General Profile of Priority Project

Solid Waste Management Sector

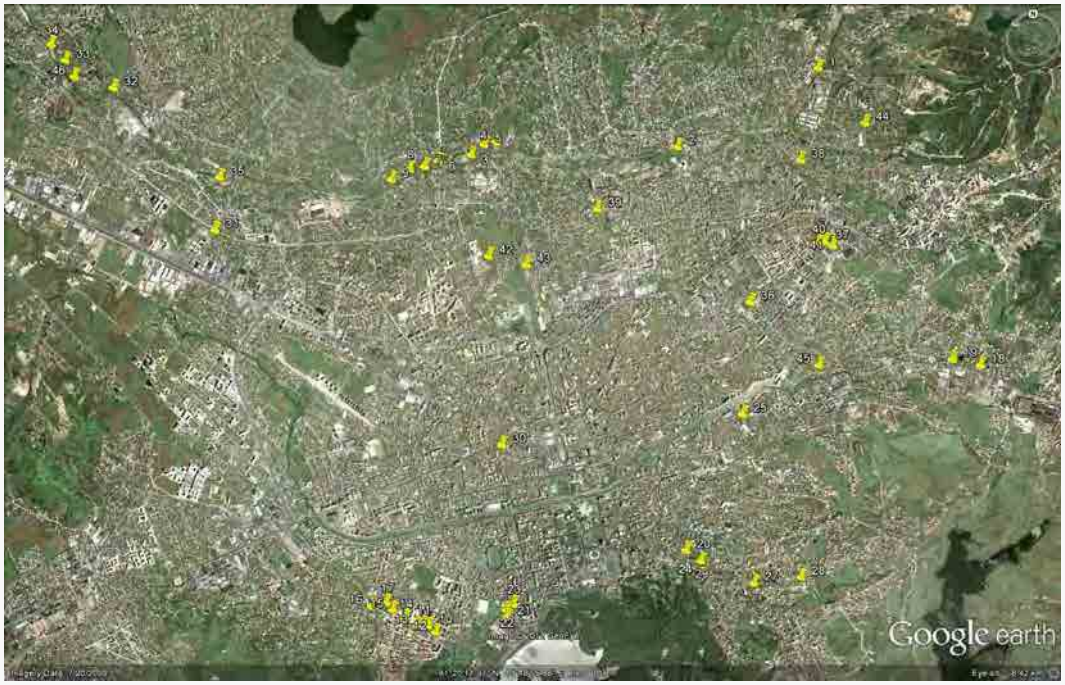
No. 01 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 1-3	Illegal Dump Site Clean-up Project (Implementation of Illegal Dump Site Clean-up Project through Contract)	Annual Budget	Directorate of Waste Management, MOT	Waste Collection Service Provider(s) or MOT Waste Management Enterprise or the Contractor for Clean-up Work

	Project Description	Investment Cost (Mill. ALL)	
Main Objectives	Clean-up discarded waste in the open dump site in the town area especially in the peripheral areas and the areas along the river banks for mitigating the risks of environmental deterioration and maintaining the cleanliness in the town area. During and after the clean-up works, the waste containers shall be placed to include those areas into the regular waste collection service area.	Preparation	
		Initial Investment	
		Recurrent O&M Cost	150 (2014-2016)
Sub-projects Components	1. SWM 1-2: Survey of Illegal Dump Site and Preparation of Clean-up Project	**Time Horizon for the Completion**	
		Preparatory	1 years (2013
		Main Work	3 years (2014-2016)
		Expected Completion Years	End of 2016
Expected Beneficiaries	MOT Residents in the peripheral area	**Related/Linked Projects (Project Codes)**	SWM 1-5

Project Location or Coverage Area

The project cover the entire area of MOT to clean-up discarded waste at the sites designated by MOT



Map: Location of major Illegal dumping areas expected to carry out clean-up project

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Not Applicable	Not Applicable

General Profile of Priority Project

Solid Waste Management Sector

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Non	B	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	Non	Non	C
Resource Allocation for the Project	The staff of the proposed Project Task Team in collaboration with the inspectors of 6 waste collection service areas shall collaborate each other to survey the illegal dump site to estimate the waste amount and the additional cost for clean-up discarded waste of each site. The actual clean-up work will be carried out by the operators of 1) 6 waste collection service providers, 2) MOT waste management enterprise or 3) contract out to other operator(s).		
Environmental Considerations	Not applicable: The environment in the surrounding area is improved through removal of discarded waste in numerous locations in MOT.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Field survey identified six (46) locations of illegal dump sites within the MOT area with the estimated total discarded waste of 16,000 m3 approximately.				
Project Concept, Scheme or Drawings	The Project shall be completed in 3 years by financing of appropriation of annual budget of MOT. The field survey shall be carried out to estimate the discarded waste amount and the cost for removal and transportation to appropriate in the next fiscal year. There are three prospective operators for removal and transportation work, i. e. 1) 6 waste collection service providers, 2) MOT waste management enterprise or 3) contract out to other operator(s). The work shall be carried out with a set of heavy machines of loader and/or back hoe and open dump truck(s). The discarded wastes are two types, domestic waste and soil/inert waste. These two types of waste shall be loaded and hauled separately. Soil/inert waste shall be stored at the designated place at Sharra disposal site for reuse for construction of approach road for incoming vehicles. Domestic waste hauled to Sharra disposal site shall be landfilled immediately.				
Preliminary Project Economic Evaluation	Assumptions	1. The major open dump sites belong to the public land and the sites are accessible by the heavy machines and open dump car. 2. Some small scale open dump sites belong to the public land and the sites are accessible only by small trucks.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 02 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 1-5	Separate Waste Collection and Transportation Services (Operation of Separate Collection by 3-bins System)	Annual Budget	Directorate of Waste Management, MOT	Waste Collection Service Provider(s), Recycling Industry, Mini-municipalities

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The comprehensive objective of the Project is to maintain the cleanliness of the town through expansion of waste collection service area and introduction of separate waste collection system. Moreover, the introduction of separate collection is aiming at increase of recovery amount of recyclable materials for saving resources and reduction of residual waste amount for final disposal as a result.	Preparation	
		Initial Investment	935 (2013-2027)
		Recurrent O&M Cost	21,764 (2013-2027)
Sub-projects Components	1. SWM 1-4: Implementation of Pilot Study for Improvement of Waste Collection Service 2. SWM 1-4-1: Study for Expansion of Service Area by Separate Collection 3. SWM 1-4-2: Study of Separate Waste Collection for Special Waste 4. SWM 1-4-3: Implementation of Separate Collection at the Pilot Study Area	**Time Horizon for the Completion**	
		Preparatory	2 years
		Main Work	13 years
		Expected Completion Years	Achievement level for the target in 2017/2022/2027
Expected Beneficiaries	MOT Residents, Recycling Industry	**Related/Linked Projects (Project Codes)**	SWM-2 & SWM-7

Project Location or Coverage Area

The Project shall be started with some of the candidate pilot study areas shown in the following map and expanded to the entire waste collection service area of MOT.

Map: Candidate Pilot Study Areas for Operation of Separate Waste Collection by 3-bins System

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Ordinances of MOT related with solid waste management and services.

General Profile of Priority Project

Solid Waste Management Sector

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	A	B	B
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	Non	A
Resource Allocation for the Project	The staff of the proposed Project Task Team shall take initiatives for the activities to shift waste collection system from the conventional mixed waste bins to 3-bins separate collection system. The inspectors of 6 waste collection service areas shall assist the activities through monitoring/ inspection/ guidance/ order to the waste collection service providers for smooth shifting to the separate waste collection system. n		
Environmental Considerations	Not applicable: The project is aiming at maintaining the cleanliness of the town of MOT.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Estimated Total Waste Collection Amount (t/d)

Collection Service Area	Present Collection Capacity of the Service Providers (t/day)	Required Waste Collection Capacity (t/day)			
		2012	2017	2022	2027
East-1	130	90	109	130	151
East-2	142	99	120	143	166
East-3	138	115	140	167	193
West-1	167	119	147	176	205
West-2	202	107	130	155	180
West-3	176	153	185	219	253
Total	955	683	831	990	1,148

Project Concept, Scheme or Drawings

The Project is carried out initially at the pilot study areas to study the effective and practical method for separate collection by 3-bins system. The pilot study areas will be selected for 3 representative types of towns, namely, 1) detached house area, 2) apartment building area and 3) commercial area. The methods or the model case to be developed in the pilot study area shall be applied in the entire waste collection area for introducing an appropriate separate collection system in MOT.

The Project shall include the activities of 1) expansion of waste collection area, 2) sorting of recyclable materials at source, 3) placing of 3-bins system, 4) discharge of waste & recyclable materials to the designated waste bins, 5) raising public awareness for 3R activities, 6) participation of communities at the pilot study areas, etc.

Preliminary Project Economic Evaluation

Assumptions	1. Participation of residents, commercial and business establishment, 2. Participation of recycling industries and waste pickers in town, 3. Sorting recyclable waste at source and discharge to the designated waste bins properly,			
Evaluation Indicators *3	NPV		EIRR	
Notes				

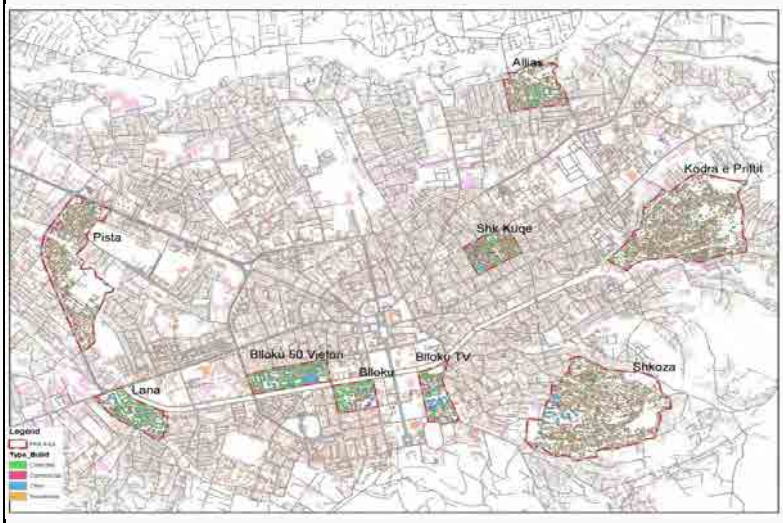
Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 03 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 2-2	Introduction of 3R Programs (Implementation of 3R Activities)	TA, FA, PP and/or Annual Budget	Directorate of Waste Management, MOT	Waste Collection Service Provider(s), MOT Waste Management Enterprise, Recycling Industry, Community Groups, Mini-municipalities, Ministry of Environment, Forest and Water Administration: MoEFWA(EIA), Vaqarr Commune (Construction Permit)

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The objective of the Project is to implement 3R activities to reduce waste generation amount, recover recyclable materials and reuse & recycling. As a result of implementation of the Project, it will contribute to saving of finite natural resources, minimizing discharge of waste to the environment and reducing the cost burden of MOT for solid waste management.	Preparation	7.5 (2014-2016)
		Initial Investment	74.6 (2015-2016)
		Recurrent O&M Cost	123.3 (2017-2027)
Sub-projects Components	5. SWM 2-2-1: Promotion of Waste Generation Source Control 6. SWM 2-2-2: Promotion of Waste Discharge Control, 7. SWM 2-2-3: Promotion of Recovery of Recyclable Materials, 8. SWM 2-2-4 Promotion of Reuse and Recycling of Recyclable Materials, 9. SWM 2-2-5: Construction of Central Material Recovery Facilities at Sharra, 10. SWM 2-2-6: Operation of Central Material Recovery Facilities at Sharra	**Time Horizon for the Completion**	
		Preparatory	1 years
		Main Work	14 years
		Expected Completion Years	Achievement of the target level in the year of 2017/2022/2027/
Expected Beneficiaries	MOT Residents, Recycling Industry	**Related/Linked Projects (Project Codes)**	SWM 2-1, 2-3, 2-4, 3-2,4-4,5-3, 5-5, & 7-2
Project Location or Coverage Area		The Project shall be started with some of the candidate pilot study areas shown in the following map and expanded to the entire waste collection service area of MOT. Furthermore, the proposed material recovery facilities will be constructed at the adjacent area of existing Sharra disposal site. Map: Candidate Pilot Study Areas for Operation of Separate Waste Collection by 3-bins System	

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Ordinances of MOT related with solid waste management and services.

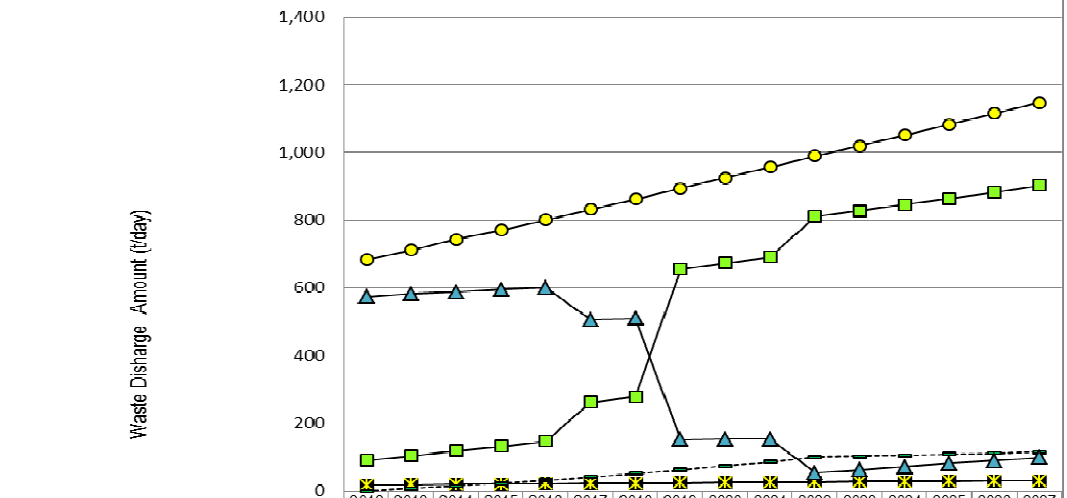
(2/2)

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	D	A	B
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	C	A
Resource Allocation for the Project	The staff of the proposed Project Task Team shall take initiatives for the activities to start with organizing the residents/community groups to participate in the 3R activities. Involvement of the inspectors of 6 waste collection service areas is required for separate collection of sorted recyclable materials. The facilitators are required to link between the MOT staff and the residents/community groups. Each resident group/community group shall appoint a representative(s) for taking a lead for the member of the resident/community group to carry out the activities.		
Environmental Considerations	Not applicable: Risk of environmental deterioration will decrease as a result of the Project.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Effects of 3R Activities



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
In-organic Waste & Hazardous Waste	18	19	20	21	22	22	23	24	25	26	27	28	28	29	30	31
Waste Reduction	0	7	15	23	32	42	52	63	74	86	99	102	105	108	112	115
Recyclable Materials & Waste to Energy	91	103	118	132	147	262	278	656	673	691	811	828	846	864	884	904
Residual Potential Recyclable Waste	573	582	588	595	601	506	510	152	153	154	53	63	72	81	90	99
Total Waste Amount	683	712	743	771	801	832	863	894	925	957	990	1,020	1,051	1,083	1,115	1,148

Project Concept, Scheme or Drawings	The 3R activities shall be started in the pilot study areas in parallel with the pilot study for introducing the separate collection system and expand the good practice model to be developed in the pilot study areas into the entire area of MOT. The 3R activities are basically carried out for the programs of 1) waste generation source control for waste reduction, 2) waste discharge control for recovery and waste diversion, 3) recovery of recyclable materials at generation sources and reuse, and 4) recycling of recyclable materials				
Preliminary Project Economic Evaluation	Assumptions	1. Participation of residents, commercial and business establishment, 2. Participation of recycling industries and waste pickers in town, 3. Sorting recyclable waste at source and discharge to the designated waste bins properly, 4. Establishment of redemption centers and/or town material recovery facilities			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

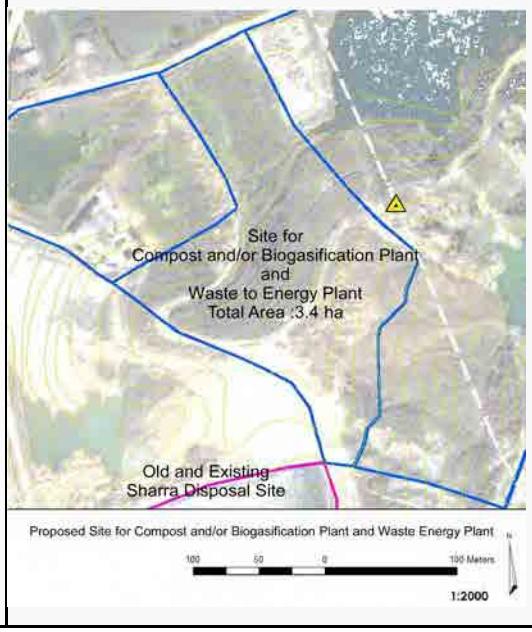
Solid Waste Management Sector

No. 04 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 3-2	Organic Waste Treatment Project (Implementation of Organic Waste Treatment Plan)	TA, FA, PP and/or Annual Budget	Directorate of Waste Management, MOT	Contractors of Construction Wok and for Operation & Maintenance Work, MOT Waste Management Enterprise, MoEFWA(EIA), Vaqarr Commune (Construction Permit)

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at treatment of biodegradable waste through utilizing the potential resources as for biomass. Meanwhile, implementation of the Project will enable to obtain the target level of EU Directive stating to reduce organic waste to landfill less than 35% by 2016.	Preparation	644 (Phase 1: 2013-2016, Phase 2: 2019-21)
		Initial Investment	6,444 (Phase 1: 2013-2016, Phase 2: 2020-2021)
		Recurrent O&M Cost	2,595 (Phase 1&2: 2014-2027)
Sub-projects Components	1. SWM 3-2-1: Organizing Home Composting and Community Composting Groups 2. SWM 3-2-2: Implementation of Pilot Project of Home and Community Composting 3. SWM 3-2-3: Expansion of Home Composting and Community Composting 4. SWM 3-2-4: Selection of Large Waste Generation Source of Biodegradable Waste 5. SWM 3-2-5: Construction of Pilot Scale Biogasification and/or Compos Plant 6. SWM 3-2-6: Operation of Pilot Scale Biogasification and/or Compos Plant 7. SWM 3-2-7: Construction of Central Biogasification and/or Compost Plant 8. SWM 3-2-8: Operation and Maintenance of Central Biogasification and/or Compost Plant	**Time Horizon for the Completion**	
		Preparatory	1 years
		Main Work	14 years
		Expected Completion Years	Pilot Scale Composting Facilities (2014) Central Biogasification and/or Compost Plant (Phase 1: 2016) (Phase 2: 2021)
Expected Beneficiaries	MOT residents and users of biogas and/or compost products	**Related/Linked Projects (Project Codes)**	SWM 1-5, 2-2, 3-4 & 7-2

Project Location or Coverage Area



Home composting and community composting will be carried out initially at the same pilot study area with separate waste collection, 3R activities and raising awareness projects and expand to the entire MOT area gradually. The pilot and central compost plan and/or biogasification plant will be constructed at the adjacent area of Sharra disposal facilities as shown in the following map.

Map: Proposed Construction Site of Intermediate Treatment Facilities

(2/2)

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices	
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	C	A	C
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	C	C
Resource Allocation for the Project	The staff of proposed 3R and Intermediate Treatment Sector of MOT shall take initiatives for overall activities starting from preparation of feasibility study to the end of construction work and the operation & maintenance of the plant. The resource of private sector is expected for engineering design, construction supervision, construction work and/or operation and maintenance of the plant.		
Environmental Considerations	EIA shall be prepared by MOT and be approved by MoEFWA.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Development Capacity of Compost and/or Biogasification Plant (t/day)

Compost and/or Biogasification Plant	2012	2017	2022	2027
Pilot Scale Compost and/or Biogasification Plant		2	2	2
Central Compost Plant (Phase 1)		50	50	50
Central Compost Plant (Phase 2)			50	50
Central Biogasification Plant (Phase 1)		50	50	50
Central Biogasification Plant (Phase 2)			50	50

Project Concept, Scheme or Drawings	The main raw material, biodegradable waste, for compost and/or biogasification plant shall be collected directly from the participating/cooperating large waste generators of biodegradable waste including hotels, restaurants, fresh food markets, etc. The other source of raw material is mainly from households collected from the wet waste bins of 3-bins system. The pilot scale compost and/or biogasification plant shall be constructed and operated to search the most appropriate treatment processes for MOT prior to the construction of the central compost and/or biogasification plant. The phased development is applied for construction of the central plants.				
Preliminary Project Economic Evaluation	Assumptions	1. Large waste generators cooperate with MOT for sorting biodegradable waste properly for direct collection. 2. Separate waste collection of 3-bins system is carried out and biodegradable waste is discharged in the wet waste bins.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 05 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 3-4	Waste to Energy Project (Implementation of Waste to Energy Plan)	TA, FA, PP and/or Annual Budget	Directorate of Waste Management, MOT	Contractors of Construction Wok and for Operation & Maintenance Work, MoEFWA(EIA), Vaqarr Commune (Construction Permit)

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at reducing the volume for landfill, stabilizing the landfill waste and maximizing the recycling ratio to comply with the final target level of 75% recovery and recycling ratio set in the National Waste Management Plan. The waste to energy plant of 360 t/day will be able to recover energy in the form of enough electricity to utilize in the plant site and the extra amount of electricity sell to the electric company.	Preparation	1,558 (2015-2018
		Initial Investment	15,589 (2016-2018
		Recurrent O&M Cost	4,453 (2019-2027)
Sub-projects Components	1. SWM 3-4-1: Selection of Construction Site and Procurement 2. SWM 3-4-2: Construction of Waste to Energy Plant 3. SWM 3-4-3: Operation and Maintenance of Waste to Energy Plant	**Time Horizon for the Completion**	
		Preparatory	3 years
		Main Work	3 years
		Expected Completion Years	End of 2018
Expected Beneficiaries	MOT residents	**Related/Linked Projects (Project Codes)**	SWM 1-5, 2-2, 3-2 & 7-2
Project Location or Coverage Area	The construction site of all the intermediate facilities including waste to energy plant, compost and/or biogasification plant is proposed at the adjacent area of existing Sharra waste disposal site as shown in the map below.		

Map: Layout of Intermediate Treatment Facilities

General Profile of Priority Project

Solid Waste Management Sector

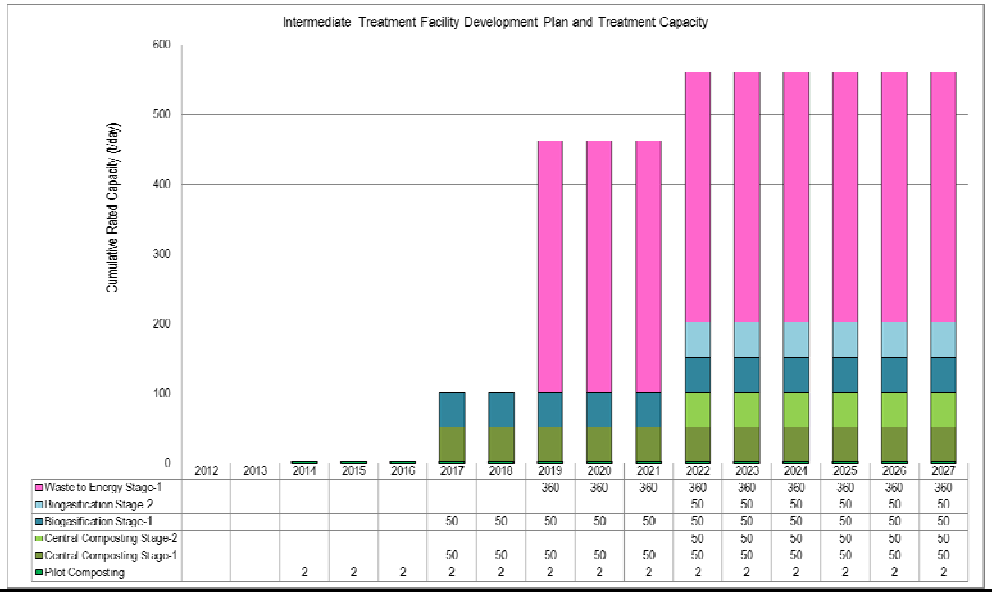
(2/2)

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices	
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	B	B	B
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	A	A	B
Resource Allocation for the Project	The staff of proposed 3R and Intermediate Treatment Sector of MOT shall take initiatives for overall activities starting from preparation of feasibility study to the end of construction work and the operation & maintenance of the plant. The resource of private sector in the form of concession contract or some other contractual form is expected to conduct feasibility study, engineering design, construction work, operation and maintenance work of the plant.		
Environmental Considerations	EIA shall be prepared by MOT and be approved by MoEFWA.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Development Capacity of Intermediate Treatment Facilities including Waste to Energy and Compost and/or Biogasification Plant (ton/day)



Project Concept, Scheme or Drawings

The separate collection of 4-bins system shall be started in 2019 when the waste to energy plant is operational. Waste discharged into the additional additional combustible waste bins shall be hauled separately to the waste to energy plant for incineration treatment. The proposed plant capacity at 360 ton/day is designed large enough to produce electricity consumption in the plant and attain the target recovery and recycling ration of 75%. The Project may be carried out most preferably by the PPP scheme.

Preliminary Project Economic Evaluation	Assumptions	1. Sorting at waste generation source, discharge of the objective waste and separate collection work is properly made for the combustible waste bins haul to the waste to energy plant,			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

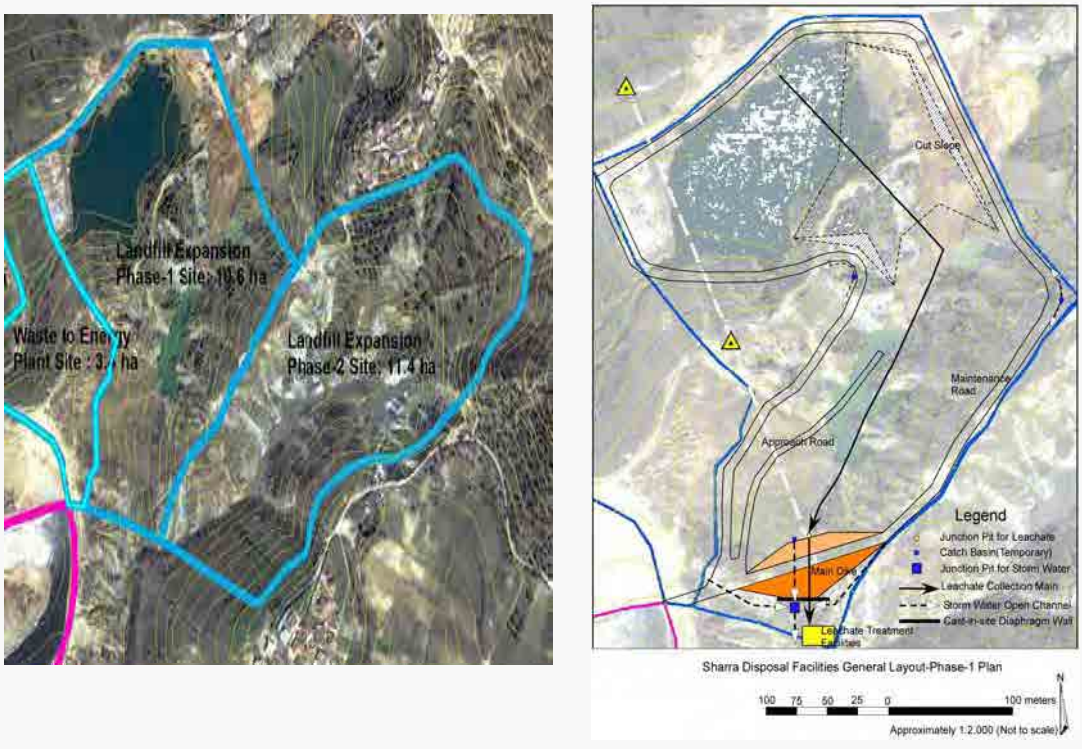
No. 06 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 4-4	Waste Disposal Facilities Expansion Project (Implementation of Waste Disposal Plan)	TA, FA, PP and/or Annual Budget	Directorate of Waste Management, MOT	Contractors of Construction Wok and for Operation & Maintenance Work, MoEFWA(EIA), Vaqarr Commune (Construction Permit)

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at securing modern sanitary landfill after the end-of-life of the existing Sharra disposal site. The waste disposal facilities shall have enough storage volume to receive the residual waste amount hauled from MOT and the communes currently disposing waste at the existing Sharra site.	Preparation	91(2014-2016)
		Initial Investment	990 (2015-2016)
		Recurrent O&M Cost	571(2017-2027)
Sub-projects Components	1. SWM 4-2: Coordination with Regional Waste Disposal Plan, 2. SWM 4-3: Selection of Construction Site and Procurement, 3. SWM 4-4-1 Construction of Sanitary Landfill, 4. SWM 4-4-2: Operation of Sanitary Landfill, 5. SWM 4-4-3: Closure of Existing Landfill	**Time Horizon for the Completion**	
		Preparatory	3 years
		Main Work	3 years
		Expected Completion Years	Construction Work (End of 2016), Closure Work (End of 2017)
Expected Beneficiaries	MOT residents	**Related/Linked Projects (Project Codes)**	SWM 1-5, 2-2, & 3-4

Project Location or Coverage Area

The proposed construction site locates at the adjacent area of existing Sharra disposal site and the proposed construction site of Waste to Energy Plant. The site can be divided into two area for phased development of waste disposal facilities as shown in the following map.



Map: Proposed Construction Site and Layout of Waste Disposal Facilities (Sharra)

General Profile of Priority Project

Solid Waste Management Sector

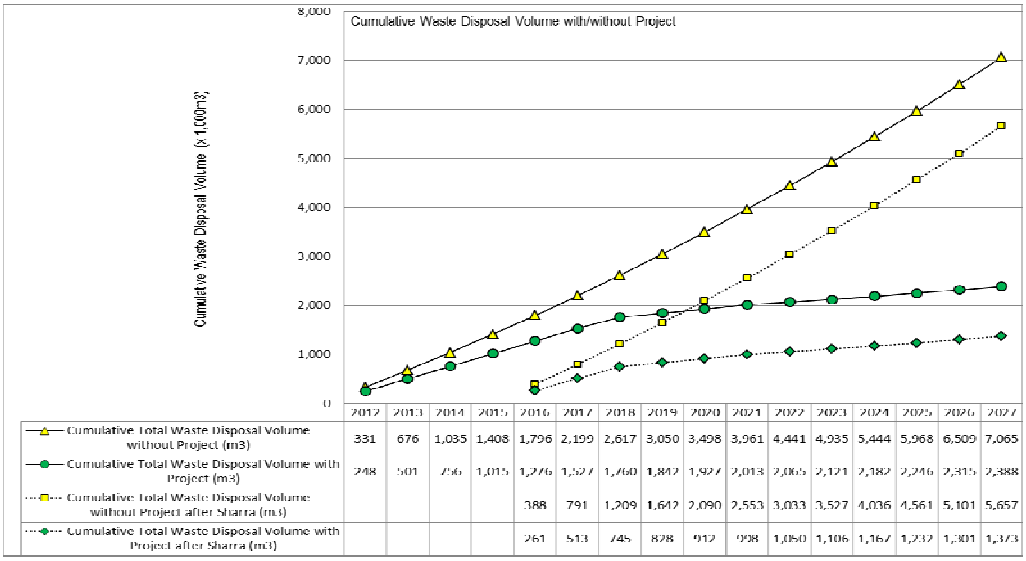
(2/2)

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices	
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	C	Non	C
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	B	C
Resource Allocation for the Project	The staff of proposed 3R and Intermediate Treatment Sector of MOT shall take initiatives for overall activities starting from preparation of feasibility study to the end of construction work and the operation & maintenance of the plant. The resource of private sector in the form of concession contract or some other contractual form is expected to conduct feasibility study, engineering design, construction work, operation and maintenance work of the plant.		
Environmental Considerations	EIA shall be prepared by MOT and be approved by MoEFWA.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Required Landfill Volume of With/Without Project



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Cumulative Total Waste Disposal Volume without Project (m3)	331	676	1,035	1,408	1,796	2,199	2,617	3,050	3,498	3,961	4,441	4,935	5,444	5,968	6,509	7,065
Cumulative Total Waste Disposal Volume with Project (m3)	248	501	756	1,015	1,276	1,537	1,798	1,817	1,927	2,018	2,085	2,131	2,182	2,246	2,315	2,388
Cumulative Total Waste Disposal Volume without Project after Sharra (m3)					388	791	1,209	1,642	2,090	2,553	3,033	3,527	4,036	4,561	5,101	5,657
Cumulative Total Waste Disposal Volume with Project after Sharra (m3)					261	513	745	828	912	998	1,050	1,106	1,167	1,232	1,301	1,373

Project Concept, Scheme or Drawings	The proposed construction site shall be large enough not only for the site of waste disposal but also for the site of intermediate treatment to integrate all the relevant facilities within the compound. The site will be large enough for phased development of waste disposal facilities up to 2027 for Phase 1 and the Phase 2 development after 2027 for more than 10 years on the condition to implement 3R and Intermediate treatment projects as proposed in the Figure in the Project Location.				
Preliminary Project Economic Evaluation	Assumptions	1. 3R and Intermediate projects shall be implemented as proposed to reduce the waste amount to landfill. 2. The site shall be designated for the waste management facilities under the land use plan of Tirana Municipality Regulatory Plan and be approved by the relevant authorities.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 07 (1/2)

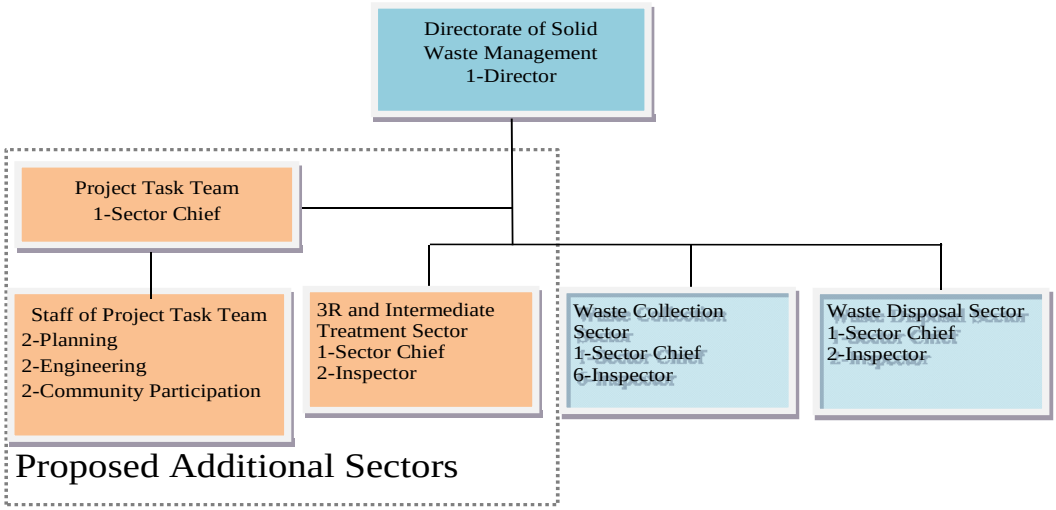
Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 5-1	Organizational Strengthening (Establishment of Project Task Team and Implementation of Priority Projects)	TA and/or Annual Budget	Directorate of Waste Management, MOT	MOT Council, Ministry of Local Government

	Project Description	Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at organizing a project management unit called the Project Task Team to promote the plans and projects formulated in the ISWM Plan. The Project Task Team shall have the roles to take initiatives for formulation and updating of ISWM Plan, implementation of the priority projects, appropriation of the project cost, procurement of required resources, coordination with the relevant authorities/parties, and other required functions for achievement of the ISWM Plan as intended and scheduled.	Preparation	Annual Budget
		Initial Investment	
		Recurrent O&M Cost	
Sub-projects Components	1. SWM 5-1-1: Recruiting the Project Task Team Staff 2. SWM 5-1-2: Orientation of Action Plans of ISWM Plan, Modification and Finalization, 3. SWM 5-1-3: Preparation of Implementation Plan of the Priority Projects, 4. SWM 5-1-4: Budgeting for Implementation of the Priority Projects	**Time Horizon for the Completion**	
		Preparatory	
		Main Work	
		Expected Completion Years	
Expected Beneficiaries	Not Applicable	**Related/Linked Projects (Project Codes)**	SWM 1, 2, 3, 4, 5,6, & 7
Project Location or Coverage Area	Not Applicable: The entire area of MOT and all the project sites.		

General Profile of Priority Project

Solid Waste Management Sector

(2/2)

Rationales	**Relevance to National Policy**	**Relevance to the Tirana Regulatory Plan and/or Existing Polices**	
	Not Applicable	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Not Applicable	B	Not Applicable
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	B	B
Resource Allocation for the Project			
Environmental Considerations	Not Applicable		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	The Project Task Team shall have primary roles for promotion and implementation in every phase from the initiation to the completion of the plans, programs and projects. The Project Task Team in collaboration and cooperation of the related Sectors and Directorate of MOT, and the government agencies to mainly the following tasks. Formulation, updating and revision of Tirana Municipality ISWM Plan, • Preparation of implementation plans of the proposed action plans and programs, • Estimation of the cost of action plans and programs and request for budgeting, • Documentation for obtaining the official approval for implementing the action plans and programs, • Organize and propose the project management unit(s) for each project/program, • Supervising the activities of action plans and programs, • Evaluation of the performance and target level of each action plan and program, and • Preparation of annual report of SWM activities.				
Preliminary Project Economic Evaluation	Assumptions	1. MOT shall establish the Project Task Team by recruiting the staff of MOT and/or employ/contract with the experiences person from the external resources.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 08 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 5-5	Monitoring and Evaluation Strengthening (Survey of Baseline Data for Performance Indicators and Reporting)	TA and/or Annual Budget	Directorate of Waste Management, MOT	Mini-municipalities, MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at strengthen the activities for monitoring, reporting and regular evaluation of the SWM activities through collecting, accumulating and analyzing the baseline data related with SWM activities, waste generation amount, waste composition, etc., which shall be described in the month/year activity reports.	Preparation	Annual Budget
		Initial Investment	
		Recurrent O&M Cost	
Sub-projects Components	1. SWM 5-5-1: Preparation of Monthly and Annual Report 2. SWM 5-5-2: Public Awareness/Opinion Survey on SWM Activities, 3. SWM 5-5-3: Domestic Waste Amount and Composition Survey, 4. SWM 5-5-4: Commercial/Business Waste amount and Composition Survey	**Time Horizon for the Completion**	
		Preparatory	1 year (2013)
		Main Work	14 year (2014-2027)
		Expected Completion Years	Achievement of the target level in the year of 2017/2022/2027/
Expected Beneficiaries	Not Applicable	**Related/Linked Projects (Project Codes)**	SWM 1-7, 2-4, 3-5, 4-5, 5-6,6-4, & 7-3
Project Location or Coverage Area	Not Applicable: SWM activities in the entire area of MOT and all the activities of the projects sites.		

Rationales	**Relevance to National Policy**	**Relevance to the Tirana Regulatory Plan and/or Existing Polices**	
	Not Applicable	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Not Applicable	A	Not Applicable
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	Non	Non
Resource Allocation for the Project	The staff of proposed Project Task Team assisted by the staff of other sectors of the Directorate of Waste Management, Mot shall take initiatives to collect data and information and analyze/evaluate the performance of waste management activities.		
Environmental Considerations	Not Applicable		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	The staff of proposed Project Task Team takes initiatives for preparation of reports, conducting periodical surveys for collecting baseline data. Those data will be analyzed of the achievement level of SWM activities and make use the data for references to determine the waste fee and the waste tariff.				
Preliminary Project Economic Evaluation	Assumptions	1. MOT shall allocate sufficient annual budget to carry out the surveys and the associated works.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 09 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 6-3	Financial Strengthening (Implementation of Financial Strengthening Pan)	TA and/or Annual Budget	Directorate of Strategic Planning, Directorate of Waste Management, MOT	Ministry of Finance, Ministry of Public Works and Transport

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at establishing an vital SWM Account system for the purpose to recover sufficient costs and allocate an annual budget on the basis of a fair, appropriate waste tariff and an independent, transparent account system.	Preparation	Annual Budget
		Initial Investment	
		Recurrent O&M Cost	
Sub-projects Components	1. SWM 6-3-1: Preparation of Separate SWM Account 2. SWM 6-3-2: Implementation and Establishment of Sound Waste Tariff System 3. SWM 6-3-3: Implementation and Establishment of Separate SWM Account	**Time Horizon for the Completion**	
		Preparatory	1 year (2013)
		Main Work	14 year (2014-2027)
		Expected Completion Years	Achievement of the target level in the year of 2017/2022/2027/
Expected Beneficiaries	Not Applicable	**Related/Linked Projects (Project Codes)**	
Project Location or Coverage Area	Not Applicable: SWM activities in the entire area of MOT and all the activities of the projects sites.		

Rationales	**Relevance to National Policy**	**Relevance to the Tirana Regulatory Plan and/or Existing Polices**	
	Not Applicable	Not Applicable	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Not Applicable	A	Not Applicable
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	Non	Non
Resource Allocation for the Project	The Directorate of Strategic Planning shall have a primary responsibility to establish and maintain a SWM accounting system in collaboration with the General Directorate No. 1 or the Tirana Solid Waste Management Enterprise. The proposed Project Task Team also shall take part in the establishment and maintenance of solid waste management accounting system for establishing an appropriate tariff system.		
Environmental Considerations	Not Applicable		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	First of all, the SWM Account shall be separated from the general account of MOT for clarification of the actual cost spent for the SWM services. The actual cost shall be a base to examine the waste fee and the tariff to be imposed to the waste generators. Determining the waste fee shall take into consideration of the affordability of different groups of the waste generators. Proposed waste fee and tariff shall be enforced through approval of the MOT council. In case the proposed tariff do not recover all the cost, MOT shall supplement the balance from the annual budget or from the subsidies of the central government for the provisional measures to secure sufficient budget for establishment of a sound SWM account.				
Preliminary Project Economic Evaluation	Assumptions	1. MOT decide the level of cost recovery from the waste generators and determine appropriate waste fee and the tariff, 2. MOT shall take provisional measures to secure sufficient budget for all cost spend for improvement of the SWM services. 3. Full cost recovery for SWM services will be considered in future.			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Solid Waste Management Sector

No. 10 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SWM 7-2	Raising Public Awareness Programs (Implementation of Raising Public Awareness Plan)	TA and/or Annual Budget	Directorate of Waste Management, MOT	Mini-municipalities, MOT, MoEFWA, Ministry of Education (MOE)

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	The Project is aiming at raising awareness of all the stakeholders for conducting effective SWM activities, environmental conservation, establishing a sound resource recycling society, etc. that can be achievable with fulfilling the responsibility of each waste generator or the stakeholder. .	Preparation	Annual Budget
		Initial Investment	
		Recurrent O&M Cost	
Sub-projects Components	1. SWM 7-2-1: Implementation of Public Information Plan 2. SWM 7-2-2: Implementation of School Education Plan 3. SWM 7-2-3: Implementation of Non-formal Education Plan 4. SWM 7-2-4: Implementation of Community Involvement Plan	**Time Horizon for the Completion**	
		Preparatory	1 year (2013)
		Main Work	14 year (2014-2027)
		Expected Completion Years	Achievement of the target level in the year of 2017/2022/2027/
Expected Beneficiaries	Not Applicable	**Related/Linked Projects (Project Codes)**	SWM 1-5, 2-2, 3-2, 3-4, 5-1, & 6-3,

Project Location or Coverage Area

The Project shall be started with some of the candidate pilot study areas shown in the following map and expanded to the entire waste collection service area of MOT.

Map: Candidate Pilot Study Areas for Initiating the Raising Awareness Plan

Rationales	**Relevance to National Policy**	**Relevance to the Tirana Regulatory Plan and/or Existing Polices**	
	Albanian National Waste Strategy, National Waste Management Plan, Tirana Waste Area Management Plan, The Law on ISWM-Albania	Ordinances of MOT related with solid waste management and services.	
Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Not Applicable	A	Not Applicable
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	B	Non	A
Resource Allocation for the Project	The staff of the proposed Project Task Team shall take initiatives to implement the programs for school education, non-formal education and community involvement activities. The facilitators, teachers, representatives of the communities, and assistance staff shall be appointed to carry out the programs in the field work. The staff of Mini-municipalities shall take the role for coordination with the parties concerned.		
Environmental Considerations	Not Applicable: The Project is aiming at maintaining a cleanliness of the area of MOT.		

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	The Project shall be started with public information in collaboration with the central government, MoEFWA, to inform the messages to the general public for participation to the SWM activities in addition to the environmental conservation activities. The actual work shall be started in the selected pilot study areas and expand the model case(s) to the entire administration area of MOT. The main main activities are focused on raising awareness through school education, non-formal education, the programs for sorting recyclable materials at source, composting activities, etc.				
Preliminary Project Economic Evaluation	Assumptions	1. Ministry of Education participate to the school education programs, 2. Community groups are established in the pilot study areas, 3. MOT shall allocate sufficient annual budget for the activities			
	Evaluation Indicators *3	NPV		EIRR	
	Notes				

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Water Supply Sector

No. 01 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 1-1	Utilization of Overflow Water of Bovilla Dam	TA,FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	To meet the water demand of UKT water supply area by 2027 with additional intake of 20 million cubic meters overflow water per year of Bovilla Dam .	Preparation	
		Initial Investment	84 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	One year (2018)
		Main Work	One year (2019)
		Expected Completion Years	2019
Expected Beneficiaries	UKT, shareholders and all consumers of UKT	**Related/Linked Projects (Project Codes)**	WS1-2, WS1-3

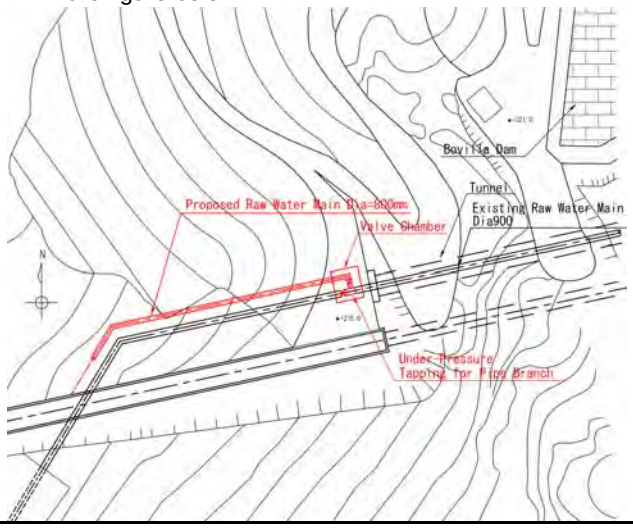
Project Location or Coverage Area

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	National strategic target value for continuity of water supply service in 2017 is 20hours in a day. The project makes up the strategy because increase of intake quantity of water bring the extension of supply hours.	According to the URPTM report formulated in 2009, an additional dam and reservoir on Erzeni River with the volume of 97 million m3 are proposed in southeastern region, 20km far from Tirana.

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Non	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense or bank loan.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Corresponding to 303,000m3/day of 2027 water demand, approximately 21,000m3/day of additional water source is required according to following calculation assuming 5% of operational losses. 303,000 × (1+0.05) - 298,000 = 20,150 → 21,000m3/ day Where Existing total water source is 298,000m3/day This volume can be covered by the overflow water of Bovilla Dam amount of 20,000,000m3/year (= 54,800m3/day)				
Project Concept, Scheme or Drawings	Intake measure of overflow of Bovilla Dam is by the under-pressure tapping from existing D900mm raw water main shown in the figure below. 				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

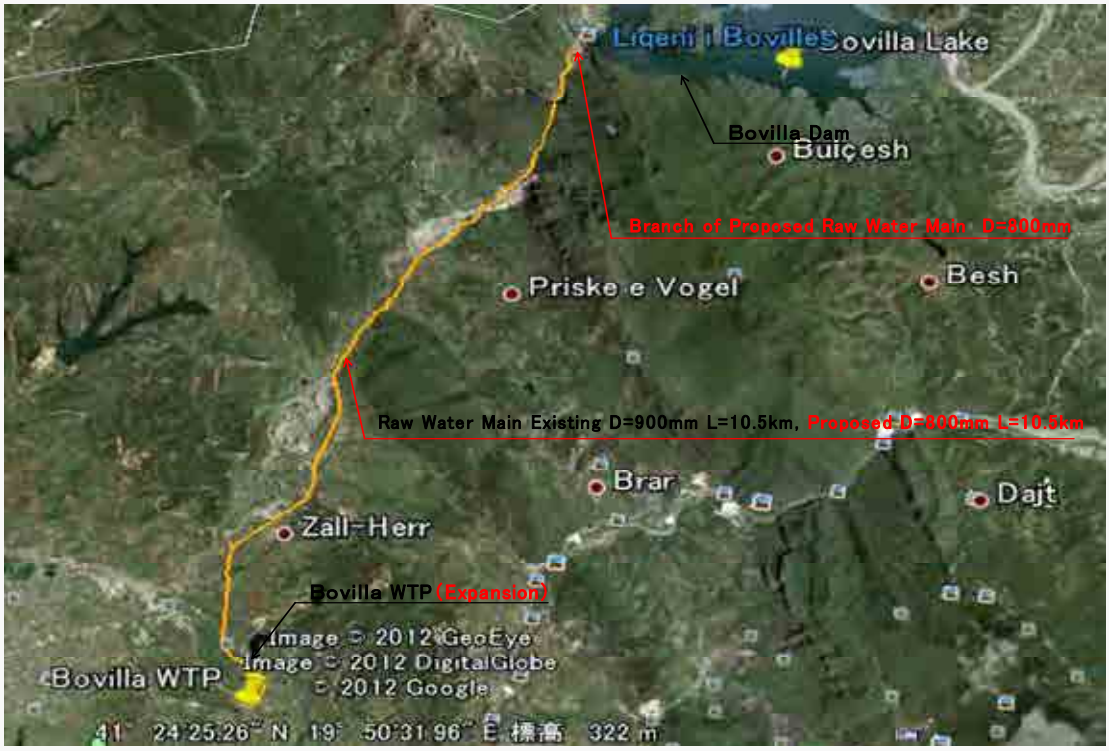
Water Supply Sector

No. 02 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 1-2	Laying additional Raw Water Main between Bovilla Dam and Bovilla WTP	FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	Laying of additional raw water main dia.800mm and 10.5km long between Bovilla Dam and Bovilla WTP in order to utilize 20 million cubic meters overflow water of Bovilla Dam.	Preparation	
		Initial Investment	1,080 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	1 year (2018)
		Main Work	3 years(2019～2021)
		Expected Completion Years	2021
Expected Beneficiaries	UKT, shareholders and all consumers of UKT	**Related/Linked Projects (Project Codes)**	WS1-1, WS1-3

Project Location or Coverage Area



Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	National strategic target value for continuity of water supply service in 2017 is 20hours in a day. The project makes up the strategy because increase of intake quantity of water bring the extension of supply hours.	According to the URPTM report formulated in 2009, an additional dam and reservoir on Erzeni River with the volume of 97 million m3 are proposed in southeastern region, 20km far from Tirana.

(2/2)

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	Non	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	Non	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense or bank loan.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

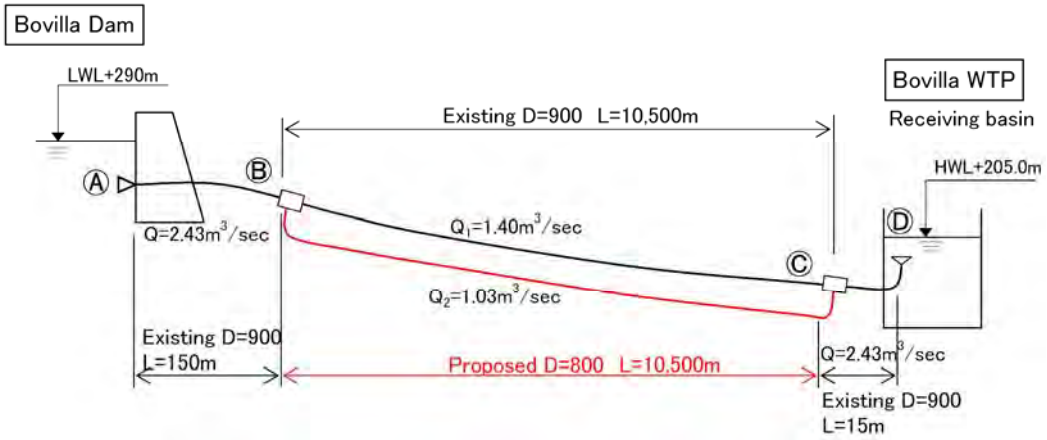
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

Proposed raw water main 800mm dia. shall be installed along with the route of the existing 900mm dia. raw water main. Maximum convey volume Q= 1.8m3/sec （existing）＋ 20,000,000m3/year(=0.63m3/sec overflow） = 2.43m3/sec

General profile of raw water mains are shown in the figure below. Diameter of additional raw water main was decided 800mm dia. considering 15m of effective difference in height is necessary before inlet of mini-hydro power system.

Project Concept, Scheme or Drawings



Preliminary Project Economic Evaluation

Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Water Supply Sector

No.03 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 2-1	Expansion of Purification Capacity of Bovilla WTP	TA,FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	To Increase the purification capacity of Bovilla WTP in order to utilize the overflow water of Bovilla Dam	Preparation	
		Initial Investment	1,890 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	One year (2020)
		Main Work	Two years(2021～2022)
		Expected Completion Years	2022
Expected Beneficiaries	UKT, shareholders and all consumers of UKT	**Related/Linked Projects (Project Codes)**	WS1-1,WS1-2

Project Location or Coverage Area

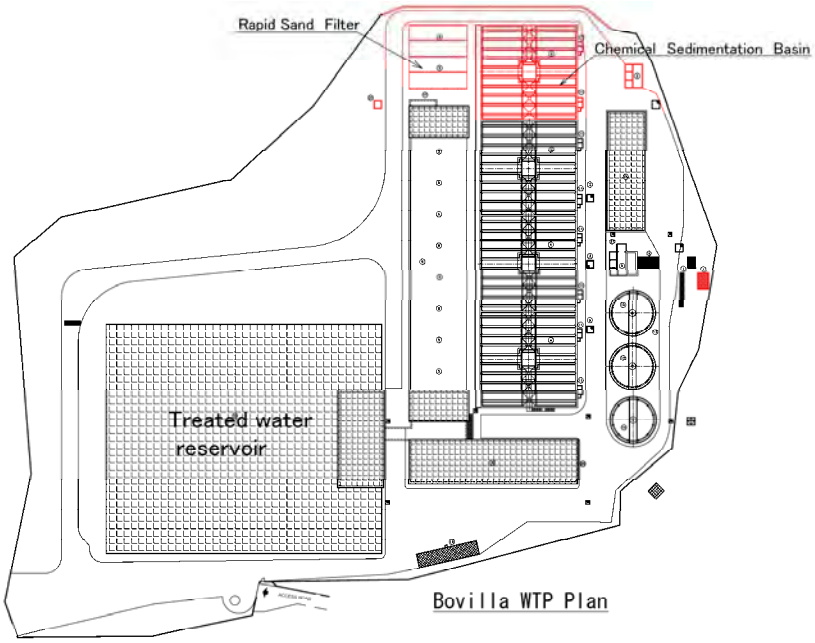
Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	National strategic target value for continuity of water supply service in 2017 is 20hours in a day. The project makes up the strategy because increase of WTP capacity bring the extension of supply hours.	According to the URPTM report formulated in 2009, an additional dam and reservoir on Erzeni River with the volume of 97 million m3 are proposed in southeastern region, 20km far from Tirana.

(2/2)

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	Non	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	Non	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense or bank loan.		

[1]: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Existing treatment capacity of Bovilla WTP is 156,000m3/day. The WTP consists of 3 series of purification process and the treatment capacity of one series is 52,000m3/day. Additional one series of purification process including chemical sedimentation basin and rapid sand filter is necessary in order to utilize overflow water of Bovila Dam.				
Project Concept, Scheme or Drawings	 (※) Facilities expanded shown in red line Source: UKT				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

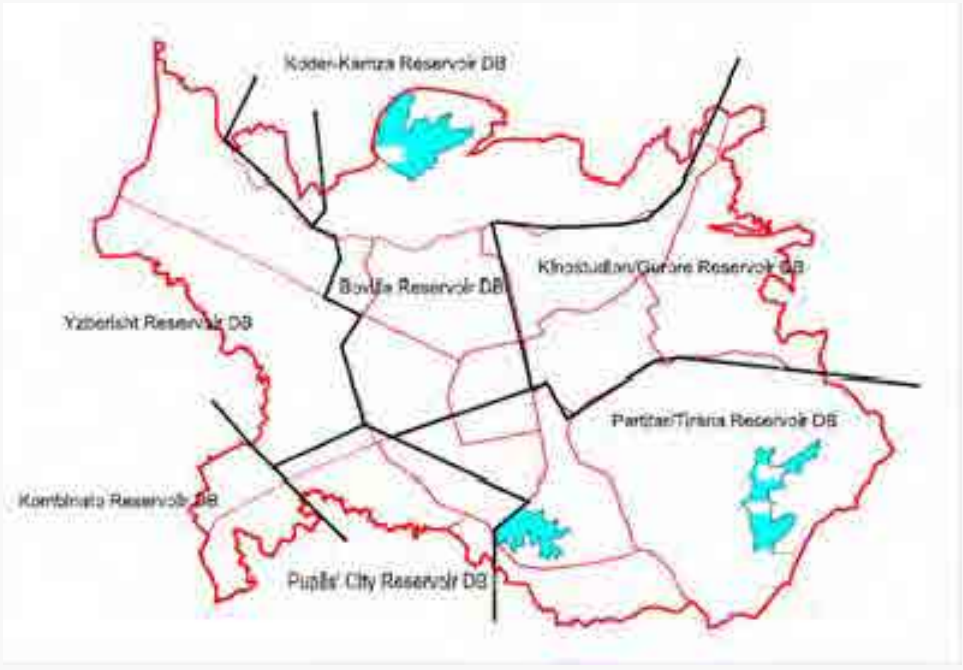
Water Supply Sector

No.04 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 4-7	Introduction of Pipe Mapping System	TA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	To install pipeline GIS mapping system at UKT head office. Pipeline information shall be integrated to make use of the information for repair, replacement and maintenance purposes.	Preparation	
		Initial Investment	3 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	One year (2020)
		Main Work	One year(2021)
		Expected Completion Years	2021
Expected Beneficiaries	UKT	**Related/Linked Projects (Project Codes)**	WS7-1

Project Location or Coverage Area



Distribution Block

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	The project makes up the national strategy because the enhancement of water and sewerage sector is strategy of it.	According to the URPTM report formulated in 2009, the construction of proper scale of water supply system to meet the water demand is urgent issue.

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Non	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense due to it's small amount of cost.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	Pipe mapping system in which hydraulic analysis can be done to decide the proper diameter of pipes shall be introduced to prepare the area expansion, repair and replacement plan corresponding to the increase of the water demand and urbanization of the area. The distribution network database is useful to formulate the replacement plan of deteriorated pipelines or the intermittent water supply plan for leakage pipe repair. UKT staff member have to master the know-how to operate the system through in-class or on-the-job training.				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

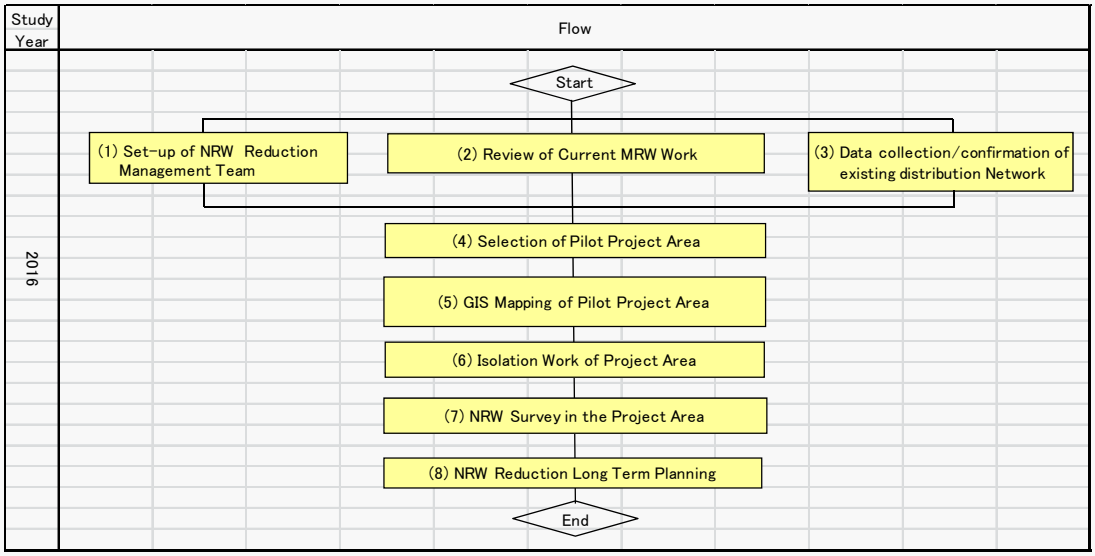
Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

No.05 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 5-1	Reduction of Non-revenue Water	TA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	To reduce the non-revenue water amount to increase the income for stabilizing the financial condition of water works.	Preparation	
		Initial Investment	83 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	
		Main Work	One year(2016)
		Expected Completion Years	2016
Expected Beneficiaries	UKT, shareholders and all consumers of UKT	**Related/Linked Projects (Project Codes)**	WS7-1

Project Location or Coverage Area



Flow Chart of the NRW Reduction Study

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	According to the national strategy for water supply, the target value of NRW in 2017 is to reduce by 40% .	According to the URPTM report formulated in 2009, reduction of NRW is one of the urgent issues of water supply.

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	Non	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense due to it's small amount of cost.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	Non-revenue water reduction program shall be carried out by the task force composed by cross cutting UKT staff. Start from the selection of pilot project area, mapping work for pilot area by GIS and survey on current situation of NRW shall be followed. Based on the results of these activities , NRW Reduction Long Term Plan shall be formulated.				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

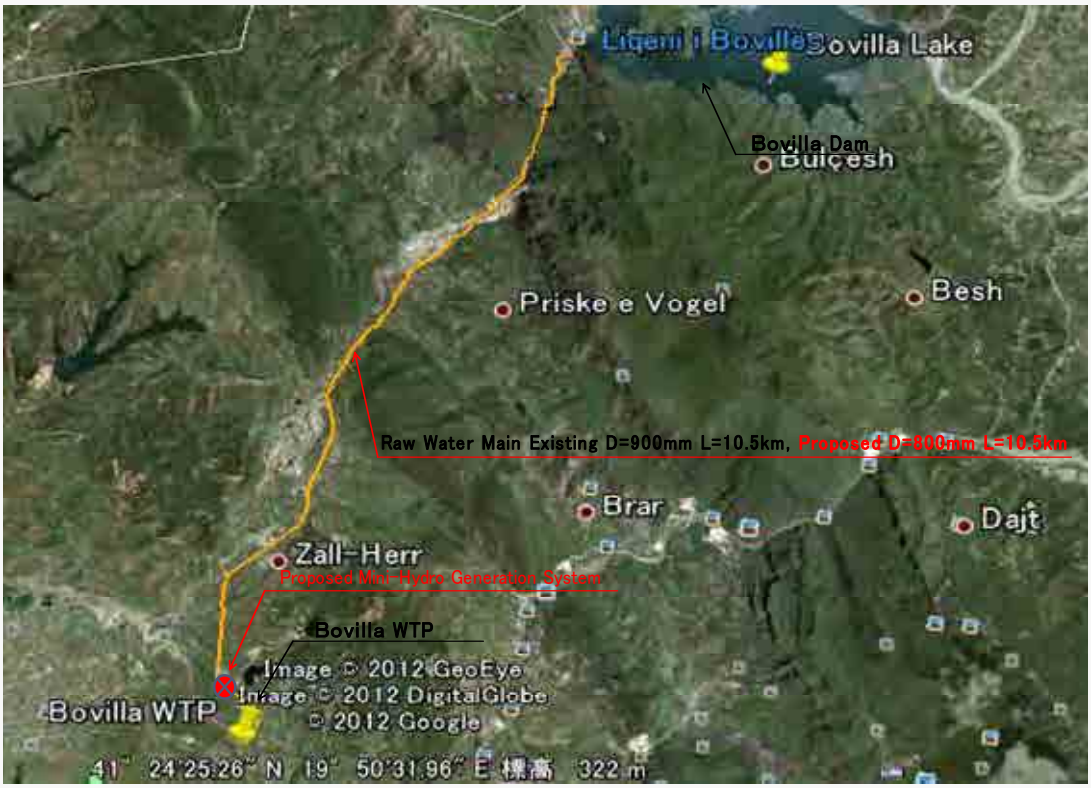
Water Supply Sector

No.06 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 6-1	Installation of Mini-hydro Generation System on the Raw Water Main.	TA,FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	Reduction of power cost of UKT	Preparation	
		Initial Investment	262 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	One year(2013)
		Main Work	One year(2014)
		Expected Completion Years	2014
Expected Beneficiaries	UKT and shareholders	**Related/Linked Projects (Project Codes)**	WS6-2

Project Location or Coverage Area

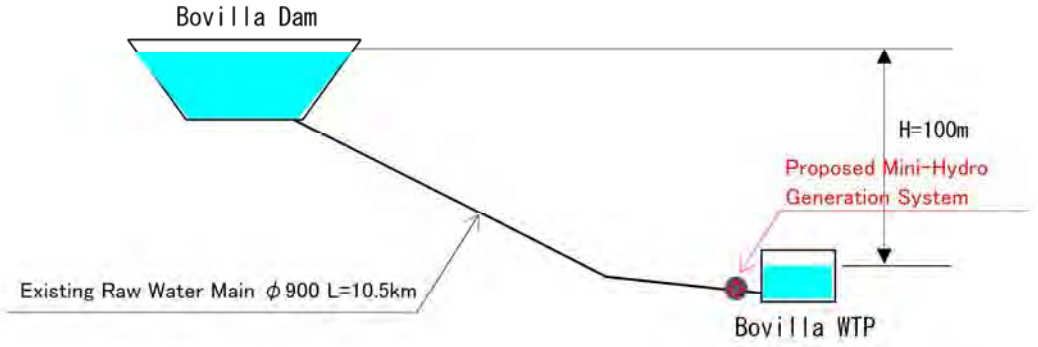


Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Orient the water utilities toward principles of cost control and full cost recovery is the national strategy of the sector.	Not Applicable

(2/2)

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	C	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense or bank loan.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	Introduction of Mini-hydro generation system is not only enables to reduce the power cost but also acceptable for the consumers due to promote the construction of eco-friendly water supply systems.  Where Pf=9.8×Q(1.81m3/sec)×Effective difference in height(15m)×Efficiency rate 0.75 = 200kw				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

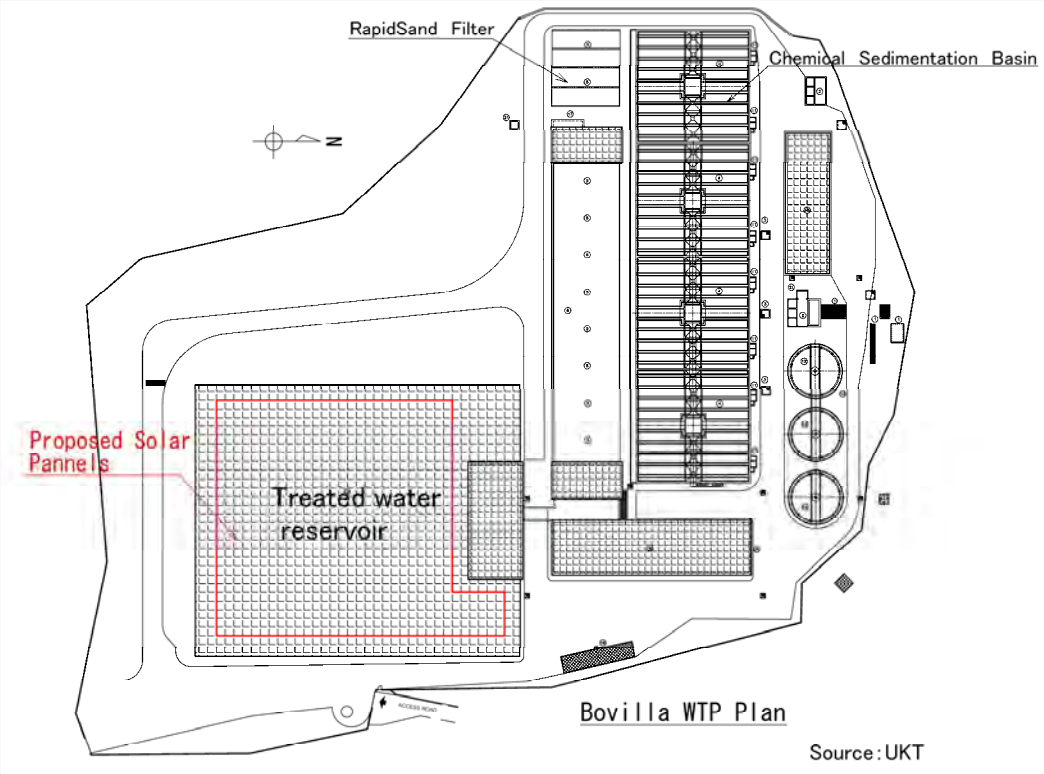
Water Supply Sector

No.07 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 6-2	Installation of Solar Panels at the Bovilla WTP	TA,FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	Reduction of the power cost of UKT	Preparation	
		Initial Investment	76 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	One year(2015)
		Main Work	One year(2016)
		Expected Completion Years	2016
Expected Beneficiaries	UKT and shareholders	**Related/Linked Projects (Project Codes)**	WS6-1

Project Location or Coverage Area



Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Orient the water utilities toward principles of cost control and full cost recovery is the national strategy of the sector.	Not Applicable

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	C	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense or bank loan.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	・ To reduce the electricity cost paid to the electric company by installation of self-power generation facilities. Installation of solar panels at the open space of Bovilla WTP for example on the top slab of clear water tank. ・ Introduction of solar panels generation system is not only enables to reduce the power cost of UKT but also acceptable for the consumers due to promote construction of eco-friendly water supply systems.				
Preliminary Project Economic Evaluation	Assumptions	1. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 2. The projects period is from 2013 to 2051 including the construction and evaluation period. 3. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 4. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 5. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

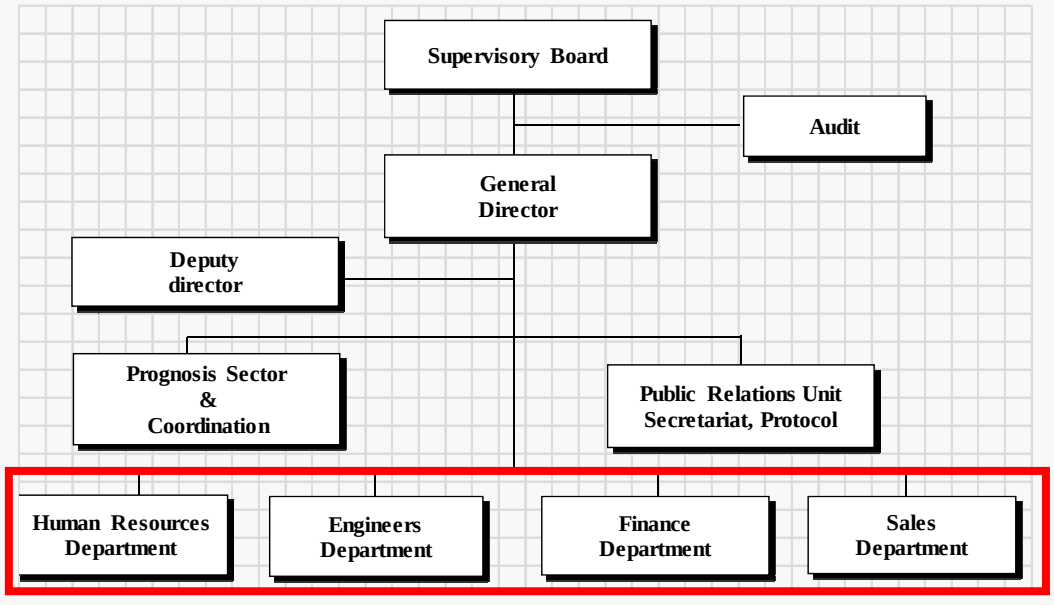
Water Supply Sector

No.08 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
WS 7-1	Capacity Development of UKT Staff	TA,FA	UKT	MOT

Project Description		Investment Cost (Mill. ALL)	
Main Objectives	・Construction of sustainable water supply system can be established by promote capacity building of UKT staff intermittently.	Preparation	
		Initial Investment	2 million Lek
		Recurrent O&M Cost	
Sub-projects Components	Not Applicable	**Time Horizon for the Completion**	
		Preparatory	
		Main Work	One year(2017)
		Expected Completion Years	2017
Expected Beneficiaries	UKT	**Related/Linked Projects (Project Codes)**	

Project Location or Coverage Area



Organization Chart of UKT

(*)Capacity building program shall be implemented for departments in red open box.

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Invest in enhancing the capacity building of water supply sector is national strategy	According to the URPTM report, the number of trained and certified managerial staff are necessary to increase to formulate and implement the new unban development plan.

(2/2)

Private Sector Involvement *2	**PPP**	**Communities Involvement**	**Other Parties**
	C	Non	Non
Necessity of External Supports	**Technical Assistance**	**Financial Assistance**	**Cooperation with Private Sector**
	C	D	D
Resource Allocation for the Project	Resource of project may be at UKT own expense due to it's small amount of cost.		

1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA);and/or Private Participation (PP)

*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales	Not Applicable				
Project Concept, Scheme or Drawings	▪ To enhance the capabilities of the staff for upgrading overall services of the waterworks. Dispatch of the staff of Engineering Department, Finance Department, etc to the JICA training course to learn the modern technology and management practices and apply the learned knowledge for the service of water by UKT.				
Preliminary Project Economic Evaluation	Assumptions	6. Integrate economic evaluation shall be conducted with consider the effects of all proposed projects. 7. The projects period is from 2013 to 2051 including the construction and evaluation period. 8. The base year of the project is 2012. the study assumes 3.0% annual inflation rate during the project year. 9. Water tariff increase plan of UKT in 2014 is reflected to the economic evaluation 10. Expected lifetime of assets are 50 years for civil works, 15 years for machinery and equipments.			
	Evaluation Indicators *3	NPV	11.704 million Lek	EIRR	65.6%
	Notes	B/C=4.7 after implementing the series of proposed projects			

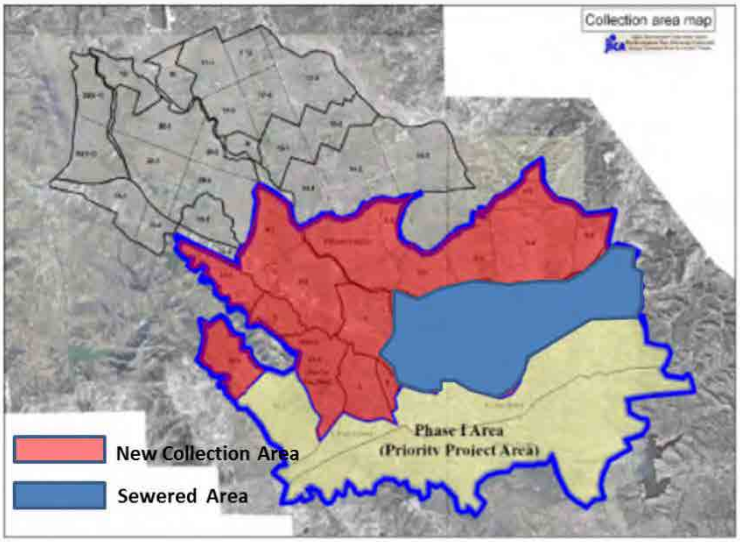
Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Sewerage Sector

No.01 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SW-01	Kashar Sewer District Phase II Project (Sewage Collection Project)	TA. FA	DPUK	UKT, MoE, MoPWT WRA

Project Description		Investment Cost (Mill. Lek)	
Main Objectives	newly installed sewer pipe, sewage and also through existing interceptor, sewage from 3,885ha of Kashar Sewer District (SD) Phase II area is transmitted to Kashar Sewage Treatment Plant (STP) and treated there. Living environmental conditions are improved and water quality of Lana River and Tirana River is also improved.	Preparation	
		Initial Investment	2,812
		Recurrent O&M Cost	42.9 (2022)
Sub-projects Components	1. Main & Branch sewer 0.3m-0.6m 79.6km and 2. Part of Trunk Main Sewer 0.25m-2.0m 10.3km 3. Part of Kashar PS 141 m^3/min	**Time Horizon for the Completion**	
		Preparatory	1 year
		Main Work	6 years
		Expected Completion Years	2021
Expected Beneficiaries	Beneficiaries increase 156,369 persons (in 2022) to 370,753 persons (in 2030)	**Related/Liked Projects (Project Codes)**	Kashar SD future expansion project (2024-2026)
Project Location or Coverage Area	 Of the 3,885 ha covered by Phase II project 2,464 ha is newly sewered		

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Applicable	Applicable

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	D	D	D

Necessity of External Supports	Technical Assistance	Financial Assistance	Cooperation with Private Sector
	B	A	D

Resource Allocation for the Project	UKT staff trained in the O&M works for Sewer Pipe in Phase I project could take over the O&M work of this collection pipe.
Environmental Considerations	Before construction, submission of Environmental Monitoring Program (EMP) to mitigate social/environmental impact during construction works is required..

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA) and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

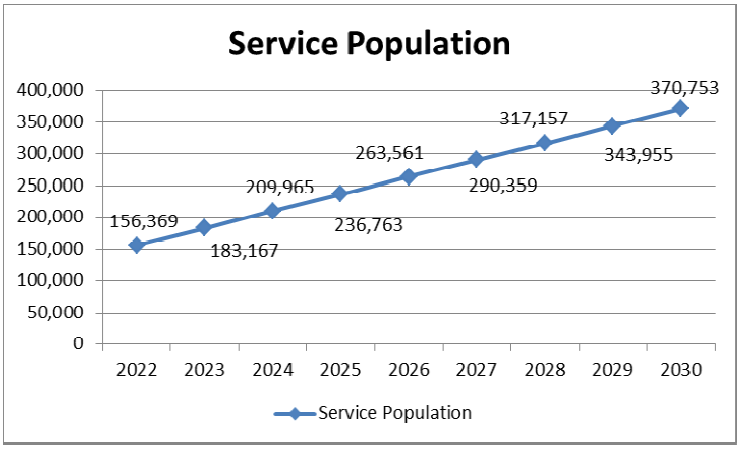
(2/2)

Quantitative Analysis and Rationales

	2022	2023	2024	2025	2026	2027	2028	2029	2030-2051
Population	156,369	183,167	209,965	236,763	263,561	290,359	317,157	343,955	370,753
Households	26,962	31,583	36,204	40,824	45,445	50,066	54,687	59,307	63,928
Others*	3,596	4,212	4,828	5,444	6,060	6,677	7,293	7,909	8,525

Other include private company and public institute

Beneficiaries ups like table above, and sewage tariff also increase



Project Concept, Scheme or Drawings	Residents and workers in 2,464 ha can newly obtain access to the sewer collection pipes. It remarkably improves living environment of the people and, at the same time, increased sewerage tariff income helps UKT to improve their financial conditions.				
Preliminary Project Economic Evaluation	Assumptions	This project is divided into (1) sewage collection project and (2) sewage treatment project from the main functional difference.			
	Evaluation Indicators *3	NPV		EIRR	15.4%
	Notes	This project produces an effect in case another treatment project is implemented together.			

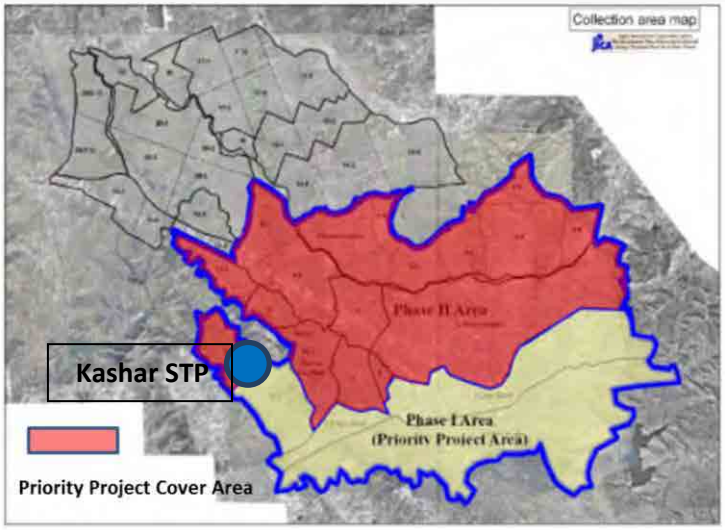
Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return

General Profile of Priority Project

Sewerage Sector

No.02 (1/2)

Code	Name of Project	Type of Project *1	Executing Agencies	Relevant Organizations
SW-02	Kashar Sewer District Phase II Project (Sewage Treatment Project)	TA. FA	DPUK	UKT, MoE MoPWT WRA

Project Description		Investment Cost (Mill. Lek)	
Main Objectives	Through newly installed sewage pipe and also through existing interceptor, sewage from 3,885ha of Kashar Sewer District (SD) Phase II area is transmitted to Kashar Sewage Treatment Plant (STP) and treated there. Living environmental conditions are improved and water quality of Lana River and Tirana River is also improved.	Preparation	
		Initial Investment	7,424
		Recurrent O&M Cost	137 (2022)
Sub-projects Components	1. Kashar STP expansion 159,200m^3/d and 2. Part of Trunk Main Sewer 0.25m-2.0m 10.3km 3. Part of Kashar PS 141 m^3/min	**Time Horizon for the Completion**	
		Preparatory	1 year
		Main Work	6 years
		Expected Completion Years	2021
Expected Beneficiaries	Beneficiaries increase 458,927 persons (in 2022) to 673,311 persons (in 2030)	**Related/Liked Projects (Project Codes)**	Kashar SD future expansion project (2024-2026)
Project Location or Coverage Area		Coverage 3,885 ha Tirana Municipality Kashar Commune and Paskuqan Commune	

Rationales	Relevance to National Policy	Relevance to the Tirana Regulatory Plan and/or Existing Polices
	Applicable	Applicable

Private Sector Involvement *2	PPP	Communities Involvement	Other Parties
	D	D	D

Necessity of External Supports	Technical Assistance	Financial Assistance	Cooperation with Private Sector
	B	A	D

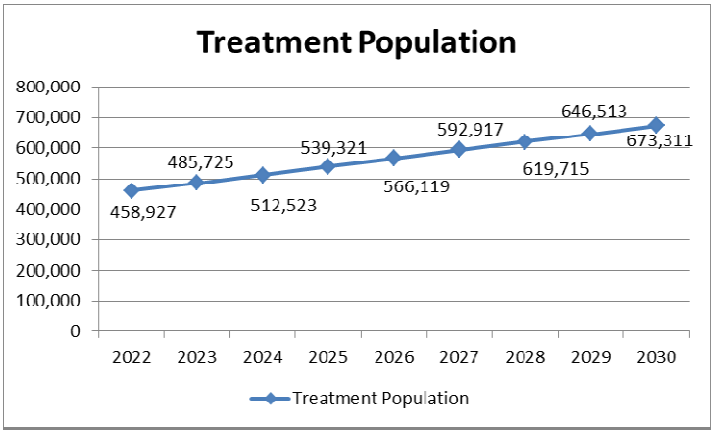
Resource Allocation for the Project	UKT staff trained in the O&M works for Sewage Treatment Plant (STP) in Phase I project could take over the O&M work of this plant.
Environmental Considerations	Construction of STP needs Environmental Impact Assessment (EIA). Before construction, submission of Environmental Monitoring Program (EMP) is required.

Notes:
*1: **Type of Project**: types of support to be required are presented:
Technical Assistance (TA); Financial Assistance (FA) and/or Private Participation (PP)
*2: Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **Non**: Not Necessary

Quantitative Analysis and Rationales

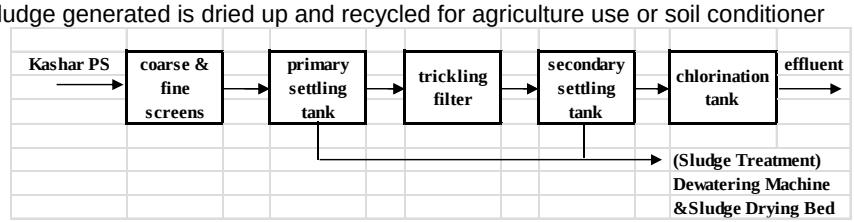
2022	2023	2024	2025	2026	2027	2028	2029	2030-2051
458,927	485,725	512,523	539,321	566,119	592,917	619,715	646,513	673,311

Number of Beneficiaries will increase like the table above and graph below



Project Concept, Scheme or Drawings

Improvement of discharging water body, Lana River and Tirana River, observing EU directives
Discharging water quality clears BOD 25mg/L and SS 35 mg/L standard, treated by trickling filter method. Sludge generated is dried up and recycled for agriculture use or soil conditioner



Treatment Flow in Kashar Phase II STP

Preliminary Project Economic Evaluation

Assumptions	This project is divided into (1) sewage collection project and (2) sewage treatment project from the main functional difference.			
Evaluation Indicators *3	NPV		EIRR	12.4%
Notes	This project produces an effect in case another collection project is implemented together.			

Notes: *3 NPV: Net Present Value; EIRR: Economic Internal Rate of Return