to improve recognition, public awareness and visibility of the comprehensive and joint efforts of the EU, the EBRD and other partners to effectively address the consequences of the Syrian and Iraqi crises. This should be done by highlighting the Action's real-life impact and results among defined target audiences in the affected region but also vis-à-vis the general public, donors and stakeholders in the EU Member States and beyond.

The Communication and Visibility Manual for European Union External Action serves as a reference for the Communication and Visibility Plan of the Action. All communication and outreach campaigns must be evidence-based, people-oriented and easily understandable. Regional outreach and communication must be conflict sensitive, strategic, do no harm and be mindful of the differentiation in messaging for beneficiaries and stakeholders. The campaigns must centre on beneficiaries and ensure adequate local ownership. Messaging should have a human face, be empathic, honest, transparent, direct, unambiguous, neutral and conducive to a highly sensitive human and political environment, in addition to being gender-sensitive and gender-balanced. Furthermore, campaigns should also include components of engaging communication, where the beneficiary becomes a key actor.

Action Specific Communication and Visibility Plan

The Action has great potential for visibility, as it is expected to have a direct impact on the quality of life of 105,000 people, including Syrian refugees, to improve livelihood by creating up to 400 jobs and to provide a positive example in terms of wastewater management.

The following communication and visibility plan will serve two main purposes: i) to make the general public in Jordan and in the region aware of the EU's, EBRD's and other donors' support to the Action; and ii) to demonstrate how the partnership between the EU and the EBRD helps improve people's lives and the environment through better municipal services.

Objectives

The overall **objective** of the proposed communication and visibility measures will be **to show to the general public in Jordan as well as the international audience (taxpayers in EU Member States in particular) how the EU funds and the EU/EBRD partnership benefit the local population and the environment**. This, in turn, will help raise the general profile of the partners involved, the EU in the first instance, while at the same time promoting the Action among the general population, policy-makers and other participants and stakeholders.

The visibility activities will strive to explain the Action's goals and ensure that the target audiences understand the contribution of the Action and of the EU financing to help improve standards of wastewater management, to support the sustainability of the services and to create a cleaner, safer environment for people to live in. It will also ensure **outreach and communication** of the benefits **to direct beneficiaries** of the Action, e.g. the population of served by the West Irbid Wastewater Network, **and Jordan's population** as a whole.

Activities are coordinated with the European Union, especially the Delegation in Jordan, to maximise outreach and impact.

Audiences

In line with these objectives, the main target groups of the communication and visibility activities are as follows:

- **Local beneficiaries**, including local citizens, who will directly benefit from improved waste management services, and the local refugee community, as well as any institutional and private entity (e.g. municipalities, industries, small businesses, schools, etc.) benefitting directly from the Action supported by the EU grant;
- The **general public**, i.e. the wider international audience, to demonstrate the achievements, goals and benefits of the Action, including European taxpayers, to showcase how the EU's and EBRD's activities help improve the environment (and, with it, local citizens' quality of life) through modern wastewater management;
- **Policy-makers** and other decision-makers, to raise awareness of the goals and benefits of the Action;
- Other key stakeholders, including the participants of stakeholder participation programmes, which can serve as a platform for debate and information dissemination to ensure a long-lasting impact of the common EU/EBRD activities.

Communication and visibility activities

The communication and visibility plan foresees a number of visibility activities in Jordan, which are going to be managed by the EBRD local teams involved in delivery of projects as well as the EBRD's Communications Department based in London's HQ.

To ensure a wide outreach to the key target audiences, the visibility measures will include **various communications channels**, including media activities (both locally and internationally), web and story-telling products, social media updates (with strong emphasis on Facebook, widely used in Jordan) and other measures for direct stakeholders and those with a more general interest in the EU's and the EBRD's work.

The activities will take place during the entire duration of the Action and may include but are not limited to the following elements:

Media activities:

- **Public announcements** through a press release and other potential means, such as social media. This applies whenever a signing and/or launch event takes place in relation to the Action. EU representatives will be invited to such events and both EU and EBRD support mentioned to the media;
- Major press activities will be monitored for their impact on local and, where applicable, international media outlets.

Events:

- **Events** to which EU representatives will be invited to participate and speak to the public to draw wide attention to the importance and impact of the Action on the environment and the population in Jordan.
- Awareness-raising activities and campaigns in cooperation with the clients to ensure the local community knows about the project and EU funding (e.g. stakeholder participation events and campaigns in schools)

Web and multimedia:

- The Action and the related EU support will be mentioned on the **EBRD website**, www.ebrd.com;

- Development and production of **videos and/or feature stories**, i.e. representative success stories of how the local population benefitted from the Action, to be distributed through the EBRD's, EU's, EU Delegation's and other partners' networks and social media channels. They will acknowledge both the EU's support to the project and focus on the need of the Action and its impact on the local population and the environment.

Social media:

- Updates and sharing of content (videos, photography, project facts, graphics) on **social media channels (the EBRD's, the EU's and other partners')**, to inform a wide audience of the Action's benefits and impact on improving people's lives in Jordan.

Publications and photography:

- **Photography and print materials** (where appropriate) for the above-mentioned visibility products as well as social media distribution, photo galleries, posters and displays to provide visual examples of the Action's benefits.
- Print materials, e.g. for stakeholder participation programmes, events, workshops, meetings or similar, will mention the EU support to the Action and display the EU logo.

Resources

The financial resources required for the implementation of this communications plan will be allocated from the relevant lines of the agreed budget of the Action. This may include EBRD Communications Department's travel expenses for the purpose of organising or moderating events, to produce high quality storytelling products (including videos, feature stories, photography and other material) and/or similar purposes. It may also include the hiring of additional EBRD human resources on short- or fixed-term contracts to implement the above visibility activities.

Annex 1: Affordability Analysis

Annex 2: Project location

Annex 3: Project Implementation: Project risk assessment and Procurement Plan

Annex 4: Schedule of Activities (subject to change)

Annex 5: Logframe matrix of the project

Annex 1: Affordability Analysis

This Annex presents projections on the affordability of water and wastewater services in West Irbid region according to an affordability model developed by the EBRD.

The key variables and assumptions are summarised below:

- **The household income figures**¹ are based on consultants' estimate of the households' income in the project area, i.e. 15 villages in West Irbid, in 2017. These estimates are in line with official income statistics for rural areas². The household income projections are derived from real GDP and average CPI growth rates as provided in EBRD's forecast of macroeconomic indicators for Jordan. According to consultants' estimates, 18 per cent of population in the project area are Syrian refugees; however there is no income data available for this population group.
- The **residential tariffs** for water and wastewater services in Jordan are calculated according to an increasing-block tariff structure depending on the amount of consumption per quarter, under which tariffs per m³ increase the more water is consumed (see Table 1), except for the first block where the tariff is fixed at minimum of JOD 6.53/quarter for water use only and minimum of JOD 7.22/quarter for water and wastewater service use.

m ³	Tariff, JOD/m ³		Fixed fee
	water	wastewater	JOD/connection/quarter
<18	2.13	0.69	4.4
19-36	0.145	0.045	3.65
37-54	0.5	0.29	1.65
55-72	0.935	0.57	0
73-90	1.15	0.795	2
91-126	1.61	0.925	0
>127	1.92	1.105	0

Source: WAJ³

The tariff projections for residential customers are based on the data from the financial model. The affordability model schedules 15 per cent real tariff increase for water and wastewater services by the end of 2019⁴. However, according to the GOJ, no tariff increase shall be applied on the lowest consumption block of 0 – 18 cbm/ quarter.

- **Consumption** According to the company's data and consultants' estimates, the population in Irbid area consumes water in the range that falls under the lowest consumption band (i.e. <18 m³ per quarter). According to consultants' estimates, in the 15 villages in West Irbid area, the consumption is very low due to poor access to water facilities, i.e. 40 litres/capita/day. In this analysis three consumption scenarios are considered:
 - *Base case*: 40 l/c/d;
 - *Scenario 1*: 88 l/c/d (as per projected increase of the water demand by the end of the forecast period);
 - *Scenario 2*: 120 l/c/d (upper limit of tariff Block 1 consumption).
 -
- An **affordability limit** of 5 per cent of household expenditure on water and wastewater services is considered.

¹ The affordability model uses household expenditure data as a proxy for real income figures.

² Source: http://www.dos.gov.jo/dos_home_e/main/sdb_ec_e/household/2013/g3/3-4.pdf

³ <http://www.waj.gov.jo/sites/en-us/Documents/Water%20and%20Wastewater%20Tariff%20for%20Quarterly%20Bills%20for%20Governorates%20which%20are%20Managed%20by%20Companies%202016.pdf>

⁴ The Bank has agreed to covenant the increase to be implemented by end of 2020 to ensure full implementation.

A **Capital grant** of EUR 28.2 million will be mobilised to address affordability issues in the water and wastewater sector. If there is no grant co-financing, the tariffs are assumed to be increased to the cost recovery level. According to consultants estimates, the full cost recovery level of tariffs would be JOD 4.11/per m3.

Results:

Table 1: Affordability of water and wastewater services (in JOD), in per cent of household income

WEST IRBID WASTEWATER NETWORK PROJECT											
with grant co-financing	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
average household											
1. Consumption 88 l/c/d	2.7%	2.6%	2.5%	2.5%	2.4%	2.3%	2.2%	2.0%	1.9%	1.8%	1.7%
2. Consumption 120 l/c/d	5.6%	5.4%	5.1%	5.4%	5.1%	4.9%	4.6%	4.4%	4.1%	3.9%	3.7%
3. Consumption 40 l/c/d	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%
1st decile (lowest)											
1. Consumption 88 l/c/d	5.3%	5.1%	4.9%	5.1%	4.8%	4.5%	4.3%	4.1%	3.9%	3.7%	3.5%
2. Consumption 120 l/c/d	11.1%	10.7%	10.2%	10.8%	10.2%	9.7%	9.2%	8.7%	8.2%	7.8%	7.4%
3. Consumption 40 l/c/d	1.2%	1.2%	1.1%	1.0%	1.0%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%
affordability threshold 5%											

- According to the model, an average income household is expected to allocate between 0.6 and 5.6 per cent of its disposable income on water and wastewater services throughout the period considered depending on the consumption level.
- For the poorest households (with income below JOD 200 per month per household), affordability threshold may range between 1 and 11 per cent of monthly income depending on the amount of water consumed. There are affordability breaches for higher consumption scenarios. In particular, if households start consuming as projected by the model at 88 litres/capita/day, affordability ratio will peak 5.3 per cent of household incomes, and subsequently will decrease as income growth is projected to grow faster than tariffs. If households start consuming 120 litres/capita/day, affordability ratio will reach 11.1 per cent of incomes.

Table 2: Affordability of water and wastewater services (in JOD), in per cent of household income

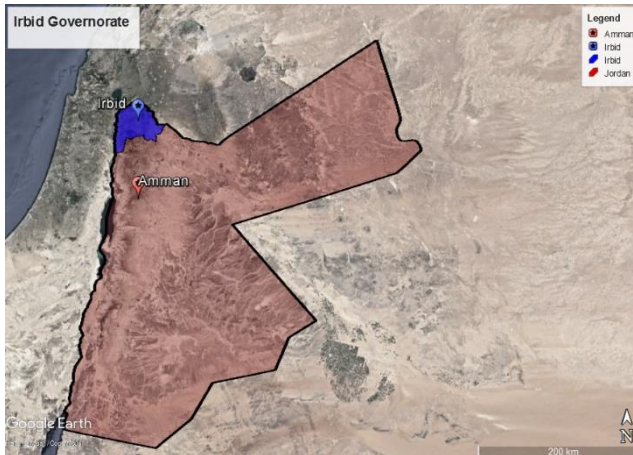
WEST IRBID WASTEWATER NETWORK PROJECT											
without grant co-financing	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
average household											
1. Consumption 88 l/c/d	2.7%	2.6%	12.4 %	11.8 %	11.5 %	11.3 %	11.0 %	10.7 %	10.5 %	10.2 %	10.0 %
2. Consumption 120 l/c/d	5.6%	5.4%	17.5 %	16.9 %	16.7 %	16.5 %	16.3 %	16.1 %	16.0 %	15.8 %	15.6 %
3. Consumption 40 l/c/d	0.6%	0.6%	5.6%	5.5%	5.4%	5.2%	5.1%	5.0%	4.9%	4.7%	4.6%
1st decile (lowest)											
1. Consumption 88 l/c/d	5.3%	5.1%	24.7 %	23.5 %	22.9 %	22.4 %	21.9 %	21.4 %	20.9 %	20.4 %	19.9 %
	11.1 %	10.7 %	34.9 %	33.5 %	33.2 %	32.8 %	32.5 %	32.1 %	31.8 %	31.4 %	31.1 %
2. Consumption 120 l/c/d											
3. Consumption 40 l/c/d	1.2%	1.2%	11.2 %	10.9 %	10.7 %	10.4 %	10.2 %	9.9%	9.7%	9.4%	9.2%
affordability threshold 5%											

- If the full cost recovery tariff is applied including full cost for operation and maintenance and debt service, the water and wastewater services would become unaffordable both for average and lowest decile income households. There are only slight affordability breaches if an average household keeps consuming 40 litres/capita/day. If consumption is to increase up to 88 litres/capita/day, as projected by the consultants, the service becomes unaffordable both for average and poorest households.

Summing up, the analysis indicates that water and wastewater is projected to remain affordable for the average households, however there are affordability concerns for the lowest income decile households living in the project area. If the operational and capital costs are fully passed on to the consumers and no capital grant is provided, the water and wastewater services are estimated to become unaffordable for average and low income households as per consumption assumptions projected by the model.

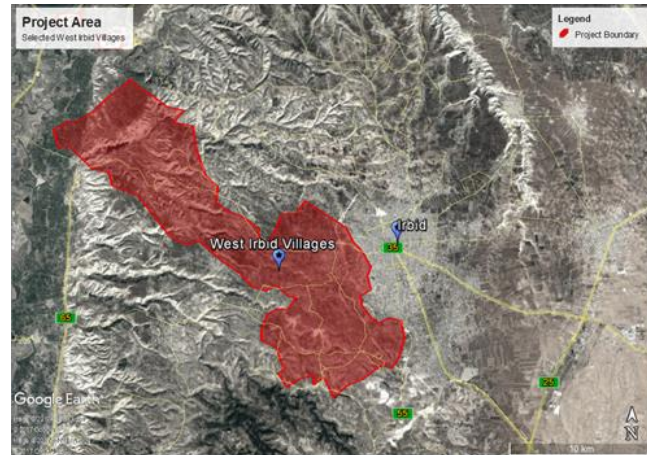
Annex 2: Project location

Irbid Governorate



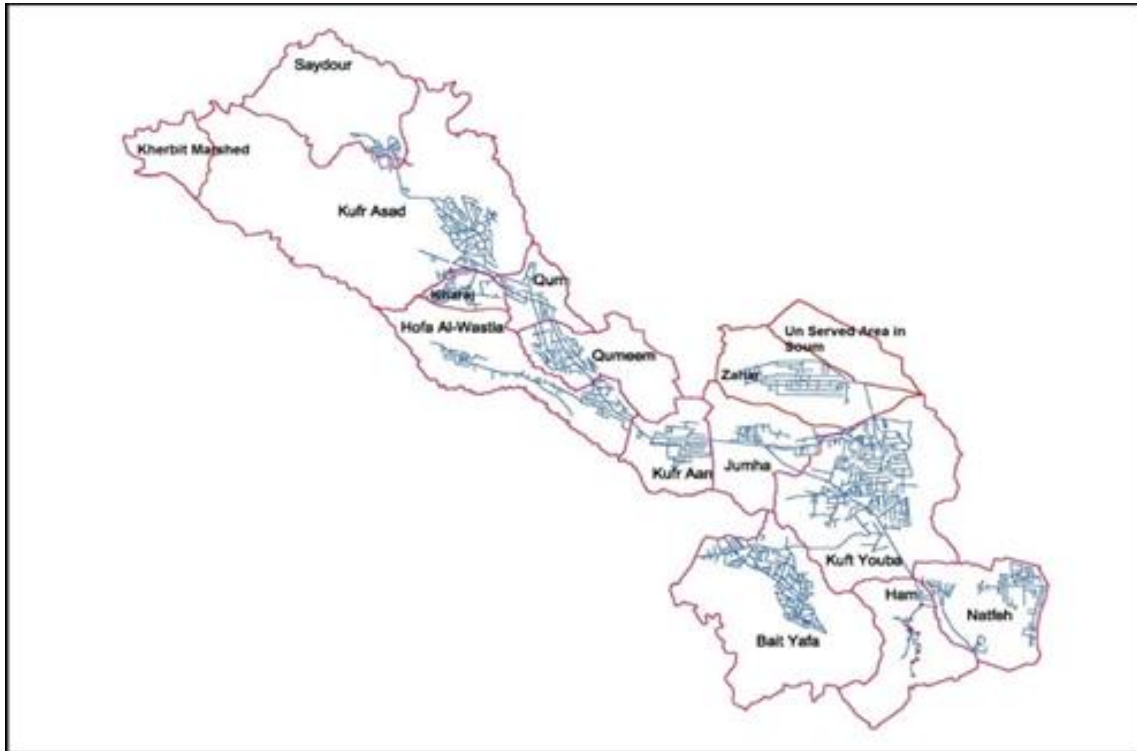
Source:Adapted from Google earth

West Irbid Selected Villages



Source:Adapted from Google earth

West Irbid villages administrative boundaries



Source:ACE Engineers concept design report

Beneficiary Population

Town	Male	Female	Jordanian	Syrian	Others	Total	Households	% per Town
Kofor Yooba	11365	11578	16905	5619	419	22943	4475	24%
Soom	5482	5185	7948	2555	164	10667	2117	24%
Zahar	3976	3701	6882	698	97	7677	1463	9%
Bait Yafa	6587	6217	10849	1796	159	12804	2621	14%
Jamhah	1853	1597	3098	239	113	3450	724	7%
Natfeh	1173	1140	1775	509	29	2313	473	22%
Ham	1094	1015	1744	260	105	2109	399	12%
Kofor Asad (inc. Kherbit Marshad)	7356	6876	11063	3026	143	14232	2907	21%
Qmain	4525	4170	6874	1402	419	8695	1806	16%
Hoafa El-Wastiyyeh	3509	3575	5183	1861	40	7084	1430	26%
Qom	1196	1078	2067	171	36	2274	531	8%
Kofor An	2163	1914	3741	271	65	4077	863	7%
Kharaj	2060	1847	3525	365	17	3907	795	9%
Saidoor	1210	1092	2213	86	3	2302	445	4%
				18,858		104,534		18%

Annex 3: Project Implementation

Procurement classification – *Public sovereign*

Project risk assessment:

Overall risk rating – Moderate Low

Country risk assessment - Moderate

The Country procurement risk for Jordan is currently assessed as “moderate” in accordance with the EBRD Country procurement risk index. The index is based on the level of compliance with the EBRD Core Public Procurement Principles and has been adjusted to add the scores from the Transparency International Corruption Perceptions Index.

The Beneficiary’s capacity assessment related risk – Moderate Low

The Beneficiary has previous experience in implementation of EBRD and international donor’s financed projects. To facilitate the implementation process WAJ will be supported by experienced procurement and project implementation consultants who will assist with tendering procedures and supervision of works.

Contracts risk assessment - Moderate low

The Project will include several contracts for construction of wastewater network in 15 towns of West Irbid, reconstruction of pumping stations and installation of SCADA, which are considered as low risk contracts.

Project implementation arrangements:

The Company will establish a PIU who will be responsible for the procurement of goods, works and services and monitoring of contract performance and supervision. The PIU will be staffed by experienced professional staff allocated for day-to-day work together with the consultants.

Procurement arrangements:

The Project is classified as a public sector operation for procurement purposes. Goods, works and services, financed from the Bank's loan and grants, will be procured using open tendering procedure in accordance with Section 3 of the Procurement Policies and Rules (the “PP&R”) for the Public Sector and will use the Bank's Standard Tender Documents.

The loan and grant financed contract will be subject to prior review by the Bank.

All consultancy contracts financed by donors will be procured in accordance with PP&R Section 5 or donor’s procurement procedures.

Procurement Plan West Irbid Wastewater Network

										Time Schedule			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Nr.	Description	Estimated Contract Value	Financing by EBRD	Financing by others		Contract Type	Procurement method	Subject to Selective review	Prequal Invitation mmm/yy	Prequal results mmm/yy	Tender Invitation mmm/yy	Contract Award mmm/yy	Contract Completion mmm/yy
				Financier	Amount								
CapEx													
1	Rehabilitation of wastewater network *)	49.20	23.05	Donor	26.15	Works	Open		N/A	N/A	Sep-18	Dec-18	Nov-21
2	Reconstruction of WPSs*)	3.60	1.80	Donor	1.80	Works	Open		N/A	N/A	Sep-18	Dec-18	Jun-20
7	Supply and Installation of SCADA	0.40	0.15	Donor	0.25	S&I	Open		N/A	N/A	Sep-18	Nov-18	Jul-19
Technical Assistance													
1	Project Implementation and construction supervision	1.00		Donor	1.00	Consultancy	Competitive		Feb-18	Mar-18	Mar-18	Aug-18	Nov-21
2	Design	0.50		Donor	0.50	Consultancy	Competitive		Feb-18	Mar-18	Mar-18	Jul-18	Jul-19
3	Benchmarking Programme	0.11		Donor	0.11	Consultancy	Short List		May-19	Jun-19	Jun-19	Oct-19	Oct-20
	Total:	54.81	25.00		29.81								

Notes:

*) Several packages split on lots, depending on the availability of design

**) General Procurement Notice will be published in the Bank's *Procurement Opportunities* website in December 2017

Please note that the amount for each line may change subject to the winning contractors proposals.

Annex 4: Schedule of Activities (subject to change)

Item	Pre-construction activities	2018	2019	2020	2021
% of Project completed	0	0	30%	40%	30%
% CAPEX disbursement		30%	25%	25%	20%
MADAD Resources		In full	Until utilised		
Notes	<ul style="list-style-type: none"> Technical Assistance (detailed design and tendering) 	<ul style="list-style-type: none"> Construction Supervision Contractor mobilisation costs Procurement of long lead items Enabling works 	<ul style="list-style-type: none"> Construction supervision Procurement Construction 	<ul style="list-style-type: none"> Construction supervision Construction 	<ul style="list-style-type: none"> Construction supervision Construction

1. Anticipated Pre-construction activities (carried out by TA)

- Technical Assistance: Survey work, design, preparation of tender documents, procurement process, Permitting
- Surveying: This will involve the detailed mapping and marking of the Project site to enable groundworks to proceed. Surveying will precede most parts of the enabling works.

2. Anticipated Construction activities (carried out by contractor)

Year 1 – 2018 – (Enabling works)

- Site establishment: This will include the installation of infrastructure to enable human activity on the site at various project sites, including erecting temporary offices and welfare facilities.
- Ground investigations: Ground investigations are carried out to assess the suitability of underlying ground for construction, and to inform designers on choice of materials.
- Site clearance: To facilitate construction activities, it is necessary to remove vegetation, structures, and human influences from the Project site. These operations generally involve the use of heavy plant machinery.
- Utility protection: To ensure that the enabling works do not interfere with existing underground services, and include the production of maps and procedures involving underground scans to ensure all Contractors are aware of the presence of such items.
- Road way / Surface course: Installation of roadway surfacing will be carried out as part of the enabling works, allowing vehicular access to the project sites. This may involve grading, compaction, subbase and drainage construction, asphaltting, paving works or other forms of surfacing.
- Local Network Pipe laying: extensive pipe laying will be carried out, involving excavation of new pipes to carry sewage effluent from the villages.

Year 2 – (2019)

- Local Network Pipe laying: extensive pipe laying will be carried out, involving excavation of new pipes to carry sewage effluent from the villages.
- Trenching: Trenching involves the excavation of Trunk Sewer and Rising Mains trenches.
- Shoring / retaining walls: various steep-sides slopes will be constructed that require support through shoring and retaining walls.

- Foundations: This work will involve the installation of the substructure (concrete and steelwork) that will support the structural load of the Pump stations.
- Junction chambers construction.
- Trunk Sewer Pipe laying.
- Rising mains Pipe laying.
- Earthworks (grading, levelling, compaction & tests, excavation, backfilling, ground improvement) involve the re-profiling and improvement of ground conditions.
- Commissioning of new local networks connected to existing infrastructure.

Year 3 – (2020)

- Pump Stations construction and installation
- Local Network Pipe laying: extensive pipe laying will be carried out, involving excavation of new pipes to carry sewage effluent from the villages.
- Trunk Sewer Pipe laying.
- Rising mains Pipe laying.
- Earthworks (grading, levelling, compaction & tests, excavation, backfilling, ground improvement) involve the re-profiling and improvement of ground conditions.

Year 4 – (2021)

- Local Network Pipe laying: extensive pipe laying will be carried out, involving excavation of new pipes to carry sewage effluent.
- Earthworks (grading, levelling, compaction & tests, excavation, backfilling, ground improvement) involve the re-profiling and improvement of ground conditions.
- Commissioning.

ANNEX 5: LOGFRAME MATRIX OF THE PROJECT

	Results chain	Indicators	Baseline	Targets	Sources and means of verification	Assumptions
			(incl. reference year)	(incl. reference year)		
Overall objective: Impact	Strengthening the resilience of Jordan to the Syrian refugee crisis by addressing urgently required infrastructure needs	Total population benefitting from improved access to wastewater services (new connections)	Currently no wastewater services, 2017	West Irbid 105,000 (total ca 18% Syrian refugees), 2021	Consultant and Government reports at the time of commissioning of assets	Jordanian government remains committed to the priority projects. Clients have the capacity to implement an IFI led investment programme.
Specific objective(s): Outcome(s)	Oc 1.1: 15 towns to benefit from being connected to the wastewater network	Construction of infrastructure and connection to the WTPP complete	No connections, 2017	15 town connected to network, 2021	Consultant reports at the time of commissioning of assets	Project due diligence and design is accurate (JICA funded). Client has the ability to work with the consultants to procure the goods and works required.
	Oc 1.2: Reduced risk of environmental disaster and public health improved	Termination of the use of cess pits for sewerage disposal	Practices in the sectors outside of H&S standards, 2017	2021		Client has the ability to work with the consultants to procure the goods and works required.
	General: Creation of employment opportunities	Number of new jobs created (to be disaggregated by gender at a later stage)	Current level of employment, 2017	1,400 jobs during the construction phase	Client management reports confirming jobs created	Availability of appropriate employees, willingness to participate in training
Outputs	Op 1.1 Construction of wastewater network to connect 15 towns in Irbid to wastewater treatment plants	Construction completed on time and in line with relevant procurement policies and rules	No connections, 2017	Investments completed on time and within budget, 2021	Client management reports and Consultants final reports on implementation	Implementation capacity of clients is assumed to be weak, which is an issue given the sizable investment programme ahead. These investments will be accompanied by extensive technical assistance.

	Op 1.1 - 2.3 Providing Inclusive Employment Opportunities Stakeholder Participation & Awareness Raising Programme	Consultants mobilised and complete assignments in due time and delivering relevant outputs.	Lack of awareness of water use, lack of formal employment opportunities for vulnerable groups, 2018	Access to formal employment opportunities improved	Consultants final reports, Clients financial audited reports	Client is willing to collaborate with consultants, are receptive to expertise input
Activities	A 1.1.1. – Contracts for the construction of wastewater network to connect 15 towns in Irbid to wastewater treatment plants are yet to be finalised		Means: Construction: works, equipment Costs: Procurement of goods and works			Risk of the client’s ability to adhere to the timely and accurate procurement and implementation of assignments to ensure project delivery. Procurement and contracted by the client. EBRD will oversee the process.
	A 1.1.1., A 2.1.1. and A 2.2.2 – Contracts for the following technical assistance: • Stakeholder Participation Programme • Inclusive Employment Opportunities		Means: Technical Assistance Costs: Consultancy services and associated costs for Technical Assistance assignments			Risk of the client’s ability to adhere to the timely and accurate procurement and implementation of assignments to ensure project delivery. Procurement and contracting according to EBRD consultancy services policies.