Osh and Jalal-Abad Solid Waste Management -Environmental and Social Due Diligence

NON-TECHNICAL SUMMARY FOR OSH





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Osh and Jalal-Abad Solid Waste Management -Environmental and Social Due Diligence

NON-TECHNICAL SUMMARY FOR OSH

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1 Introduction

The City Administration of Osh with support of the Government of the Kyrgyz Republic has approached the European Bank for Reconstruction and Development (the EBRD) with a request for financing of an investment project to improve solid waste management (SWM) in Osh and its surroundings.

The pre-feasibility study was conducted in late 2010. The Feasibility Study for SWM project in Osh and a similar project in Jalal-Abad was prepared from November 2012 to July 2013.

The Feasibility Study for Osh was carried out by COWI (the Danish consulting company contracted by the EBRD) in close cooperation with the Mayor's Office of the City of Osh (the Osh City Administration) and staff of the waste management operator Osh-Tazalyk, a municipal enterprise established and owned by the Osh City Administration. The Project Proposal was presented for the City Council of Osh on 04 July 2013 and subsequently approved by vote in the Council.

During the preparation of the Project Proposal a series of consultations has been carried out with municipalities adjacent to Osh. As a result, the following four neighbouring municipalities have expressed their interest to participation in the Project in cooperation with Osh:

- Kyzyl-Kyshtak;
- Nariman;
- Shark;
- Toloikon.

The above listed municipalities are already partially serviced by Osh-Tazalyk.

Prior to the preparation of the Project Proposal the Consultant performed a landfill site selection study in Osh area and investigation of site in the Municipality of Shark recommended for establishment of the future sanitary landfill.

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In accordance with the EBRD policy and procedures the Bank has launched the Environmental and Social Due Diligence (ESDD) in parallel with the Feasibility Study.

The present Non-Technical Summary (NTS) is an element of the set of ESDD documents prepared in line with the EBRD Environmental and Social Policy (2008). The other documents of the set are the Environmental and Social Management Review, the Environmental and Social Analysis (ESA) of the proposed Project, the Environmental and Social Action Plan (ESAP), and the Stakeholder Engagement Plan (SEP) and the Compensation and Livelihood Restoration Framework (CLRF) prepared as separate documents.

2 Osh city

Osh is the second largest city of the Kyrgyz Republic. The city is located in the Fergana Valley and is often called "the Southern Capital" of Kyrgyzstan (Figure 1).



Figure 1 Location of Osh city in Kyrgyzstan

Osh city and a number of adjacent residential areas formally belonging to other dministrative units (Rural Municipalities of Karasuu District of the Osh Province) at present do not have borders actually separating the city and the villages and thus could be considered as a major agglomeration or the Greater Osh.

2.1 Why improve waste management system in Osh city and its suburbs?

The current system for waste collection in Osh City and its surroundings involves the collection of solid waste from metal containers placed on the streets (collection point system), from the kerb-side where inhabitants have placed the waste at the collection day (kerb-side collection system) and from people bringing their waste directly to waste collection vehicles following the scheduled routes (signal collection system). The Osh city waste management company Osh-Tazalyk provides services within the whole Osh city area and selected adjacent residential

areas, e.g. areas along extensions of the city streets. Due to insufficient number of collection vehicles, containers and collection points only about 80% of waste generated in Osh is collected. The collected waste is taken to the big municipal dumpsite located at the southern outskirt of the city. Opportunities for further development of the dumpsite are limited due to already started establishment of the new residential areas in the south-western part of Osh.

Minor dumpsites can be seen in many places in Osh and surroundings. Waste dumping "somewhere" is not a common, but occasional practice, while burning and burial of waste in back-yards is a common practice, particularly among residents of individual houses. Burning poses risk of spreading fire and nuisance from smoke. Burial of waste in pits is of limited use in densely populated areas of Osh, where the land plots are small.

Both the general public and the authorities can see that change of consumption habits and on-going urbanisation lead to increased generation of waste in residential areas and get interested in regular waste collection services. More and more people understand that improvement of waste collection services would require additional financing. In order to keep the residential areas and their vicinities clean and nice, the Osh City Administration and the KR Government have approached the European Bank for Reconstruction and Development (EBRD) requesting support for the improvement of waste management in Osh through procurement of modern waste containers, trucks and establishment of sanitary landfill for safe disposal of waste in accordance with the EU standards.

After a site selection study, the area in southern part of Shark Municipality has been selected as a suitable location for a future sanitary landfill. If the sanitary landfill is constructed, the existing dumpsite will be closed and covered with soil, so that the area looks like natural hill.

2.2 Reasons for including largest villages of Kyzyl-Kyshtak, Nariman, Shark and Toloikon

A number of large villages administratively belong to Kyzyl-Kyshtak, Nariman, Shark and Toloikon municipalities of Osh Province, but are located close to the border of Osh City or exist as enclaves within the city territory and in their day-to-day life are well integrated in the city. If these villages are not serviced by the future waste collection system, a lot of their waste may anyhow end up on neighbouring streets of the serviced area. It would definitely make sense to provide waste collection services of the same level within the areas already functioning as one agglomeration, the Greater Osh.

It is envisaged that in of the four participating municipalities a number of villages located far from the Greater Osh, but accessible from main roads on the routes of waste collection vehicles, could also be serviced by the new system of waste management. The proposed service area for the future waste collection system is presented in Table 1.

Table 1: Population of the proposed Project area (data provided by municipalities)

Municipality	Settlement	Population 2013	Households 2013	Household Size
City of Osh	Osh	258,522	60,000	4.31
	Total, City of Osh	258,522	60,000	4.31
Kyzyl-Kyshtak	Kyzyl-Kyshtak	10,000	1,801	5.55
	A ndijanskiy	4,700	708	6.64
	Jany-Turmush	3,000	500	6.00
	Total, Kyzyl- Kyshtak	17,700	3,009	5.88
Nariman	Nariman	5,534	1,350	4.10
	Nurdar	3,754	1,040	3.61
	Jany-Mahala	3,323	530	6.27
	Jiydelik	4,857	860	5.65
	Jim	2,575	488	5.28
	VLKSM	3,795	916	4.14
	A lim tepe	2,035	540	3.77
	Tadjik-Abad	2,230	460	4.85
	Kyzyl-Mekhnat	3,208	700	4.58
	Zarbdar	4,064	880	4.62
	Total, Nariman	35,375	7,764	4.56
Shark	Medrese	3,975	310	12.82
	Shark	18,465	3,321	5.56
	Tashtak	14,657	2,636	5.56
	Madaniyat	3,801	684	5.56
	Top-Terek	625	112	5.56
	Padavan	3,275	589	5.56
	Total, Shark	44,798	7,652	5.85
Toloykon	O zgur	1,814	334	5.43
	Toloykon	3,617	588	6.15
	Uchar	5,411	903	5.99
	Dyikan-Kyshtak	9,228	1,733	5.32
	Kyrgyzstan	2,815	508	5.54
Surrounding Municipalities		120,758	22,491	5.37
Osh City and Surr	ounding Municipalities	379,280	82,491	4.60
Urban Population		319,773		
Rural Population		59,507		

2.3 Who will pay for the improvements?

EBRD is considering provision of a loan combined with a loan from the EIB and a grant from the EU for covering the costs of establishing modern waste collection services for the Greater Osh with safe disposal of waste in one specially equipped place. The grant will cover 50% of the cost. The other half is expected to be covered by a loan provided for 15 years. This is expected to be repaid from revenue generated by the introduction of new tariffs, which are to be established for households and other users in service area of the new waste management system.

3 Description of the future system

The future waste management system for the Greater Osh will ensure improved collection of municipal solid waste and its placing at one sanitary landfill.

3.1 Future waste collection and transportation

In Osh city and the selected villages of adjacent 4 rural municipalities the new system will be based on further development of the existing system and include:

- Collection point system in some of areas with multi-storey buildings (mainly in Osh);
- Signal collection system in some of the areas with multi-storey buildings (mainly in Osh);
- Kerb-side collection system in areas with single family houses (mainly in Osh);
- Combined collection point system and kerb- side collection system (mainly in the four adjacent municipalities);
- Special system for separate collection of C&D waste and other bulky waste types (mainly in Osh).

Based on discussions with Osh City Administration and Osh-Tazalyk the design of the systems is based on collection of 20% of the waste in Osh City by the collection point system, 50% by the kerb-side collection system and 30% by the signal system. Furthermore, it is assumed that 40% of the waste in the four surrounding municipalities is collected by the collection point/ container system and 60% by the kerb-side collection system.

A combination of 10 m3 and 22 m3 rear-loaded compaction vehicles are recommended for the waste collection and the majority of containers will be 1.1 m3 steel containers with lid and wheels.

For collection of bulky waste types two roll-off tipper trucks with changeable containers and crane to hoist bulky materials and garden waste and 32 containers of various sizes and types are recommended.

The precise number and placing of containers, the number and routes of vehicles, the waste collection schedule for various parts of the serviced area shall be determined and, when necessary, adjusted in the implementation phase of the Project.

3.2 Upgrading of Osh-Tazalyk premises

The existing administration building of Osh-Tazalyk serves the needs for the future, but the staff building and vehicle maintenance workshop are inadequate. An improvement of the sanitary conditions of the administration building is proposed alongside with construction of new staff building with toilet and shower facilities and of a well-equipped indoor workshop for vehicle maintenance.

3.3 Sanitary landfill

Sanitary landfill is required for safe disposal of waste, i.e. burial of waste with minimal risks for the human health and the environment.

Basing on a site selection study a site in Shark Municipality has been recommended for establishment of sanitary landfill, which will be designed, constructed and operated in line with the national regulatory requirements and the EU Landfill Directive.

The distance from the site to the centre of Osh is about 10 km. The distance to the nearest residential development area (the Atchi Community of Osh city) exceeds 1 km, distance to the nearest stand-alone residential house is about 500 m.



Figure 2 Proposed future landfill in Osh (Shark) and location of access roads

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The total area of the sanitary landfill is 29.8 ha including waste disposal area of 17 ha divided into three sections with steep (up to 1:2) slopes. The waste disposal cells will be constructed with an impermeable bottom structure consisting of a compacted clay soil covered with a layer of special high density polyethylene. This structure installed on bottom and slopes of each section will protect the groundwater and landfill surroundings from spreading of leachate (liquid present in waste due to rain, snowmelt water and decomposition of waste). Leachate generated in the landfill section will be collected by drainage system placed on the bottom liner. The collected leachate will be stored in and evaporated from a leachate pond with impermeable bottom. Spraying of leachate over the waste surface could speed up the evaporation.

The landfill area will be fenced and include paved entrance and parking area, weighbridge, office and staff building, water supply and sanitation facilities with drinking water well, surface water collection system, garage and vehicle maintenance workshop, wheel wash facility (at exit), fire protection system, facilities for leachate collection, storage and evaporation, access road and internal roads, power supply, lighting and communication systems.

Landfill gas collection and flaring system as well as top cover for disposed waste will be established during the planning period when a landfill cell is filled up.

3.4 Will the waste be sorted at the landfill?

Currently there is no formal system for separation and collection of recyclables in the Project area. The market for the recyclables is poor. Private initiatives show no capacity to recover and sell any reasonable portion of recyclables.

All waste delivered by waste collection trucks to the new regional landfill will be weighed and registered at the landfill entrance. The trucks will then take the waste without any processing to a landfill section for disposal.

3.5 How will the waste be placed at the landfill?

Only one of the three disposal sections will be constructed and operated at a time. The waste unloaded from a truck into a disposal section will be rolled over by a heavy vehicle (compactor) rolling the waste into a layer. Each layer of waste will be systematically covered with a thin layer of soil (daily cover) preventing possible spreading of waste by wind, birds and animals. Thus during the landfill operation the waste will be open only at the tipping front of a disposal section currently being filled. The average height of waste body with daily cover constituting about 10% of the volume in each section of the landfill will be approximately 10 m including 1 m thick top cover layer with vegetation.

Once the whole landfill is filled and no longer used for waste disposal, there will be an aftercare period for least 30 years. Aftercare will include further collection of leachate, monitoring of landfill gas, monitoring of groundwater and surface runoff. In principle, the monitoring should continue until leachate and/or landfill gas no longer pose risks for the surrounding environment.

The landfill will have capacity for receiving all waste from the Greater Osh for 19-20 years.

The landfill will be owned by Osh City and operated by the trained staff of municipal waste management company Osh-Tazalyk.

3.6 When will the existing dumpsite be closed?

The dumpsite in Osh is located 6 km to the south of the City centre following the main road towards Nookat town. After opening of the sanitary landfill, further dumping of waste at existing dumpsite shall be prohibited. The dumpsite closure and rehabilitation will require an effort to reduce the environmental and health impacts and to secure stability of the site. The proposed remediation activities include excavation of steep slopes, reallocation of waste, construction of a surface water ditch surrounding the dumpsite and covering of the waste body with minimum 0.9 m of soil and 0.1 m of fertile topsoil with vegetation.

Closure and rehabilitation of the dumpsite will be to the benefit of the surrounding communities suffering from consequences of poor operation of the dumpsite. Closure and remediation of the existing dumpsite will be the responsibility of Osh City and will not be financed from the loan and grant provided for the proposed Project.

3.7 Any alternatives for the Project?

A number of project alternatives have been considered during the Project preparation as summarised in Table 1. The table presents a systematic comparison of feasible alternatives of the Project in terms of location, technology or design carried out for comparison of potential environmental and social impacts.

Table 1 presents a spectrum of concepts typically discussed during feasibility studies and impact assessments related to development of regional waste management systems.

1abie 1	Atternative concepts considered auring the reasibility Study

T.1.1.1

No	Concept title	Details of the concept	Key challenges
1	No Project	No changes in the existing waste collection and disposal practice	High environmental and health impacts, visual impact, low comfort
2	Alternative location of the sanitary landfill	Location next to existing dumpsite of Osh city	Less than 500 m distance from existing and planned residential areas
		Location near abandoned Almalyk coal mine	Long distance (24 km) from Osh

No	Concept title	Details of the concept	Key challenges
		Location in clay quarry in southern part of Osh	Less than 500 m distance from existing and planned residential areas
3	Alternative design of landfill	Landfill of other type (e.g. without bottom liner)	Not meeting the EU standards
4	Alternative collection system	Separate collection of recyclables at sources (e.g. in plastic bags or containers of different colours)	High costs of collection, poor market for recyclables
		Separation of recyclables at central facility for sorting of mixed waste	Low quality of recyclables, poor market for recyclables
5	Alternative treatment and disposal technology	Composting, anaerobic digestion (AD), mechanical biological treatment (MBT)	High investment and operation costs, poor market for products
		Incineration (Waste-to-Energy)	High investment and operation costs, low energy prices in KR
6	Management of other types of	Recycling of construction and demolition waste	High investment costs, low prices for natural mineral materials
	waste, too	Separate management of hazardous waste fraction of household waste	Separate collection and temporary storage will not make sense because a long-term disposal solution is not expected within realistic time (i.e. 5 years)
7	Alternative area serviced	Only Osh city serviced	Osh and adjacent villages generate the common waste flow
		Other number of villages/Municipalities	All densely populated areas with good access roads should be included, but transportation distances to landfill should be short

The alternatives may also include other combinations of facilities within the waste management centre and/or transfer station(s), other timing for construction and implementation of source separation schemes, combination of various schemes in specific areas, alternative financing mechanisms for full cost recovery and a variety of other alternatives.

Any additional elements of the waste management system (e.g. separate collection and interim storage of hazardous waste fractions of MSW, collection and recycling of construction and demolition waste, etc.) will require additional costs and thus higher tariffs for the new system. And the higher would be the increase of tariffs, the lower would be the chance for collecting the payments.

Based on the Feasibility Study the combination of 4 waste collection technologies (system with 1.1 m³ containers at collection points, kerb-side system, signal system, system with roll-off tippers for bulky waste, garden waste, construction and demolition waste), direct transportation and landfilling of waste has been selected as the most feasible option for the Project.

In addition to proposing technical options, the Feasibility Study included consideration of alternative locations of the regional landfill. Several sites were studied from the viewpoint of the local and international criteria applied for the landfill site selection. A separate report on the landfill site selection was prepared during the Feasibility Study and disclosed in Russian language for stakeholders in Osh.

Sanitary landfill of waste is recognised as the cheapest waste management option in the Project area, but collection and use of recyclables could be introduced when the affordability allows doing so in order to economise the use of sanitary landfill volume. A sanitary landfill is always necessary in a waste management system, but it is the international good practice to economise the landfill consumption for as long as possible use of the site and delaying the date where a new site must be found.

3.8 What will be the Project impacts?

The process of environmental and social impact assessment for the Project will involve an assessment and comparison of potential major impacts which may occur during some of the Project phases and the identification of adequate measures for mitigation of negative impacts, as well as for enhancement of possible positive impacts.

3.8.1 Environmental impacts

Key impacts of the proposed Project on the environment will be mostly related to the construction works during establishment of landfill and to the accumulation of a big quantity of waste.

To minimise the negative impacts on the environment the landfill location is selected in an area on northern slope of a hill range, which is rather inconvenient for agriculture or urban development, but has the natural loam layers with low permeability, i.e. suitable for protection of soil and groundwater against any contamination from accumulated waste. In addition to natural protection, the bottom and sides of landfill sections for disposal of waste will be covered with a layer of compacted natural loam and a layer of strong impermeable synthetic material. The landfill site and access road to it are located far from protected nature areas, rivers, lakes. Waste will be transported in closed trucks and along the existing roads. Thus the landfill will be equipped for protection of soil, surface

water and groundwater from contamination. Waste delivered to the landfill will be covered on a daily basis with locally available soil. The landfill will be equipped with a landfill compactor and front-end loader for compression of the waste and daily cover of the waste with soil.

The operation and filling of the landfill assumes the following:

- The landfill sections will be filled in by smaller fragments allowing for one day's waste to be spread in the fragment; the filling will be carried out only during day hours;
- The waste in each fragment with be spread and compacted in layers not exceeding 0.3 m;
- Each daily layer of waste in a fragment will be covered by a layer of soil (thickness about 0.2 m); the daily cover soil could be removed in case of further filling of waste in the same fragment;
- It is expected that the filling height at the landfill will be about 10 m, i.e. the waste will partially fill in the existing depressions on the hill range slope.

After the quantity of accumulated waste has reached the landfill capacity, the landfill will be equipped with a top cover and a system for collection and flaring/utilisation of landfill gas.

The final cover system of the landfill will include:

- 0.1 -0.2 m fertile top soil with vegetation;
- 0.8 m clayed soil;
- 0.2 m gravel drainage package (regulation layer, drainage layer and landfill gas distribution layer).

The shape of the closed and covered landfill surface will be developed to match the surrounding landscape and to ensure stability of the cover.

Landfill gas flaring/utilisation system will be established at the regional landfill after the final cover is installed for landfill cells. Landfill gas flaring will be the only option for management of he collected landfill gas. Installation of initial gas collection wells and connecting pipes is included in the design for the new landfill, but the pumps and flaring units are supplied and installed after 2-3 years of active operation of the landfill when they can be put directly in operation. The international experience shows that many deliveries of gas flaring equipment for new landfill projects happen too early. The recommended later purchase of this equipment for Osh landfill will allow to avoid the corrosion during storage and to put the equipment in operation, when the performance guarantee and defects liability period are still valid.

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In 4-5 years after commence of the landfill utilisation of the landfill gas could be considered. As no industry or other potential user of the landfill gas is present in the neighbourhood of Osh landfill the only obvious option for utilisation of the landfill gas is production of electricity and maybe utilisation of the excess heat in a central heating system if installed in administration building or it may be realistic to utilise excess heat in greenhouses to be established at the nearby farmland. When production of electricity is economically feasible depend on potential amount of gas collection and in particular in the price for selling the electricity.

Appropriate measures for control the accumulated gas and migration of gas is included in the project and satisfy the EU landfill directive. The landfill will have a system for monitoring of gas emissions, groundwater and surface water runoff. A weighing bridge with an electronic system will be installed for registration of waste delivered to the landfill.

3.8.2 Social impacts

Key negative elements of the proposed Project in terms of social impact will be related to the introduction of changes in the waste collection system (e.g. types of containers for waste, location of containers, waste collection schedule) and related to the increase of waste tariffs.

To minimise the negative social impacts, the changes should be discussed with the communities and staff of the waste collection company Osh-Tazalyk. The changes should be introduced gradually, starting from trial areas. The containers and waste collection trucks will be purchased not in one go, but according to the lessons learned from the trial procurement.

Socio-economic impact of the Project will also be associated with potential loss of access to waste and means of livelihood for about 30 informal waste pickers after closure and remediation of Osh dumpsite. Measures to be considered for livelihood restoration of the informal waste pickers within the Project will include training of waste pickers and providing them job opportunities within the solid waste management system. A framework document including the livelihood restoration measures has been prepared within the Feasibility Study.

Environmental and social benefits of the Project

The Project is expected to provide major environmental and social benefits for Osh city and adjacent rural municipalities where a modern system will be introduced for collection and disposal of municipal solid waste, so that the waste dumping and its burning could be stopped.

The following specific benefits could be achieved during the Project implementation:

Improved collection and transportation of waste in Osh and adjacent densely populated areas of rural municipalities;

- Improved environmental conditions and visual image of residential areas and their surroundings;
- > Sound and safe disposal of waste and one sanitary landfill;
- Improved working conditions for employees (men and women) of the waste collection company;
- Cleaner yards and streets, better health and safety conditions for women and children;
- Improved environmental awareness, education, public participation, background for better waste management habits of all age groups;
- > Improved attractiveness of the region for tourists;
- > Local business development and capacity building;
- Development of convenient electronic (non-cash) billing and payment registration system for waste management services,
- Improved governance and transparency of waste management system.

It is expected that the environmental and social benefits of the Project will have a long-lasting effect for Osh city and adjacent rural municipalities, but will also have a demonstration effect for the Kyrgyz Republic and other countries.

4 Summary of ESAP

According to the Environmental and Social Policy of the EBRD, an Environmental and Social Action Plan (ESAP) should be developed for and implemented during the Project in order to ensure implementation of the project according to the EBRD Performance Requirements (PRs).

The ESAP prepared for the propose Project is related to:

- establishment of a new waste collection system and sanitary landfill (new facilities),
- upgrading of Osh-Tazalyk premises (old facility), and
- closure and remediation of existing dumpsite¹ (old facility) after start of the sanitary landfill operation.

The ESAP includes the programmes and systems to address the environmental and social impacts with allocated timeframes, responsibilities and resources required. The ESAP also includes a provision for capacity building such as training of the PIU staff and employees of municipal waste management company Osh-Tazalyk, contingency and emergency response plans and measures.

The national EIA procedure and obtaining the Project approvals according to the procedures of the Kyrgyz Republic are among the activities included in the ESAP.

Closure of existing dumpsite is an integral element for the establishment and sustainable operation of the new waste collection system in Osh and its surroundings with the sanitary landfill. Therefore, closure of existing dumpsite will be a precondition for the Project implementation.

The ESAP includes the environmental and social management systems and measures to be implemented:

by the PIU during pre-construction phase (preparation of documentation, procurement of contractor works for construction of landfill and procurement of waste collection and transportation equipment from suppliers),

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¹ Closure and remediation of the dumpsite will be financed by Osh City Administration

- by the PIU and contractors during landfill construction,
- by the PIU, Osh-Tazalyk (operator of the new waste collection system and the sanitary landfill) and contractors (e.g. for construction of new cells at the landfill) during operation and development of the landfill and the new waste collection system.

The ESAP for the Project is part of the ESDD package prepared for disclosure in the Russian language at the office of Osh City Administration and the office of Osh-Tazalyk.

5 Planned engagement of stakeholders

5.1 Who are the stakeholders?

The stakeholders are the organisations and individuals, who are responsible for, interested in or affected by the proposed Project. The employees of Osh-Tazalyk are the internal stakeholders of the Project. Other parties are the external stakeholders.

5.2 How and when are the stakeholders engaged?

The Project is prepared by Osh City Administration. The Administration makes sure that the local governmental agencies in Osh and adjacent municipalities, local community organisations, NGOs, the mass media and the general public including men and women are informed about the Project and can participate in the process of identifying and communicating the issues of concern, and in an analysis of the Project and its alternatives. This involvement is important during the Environmental and Social Impact Assessment process², which allows incorporating the relevant recommendations into the Project design and into the Environmental and Social Action Plan.

Meetings with representatives of Osh City Administration, management of Osh-Tazalyk, authorities of Rural Municipalities, local communities, women councils, NGOs, interviews with residents of Osh and surrounding villages were carried out in December 2012 to May 2013 during assessment of existing waste management conditions and preliminary formulation of the proposed Project. The elaborated Project Proposal was presented at the session of Osh City Council on 4 July 2013 and at the meeting of leaders of the Territorial Public Councils of Osh on 9 July 2013. All the meetings included active discussions. Information about approval of the Project Proposal by Osh City Council was published by the mass media.

The Project related information and consultation activities will be also carried out during all other phases of the Project preparation and implementation, so that

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² Environmental Impact Assessment according to the Kyrgyz Republic procedure includes environmental and social aspects

concerns of people potentially affected by the Project could be known and addressed. It is envisaged that information and consultation activities will be among responsibilities of the Project Implementation Unit (PIU) established in Osh.

The information provided about the Project should be sufficient at least for describing what changes will be caused by the Project, where these changes are expected and when they are expected.

A lot of information about the Project preparation was provided to stakeholders at meetings during the EBRD funded Feasibility Study and the Environmental and Social Due Diligence in December 2012 – July 2013. The Stakeholder Engagement Plan (SEP) has been prepared, its implementation initiated. The PIU will update the SEP and use it as an instrument for planning and recording of the public information and consultation activities. The updated versions will be disclosed by Osh City Administration (e.g. via the website www.oshcity.kg).

Local television companies have been recommended by the local authorities and NGOs as the most reliable media channel to regularly communicate the local news and information to the general public in Osh and adjacent municipalities. Majority of the households in Osh and rural areas have TV sets at home and are used to see the local news programs of TV companies.

5.3 Disclosure of ESDD documents

Hard copies and electronic version of NTS, SEP, ESA and ESAP documents in Russian will be available for reading during the office hours in the following offices:

- Osh City Administration (at the reception office of the Vice Mayor responsible for the Project)
- Office of waste management company Osh-Tazalyk

Hard copies of NTS and SEP and electronic copies of other ESDD documents will be available in the following offices:

- Osh City Administration, Department for Coordination of Territorial Councils
- Administrations of participating rural municipalities
- Women councils of participating municipalities

The NTS and ESA will be distributed together with the Forms for Comments, which can be filled in and submitted to the office of the Vice Mayor.

Hard copies of the NTS and ESA documents could be provided on request at the cost of the copying.

5.4 Contacts for information requests

People in the Kyrgyz Republic often prefer to ask questions and express their opinions on the phone. Questions in Kyrgyz and Russian regarding the Project preparation and requests for additional information could be addressed from 10:00 to 16:00 during the week days to the following contact persons in Osh:

Ilyas Razhapov Vice Mayor of Osh City 221, Lenin Street, Osh, 723500, Kyrgyz Republic

Tel: +996 3222 2 22 43, +996 3222 5 71 00

Secretary tel: +996 3222 5-54-43

E-mail: info@oshcity.kg

Zhyldyzbek Kochkonov Deputy Director of Osh-Tazalyk

Mobile: +996 557 02 42 42, +996 772 01 10 03

E-mail: ZhyldyzbekKochkonov@mail.ru

Answers to the questions and the requested additional information will be provided in Kyrgyz or Russian.

5.5 Comments during ESIA

It is planned that comments to the disclosed documents will be received as filled in forms with specified contact details for submission. During the ESIA the contact details of the PIU will be provided in announcement on TV, in posters and information leaflets distributed in the project affected communities to ensure the public consultation. Questions and comments expressed during the public meetings will be recorded and addressed in the ESIA document and then during the practical preparation and implementation of the Project.

5.6 Engagement during construction and operation

Information and consultation activities will be carried out in forms, which appear to be the most acceptable for addressing the stakeholder interests. Many of them could be based on lessons learned from activities carried during preparation of the Project. Among the new activities could be arrangements for Visitors Days (Days of Open Doors) providing the general public to see the sanitary landfill facility, the remediated dumpsite and the renovated premises of Osh-Tazalyk. Photos of the facilities could be provided via websites or information boards in Osh and suburbs.

Public information and awareness raising campaign should be carried out by the PIU for smooth introduction of the improved waste management system, for better transparency of billing and payment registration system and for overall improvement of revenue collection for the waste management services in Osh and suburbs.

Engagement of local stakeholders will be particularly important for monitoring of closure and remediation of Osh dumpsite and prevention of waste dumping in Osh and suburbs, so that all municipal solid waste is disposed at the sanitary landfill.

5.7 Grievance mechanisms for stakeholders

At the stage of construction, rehabilitation and operation of the Project facilities (construction of sanitary landfill near Osh with access road, establishment of modern collection points for municipal waste, development of optimal routes for waste collection trucks, closure and rehabilitation of dumpsite, upgrading of Osh-Tazalyk premises) the comments, questions and possible complaints will be addressed within the grievance mechanism. The Stakeholder Engagement Plan includes special mechanism for receiving and addressing the grievances from stakeholders (including workers of Osh-Tazalyk) during the Project implementation. This grievance mechanism will be based on written forms, which can be filled in by any affected person or organisation and submitted to Osh City Administration (later the Project Implementation Unit in Osh), who will take action, if required, and within 15 days inform the author of grievance on the action taken in response to the submitted grievance.