



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 07-May-2020 | Report No: PIDA28551



BASIC INFORMATION

A. Basic Project Data

Country Kosovo	Project ID P172992	Project Name Greening Land	Parent Project ID (if any)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date 30-Mar-2020	Estimated Board Date 03-Dec-2020	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) KOSOVO MINISTRY OF FINANCE	Implementing Agency Ministry of Environment and Spatial Planning	

Proposed Development Objective(s)

The proposed development objective is to demonstrate the risk-based approach for contaminated land management at selected sites and improve the country's policy and institutional capacity for managing land contamination.

Components

Demonstration of Sustainable Risk-based Contaminated Land Remediation and Redevelopment
Developing Policy and Institutional Capacity for Contaminated Land Management
Project management, monitoring and evaluation
Contingent Emergency Response Component

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	21.00
Total Financing	21.00
of which IBRD/IDA	21.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	21.00
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IDA Credit	21.00
Environmental and Social Risk Classification	
Substantial	
Decision	
The review did authorize the team to appraise and negotiate	

Other Decision (as needed)

B. Introduction and Context

1. **Kosovo, as one of the youngest countries on the continent — both based on its new statehood and the average age of its population (26 years) — has substantial development potential and yet faces challenges.** Landlocked, with a population of around 1.8 million and an area of 10,877 km², Kosovo is one of Europe’s poorest countries, with almost a third of its population living below the national poverty line. With policies anchored in its overarching political objective of joining the European Union (EU), Kosovo has made considerable socioeconomic progress in promoting growth, reducing poverty, and improving the business climate since it declared its independence in 2008. Between 2008 and 2016 gross domestic product (GDP) per capita grew an average of 2.8 percent in real terms and reached \$3,890. The country moved from 113th to the 40th in the Doing Business Report between 2010 and 2018, the third top-performer in the lower middle-income category. However, barriers to stronger economic growth remain. These include a narrow production base, persistently limited improvement of competitiveness and productivity of the private sector, reliance on an economic growth model of domestic consumption fed by remittances and donor investments, and existing disparities within population along geography, ethnicity, and gender. Addressing these barriers and moving towards the goal of full EU membership requires faster implementation of reforms in Kosovo¹.

2. **Kosovo is rich in many mineral resources including coal, lead, zinc, chromium, and silver; however, unsustainable past and current industrial activities exploiting these resources has generated environmental and health risks and impacts.** Large amounts (in millions of tonnes²) of industrial waste produced by industrial activities from 1930s was left as tailings dams and dumps. Some old production facilities are still active and polluting the air, soil and water, and waste dumping and highly acidic and contaminated effluents are being discharged to surface and groundwater. Unaddressed past and ongoing pollution poses severe environmental and health risks to population in Kosovo: increased risk of disease, reduced food safety - contaminants entering the food chain through polluted water and soil, a lack of open spaces, and continuing environmental damage. Exposure of communities to contaminated land can result in many types of health damage ranging from skin eruptions and nausea, to cancer or even death³. Furthermore, the exposure areas associated with contaminated land can be much wider due to the involvement of

¹ The World Bank’s Country Partnership Framework (CPF) for Kosovo

² For example, Trepca industrial complex in Mitrovicë/Mitrovica municipality. The estimated 60 million tons hazardous mining waste contains significant quantities of heavy metals (GIZ draft report on Kosovo Integrated Waste Management Strategy (2019-2028) and Action Plan (2019-2021))

³ US EPA <https://www.epa.gov/report-environment/contaminated-land>



several media -air, water, soil and food. In Kosovo, some contaminated sites are located close to water bodies, contaminating water resources in the country.

3. **Anticipated impacts of climate change in Kosovo can further exacerbate the environmental and health risks posed by contaminated sites.** Climate change models predict that the region will get drier and warmer faster than the world average. Particularly summer dry spells may increase, coupled with shorter but more intense rain periods. Flood damages are already significant and on the rise. It is estimated that a 100-year flood may lead to damage equivalent to 3 percent of the country's GDP (US\$200 million). The annual average population affected by flooding in Kosovo is about 10,000 and annual average affected GDP is about US\$50 million⁴. With climate change induced increase in the frequency and intensity of flood events in the future, coupled with projected economic growth, these figures are modeled to increase dramatically if no resilience is built. In the context of contaminated site management this means the inclusion of climate risks in planning for remediation and redevelopment, for which useful guidance exists⁵. In addition, the country's climate change strategy and action plan⁶ is a useful complementary reference document for planning purposes. Activities that target identified climate risks will be included to increase resilience of the sites and contribute to climate action in Kosovo. Institutional strengthening and capacity building for climate action will be incorporated in activities targeted at strengthening policy and institutional capacity for contaminated land management.

4. **The Government has recognized that redevelopment of contaminated land, especially brownfields⁷ will generate significant economic value and environmental and social benefits.** A recent World Bank report indicates that Kosovo's land take⁸ is abnormally high compared to other countries. Agricultural land loss in Kosovo and an absence of legislation governing spatial planning have been flagged by the EC as obstacles to Kosovo's preparations for accession to EU. Kosovo's land take for development is currently more than six times that of Germany's in relation to the two countries land areas⁹, which is unsustainable. Kosovo has significantly less surface habitable, accounting for only about 4% of the total area. The density of inhabitants per square kilometer is estimated to be among the highest in Europe, at about 170 people per square meter¹⁰ (The average of EU 28 is 118 per square meter). As land is a highly limited resource in Kosovo, the promotion of remediation is an important means to bring contaminated land back into production and use, generating significant economic, environmental and social as well as climate co-benefits: protecting the health of communities, removing development pressures off undeveloped open land, optimizing the use/reuse of existing infrastructure, facilitating job growth, increasing local tax base, transforming contaminated areas into healthy and safe places, fostering the development of renewable energy, and promoting green industries.

⁴ Kosovo Country Risk Profile for Floods and Earthquakes, GFDRR, World Bank. 2016

⁵ Resilient remediation: addressing extreme weather and climate change, creating community value, Practice Note, *Remediation*. 2018; 29:7-18.

⁶ Kosovo Climate Change Strategy (2019-2028) and Action Plan (2019-2021). Ministry of Environment and Spatial Planning, 2018

⁷ USEPA definition: A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

⁸ Land take is the loss of agricultural, forest and other semi-natural and natural land to urban and other artificial land development (European Environment Agency 2006)

⁹ Germany's policy is to reduce its land take by 40 percent over the coming years, as it sees its existing current rate of land take as deeply unsustainable.

¹⁰ State of Environment in Kosovo 2015, Ministry of Environment and Spatial Planning



Sectoral and Institutional Context

5. **The World Bank's recent report¹¹ estimated that the number of contaminated sites in Kosovo requiring remediation is about 200¹², limiting land available for development.** This is extrapolated from an estimation of about 4,000 suspected contaminated sites based on past and current use. This identification is in line with typical international practice for initial site identification. It is also in line with a contaminated sites cadastre approach that Kosovo itself proposed in its response to a 2011 European Commission (EC) survey. The total cost of site-based actions for managing the entire country's contaminated land legacy is cautiously estimated to be €345 million over 20 years¹³.
6. **The existing challenges in the environment sector translate into constraints in the management of contaminated land in Kosovo.** The key constraints identified through the World Bank study and related engagement are summarized below:
 - (a) Policy and regulatory constraints: There is no legal framework, technical guidance, strategy or long-term plan for addressing contaminated land in Kosovo. The Government issued an administrative instruction (AI) on Limited Values of Emissions of Polluted Materials into Soil (No. 11/2018) in 2018, which sets out the first legal and regulatory regime for contaminated land. However, the technical basis of setting the threshold limits for determining land use is unclear and this instruction is not complete in its coverage for systematic management of contaminated land; thus, it has not yet been fully implemented.
 - (b) Information and data constraints: In 2008 the Kosovo Environmental Protection Agency (KEPA) published a state of the environment report for 2006–2007 that included an initial review of the status of soils in Kosovo. This was followed in 2011 by a joint Ministry of Environment and Spatial Planning (MESP) and KEPA publication which for the first time identified 28 hotspot sites considered to be “areas of high pollution in Kosovo.” The recent World Bank study supported a further analysis that led to identification of about 200 contaminated sites. However, there is a lack of a comprehensive inventory to better understand the land contamination situation in Kosovo; and this remains a binding constraint to development of a long-term plan to undertake large-scale land remediation and to inform the public of the environmental, health and safety risks of land contamination.
 - (c) Institutional and capacity constraints. The institutional responsibilities for contaminated land management are split between MESP, Kosovo KEPA, Ministry of Economic Development (MED), Geological Service, and local government at the municipal level. However, these agencies lack the knowledge, capacity, and practical experience of undertaking the management of contaminated land in a coordinated matter and following international good practices. They require deeper technical knowledge on i) contaminated land remediation, including remediation technologies, ii) addressing new and emerging risk of climate change, and iii) knowledge of the sustainable and risk-based land management (SRBLM) approach that includes risk assessment and risk management of contaminated sites in an economically, environmentally and socially sound manner.
 - (d) Financial constraints. According to the recent World Bank report, the estimated total cost of site-based actions for managing the entire Kosovo contaminated land legacy is about €345 million over 20 years. Remediation of contaminated sites for redevelopment is expensive, and even in cases where land values after remediation easily outweigh the remediation costs, the high upfront cost of remediation is a constraint. No clearly defined rules and funding channels exist between the key stakeholders (namely the governments, previous or current land owners, and developers). There is a need to explore sustainable green financing options to address the



contaminated land legacy in the country, transforming the contaminated land's economic values as well as its environmental, social and climate co-benefits.

7. **Efforts towards implementing the National Development Strategy (NDS) on rehabilitation of contaminated sites, have been mostly supported by the international partners.** The Bank has been supporting Kosovo in environment, water, energy, financial and other sectors for sustainable development since 1990s. Specifically, the Bank supported the Energy Sector Cleanup and Land Reclamation Project (P096181) during 2006 to 2016 which supported remediation of Kosovo A ash dump, reclamation of the overburden area at KEK and removal of hazardous chemicals from Kosovo A's gasification site, resulting in 179 ha of contaminated land managed and 653 ha of land reclaimed for natural habitats, agriculture, or other land use purpose. The EC supported the "agriculture land pollution survey in Kosovo" during 2012-2014. The study monitored 214,749 ha of agricultural land in 18 municipalities, and took soil samples for heavy metals, fertility indicators, organic pollutants contents. The report shows heavy metal concentrations for 17 municipalities within standards of land pollution, but some heavy metals present at higher level (e.g., Cr, Ni, Pb, and Cd) were noted in the fields other than agriculture land or land used for non-agriculture land/urban purposes. The report recommends continued monitoring of land quality and environmental hotspots rehabilitation. Yet, soil and land monitoring in Kosovo is still mostly done on an ad hoc basis by donor projects or based on specific requests¹⁴.
8. **Given the above-mentioned constraints, which will further magnify the scale of land contamination, international good practices and phased actions to remediation and redevelopment of contaminated land are needed.** The National Development Strategy (NDS) 2016-2021 (under its Pillar 4 Infrastructure) called for implementation of projects for reducing environmental and health risks from waste (treating hazardous waste, rehabilitation of contaminated sites, eliminate illegal dumpsites, etc.). The current situation in Kosovo is one of relatively unmanaged contaminated sites with an initial inventorying of what are considered particularly significant sites (the hotspots) in 2011 and the AI in 2018 as mentioned above, therefore Kosovo is in a position to follow a well-established international approach – SRBLM to contaminated land management and prioritize its actions by phases. The first or the establishment phase, of a phased program for addressing contaminated land legacy in Kosovo is envisaged in the recent World Bank report to encompass a series of actions over a period of five years, including (a) developing the benchmarks and systems necessary to implement Kosovo contaminated site inventory and site prioritization for remediation and redevelopment; (b) establishing the right legal and institutional platform (including capacity building, coordination, and knowledge sharing) for contaminated land management; and (c) contaminated site remediation and redevelopment demonstrations to deliver high value and practical outcomes on the ground.
9. **The proposed project aims to support the country in developing and implementing a long-term action plan for contaminated land remediation and redevelopment in Kosovo.** The project will contribute to the improvement of contaminated land management to reduce associated health risks and realize economic, environmental and social values from land redevelopment, such as the creation of urban green spaces,

¹¹ Kosovo: Healing Land for the Future. The World Bank report Nov. 2019.

¹² The extrapolation of 200 sites possibly requiring remediation is based on the experience of Hungary, which has good available inventory data and a similar number of suspect sites pro rata for its land area. Many of these suspect sites are likely to be relatively small (e.g., gas stations, vehicle repair shops) and in the hands of small businesses that are poorly equipped to manage potential land contamination issues.

¹³ In 2014, the average annual expenditure per capita on contaminated site management in European countries (including some Balkan states) was reported to be €10 from public and private sources. If a similar level of investment is achieved in Kosovo, this equates to €20 million per annum at 2019 prices.

¹⁴ Final Report of Project "Agriculture land pollution survey in Kosovo", GIZ International Services and NIRAS 2015



commercial development, and renewable energy production that furthers the climate change mitigation ambitions of Kosovo. In doing so, the project will also contribute to Kosovo's commitment to the process of EU accession.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The project development objective is to demonstrate the risk-based approach for contaminated land management at selected sites and improve the country's policy and institutional capacity for managing land contamination.

Key Results

10. The PDO will be achieved by the following indicators grouped by outcome:
 - (a) To demonstrate a risk-based approach for contaminated land management
 - i). Area of contaminated land remediated and redeveloped through the risk-based approach (Ha)
 - ii). People benefiting from reduced exposure to contaminated land (number) (of which, percentage of women)
 - (b) To improve the country's policy and institutional capacity for managing land contamination
 - i). Legal instruments to define pollution liabilities and cleanup responsibilities drafted and submitted by MoIE to Cabinet (Yes/No)
 - ii). Technical guidelines for risk-based contaminated land remediation adopted by MoIE (Yes/No),
 - iii). National action plan for contaminated land remediation and redevelopment adopted by MoIE (Yes/No)

D. Project Description

11. The project will address the key constraints in managing contaminated land. It will do so through: a) investments in select sites to demonstrate international good practices for contaminated land remediation and redevelopment and b) enabling activities at both the national and local levels for developing the necessary policy / regulatory and institutional framework, building capacity, addressing data / information gaps, and developing a long-term action plan for contaminated land remediation and redevelopment in the country. Sustainable Risk Based Land Management or SRBLM¹⁵ (see Para. 51 for details) will be the principal approach to be promoted through the proposed project. The project will contribute to Kosovo's commitment to the process of EU accession and alignment of environment and

¹⁵ Sustainable Risk Based Land Management" means the optimal approach internationally recognized for contaminated land management to be demonstrated and its associated policy and institutional capacity to be developed under the project. It combines a risk-based framework for determining when risk is unacceptable and where action is necessary, while ensuring sustainability is incorporated into decision on how such unacceptable risks are to be managed in a cost-effective and environmentally and socially sound manner.



climate change regulation with the EU acquis. It is expected that the project will be the starting point of a longer-term program for addressing land contamination legacy in Kosovo. Subsequent phases for scaling-up are anticipated either as additional financing or as a new project to be funded by the Bank or/and other partners. The proposed project consists of three components described below.

Component 1: Demonstration of Sustainable Risk-based Contaminated Land Remediation and Redevelopment (about US\$ 17.1 million)

12. This component aims to demonstrate how contaminated land can be remediated and redeveloped in line with international good practices at two to three selected sites. To maximize sustainability, remediation and redevelopment options should be considered in an integrated manner early in the planning process, enabling best management practices of SRBLM to be implemented in the entire process. Early consideration of green and sustainable remediation opportunities and transparent mechanisms offers the greatest flexibility and likelihood for related practices to be incorporated throughout site investigation, remediation, and redevelopment. The regulatory initiatives on contaminated site management through Component 2 are envisaged to actively support site remediation and redevelopment that results in beneficial reuse such as commercial operations, industrial facilities, housing, greenspace, and renewable energy development. One site has been confirmed for remediation and redevelopment operations during project preparation. The other sites are to be confirmed during project implementation.

13. International experience shows that climate change will affect remediation actions, and remediation techniques can be affected by climate change¹⁶. All activities within this component will consider site-specific climate change context as well as Kosovo's priorities in mitigation and adaptation. These will be aligned with the Climate Change Action Plan for Kosovo which highlights the need for action on waste management and managing the risks from floods and droughts. It specifically refers to implementation of remediation measures for industrial sites and addressing acidic water discharge from mines, which are action proposed to be implemented under this project component.

Sub-component 1.1 Remediation and redevelopment at the brownfield site located in greater Pristina area

14. This sub-component will support investments in remediation and redevelopment of the brownfield site located in greater Pristina area, which has been identified as the first site, with close consultation and strong citizen engagement in Obliqi and Fushe Kosova municipalities. The total site is about 104 ha of brownfield land and includes an infilled mine galleries area (about 18 ha) and an overburden area (about 86 ha¹⁷). At the overburden area, a part of the land is owned by Kosovo Energetic Corporation (KEK) and the rest by the Kosovar Privatization Agency and multiple private owners. The site is adjacent to the reclaimed KEK ash dump site¹⁸ (previously financed by the World Bank) in its northeast.

¹⁶ For example, excessive precipitation can lead to greater mobilization and transport of contaminants and require the use of stronger protective barriers; extreme heat may render phyto-remediation techniques ineffective and require the plantation of different species of plants.

¹⁷ Including the overburden site, a zone along the foot slope of the overburden site with an approximate width of 30 meters, the current large pond, and the burned areas surrounding the large pond.

¹⁸ About 20 ha of this ash dump land are planned for solar panels.



Based on existing information¹⁹ and further site investigation²⁰ during project preparation, risk assessment was carried out and it concluded that there are no unacceptable human health risks (calculated exposure is below acceptable risk limits) to be expected for the planned future land use – a green public park with children playgrounds and/or nature recreation area. However, the site investigation discovered that the soil is heterogeneously contaminated with heavy metals and locally heavily contaminated with barium, nickel and chromium based on the Dutch standards²¹. The groundwater is moderately to heavily contaminated with cresols at the border between the ash dump and mine galleries. These results indicate that contaminated groundwater is flowing into the site.

15. A concept for redevelopment has been made by collaboration among the Fushe Kosova and Obiliqi municipalities and KEK, including zones for green area, parking places, road, game corners, sports areas (basketball court and playgrounds), small businesses (restaurants, handicrafts, bicycle rentals, etc. and conservation of watersheds. A more detailed redevelopment design with landscape architects involved will be made, taking into account the remediation measures and water management (including rainwater collection and management, plant water management, waste water management). The following remediation options have been considered: i) re-cultivation of the site without installation of topcover; ii) installation of topcover; iii) phyto-containment (phyto-stabilization)²² and targeted actions, and iv) removal of the overburden site (which will require the maximum effort amongst all remediation options). Option iii) is considered the most appropriate technically and financially.

16. The combined remediation and redevelopment plan are to repurpose the site as a future public park. As some land of the overburden area (southern part) is owned by the Kosovo Privatization Agency or privately owned, necessary arrangements with the landowners should take place prior to remediation of the overburden area. As such, the proposed remediation works will be carried out in two phases, with the first phase focused on the infilled mine galleries (which is wholly owned by KEK) and the second phase on the overburden area. The first phase remediation activities for the infilled mine galleries to be financed under this sub-component will include (a) depots and fences of the infilled mine galleries area - instruction and warning signs should be in place to inform visitors of the presence of these galleries. These information signs can be combined with an informative history of the area to increase their readability and appeal to visitors of the area, (b) installation of topcover for roads, pathways and parking areas, (c) installation of a phytoremediation pond as a buffer for collection of groundwater (also creating nature), along most of the foot slope of ash dump on the eastern border of the infilled mining area, and (d) groundwater monitoring network²³. The first phase of the remediation can be considered as a pilot testing with the remediation pond installed and water management of the area, before moving to the larger park after the land ownership is addressed.

¹⁹ Results of analysis for determining contamination and fertility of land of External Fold of Dragodan Idle Land, Instituti INKOS R-810-3, November 2018.

²⁰ In early 2020 Tauw (Dutch consulting firm undertaking remediation and redevelopment planning) conducted a site investigation which included the use of hand-held XRF for broad screening of the site surface and sampling of soil, surface water and groundwater.

²¹ The soil is slightly to moderately contaminated with heavy metals based the Kosovo standards.

²² Phytostabilization involves the establishment of a plant cover on the surface of the contaminated sites with the aim of reducing the mobility of contaminants within the vadose zone (extends from the surface to the regional groundwater table) through accumulation by roots or immobilization within the rhizosphere, thereby reducing off-site contamination.

²³ Groundwater should be monitored for Ba (Barium), Cd (Cadmium), Cr (Chromium), Cu (Copper), Ni (Nickel), Zn (Zinc), Pb (Lead), cresol, phenol, naphthalene, phenanthrene, fluoranthene and TPH (total petroleum hydrocarbons).



17. The second phase remediation for the overburden area will include (a) installation of topcover for recreation areas, (b) installation of topcover underneath roads, pathways and parking areas, (c) installation of phyto-containment, (d) sediment remediation from the current pond, (e) remediation of burned topsoil, (f) installation of ground water collection pond, and (h) ground and surface water monitoring network. After remediation, the site situation including land use restrictions should be registered in the country's land registry system and a monitoring and aftercare program should ensure the remediation activities will remain in place and risks for soil improvement will be monitored in the long term. MoE will address the land ownership issue within a year from the project Effective Date. It will report to the World Bank the status of resolution of the land ownership issue, its proposal and decision for the second phase and request that the amount of the estimated costs of this Subcomponent be reallocated for the financing of other eligible expenditures if needed.

18. Given that the site is linked to a coal-fired power plant, effort will be made to maximize the climate mitigation potential of the redevelopment through revegetation with plant species that have the highest carbon sequestration potential. Furthermore, there are existing plans to ensure that electricity used for the redevelopment area (such as for street lighting) will be sourced from the neighbouring solar park also being developed by KEK.

Subcomponent 1.2 Preparation of remediation and redevelopment plans for other sites

19. This sub-component will support site investigation, risk assessment, preparation of remediation and redevelopment plans and associated Environmental and Social Impact Assessment (ESIAs) for the other two to three sites, and citizen engagement activities. Site selection will be undertaken in consultation with the national and sub-national governments and will follow a set of criteria, including: i) relatively less extent of remediation complexity and clear land ownership, in order to demonstrate success within the project period; ii) potential of strong government support and community engagement, and high potential of integrating remediation with economic and social benefits, such as public amenities and regeneration of degraded areas, , materials recovery, greener industry promotion, and capacity building; iii) contributing to climate adaptation and mitigation, such as protecting and developing water resources, development of green areas, and renewable energy development, and iv) the possibility of financial contribution from (national or local) government or private sector associated with the site. Site selection decision will be made jointly with the project counterparts (relevant ministries and agencies, site owners), and local governments, with inputs from community engagement and consultations. An indicative shortlist of potential participating sites has been identified and two or three sites will be confirmed during project implementation²⁴. The indicative shortlist of demonstration sub-projects grouped by potential future land use or redevelopment options is as follows:

- (a) Development of green parks and public spaces:
 - (i) An asbestos impacted area in Hani I Elezit to create a linear park, linking to an existing development blueprint already prepared by the municipality and probably also involving improvement of an existing storage site (meeting European standards) to manage removed asbestos from old buildings and excavated contaminated soil if any during remediation.

²⁴ Confirmation of the participating sites is less about locations, but more about SRBLM technical approaches for each subproject which can only be determined after a thorough site investigation and risk assessment is completed.



- (ii) Mitrovica Industrial Park to establish a “Peace Park” across the different communities of Mitrovica. A master plan integrating remediation and redevelopment could also support fund-raising and building partnerships for the “Peace Park” regeneration and serve as the technical basis for effective cleanup under the next phase of contaminated land management.
- (b) Provision of clean water resources:
 - (i) the Artana mine tailings site – polluted water ends up in the Kriva Reka river which is used for drinking water and other economic use downstream. This is in the same general area where reservoir development is considered (within the Kike-Kremenata system) for support under the World Bank’s FLOWS program; and sustainable mining will be promoted to prevent further pollution.
 - (ii) Piloting integrated greener industry and repurposing of historic flotation waste tailings as a basis for replication in the next phase across various Trepça sites and facilities.
- (c) Integrated municipal solid waste management
 - (i) Remediation of a municipal waste landfill site.

Sub-component 1.3 Remediation and redevelopment at other sites

20. This sub-component will support investments for remediation and redevelopment at the other one to three sites which will be prepared under the sub-component 1.2. As the cost for remediation and redevelopment can only be determined based on the site investigation, risk assessment, and the remediation and redevelopment plan, the scope and costs of remediation and redevelopment for the other one to three sites will be confirmed during project implementation. It is expected that the other sites will involve relatively higher levels of contamination than the first site, and their remediation and redevelopment may be designed to be undertaken in phases. The first phase of remediation and redevelopment is expected to be financed as appropriate under the project.

Component 2: Developing Policy and Institutional Capacity for Contaminated Land Management (about US\$ 3.1 million)

21. This component aims to develop the policy and institutional capacity of the Government of Kosovo for SRBLM through a series of enabling technical assistance (TA) activities. According to lessons learnt from clean-up projects in other countries, the set-up of a comprehensive policy framework and institutional management system takes years. Therefore, this component will focus on low-hanging fruits in terms of the policy and institutional set up with prioritized activities including contaminated sites survey and inventory, key legal instruments and technical guidelines development (including improvement of the existing land registry/information system), training and awareness raising activities, national planning for contaminated land management and reduction of industrial waste to prevent new land contamination. Climate considerations will be incorporated in the policy and institutional capacity building efforts. Furthermore, the National Action Plan will be informed by the latest global knowledge and research on resilient remediation. A comprehensive policy and institutional framework is expected



to be developed as part of the next phase project. This component will support the following sub-components:

22. **Sub-component 2.1 National survey of suspected sites and an inventory of contaminated land in one or two selected municipalities.** This subcomponent aims to address data constraints for GoK to tackle contaminated land. It will support a national survey of the suspected contaminated sites in Kosovo. The purpose of the national survey through preliminary investigation²⁵ is to screen contaminated sites in the needs of further site investigation to evaluate their risk. The survey results will inform the development of the National Action Plan under sub-component 2.3. It is expected that the survey results will be publicly available in an appropriate manner. The subcomponent will also support an inventory (site investigation²⁶) of contaminated land in selected municipalities. The inventory may be carried out in parallel with the national survey of suspected sites, not necessarily waiting for its completion, as the inventory will largely depend on the needs of municipalities. Technical guidelines and training will be developed and provided at beginning of project implementation to guide the survey and inventory work. It is expected that these technical guidelines for contaminated land inventory will be updated and adopted by project closing and the inventory of contaminated land will be replicated at the national level under the next phase of the project.

23. **Sub-component 2.2 Policy and institutional capacity building, awareness raising and community involvement.** This sub-component is to ensure effective implementation of Component 1 of the project and a National Action Plan for contaminated land management in Kosovo (see the next sub-component) in future, which would require legal basis, technical guidelines and capable professionals with good knowledge on SRBLM. This subcomponent will support the following activities:

- (a) **Developing key legal instruments and technical guidelines (TG) for SRBLM** tailored to the country's context. The legal instruments will be developed, focusing on clarity on the boundary between what is considered contaminated versus not contaminated, procedures for inventory to identify, prioritize and manage sites, a clear liability and cleanup responsibility regime, and requirements for land registry²⁷ and land use restrictions after risk-based remediation. It will also take into

²⁵ Preliminary investigation will collect readily available information about a site and its surrounding area (potential risk receptors) and determine whether a site poses little or no threat to human health and the environment or if it does pose a threat, whether the threat requires further investigation.

²⁷ Since 2011, with the support of the World Bank and other development partners, the land and property sector in Kosovo has undergone a substantial transformation. Under the Kosovo Real Estate Cadaster and Registration Project (RECAP; supported by the WB and closed on June 30, 2018), the Kosovo Cadastre Agency (KCA) has made considerable progress in introducing a modernized land administration system, securing property rights, and improving the business environment. While achieving these results has taken some time due to the need to build legal and technical procedures for registration and IT system development. RECAP has laid the foundation for the next phase of investments and reforms that are planned under the ongoing Real Estate Cadastre and Geospatial Infrastructure Project (REGIP, P164555), which focus on improving public sector service delivery and strengthening private sector competitiveness through: (a) further cadastre reconstruction to improve the availability and accuracy of correct up-to-date cadastral information and thus enhance the security of tenure; (b) investments to advance ICT and geospatial infrastructure that improve availability, affordability, and transparency of public services in order to better serve citizens and businesses; (c) policy, legal, and institutional support ; and (d) capacity building initiatives to improve decision-making, particularly with the use of geospatial data.

²⁷ Since 2011, with the support of the World Bank and other development partners, the land and property sector in Kosovo has undergone a substantial transformation. Under the Kosovo Real Estate Cadaster and Registration Project (RECAP; supported by the WB and closed on June 30, 2018), the Kosovo Cadastre Agency (KCA) has made considerable progress in introducing a modernized land administration system, securing property rights, and improving the business environment. While achieving these results has taken some time due to the need to build legal and



account the existing municipal land development planning process. The key technical guidelines will cover the entire remediation process: site investigation, risk assessment, remediation program design, remedial action, and remediation completion with verification. These TGs should also include requirements related to community involvement, approval procedures, enforcement, emergency response, climate risks, land registry, qualification of site-cleanup practitioners, and a wide variety of characterization, monitoring, and remediation technologies throughout the remediation process. The expected TG will set out the minimum quality MOIE/KEPA will permit. When drafting the legal instruments and the TGs, it could refer to existing documents from international standards bodies and agencies. The international regulator network www.commonforum.eu could provide support and peer to peer comment to the draft. This activity will coordinate closely with the ongoing Real Estate & Geospatial Infrastructure Project (P164555) on land registry, especially for land use restrictions.

- (b) Providing training programs on the following topics: technical basis for SRBLM, key stages of site management including site monitoring; brownfield management and land re-use, liability and financing mechanisms, good practices of public private partnership, international policy and regulatory approaches and good practice for recycling, re-use and waste management related to sites (especially mine tailing sites), and climate considerations in contaminated site management. Training materials will be developed for these trainings and tailored to different target audiences including government and municipality officials, contaminated land remediation practitioners, laboratory staff, and site owners. In addition, study visits to observe international good practices of SRBLM and establish partnerships with relevant agencies in developed countries will also be organized under this sub-component at the beginning of project implementation and throughout project implementation as needed.
- (c) Organizing public awareness and citizen engagement activities at the national and municipal levels according to the agreed annual work plans. Public awareness activities aim to increase the public's knowledge on land pollution problems, generic information on site cleanups, and tips and skills for prevention of land pollution. Videos or posters will be made, or other formats of public awareness activities will be carried out. Citizen engagement activities aim to advocate and strengthen early and meaningful citizen participation and consultation during site-specific remediation and redevelopment.
- (d) Providing knowledge and training for key polluting industries (e.g. the mining industry) on prevention of land (and air/water) pollution to minimize future land contamination through sustainable mining including circular economy approaches. The sites of mining operations have

technical procedures for registration and IT system development. RECAP has laid the foundation for the next phase of investments and reforms that are planned under the ongoing Real Estate Cadastre and Geospatial Infrastructure Project (REGIP, P164555), which focus on improving public sector service delivery and strengthening private sector competitiveness through: (a) further cadastre reconstruction to improve the availability and accuracy of correct up-to-date cadastral information and thus enhance the security of tenure; (b) investments to advance ICT and geospatial infrastructure that improve availability, affordability, and transparency of public services in order to better serve citizens and businesses; (c) policy, legal, and institutional support ; and (d) capacity building initiatives to improve decision-making, particularly with the use of geospatial data.



much scope to adopt a circular approach to business, which also help make them climate resilient and reduce their carbon emission. Considering the environmental and social impact of their operations, mining companies need to take steps to minimize negative effects, share best practice and reduce waste.

24. **Sub-component 2.3 Sustainable financing options and National Action Plan for SRBLM.** This subcomponent will support a study for different funding, taxation and liability mechanisms/options based on international experiences tailored to Kosovo to finance the cost of contaminated sites management in Kosovo over the long term. It will also support the Government of Kosovo in developing a National Action Plan for SRBLM in close consultation with relevant stakeholders to address land contamination in Kosovo beyond the project life, also for the purpose of sustaining outcomes of this project and informing subsequent phases interventions by international financial institutions. The action plan will discuss the following topics but not limit to: (a) contaminated land inventory (b) relevant policy framework (c) institutional responsibilities, (d) technical approaches to contaminated site management, management, taking into account climate resilience potentials, (e) contamination prevention and minimization, (f) climate resilient remediation, and (g) sustainable financing options for implementation. It will coordinate closely with the ongoing Real Estate & Geospatial Infrastructure Project (P164555) so that the National Action Plan builds on an up to date land registry.

25. **Sub-component 2.4 Study on investment planning for industrial (hazardous and non-hazardous) waste management.** As most industrial hazardous waste are pollution sources to land, water and air, it is important to reduce industrial hazardous waste, so that land and water contamination can be largely avoided in future, while the contaminated land legacy is being addressed. Sustainable management of industrial non-hazardous secondary materials is also important, as these secondary materials can be beneficially used instead. Some of the potential benefits associated with the use of secondary materials include reduced costs, preservation of natural resources, reduced air, water and soil pollution from extraction activities, reduced greenhouse gas emissions, and avoided use of landfill space. This sub-component will identify opportunities (including circular economy and industrial symbiosis opportunities) and financing options to reduce industrial hazardous waste and sustainable management of non-hazardous industrial waste in key industries (e.g. mining, other industries, construction and demolition waste). Efforts will be made to highlight the climate mitigation benefits (e.g. potential GHG emission reduction analysis) of the opportunities, considering their link with circular economy and industrial symbiosis approaches. This work will build on the annual inventory of industrial hazardous waste produced by KEPA and ongoing efforts provided by EU and other donors.

Component 3: Project management, monitoring and evaluation (US\$ 0.8 million)

26. This component will support operating costs associated with project management, including day-to-day project implementation, procurement and financial management, and environmental and social management functions to be carried out by an established Project Management Unit (PMU) in the Ministry of Infrastructure and Environment (MoIE, replacing MESP under the new Government structure), including coordination and collaboration among national and local government agencies, non-



government organizations and the private sector (site owner, polluter or site redeveloper). This component will also support hiring of international and national technical experts with both contaminated land management knowledge and remediation engineering experience to provide technical support to the PMU on project implementation, monitoring & evaluation of the project outcome indicators and results by collecting evidence-based information and data, and organizing the project launch and completion workshops.

Component 4: Contingent Emergency Response Component (CERC)

27. This component²⁸ is being introduced with no allocated funds, considering the rapidly developing COVID-19 emergency. Following an eligible²⁹ crisis or emergency³⁰, the Recipient may request the Association to re-allocate the project funds to support emergency response and reconstruction. This component would allow rapid disbursement and draw from the uncommitted credit resources under the project from other project components to cover emergency response. The new disbursement category will have a zero-dollar allocation, with 100 percent IDA financing. If the CERC were to be triggered, and the Association is satisfied with the evidence that withdrawal conditions, as defined in the Financing Agreement, are met, the Borrower will request reallocation of proceeds to the CERC and can start disbursing. The project may require at a later stage a revision of the PDO and the Results Framework and Monitoring Indicators if needed in order to reflect the larger scope of the project. This component could also be used to channel additional funds should they become available as a result of the emergency. A CERC Annex³¹ will be included in the Project Operational Manual. A section on the CERC is also included in the project Environmental and Social Management Framework.

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

Summary of Assessment of Environmental and Social Risks and Impacts

²⁸ A CERC is a financing mechanism to strengthen a borrower’s country response and recovery capacity by allowing World Bank investment project funds to be quickly reallocated to emergency recovery activities after an eligible emergency has occurred or is about to occur. This financing mechanism averts the need for time-consuming project restructuring because the budget line is already there.

²⁹ Defined as “ an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact associated with natural or man-made crises or disasters. Such events may include a disease outbreak.

³⁰ Once the requirements for activating it are met, uncommitted funds from the project are reallocated to the CERC and made available for crisis or emergency response. To facilitate a rapid response, a formal project restructuring is deferred to within six months after the CERC is activated.

³¹ This CERC Annex lays out, as detailed as possible, the provisions for activating and implementing the CERC. To facilitate CERC implementation during changing post-disaster circumstances, the CERC Annex – which can be updated with the Bank’s no objection – includes the operational, fiduciary and technical details of the CERC.



Environmental Risk Rating Substantial

28. The project is expected to bring a positive paradigm shift in the country's environmental management by enhancing the capacity of managing land contamination and demonstrating sustainable risk-based cleanup and redevelopment at selected contaminated sites. Although there is a scope for large engagement in remediation activities, the project will not support any investments and Technical Assistance of high safeguard risks. The naturally sensitive ecological areas will be avoided. The site investigation report of the KEK Overburden and infilled mining area shows no unacceptable human risk in the existing condition. However, construction related activities may increase the noise and dust pollution, vibration impact from traffic movement and construction wastes and also position of infilled mining areas. The decision on the placement of the redevelopment activities has to consider the existing condition of polluted air emission from the power plant, wind direction, infilled mining areas to avoid any health and accident risk during the construction and operation phase. Therefore, the potential environmental impacts could be moderate to substantial scale but are predictable and reversible and can be avoided if appropriate precautionary measures are adopted. Additionally, the project will support feasibility study for other two or three contaminated sites which are yet to be confirmed. Since those sites have the scenario of historical contamination, primary field data collection may pose health risks to the workers and community from the exposure to heavy metals, hazardous waste handling and management, if adequate safety measures and Personal Protection Equipment are not adopted. According to the Kosovo Country Environmental Analysis (2013), the role of the judiciary in environmental management is still weak. The environmental monitoring status both at MoIE and KEK also needs to be strengthened. Considering the existing capacity of environmental management both at the MoIE and KEK and future possible exposure to the still unconfirmed contaminated sites under Sub-Component 1.2, the environmental risk of the project remains "Substantial" at the appraisal stage as proposed during the concept stage.

Social Risk Rating Moderate

29. The proposed social risk rating for the project, at the appraisal stage is still Moderate as proposed in during the concept stage. The activities that can be foreseen are those related to phase 2 activities of the KEK site. The section of the KEK site for phase 1 is owned by Government entities. Another section of the KEK site has unclear title, which may include private ownership. There is a possibility that land has been expropriated more than 30 years ago and the data has not been transferred into the new cadaster. For other potential sites, there is a possibility that the project will finance activities through the investment component, that would lead to land acquisition. However, this is expected to be very limited with a maximum of five to ten households. Moreover, it is highly unlikely that there will be much relocation needed. The resettlement department of the MoIE, who will be in charge with the land acquisition process is familiar with the Bank standards on land acquisition. The MoIE as implementing agency is not familiar with the Labor and Working condition standards but on the other side the construction industry in last 10 years grew capacity in applying good international practices in occupational health and safety standards, given that they worked as subcontractors of large experienced international companies. However the labor and working condition related risks are relevant due to the remediation activities. The smaller challenge to address will be protecting communities from the project related traffic and the complex one will be protecting communities from the historical land contamination

E. Implementation

Institutional and Implementation Arrangements



30. The proposed project will be implemented over a period of five years by the Project Management Unit (PMU), which will be created within the Ministry of Infrastructure and Environment (MoIE) under the new Government of Kosovo. The PMU will be responsible for implementation of all project activities. The PMU will be led by a Project Director to be assigned by MoIE. The PMU will hire a Project Coordinator, who will be a project focal point, liaise with all stakeholders and make sure their active participation in the implementation of respective activities. The PMU will also include specialists for procurement, financial management, environmental and social management and communications/M&E. These specialists are expected to be working for both projects (this project and the other project financed by the World Bank (FLOWS, P169150)). This will allow cost-effective and complementary management on the common responsibilities for both projects. To operationalize this arrangement, separate TORs and contracts will be prepared and signed for these common responsibilities and relevant eligible costs and expenditures will be accounted separately for each project. The PMU will also hire international and national experts in remediation and redevelopment to support project implementation. A Technical Steering Committee (TSC) will be established and will meet regularly to provide technical guidance and oversight to overall project implementation. The TSC will include representatives from MoIE (including KEPA), MED, MOF, participating municipalities, site owners, and other agencies as needed. The details are described in PAD Annex 1.

31. The municipalities where the target sites are located play an important role during remediation and redevelopment demonstration subprojects under Component 1. Its responsibilities will include, but not limited to i) provide important public safety measures during emergencies, ii) provide important sources of information with support from local communities³², iii) identify community concerns regarding the site remediation and redevelopment, and iv) guarantee that local citizens are involved in decisions about remediation and redevelopment actions in their communities. Throughout all remediation and redevelopment actions, municipality officials will be kept informed of plans and progress through telephone contacts or visits by the MoIE PMU. Communities may also be asked to review and comment on important reports, studies, and proposed actions. Both MoIE and the municipalities will jointly conduct formal and informal community involvement activities under Component 2.2. To facilitate the carrying out of Component 1 of the Project, and prior to undertaking any activities under the relevant contaminated sites, MoIE will enter into an Implementation Support Agreement or Agreements with site owners and the relevant municipalities. A Project Operations Manual (POM) will be prepared to guide the PMU for project implementation. The POM should be adopted by MoIE not later than three months after the project effectiveness.

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³² Local communities can provide valuable details about a Superfund site, including information on the location of sites (site discovery), detail on site history (site investigation), and/or information on potentially responsible parties.



Borrower/Client/Recipient

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