The World Bank Kosovo Power Project

IDA-16 Gender and Climate Change Commitments Undermined

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KOSOVO CIVIL SOCIETY CONSORTIUM FOR SUSTAINABLE DEVELOPMENT
KONSORCIUMI KOSOVAR I SHOQËRISË CIVILE PËR ZHVILLIM TË QËNDRUESHËM

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May 2013

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Executive Summary

The International Development Association (IDA) is the World Bank Group's (WBG) concessional window for low-income and post-conflict countries. It has a three-year replenishment cycle in which additional funding is contributed by donor countries to support grants and lending operations in IDA countries. Parceled with making contribution commitments, donor-countries request specific enhancements to IDA country operations. For the IDA-16 resource period (FY12-FY14), the donor countries requested that IDA strengthen its approach to gender and climate change in its project design, policy framework, and country dialogue.

- **Gender:** With regards to gender commitments, IDA-16 resources should **advance development outcomes on women's and children's health and economic opportunities for women**. At the project level, this involves more rigorous impact evaluations and gender-responsive projects. As such, the World Bank pledged to screen all IDA-16 projects to determine whether any sex differentiated impact is expected.

- **Climate Change**: IDA-16 climate change commitments stipulate that IDA funded activities should support **climate change mitigation in the form of low-carbon growth and, climate resilient development**, in the form of, *inter alia*, **agricultural productivity and efficient water use.**

Post-conflict Kosovo is an IDA-only country. Thus, all near-term World Bank operations (FY13-FY17) will be financed principally by an allocation from IDA-16 and/or IDA-17. Currently, the Bank is considering a $58 million Partial Risk Guarantee (PRG) for the proposed Kosovo Power Project. The proposed project involves: building a new 600 megawatt (MW) lignite coal-fired power plant (KRPP); and developing a new open-cast lignite mine and associated infrastructure (Sibovc South Lignite Mine).

This document assesses the degree to which the Kosovo Power Project supports the IDA-16 commitments on gender and climate change.

Significant Gender Concerns Unaddressed

Even though the World Bank proposed Kosovo Power Project is an IDA16 project, a category A project, and an extractive industries project, all of which raise red flags for gender concerns, **the Bank did not perform a gender screening**. Such a gender screening should have taken place as part of the Strategic Environmental and Social Assessment (SESA), the Resettlement Action Plan (RAP) for Shala, and the Energy Options Analysis. All of these assessments have been completed without a gender screening or gender analysis. Thus, the Bank missed the first measure on the Bank's IDA16 gender pledge that the Social Development Network would screen all IDA-16 projects to determine whether any sex differentiated impact is expected.

The Bank got off to a good start with efforts to include women and women's civil society organizations in SESA and resettlement consultations. Unfortunately, although women's participation indicated gender-specific concerns, the Bank did not follow through and identify sex differentiated impacts, gender-specific measures, or sex differentiated socio-economic indicators to be monitored. There is no indication in the SESA or the Shala resettlement action plan (RAP) how women's concerns or impacts have been taken into account in the project design, assessment of project alternatives, or measures to rehabilitate lost livelihoods or how any gender impacts will be specifically mitigated.

This case study produced a partial gender screening of the proposed project, which indicated significant sex-disaggregated impacts, including:

- **Pronounced Risks to Women's and Children's Health**: Pollution, including mercury and particulate matter (PM), stemming from the proposed new power plant and mining stand to further exacerbate Kosovo's very poor record on maternal and child health. The project undermines IDA-16 gender commitments towards Kosovo achieving MDGs 4 and 5.

- **Reduced Economic Opportunities for Women**: The project poses substantial risks to women's livelihoods, income and means of family subsistence through negative impacts on agricultural production and critically insufficient resettlement options.

Project specific findings include:

- The EU has not yet set limits on mercury emissions from power plants, so **there is no World Bank requirement on mercury emissions for the proposed new Kosovo power plant**.
- Mercury pollution emitted from coal plants can cause irreversible setbacks in growth and mental development of children. Even trace amounts of methyl mercury can harm reproduction. The World Bank-proposed new KRPP power plant stands to emit **100 percent more mercury** than if it were built to meet standards in the United States.
- Effects attributed to long-term particulate matter (PM) exposure stemming from coal plants include: mortality due to cardiovascular and respiratory diseases, lung cancer, **intrauterine growth restriction,** and increases in morbidity primarily due to chronic bronchitis, **lower respiratory illness in children**, and other respiratory symptoms.
- It is estimated that the new coal plant will result in **1,766 premature deaths** over the 40-year life of the plant. Annually, there will be **32,220 days of lower respiratory symptoms in children and 843 asthma attacks in children.**
- There are **significantly less employment opportunities for women** compared with men in energy and mining in the project area.
- The project stands to **reduce women's sources of livelihood in the agricultural sector** in three primary ways: conversion of agricultural land for mining; reduced water for irrigation; and pollution impacts on crops and livestock.
- The potential for reduced agricultural productivity would impact women and families well beyond the defined project-affected area.
- The current Resettlement Action Plan **does not restore lost agricultural-based livelihoods for women or men**. There is a lack of agricultural land available for the resettlement of families who depend on it for income and subsistence. As such, the plan offers recently reclaimed mining lands to these families. Such land has not been determined safe for agricultural production.

The gender screening exercise determined that the World Bank-proposed Kosovo Power Project stands to harm women's and children's health and economic opportunities for women – the two gender priorities of IDA-16 replenishment.

As indicated by the Kosovo Power Project, it is critical to conduct a gender analysis in the project pre-appraisal stage, so that there is adequate time to integrate sex-differentiated measures in the project design and fully consider project alternatives when the proposed project poses significant risks to women's health and economic opportunities. The Bank's Energy Options Analysis for the Kosovo Power Project has already concluded that the coal power plant is the project to be proposed to the Board. Furthermore, in May 2013 a request for proposals is due to go out to pre-qualified bidders to develop the project ahead of any World Bank Board approval. A gender

analysis should have been conducted as input to the alternatives assessment to ensure all significant project-associated risks and benefits were considered and adequately addressed.

Undermines Climate Change Resilient Development

Overall, the Bank has not demonstrated a robust approach to low carbon alternatives for Kosovo. Instead of prioritizing analyses and actions to support a low carbon development path for Kosovo, the Bank has dragged its feet for a decade on the necessary energy efficiency measures, technical upgrades and renewable resource studies and low-carbon project investments. The World Bank is not treating coal as a "last resort" for Kosovo. Instead, the Bank is pushing forward with a project that will lock Kosovo into a high carbon development path for the next 40 years before viable low carbon alternatives have been exhausted.

As part of the Bank's justification for the new coal plant, it wrongly frames it as an upgrade to an existing coal plant – claiming the new plant as the low-carbon answer to Kosovo's heavily polluting coal plants. In fact, the proposed project's KRPP is nothing other than a newly constructed 600 MW coal plant, which will produce more GHG emissions than the old coal plant that is legally required to be decommissioned. As such, multiple expert studies have found that the proposed coal project will be extremely costly and will necessitate a sharp increase in electricity tariffs, while a mixture of efficiency, technical improvements, and renewable options can provide a lower cost alternative for Kosovo's energy needs.[1]

Furthermore, the World Bank proposed new 600 MW coal plant and significant coal mining expansion will further exacerbate current water scarcity issues in Kosovo and pose risks to agricultural productivity. As such, the project stands to undermine IDA-16 climate change commitments to promote climate resilient development through agricultural productivity and efficient water use.

After more than ten years of assistance to Kosovo's energy sector, the World Bank's approach to Kosovo still lacks a serious commitment to support a low-carbon development path. The Bank's ultimate decision to put forward the proposed coal project has been based on inadequate data and lack of analyses on several critical fronts, including:

Unaccounted mining costs: Even though the World Bank's climate criteria for coal projects is clear that the impacts of coal mining must be internalized for coal power plants, the Bank's Options Analysis does not include the costs associated with the Sibovc South Lignite mine's development, including *inter alia*: expansion of mining operations, resettlement, lost agricultural production, road maintenance, and mine reclamation. This would have added substantial costs to the economic analysis of the new KRPP power plant. The Bank's Strategic Framework for Development and Climate Change (SFDCC) Expert Panel did not address this significant omission.

Under-estimated climate impacts – The World Bank's Options Analysis only accounted for CO_2 emissions from the new coal plant. It did not account for GHG emissions associated with particulate matter (i.e., black carbon) or methane (CH_4) emissions from the new mining operation. The World Bank is not requiring a coalbed methane capture operation or that the KRPP be designed to co-fire the project-generated coalbed methane.

Unproven need for 600 MW plant - Kosovo's 2010 electric "base load" consumption can be met by slightly more than 400 MW of base load generation, far less than the 618 MW net generation that will be provided by the refurbished existing Kosovo B plant. Energy efficiency improvements would reduce this need even further and would allow Kosovo B to meet base load generation needs at least through 2025. This renders the proposed new 600 MW KRPP coal plant unnecessary.

[1] Kammen, Daniel M., Maryam Mozafari and Daniel Prull, 2012. Sustainable Energy Options for Kosovo: An analysis of resource availability and cost. Renewable and Appropriate Energy Laboratory, University of California, Berkeley. January 2012.

Inadequate consideration for low carbon alternatives – The Bank's Options Analysis relied on very preliminary assessments for wind, solar, and geothermal and did not fully explore hydropower and wind coupling opportunities possibly afforded through greater coordination/integration with Albania's energy system.

Undercuts efforts on energy efficiency and transmission losses – Once the proposed new plant is built, there will be substantial excess base load capacity in the system. This will create perverse incentives to increase the use of electricity to justify the initial investment. In this way, committing to construction of the new unit at this time will undermine efforts to reduce transmission losses, theft and end user energy efficiency.

Risks to water supply – The new power plant does not have a secure supply of water. Additionally, the new plant poses risks to water supply for other uses, including drinking and irrigation. Even though the water source for the new power plant is already assessed to be highly stressed, the Bank's Water Study downplays future water demand by assuming: low population growth; moderate growth in irrigation (8,000 ha out of a potential 18,000 ha); unaccounted mining demand, and decreased per capita consumption. The SFDCC Expert Panel did not adequately review this significant concern.

Lost agricultural productivity: Agricultural productivity in Kosovo stands to be damaged by a multitude of project-associated activities, including: coal mining pollution, coal combustion pollution, reduced water for irrigation, soil contamination from acid rain, and land conversion due to mining activities. The SFDCC Expert Panel did not address this significant concern.

Significant health costs – For each year of operation, the new KRPP will result in an estimated 77 million Euros in health costs to Kosovars. This amounts to 3.1 billion Euros over the life of the plant or more than double the initial investment.

Resettlement problems – The New Mining Field is mainly inhabited by large families who work in agricultural enterprises or as subsistence farmers. At least one Bank assessment concluded that "there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods." Resettlement of hundreds of families will occur or already has begun. Resettlement costs have not been taken into account by any Bank analysis, which are estimated at approximately $33 million.

WB assistance offers no additionality – The new KRPP plant will produce more GHG emissions than any energy alternative, including the old Kosovo A plant. The proposed Bank project only requires sub-critical generation efficiency - not the highest available efficiency. Even though electricity tariffs are expected to substantially increase with the project, there are no Bank benchmarks for increasing or maintaining energy access for the poor. The proposed coal project offers no WB additionality with regards to energy access for the poor or advanced technology diffusion.

Considering all of the above short comings, the SFDCC Expert Panel still concluded that the proposed project met the World Bank's climate criteria for coal. This raises serious concerns regarding the climate criteria, the Bank's guidance on the application of climate criteria and the adequacy of the Expert Panel process more generally.

A robust approach to climate change resilience needs to be clear that Bank support for some programs in a given country that advance climate change resilience, such as agriculture, water, and renewable energy, does not justify supporting other projects in a country that contradict resilience.

Gender Recommendations

Kosovo Power Project:

- **Ensure the Protection of Women and Children** - The World Bank should not go forward on the Kosovo Power Project until a rigorous gender analysis has been completed and acceptable resolutions have been developed for identified gender-specific project risks, including *inter alia:* lack of livelihood and means of subsistence restoration; and risks to maternal and child health from mercury and other pollution (e.g. PM, SO_2, and NOx).

- **Prioritize Pro-gender Development** - The World Bank should give priority to development projects in Kosovo that support IDA16 gender objectives, such as refurbishment and sustainable extension of the irrigation system for agricultural production, agriculture development grants for women, and energy - sector developments that do not increase pollution that harms maternal and child health, e.g., energy efficiency and renewable energy**.**

IDA-17 Replenishment: Negotiations for the IDA-17 replenishment have already begun. The World Bank's key proposed themes for IDA 17 include: Inclusive Growth, Gender Equality, and Climate Change Resilience. Lessons learned from the Kosovo Power Project demonstrate that in order to enhance Gender Equality, IDA-17 operations must:

- **Require Pre-appraisal Gender Screening/Analysis** - All IDA projects must undergo gender screening to determine potential gender differentiated impacts and to indicate whether or not a rigorous gender analysis is required to be completed by Bank staff during the project pre-appraisal stage.

- **Ensure Gender-Responsive Projects** - The Bank must develop clear guidelines that determine when a project meets gender-responsive criteria and when the Bank must select an alternative project because the proposed project's gender impacts are too significant and cannot be adequately resolved through the addition of gender-targeted measures.

Climate Change Recommendations

Kosovo Power Project:

- **Direct Bank Support to Low-Carbon Development First** - The World Bank should first support the direct implementation of energy efficiency measures, reduction of technical and commercial losses of energy, renewable energy projects, refurbishing Kosovo B, and regional integration measures prior to the development of any new lignite-based project. Refurbishment of Kosovo B will provide a number of years of base load capacity. During which time, low carbon alternatives deemed to be economical can be pursued and may very well render the new coal plant unnecessary.

- **Ensure Adequate Water Supply for Drinking and Agricultural Production –** The World Bank should not go forward on the Kosovo Power Project until it can realistically ensure an adequate water supply for the full range of potential future water balance scenarios for the Iber-Lepenc water system, including: high level increase in drinking water and high level increase in irrigation in an extremely dry year (i.e., potential climate change impacts). Sufficient water supply must be ensured for meeting the irrigation goals of Kosovo's Agriculture and Rural Development Strategy 2009-13.

IDA-17 Replenishment: IDA-17 operations need to be enhanced to ensure a robust approach to Climate Change Resilience. Lessons learned from the Kosovo Power Project demonstrate that in order to enhance Climate Change Resilience, IDA-17 operations will need to:

- **Require Priority Sequencing of Low Carbon Alternatives** – In order to ensure a robust approach to climate change resilience, the World Bank needs to move beyond elusive low carbon strategies for countries and rationalizing support for projects in a given country that contradict resilience simply because support is also being provided for projects that advance resilience. All IDA-17 operations must adhere to clear guidelines on priority sequencing of low carbon alternatives. IDA-17 operations must demonstrate that low carbon alternatives have been exhausted (not simply preliminary studies conducted) prior to appraisal of more carbon intensive projects, like fossil fuel developments.

- **Ensure Sufficient Water Supply** – Given climate change poses risks to water resources and the World Bank has identified efficient water use as critical to advancing climate resilient development, all IDA-17 operations must ensure sufficient long-term water supply for all sectors. All energy operations must adequately demonstrate that the proposed operation does not pose a risk to future water demand under a scenario for high level increases in drinking water and irrigation in an extremely dry year (i.e., with potential climate change impacts).

- **Require Additionality of World Bank Assistance:** Given the burning of fossil fuels is the number one contributor to greenhouse gas emissions and that climate change is anticipated to negatively affect developing countries and the poor disproportionately, if the Bank determines it must still go forward with a fossil fuel-based operation, then it must adequately demonstrate WBG additionality with regards to poverty reduction and best available technology diffusion. All IDA-17 fossil fuel projects must directly provide increased energy access to the poor through project-specific measures. All IDA-17 fossil fuel projects must utilize the best available technology with regards to generation efficiency and pollution abatement.

I. Introduction

The International Development Association (IDA) is the World Bank Group's (WBG) concessional window for low-income and post-conflict countries. It has a three-year replenishment cycle in which additional funding is contributed by donor countries to support grants and lending operations in IDA countries. In December 2010, IDA Deputies from 51 donor countries concluded negotiations for the sixteenth replenishment of IDA. The IDA-16 replenishment mobilized a total of $49.2 billion in development resources for the world's 79 poorest countries for the three-year IDA-16 period from mid-2011 through mid-2014. The U.S. share of the replenishment is 8.3 percent or $4.1 billion.

The process for IDA replenishment plays an important role in World Bank reform. In addition to making contribution commitments, the donor-country IDA replenishment agreement includes requests for enhancements to the World Bank's IDA country operations. For IDA-16 resources, the donor countries requested that IDA strengthen its approach to gender and climate change in its project design, policy framework, and country dialogue.

As Kosovo is an IDA-only country, all near-term World Bank operations in the country will be financed principally by an allocation from IDA-16 for FY12–14 and from IDA-17 for FY15-FY17.[2] Currently, the Bank is considering a $58 million Partial Risk Guarantee (PRG) for the proposed Kosovo Power Project.[3] The proposed project involves: building a new 600 megawatt (MW) lignite coal-fired power plant (KRPP); and developing a new open-cast lignite mine and associated infrastructure (Sibovc South Lignite Mine).

This document assesses the degree to which the Kosovo Power Project addresses the IDA-16 commitments on gender and climate change. Section II covers IDA-16 gender commitments and Section III covers climate change commitments. Each section ends with recommendations to improve the Kosovo Power Project and to enhance IDA-17 operations.

Project Background

The energy sector in Kosovo is characterized by some of the highest polluting lignite power generation in Europe, an old and inefficient transmission and distribution grid, and high technical and commercial losses. In addition, long-delayed implementation of sorely needed energy-efficiency measures translates into an artificially high demand for electricity in the country. The artificially high power demand and very poor condition of the grid system mean that the citizens and businesses of Kosovo continue to face energy shortages on a regular basis, which hampers economic as well as social development efforts.

The World Bank and other donors (including, the United States Agency for International Development (USAID), and the European Council) have been involved in the development of the energy sector in Kosovo for over a decade mainly targeted at developing lignite-based generation and privatization of the sector. In 2001, the World Bank began technical assistance to Kosovo's energy sector followed by a Lignite Power Technical Assistance Project (LPTAP) from 2006-2011. The World Bank's LPTAP has supported several key activities related to the preparation of the currently proposed Kosovo Power Project, including *inter alia*, a Strategic Environmental and Social Assessment of the proposed coal mining and power generation (2008), and a Resettlement Action Plan for the Shala neighborhood (2011).

With continued support from the World Bank and other donors, the development of the new lignite-fired Kosovo power plant continues on several fronts. At the end of 2010, coal exploitation has started at the new Sibovc Mine, which is to be offered to investors as part of the New Kosovo Power Plant (KRPP). Resettlement

[2] The World Bank's fiscal year runs from July 1 to June 30.
[3] The Project Information Document was prepared on July 27, 2011. It is planned for Board Approval in FY2013.

has begun. In early 2012, a final request for proposals (RFP) for the KRPP power plant, Kosovo B power plant, and the new mining field was sent out to four preselected bidders. Subsequently, the government decided to take existing Kosovo B power plant out of the project package and a new RFP is slated to be released in May 2013.

New Proposed Coal Plant is a Greenfield Project

Both World Bank Kosovo Power Project documents and Bank officials wrongly present the new KRPP power plant as a brownfield project and not a greenfield project (i.e., an upgrade as opposed to new construction).[4] Thus, the Bank's discussion and analyses around the project center on the idea that the new power plant is improving the environmental conditions in Kosovo when compared to the "business-as-usual" case of pollution emitted by the old Kosovo A power plant. As recently as a February 2013 letter, the Bank states that the proposed project's "Environmental and Social Impact Analysis (ESIA) will investigate incremental health impacts to determine reduction in short and long-term mortality risks."[5]

However, this incremental approach is wrong. The government of Kosovo is under legal obligation to close the Kosovo A power plant by the end of 2017 due to the fact that the 40-year old plant cannot be brought into compliance with the EU Directive for Large Combustion Plants.[6] Thus, with or without the World Bank Kosovo Power Project there still would be no Kosovo A power plant. The potential pollution emitted by the new KRPP power plant and associated health impacts needs to be taken at full value not as a comparison to the old Kosovo A plant waiting decommissioning. It must be clear that Kosovo, due to the eminent closing of the Kosovo A power plant, has an opportunity to truly put itself on both a lower carbon and better health development path.

II. IDA-16 Gender Commitments

IDA-16 key commitments on gender are largely centered on **improving development outcomes on women's and children's health and economic opportunities for women**.[7] Correspondingly, the Bank pledges to ramp up IDA's assistance to gender-related Millennium Development Goals (MDGs), including MDG1 - eradicating extreme poverty and hunger, MDG4 - reducing child mortality, and MDG5 - improving maternal health. According to the Bank, women are the key to meeting these MDGs. To begin, the *nutritional* window of opportunity is from pregnancy through the first two years of life. During that period, under-nutrition and poor health can cause irreversible setbacks in growth and mental development, which can limit education and reduce adult productivity.

Gender Screening for All IDA-16 Projects - The World Bank's IDA-16 commitments specifically encompass scaling up gender mainstreaming in IDA operations. At the project level, this involves more rigorous impact evaluations and gender-responsive projects. As such, the World Bank pledged that the Social Development Network (SDN) would screen all IDA-16 projects to determine whether any sex differentiated impact is expected.[8] The Bank further elaborated that for most operations a gender analysis will be part of the social

[4] For example: "Bank officials explained that the location of the new power plant would be next to Kosovo B and would thus not be a green field project, as suggested by representatives from the Municipality of Obiliq." World Bank Kosovo Country Partnership Strategy 2012-2015.

[5] Goldstein, Ellen. World Bank Country Director for South East Europe. Letter to Dr. Allan H. Lockwood, Physicians for Social Responsibility. February 14, 2013.

[6] Kosovo is party to the Energy Community of South East Europe (ECSEE) Treaty (now called Energy Community Treaty) that establishes a regional electricity market governed according to EU directives. As a signatory to the treaty, Kosovo is committed to meet environmental standards of thermal power plants and mining, and mitigate social impacts, as outlined by various EU directives.

[7] World Bank, 2010. Special Themes for IDA16. International Development Association (IDA), IDA Resource Mobilization Department, World Bank. May 2010.

[8] World Bank, 2010. Special Themes for IDA16. International Development Association (IDA), IDA Resource Mobilization Department, World Bank. May 2010.

assessment, which will provide the basis for gender-responsive design. A gender analysis is essential for understanding sex differentiated social opportunities, constraints and risks associated with development efforts.

Gender and Extractive Industries - Gender-related concerns in the development of the extractive industries (EI) have been a significant issue of the World Bank Group for more than a decade. Through the Bank's own experience, research, and consultation processes – largely gained during the WBG's Extractive Industries Review 2003-04 (EIR) – the Bank has found that the development of EI can have very different impacts on women compared to men especially in the areas of economic opportunities & livelihoods, health, and security.[9]

In response to the EIR, the Bank's management and Executive Board committed that the institution would develop EI-specific guidance to be applied when considering EI projects. One resulting Bank initiative is the Women and Extractive Industries Program.[10] According to the World Bank's 2010 Annual Report "the majority of recent mining projects now have a gender sensitive approach, where a gender analysis informs actions and activities."

Kosovo Power Project and IDA-16 Gender Commitments

World Bank guidance on gender issues already recommends that all projects should include a gender analysis. The guidance further emphasizes that gender analysis is especially important when social safeguards have been triggered.[11] As a category A project, the Kosovo Power Project triggers the Bank's highest level of requirements for Environmental and Social Assessment (OP 4.01). In addition, the significant size of the new mining field in a densely populated region of Kosovo triggers the Bank's involuntary resettlement safeguard (OP 4.12).[12]

Given the Kosovo Power Project is an IDA-16 project, a category A project, and an extractive industry project, it demands a rigorous gender analysis and gender-responsive design. As such a gender analysis should have been carried out as part of the many studies conducted during the project preparation/pre-appraisal phase. Much of this work began with the World Bank's Kosovo Lignite Power Technical Assistance Project (LPTAP), including: a Strategic Environmental and Social Assessment (SESA) of proposed mining and power generation activities (2008); a Resettlement Action Plan for the Shala neighborhood in Hade Village (2011); and Evaluation of Power Supply Options for Kosovo (2011). It is important to note that the last two documents were prepared post IDA-16 gender commitments. To date, there has been no gender screening or analysis related to the project.

Women's Participation in Consultations

A review of the Kosovo Power Project documents, including those involved in the Kosovo Lignite Power Technical Assistance Project (LPTAP), found there were efforts to include women's participation in some of the consultative processes, including the Strategic Environmental and Social Assessment (SESA) and the Shala Resettlement Action Plan (RAP). However, the extent of women's participation has been somewhat limited and project documents provide very little gender disaggregated input.

[9] The World Bank, IFC, and MIGA. Fact Sheet: Women and the Extractive Industries.

[10] The World Bank's Women and Extractive Industries program addresses the gender bias in the distribution of risks and benefits of extractive industry projects. It aims to mainstream gender issues into the sector in order to enhance the benefits and minimize the negative impact of extractive industries operations on women stakeholders.

[11] Adriana Eftimie, Katherine Heller, and John Strongman. Mainstreaming Gender into Extractive Industries Projects: Guidance Note for Task Team Leaders. The World Bank. August 2009.

[12] The planned new mining field will substantially expand coal mining operations in Kosovo. It is planned that the development of the New Mining Field will nearly double current coal mining output (EAR 2005) in order to supply Kosovo B and the new KRPP power plants.

Strategic Environmental and Social Assessment (2008[13]): As part of the SESA, initial public consultations took place in October/November 2007 with 10 of the 20 villages that are located within the project impact zone, i.e., Obliq municipality.[14] According to the SESA, these initial consultations were meant to: identify specific issues for different community groups, especially those who may have been excluded from traditional consultation methods on the basis of ethnicity, age or gender. However, the SESA reported that "most public meetings were attended by the heads of households and/or men, therefore women and youths tended to be less informed."

After the initial consultations, the Bank conducted a second phase between February and March of 2008 with the aim of consulting with previously identified marginalized groups, such as women and youths. Out of a total of 57 community meetings, two women focus groups were held in Hade and Dardhishte – two villages slated to be resettled. Each focus group had between 8 to 10 participants and lasted approximately one hour.

Information gathered from the ten surveyed settlements in the SESA (2008) show that there is an even split between men and women in the project area. Overall, 18% of the participants (108 out of 591 total participants) included in the SESA consultations were women ranging from 41% in Grabovc (18 out of 44 participants) and 4% in Sibovc (5 out of 115 participants).

In addition, the SESA provides a stakeholder analysis summary table of key concerns from affected villages, which lists women-specific concerns from two villages. From Hade, it states that the "women's group was particularly concerned about the employment of youth and … young people leaving the community to seek work elsewhere." Women were also concerned about the amount of people dependent on social assistance, which only lasts one year. From Sibovc, it states that women were concerned about the level of compensation for resettlement. "Using Hade as an example, they fear that the compensation will not [be] sufficient for them to purchase housing and land elsewhere."

Further to stakeholders representing the affected communities, the SESA notes two gender-related NGOs that took part in consultations: the Kosovo Women's Initiative[15] and Women's Association - Aureola[16]. The SESA provides a stakeholder analysis summary table, which lists the issues of these two NGOs as: gender issues, livelihood restoration, education, human rights, public participation, environmental protection, public health and transparency.

There is no further elaboration of sex-disaggregated inputs and concerns in the main body of the SESA report. Some direct comments from women can be found in annexes C and D of the SESA, which provide insight into potential gender-specific impacts of the project that need to be further analyzed. Many of the comments contained in the SESA annexes are discussed in the Gender Analysis section below.

The following comments provide a general context of what some women are experiencing with expansion of the mine [Grabovc, Women's Group [17]]:

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[13] World Bank, 2008. Strategic Environmental and Social Assessment (SESA): Environmental and Social Safeguard Advisory Services for Private Sector Participation in the Development of New Generation Capacity, Related Transmission and the Development of the Sibovc Lignite Field. Government of Kosovo, Ministry of Energy and Mining, World Bank Lignite Power Technical Assistance Project (LPTAP). June, 2008.

[14]The initial consultations included the four locations that are planned to be resettled: Hade, Dardhishte, Lajthishte and Sibovc. Of these, Hade and Dardhishte had one meeting each for a women's focus group.

[15] The Kosovo Women's Initiative (KWI) was established in July 1999 in the wake of a peace agreement. Initial funding for the KWI,came in the form of a grant to UNHCR from the Bureau of Population, Refugees and Migration (PRM) in the U.S. Department of State.

[16] Aureola works to create opportunities for women to have equal access to education, economic resources and decision-making. Aureola works in Drenas and Kastriot municipalities.

[17] World Bank SESA. Annex D.

We did not use to have these problems before the war. ..We did not have any noise coming from nearby [mining] vehicles, the pollution wasn't so bad. All these circumstances that were created with the expansion of the mine area represent our biggest problems now. We were fine just about a year ago... We cannot sleep at night, and neither can we dry our clothes outside... everything gets dirty as soon as we put our clothes to dry in the open air. Even if we clean the windows, in just a few minutes you can write your name in the windows as a layer of dust creates very quickly. Our home chores become so difficult to complete.

We know that Kosovo must be reconstructed, the industry must be renewed and factories must start working. However, the reconstruction of Kosovo must not damage and cause harm to the population.

The SESA did not identify: sex differentiated impacts; gender-specific measures; or sex differentiated socio-economic indicators to be monitored. The SESA only provided general guidance on socio-economic mitigation measures stating that any influx of foreign contract workers needed to be managed carefully; existing pollution issues needed to be addressed adequately; and the impacts of the project on community health needed further study.

Shala Resettlement Action Plan (2011)[18]: It is important to use the Shala Resettlement Action Plan (RAP) as an example of the treatment of gender in the Kosovo Power Project because the Shala RAP states that it will serve as a model for other RAPs involved in the Sibovc mine development process, which is a central part of the Kosovo Power Project.

As part of the development of the RAP for the Shala neighbourhood in Hade, consultative meetings took place in June and July of 2011. The RAP states that focus groups specific to female members of affected households were held, but poorly attended. In response, the RAP states that project personnel undertook dedicated informal consultations with women in Shala. The RAP does not provide information on how many women were consulted or the input or concerns that were specific to women who were consulted.

The RAP provides some gender differentiated data on demographics, employment, and education, which provide initial indications of gender differentiated concerns that the proposed project could potentially exacerbate, including *inter alia*:

Less employed women - Only 19 women reported being permanently employed compared to 79 men in Shala. In 2011, 46% of all employed persons in the Shala neighbourhood (96 people), were employed by the Kosovo Energy Corporation (KEK) - 39 men and 5 women.

Women are less educated - Most of the project affected adult population in Shala has at least eight years of primary education (95%), including 93% of women. But fewer women continue on to complete secondary school (59%) as compared with men (89%).

More young females - Overall, the Shala population exhibits a balance between genders, though there is a notable imbalance among young adults: females outnumber males in the 20-29 year cohort by nearly 3-to-2, possibly due to out-migration trends.

The RAP does not contain any information on gender specific actions, such as: identification of sex differentiated impacts[19]; specific livelihood restoration measures[20]; or sex differentiated outputs or indicators to be monitored.

[18]Resettlement Action Plan: Shala Neighbourhood, Hade Project. Project Hade Office, Ministry of Environment and Spatial Planning (MESP) and rePlan Inc. for Kosovo Energy Corporation, Kosovo. 2011.

[19] See the Shala RAP Impact Matrix, Table 4.1.

In other words, there is no indication how women's concerns or impacts have been taken into account or specifically mitigated. Given the mining operations involve converting agricultural land, the Shala RAP uncovered serious concerns regarding livelihood restoration of women and children. This issue is discussed in detail in the Economic Opportunities section below.

Gender Screening and Analysis

As noted above, the WB pledged to screen all IDA-16 projects to determine whether any sex differentiated impact is expected and if so, a gender analysis will provide the basis for gender-responsive design.[21] A gender analysis is essential for understanding sex differentiated social opportunities, constraints and risks associated with a project. Even though the Bank sought to obtain female participation in project consultations, there is no evidence in project documents that the Bank followed up on this effort with the completion of a gender screening or analysis.

The World Bank's guidance on gender cautions that the presence of women in consultations does not necessarily fulfill obligations to gender-responsive projects.[22] Even though the Bank did include women and women's groups in consultations as well as conduct some separate meetings for women, it was very limited and did not result in the identification of sex differentiated impacts; suggested gender-specific measures; or sex differentiated outputs or indicators to be monitored and evaluated – key elements advocated by the Bank's gender guidance.[23]

Based on rapid gender screening methods from the World Bank's gender guidance on infrastructure projects[24] and extractive industry projects, an initial gender screening was conducted of the proposed Kosovo Power Project. This initial screening uncovered potential significant gender differentiated impacts concerning:

- **Maternal and child health – negative effects originating from pollution, including mercury (Hg), sulfur dioxide (SO_2), nitrogen oxides (NO_x) and particulate matter (PM).**

- **Economic opportunities for women – problems associated with resettlement and lack of livelihood restoration and negative impacts to agriculture.**

The partial gender screening is presented below. It is important to note that this screening only represents a partial review and does not include all potential gender issues of the proposed Kosovo Power Project.[25]

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[20] From the Shala RAP: "Socio-economic baseline data collected in May and June 2011 forms the basis for planning for livelihoods programs. Employment opportunities have already been extended to a large portion of the Shala population, as agreed with community representatives in 2011. Consultations with project affected households regarding current livelihoods and future prospects are planned for the coming months in order to extend livelihoods restoration activities to different sectors and to all households." No further details on livelihood restoration are provided in the RAP. The World Bank has not updated the RAP to reflect any new measures.

[21] World Bank, 2010. Special Themes for IDA16. International Development Association (IDA), IDA Resource Mobilization Department, World Bank. May 2010.

[22] Adriana Eftimie, Katherine Heller, and John Strongman. Mainstreaming Gender into Extractive Industries Projects: Guidance Note for Task Team Leaders. The World Bank. August 2009.

[23] *Ibid*.

[24] Social Development and Infrastructure: Making Water Supply and Sanitation Work for Women and Men: Tools for Task Teams. Social Development Department, World Bank. December 2010.

[25] For example, gender impacts associated with privatization, tariff increases, and in migration of construction workers have not been considered in this rapid gender review.

Health

1. **Are there high rates of maternal, infant and child mortality?**

Yes. Maternal mortality is estimated at 43.3 per 100,000 births, which is one of the highest rates in the ECA region.[26] The child health status in Kosovo is considered the poorest compared to the rest of Europe and neighboring countries. The infant mortality rate is estimated to be 35 to 49 per 1,000 live births. For children under-five, the mortality rate is even higher, estimated at 69 per 1,000 live births.[27]

2. Are there project-related health risks that are more pronounced for women & children?

Yes. Women's reproductive health, child mortality, child early development, and lower respiratory illness in children under 5 are all significant concerns associated with the proposed project.

> *"We mostly suffer from adrenals. Among children, bronchitis is quite common – it's all due to the air [that is polluted]."* Hade Women's Focus Group[28]

> *"Children get sick very frequently, they get a cough which lasts for weeks."*
> Dardhishte Women's Group[29]

According to the World Bank, air pollution mainly generated by lignite-based power is the most significant and costly environmental health problem in Kosovo.[30] The proposed new KRPP plant will be relatively more efficient and less polluting than the very inefficient old Kosovo A power plant. But, the old plant represents an extremely low bar for comparison and the Bank has largely ignored the fact that the new coal plant will significantly increase the amount of coal mined, transported, processed, and combusted, as well as the waste generated, which will all put additional pollution in an already severely polluted environment. This additional pollution has particularly severe consequences for women and children.

Mercury - As an indication of mercury associated with the Kosovo lignite coal plants and mining processes, the SESA stated that an initial geochemical analysis[31] of soil found exceedances[32] of European mercury thresholds.[33]

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[26] World Bank, 2012. Kosovo Country Partnership Strategy 2012-2015.

[27] Kosovo MDG Factsheet 2010. UNDP, United Nations Kosovo Team.

[28] World Bank SESA, 2008. Annex D.

[29] World Bank SESA, 2008. Annex D.

[30] World Bank Kosovo Country Environmental Analysis: Cost Assessment of Environmental Degradation, Institutional Review, and Public Environmental Expenditure Review, 2012. The report concludes that air pollution impacts, mainly associated with lignite coal combustion, are the most costly environmental damage in Kosovo – representing an astonishing 0.89 to 3.76 percent of GDP.

[31] World Bank, 2008. Strategic Environmental and Social Assessment (SESA): Environmental and Social Safeguard Advisory Services for Private Sector Participation in the Development of New Generation Capacity, Related Transmission and the Development of the Sibovc Lignite Field. Government of Kosovo, Ministry of Energy and Mining, World Bank Lignite Power Technical Assistance Project (LPTAP). June, 2008.

[32] The analysis also found exceedances for chromium (Cr), nickel (Ni) and cadmium (Cd). Referring to Italian regulations on threshold values for soil quality.

[33] The World Bank LPTAP SESA (2008) recommended … "to complete the description of the air emissions scenario, quarterly monitoring is proposed at the main stacks of Kosovo A and Kosovo B to investigate the chemical composition of particulates for trace elements, including: heavy metal content (Mercury, Vanadium, Nickel, Cadmium, Lead, Copper, Zinc and Arsenic) and phenols (PAH).

In addition, research conducted by Prishtina University shows that the waters flowing in the Ibër and Sitnica rivers, i.e. the river system the coal plants discharge into, are heavily polluted by heavy metals.[34]

The Bank's 2008 SESA reported that further data collection and analysis was needed to assess mercury as well as other heavy metals risks. However, the World Bank's 2011 Energy Options Analysis[35] did not consider the risks and costs posed by mercury or any heavy metals pollution. Mercury and other heavy metals remain in the soil for long periods of time and continue to leach into water ways. Any further emissions of mercury will add to the levels already accumulated in soil and river sediments in Kosovo. Thus, the KRPP and expanded mining operations only stand to exacerbate the already highly polluted groundwater and Sitnica River.

According to UNEP, mercury can produce a range of adverse human health effects, including permanent damage to the nervous system, in particular the developing nervous system. Due to these effects, and also because mercury can be transferred from a mother to her unborn child, infants, children and women of child bearing age are considered vulnerable populations. Mercury exposure in children can adversely affect their developing brains – including their ability to walk, talk, read and learn. It can cause mental retardation and reduced productivity.[36] Even trace amounts of methyl mercury can harm reproduction.[37]

Coal-fired power plants are the largest source of mercury air emissions worldwide.[38] Once emitted to the air, mercury falls to the earth and builds up in water ways and soils where it is transformed into methyl mercury--a highly toxic form that accumulates in the tissues of people, wildlife and vegetation.

Mercury pollution is a globally recognized problem. On January 19, 2013, 147 nations approved the UN Minamata Convention on Mercury, which aims to significantly reduce global mercury emissions by 2020 through regulation of mercury emissions from coal power plants, gold mines, and certain types of factories and certain uses. **Nations agreed to install the Best Available Technologies on new power plants to control mercury emissions.[39] Such mercury control technologies are not required by the Bank's proposed Kosovo Power Project.**

The World Bank has yet to establish the water and soil mercury contamination levels in the project-affected area and the expected mercury emission levels from the new coal plant and mining field operations. The pollution abatement technology of the new power plant has not yet been determined and thus, the affected communities have no information on the expected emissions. World Bank project documents simply state that, with regard to emissions, the plant will meet EU directives. However, **the EU has not yet set limits on mercury emissions from power plants, so there is no Bank requirement on mercury for the new plant**.

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[34] Water Security for Central Kosovo - *The Kosovo - Ibër River Basin and Ibër Lepenc Water System.* Ministry of Environment and Spatial Planning. March 2011, edited March 2012, page 49.

[35] DHInfrastructure, 2011. Background Paper: Development and Evaluation of Power Supply Options for Kosovo. A World Bank-commissioned report, December 2011**.**

[36] For mercury emissions from coal-fired power plants causing mental retardation and lost productivity in the form of IQ detriments see Trasande *et al. Trasande, L., P. Landrigan & C. Schechter.* 2005. *Public health and economic consequences of methyl mercury toxicity to the developing brain. Environ. Health Perspect.* ***113****: 590–596; and Trasande, L., C. Schechter, K. Haynes & P. Landrigan.* 2006. *Mental retardation and prenatal methylmercury toxicity. Am. J. Ind. Med.* ***49****: 153–158.*

[37] Carolina wrens with 1.2 parts per million of methylmercury in their blood showed a reduced nesting success of 20 percent, according to a 2011 study along two mercury-contaminated rivers in Virginia. http://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2013/Mercury-and-Wildlife.aspx

[38] Natural Resources Defense Counsil , http://www.nrdc.org/health/effects/mercury/sources.asp, as consulted on January 27, 2013.

[39] http://www.unep.org/newscentre/default.aspx?DocumentID=2702&ArticleID=9373

In December 2011, the US Environmental Protection Agency finalized the Mercury and Air Toxics Standards (MATS) for new lignite-fired plants. These standards severely limit mercury emitted from coal plants in the US to 0.00004 lb/MWh. Without requiring higher standards than the EU directives, the World Bank-proposed new Kosovo C power plant stands to emit **100 percent more mercury** than if it were built to meet standards in the United States.[40]

Particulate Matter - The key public health effects of particulate matter (PM) are respiratory diseases and cardiovascular effects. Effects attributed to long-term exposure include mortality due to cardiovascular and respiratory diseases; chronic respiratory diseases (e.g., asthma); lung cancer; chronic cardiovascular diseases; and **intrauterine growth restriction** (e.g., **low birth weight at term**).[41] **PM10 increases morbidity** primarily due to chronic bronchitis, **lower respiratory illness in children**, and other respiratory symptoms.

In addition, the SESA reported that respiratory disease was cited as the most prevalent health condition in surveyed communities. World Bank research on EI projects also contends that women working in agriculture located near mining operations can be severely impacted by air, soil, and water pollution, including impacts on their reproductive health.[42]

As stated above, pollution abatement technology has not yet been determined for the new power plant, and, except for CO_2, the World Bank has not provided emission estimates. Instead World Bank project documents state that, with regard to emissions, the plant will meet EU directives. Table 2 provides an indication of the emission levels that could be reasonably expected from the proposed KRPP plant based on current EU directives. In addition, the analysis provides a comparison to emission levels under current US standards and what could be expected using lignite-fired supercritical units.[43]

Table 2. Emissions under EU & US Standards and Supercritical Technology

	Annual Emissions (mt/yr)		
Pollutant	**KRPP EU**	**KRPP US**	**Supercritical lignite plant**
SO_2	4,059	2,146	1,974
NOx	3,045	1,502	1,382
Particulate Matter	203	193	178
Mercury	0.173	0.086	0.079
CO_2*	4,557,360	3,862,252	3,553,272

*CO_2 emissions estimates for EU KRPP plant represent the World Bank-provided estimate for the proposed project. The US KRPP plant represents the average CO_2 emissions for newer coal plants in the US.

Significant Pollution Disparities: Based on the emissions estimates shown in Table 2, the new KRPP plant under EU standards would emit significantly more emissions of pollutants than if it were built to meet current US standards, including:

[40] Mainhardt, Heike. 2013. Comparison of Pollution and Health Impacts of the World Bank Proposed Kosovo Power Project under Different Standards and Supercritical Technology. February 2013. Publication forthcoming.

[41] Payam Dadvand, et. al., 2013. Maternal Exposure to Particulate Air Pollution and Term Birth Weight: A Multi-Country Evaluation of Effect and Heterogeneity. National Institutes of Health, U.S. Department of Health and Human Services. February 6, 2013. Available at: http://dx.doi.org/10.1289/ehp.1205575.

[42] Adriana Eftimie, Katherine Heller, and John Strongman. Mainstreaming Gender into Extractive Industries Projects: Guidance Note for Task Team Leaders. The World Bank. August 2009

[43] The World Bank has indicated that the proposed KRPP plant will be a circulating fluidized-bed (CFB) plant with a generating efficiency of 38 percent (LHV basis), thus stipulating a subcritical plant.

- **90% more SO_2;**
- **100% more NOx;**
- **100% more Mercury; and**
- **18% more CO_2.**

A further **8% reduction in emissions** of all pollutants could potentially be achieved by improving the power plant efficiency through a supercritical lignite-burning plant.

Table 3. Comparison of Health Impacts under EU & US Standards

Health Impacts	Annual	
	KRPP EU	KRPP US
Premature deaths	44	24
Years of life lost	493	268
Asthma attacks children (cases)	843	268
Asthma attacks adults (cases)	5,199	2,799
Lower respiratory symptoms children (days)	32,220	17,381
Lower respiratory symptoms adults (days)	44,664	24,248
Lost working days	9,982	5,419

Source: Myllyvirta L, 2013.[44]

As shown in Table 3, the health impacts stemming from the new KRPP coal plant are not desirable under EU or US standards.[45] However, under the EU directives, the new plant is estimated (midpoint) to double the negative health impacts compared to the US standards. The currently proposed plant will result in 44 premature deaths a year or 20 more deaths than under US standards. Each year of EU-based emissions will cause 493 years of life lost or 226 more than the US case. There will be 32,220 days of lower respiratory symptoms in children. Over the 40-year life of the new plant, it amounts to **1,766 premature deaths** in the EU case and 958 premature deaths in the US case.

Overall, poor health conditions in the community translate into greater burdens on women. In addition to the health conditions listed above, residents of coal mining communities have increased risk of developing chronic heart and kidney diseases.[46] The overall negative health impacts associated with the new lignite-fired power plant stand to have a greater impact on women because women are typically responsible for the greatest burden of care when a family member is ill.

As described above, pollution stemming from the proposed new power plant stands to further exacerbate Kosovo's very poor record on maternal and child health. Therefore, the project undermines Kosovo achieving MDGs 4 and 5.

[44] Myllyvirta L, 2013. Silent Killers: Why Europe must replace coal power with green energy. Greenpeace International, Amsterdam. Forthcoming. Based on exposure-response coefficients, annual ambient air emissions concentrations, and data on the exposed population. Using MSC-W modeling with 2008 meteorological data.

[45] *Ibid.*

[46] A recent study, which analyzed existing data of 16,493 West Virginians in 26 counties where coal is mined, found that residents of coal mining communities have a 70 percent increased risk for developing kidney disease; a 64 percent increased risk for developing chronic pulmonary disease; and are 30 percent more likely to report hypertension. Read more: http://www.post-gazette.com/stories/news/health/wva-study-unearths-higher-health-risks-in-coal-mining-communities-387564/#ixzz2KcCaJ2jk

3. Can the type of energy system help address the health problems?

Yes. The project could avoid the maternal and child health risks posed by increased PM and mercury emissions by selecting to support non-coal alternative energy sources.

Even if the World Bank's Kosovo Power Project involves the best technologies for coal to help control pollution; the point should not be diminished that the impacts and damages from any coal plant to people's health will still remain substantial. Kosovo has the opportunity to significantly curb its heavy reliance on dirty, carbon-intensive energy production. Instead of building another coal plant[47], expert analysis has determined that Kosovo could get the needed additional power from a mixture of cleaner, low-carbon alternative sources.[48] See Climate Change section below for a detailed discussion.

Economic Opportunities

1. Are there gender gaps in economic opportunities in the country?

Yes. According to gender diagnostics that were carried out as input to the World Bank's Kosovo Country Partnership Strategy (2013-2015):

> Unemployment rates are significantly higher for females (56 percent) than for males (41 percent) in Kosovo, and are the highest, for both sexes, of countries in the region. Unemployment rates reach very high levels for the younger population (15–24years), at 82 percent for women and 69 percent for men. Only 11 percent of working age women are employed, compared with 68 percent of men, in part because of lower educational opportunities and achievement. Women's labor force participation is significantly lower than for men (26 percent compared to 58 percent in 2009, respectively) and has decreased since 2002. This low activity rate for women, the lowest in the Western Balkans, is partly related to a disproportionate share of household responsibilities or because they are discouraged by the absence of opportunities for paid employment outside the home.

2. Are there barriers to women's employment in the energy or mining sectors?

Yes. Based on limited data, there appear to be substantially less employment opportunities for women compared with men in energy and mining in the project area.

This assessment did not have access to much sex disaggregated data on KEK employment, which may be used as an indication of women's current employment opportunities in the energy and mining sector of Kosovo. Limited data obtained from the Shala RAP indicate that women are much less likely to be employed in energy and mining. In 2011, 46% of all employed persons in the Shala neighborhood (96 people), were employed by KEK - 39 men and 5 women.

In addition, a comment made in the Women's Focus Group conducted as part of the 2008 SESA (Annex D) indicates barriers to women's employment at the power plants:

[47] Kosovo plans to refurbish and increase the capacity factor of the existing Kosovo B lignite-fired power plant.

[48] A comprehensive study determined a combination of wind and hydro power to be viable alternatives to coal-based power and to be economically beneficial to Kosovo. (Kammen, Daniel M., Maryam Mozafari and Daniel Prull, 2012. Sustainable Energy Options for Kosovo: An analysis of resource availability and cost. Renewable and Appropriate Energy Laboratory, University of California, Berkeley. January 2012.)

"For us it is an important issue of residents, what will happen to our houses and employment? Not just for our husbands, but for ourselves as well. We are all able to work, but we were never considered when people were recruited in the power plant." Hade, Women's Focus Group

Furthermore, the SESA states that "the Project would provide limited paid employment for some residents, however, economic advantages are limited for most."

3. Will women's sources of livelihood be affected by the project? Does it mean loss of subsistence?

Yes. There is substantial evidence to suggest that the project poses a risk to women's sources of livelihood, specifically on agriculture both for income and family subsistence.

Importance of Agriculture to Women's Economic Opportunities and Family Subsistence

According to the World Bank's Kosovo Country Partnership Strategy 2013-2015 (CPS), the Kosovo Government attaches high priority to agriculture sector development. More specifically, the World Bank's CPS gender review identified agricultural development as an important measure to enhance women's economic opportunities. As such, the World Bank's *Agriculture and Rural Development*[49] project aims to increase women's access to training and advisory services to enable them to prepare quality grant proposals and business plans. The project targets women farmers and entrepreneurs.

At present, the agriculture sector contributes about 12 percent to GDP and is the largest employer in post-conflict Kosovo, accounting for approximately 35 percent of total employment. The CPS further states that with its relatively abundant and underutilized labor and good quality agricultural land, Kosovo has competitive potential in the horticulture sector, i.e., the production of fruits and vegetables as well as in the livestock sub-sector since domestic demand for horticulture and livestock products is expected to grow as purchasing power increases.

Agriculture is particularly important in the Kosovo Power Project-affected areas. The Shala RAP shows that out of the 93 households, 88 percent report supplementing their food supply through subsistence farming, including: 66 households growing fruits or vegetables on their land for their own consumption; ten households growing other crops; and six households raising livestock.

In addition to the Shala area, the SESA reports similar indicators for the broader project area. All residents own land around their houses or 'yards' on which 80-97% grow crops and cereals for household consumption. An additional 38.7% of the surveyed settlements also owned arable land and fields. The SESA states that income levels are low and most inhabitants are reliant on subsistence farmed for some, if not all, of their food supply.

In addition, annex D of the SESA demonstrates how important agriculture and specifically, livestock are to household income. Residents of the Municipality of Obilic usually engage in agricultural activity in order to improve their financial situation securing an average 12.3% of the household budget. Most residents gain financially from the sale of agricultural products, milk and other dairy products. In addition, most residents of Sibovc achieve the greatest share of their household income from the sale of meat - 50% of household income

[49] CPS: A recent portfolio review identified opportunities to enhance the gender dimension of selected projects. The review, conducted by gender and sector specialists, focused on the following projects: (i) Agriculture and Rural Development; (ii) Real Estate Cadastre and Registration; and (iii) the Institutional Development for Education Project. The main goal of the review was to identify opportunities in the projects to incorporate gender in the analysis, design and monitoring and evaluation framework. In addition, it provided knowledge on some good practices in gender mainstreaming, which will contribute to a more systematic inclusion of gender issues in future projects.

from smoked meat and 40% from fresh meat, which is directly related to the high commercial price of meat in Kosovo.

From the World Bank's Mainstreaming Gender into Extractive Industries Projects:

> Indirectly, changes in land use can decrease subsistence agriculture, which diminishes food supply and food security, which diminishes women's economic empowerment and ability to provide for families, but lead to changes in diet and possible increased dependence on processed foods, with related health consequences.

Project-induced Lost Agricultural Production:

The proposed Kosovo Power Project stands to reduce women's opportunities in the agricultural sector, both for income and subsistence, in three primary ways:

- **Conversion of agricultural land for mining;**
- **Reduced irrigation; and**
- **Pollution impacts on crops and livestock.**

Conversion of agricultural land for mining:

The World Bank's experience in extractive industries has found that[50]:

> In terms of income and employment, EI can create a host of new jobs, often at the expense of traditional jobs as in cases where agricultural land is converted for EI.
>
> Reduced subsistence agriculture leads to lower food supply and food security for the community, which in turn results in more food being imported into the community – which the poorest may not be able to afford.

The World Bank proposed project will involve acquisition of land that is currently under agricultural production as well as fertile land that could be brought under production in the future. The new mining field will acquire approximately 13% of the territory of the Obiliq Municipality, which is mainly inhabited by large families who work in agricultural enterprises or independently as subsistence farmers.[51] Unfortunately, the SESA reports that there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods.[52]

In November 2004, the government issued a Declaration of the Special Economic Interest Zone. Among other items, this declaration indicated the land area that would be converted for mining operations. Individuals who owned land in the zone were instructed not to develop their land further (e.g., prohibition of new construction) and the process of government land purchases began. This process resulted in an extended period of uncertainty for many families and a preemptive decline in agricultural production.

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[50] *Ibid*.

[51] World Bank, 2008. Strategic Environmental and Social Assessment (SESA): Environmental and Social Safeguard Advisory Services for Private Sector Participation in the Development of New Generation Capacity, Related Transmission and the Development of the Sibovc Lignite Field. Government of Kosovo, Ministry of Energy and Mining, World Bank Lignite Power Technical Assistance Project (LPTAP). June, 2008.

[52] *Ibid.*

Annex D of the World Bank's 2008 SESA indicates that a decline in agricultural activities in the project area is largely a result of KEK agricultural land purchases in recent years and low productivity of land due to "pollution from the current power plants." The following are direct comments from the SESA consultations, including from women, regarding impacts on agriculture from development of the new mining field:

> *"Almost all families in our village have a cow for family needs. We have come to a situation that we cannot feed the cow, as we don't have any land left. We will have to sell these cows very soon, as we don't have where to let the cow graze as we have no more land." Grabovc, Women*

> *"Many families were very active in the agricultural activities in our village. This was possible until the year 2002. We even had two farms in our village, but both stopped working, and also the population stopped working the land and later all our land was purchased." Hade, General Public*

Reduced Irrigation

The World Bank's Kosovo Country Partnership Strategy (2013-2015) states that "given the limited and insufficient water resources—water is expected to be a limiting factor for economic and social development in the future, particularly given rising demand for water due to increases in urban, industrial, and agricultural development." Even though the Bank clearly is aware that water scarcity is of paramount concern in the country, they have yet to produce an adequate water analysis for the power project that ensures sufficient water for drinking, agriculture, and industry.

The World Bank does not have the technology specifications for the new power plant, which poses a significant challenge when doing a water analysis. There is no standard requirement for cooling systems, which account for the largest amount of water used for a coal plant, and water requirements vary greatly between cooling technologies. In addition, open pit coal mining requires large amounts of water for the coal processing plant and dust suppression, neither of which has been accounted for by the Bank to date.

The economic heart of the country largely depends on water coming from the Iber-Lepenc canal.[53] The canal currently supplies water to a hydropower plant (35 MW), to the towns of Mitrovice, Vushtrri, and some smaller neighbouring towns, to Kosovo B thermal power plant, the industrial development zone, and for irrigation. Over the next few years, the canal will also supply bulk water for the Prishtina municipality (starting in 2013), for the new KRPP power plant and mining operations, as well as expansion of irrigated areas. Needless to say, this system is already rated as a "severely stressed" water system.[54] Thus, any activity that will increase the water demand from this system needs to be carefully analyzed and clearly presented to the population it will affect.

With regard to impacts on water, the World Bank's terms of reference for the Kosovo Power Project's Environmental and Social Impacts Analysis (ESIA) lists a March 2011 study of the Iber Lepenc Water System[55] as

[53] The canal currently supplies water to the hydropower plant (35 MW), to the towns of Mitrovice, Vushtrri, and some smaller neighbouring towns, to Kosovo B thermal power plant (and emergency supply to Kosovo A power plant), the industrial development zone along the Durrës-Prishtina--Belgrade corridor, and a small amount of irrigation. Over the next few years, the canal will also supply bulk water for Prishtina municipality (starting in 2013), for the KRPP (after 2014), as well as the expected substantial expansion of irrigated areas.

[54] *Water supply from the Iber-Lepenc hydro system for the proposed KRPP* (February 2008), funded by the European Agency for Reconstruction (EAR) and developed by COWI consortium. Currently, the water exploitation index (WEI) for the Iber Lepenc system is assessed at 50% for an average year. Severe water stress can occur where the WEI exceeds 40%.

[55] Water Security for Central Kosovo - *The Kosovo - Ibër River Basin and Ibër Lepenc Water System.* Ministry of Environment and Spatial Planning. March 2011, edited March 2012. In addition, it should be noted that the TOR also lists: *Water Supply from the Iber Lepenc hydro system for the proposed KRPP, Evaluation of the hydro system and water availabaility assessment at the entrance of Pridvorice-Obiliq Canal,* November 2007.

the main water study to be integrated into the ESIA. However, this water study has many short comings that need to be addressed, especially regarding agriculture.[56]

To begin, the 2011 Water Study significantly limits the amount of hectares for potential irrigation. The study's worst case scenario assumes that "in 2020 the surface irrigated will equal 8,000 ha...and in the period 2020-2035 the irrigated area will remain constant."[57] However, the World Bank's own technical mission that took place in March 2008 (SESA, 2008) raised concerns about a water study for the new power plant commissioned by the European Agency for Reconstruction,[58] which the Bank team felt had underestimated agricultural irrigation needs. The World Bank's concerns stemmed from the fact that the EAR study assumed only 5,000 and 10,000 ha for irrigation, when the Ministry of Agriculture, Forestry and Rural Development projected bringing 18,000 ha under irrigation (from the canal) in the medium to long term.

Therefore, a worst case scenario based on 8,000 ha of irrigated land greatly diminishes Kosovo's target of 18,000 ha. The 2011 study does not provide a clear explanation for why the targeted amount of irrigated land has been greatly reduced.

As stated previously, the World Bank and international donors are funding programs to assist the government of Kosovo to promote growth in agriculture and specifically provide economic opportunities to women over the next decade. In grant applications to the World Bank Kosovo Agriculture and Rural Development Project, water supply and irrigation are indicated as needed inputs for milk production in 81 grant applications; for greenhouses in 212 applications and for vineyards in 277 applications.[59] The World Bank does not indicate how these irrigation needs will be supplied, although the only existing irrigation system stems from the Iber-Lepenc canal system.

The World Bank's proposed Kosovo Power Project does not assess the potential impacts on the agriculture sector or to the development targets of the Bank supported agriculture project. Therefore, there is no consideration of gender disaggregated agricultural impacts. **The potential for reduced irrigation would impact women and families well beyond the defined project-affected area.**

Pollution Impacts on Crops and Livestock:

> *"Even if you get engaged to provide best conditions for the harvest, it's worthless. The harvest are always way too dusty to eat them… they taste differently, as if the ash has entered into the harvest."* Hade, Women's Group (SESA, 2008 – Annex D)

Continued pollution from Kosovo B and the additional pollution from the new power plant and mining operations stand to harm the quality and production of crops and livestock products. In addition to acid rain due to sulfur-dioxide emissions, another form of acid rain is due to carbon dioxide emissions of coal plants. When released into the atmosphere, the carbon dioxide molecules react with water molecules, to slowly produce carbonic acid (H_2CO_3). This, in turn, returns to the earth as a corrosive substance. This cannot be prevented as easily as sulfur-dioxide emissions. Such coal plant emissions have been found to negatively affect

[56] For more details, see: Heike Mainhardt and Nezir Sinani, 2013. World Bank Kosovo Power Project Environmental and Social Impact Assessment: Comments on the Kosovo Ibër Lepenc Water System Study. January 2013.

[57] There appears to be a mistake in the Executive Summary which states that the Gazivoda system scenario 2 uses 10,000 ha of irrigated land.

[58] *Water supply from the Iber-Lepenc hydro system for the proposed KRPP* (February 2008), funded by the European Agency for Reconstruction (EAR) and developed by COWI consortium.

[59] Word Bank Appraisal Document for the Kosovo Agriculture and Rural Development Project, May 2011. Page 53.

soil fertility and crop growth. For example, one study has found a 10 to 30% reduction in germination for pea and wheat crops.[60] The Bank has not considered any such impacts on Kosovo's crops.

Furthermore, the Water Study points out that "contaminated sources of water for irrigation are a health hazard which may generate difficulties for agricultural product commercialization. Food safety is a sensitive issue among people and media reports on disease linked to unhealthy irrigated food can be damaging for export." The study further states that "due to the discharge of waste water from the mines and the two power plants, when flood events occur, the polluted water contaminates the soil close to the river bank which might affect the quality of the crops cultivated in these areas. The groundwater of the alluvial aquifer linked to the Sitnica River is also contaminated and the water from wells is improper for domestic use and even for irrigation."

One goal of the World Bank's Kosovo Agriculture and Rural Development Project is to improve the quality of processed food products and fresh produce to progressively meet EU standards. The World Bank has yet to provide any analysis of project impacts on the agriculture sector. The Bank needs to be sure that the Kosovo Power Project does not conflict with the goals of Kosovo's Agriculture and Rural Development Strategy 2009-13 and the World Bank's Agriculture and Rural Development project, including increased income levels; improved quality standards; increased employment opportunities, especially for women; and facilitated entry to the EU.

Livelihood Restoration

Does the Resettlement Action Plan provide the same or alternative opportunities for both women and men to earn incomes and maintain livelihood options?

No. It appears that livelihood options have been significantly reduced for both women and men. Given the project poses significant impacts to the agricultural sector, it stands to potentially have a greater negative impact on women and children.

In the case of resettlement for the proposed Kosovo Power Project, appropriate and equitable compensation and livelihood restoration for any lost land is especially important for women due to the heavy reliance in the project area on agricultural production for both subsistence farming and as an additional source of family income. When gender is not adequately considered in this process, women may lose access to resources vital to the survival of their children and themselves.

According to the SESA 2008, local villages will need to be resettled with the total population of the affected area estimated at around 1,500 families. The mine development-induced direct land acquisition is largely reflected in the four locations already slated for resettlement, including Hade (784 people remaining), Dardhishte (~ 987 people), Lajthishte (~ 921 people), and Sibovc (~ 1,114 people).[61] In addition, 330 families in the town of Plemetin will need to be relocated because their houses are within the 1,000 m buffer zone from the new planned power plant. [62]

The SESA 2008 reports that resettlement involved in the Kosovo Power Project is complicated by the fact that there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods.

[60] Ajmal, M. and Khan, MA. 1986. Effects of coal-fired thermal power plant discharges on agricultural soil and crop plants. E*nvironmental Research*, 1986 Apr;39(2):405-17.

[61] These population estimates were cited in the SESA, 2008. The SESA noted that up dated census data was necessary. In addition, it appears that these estimates may only represent village residents and not rural populations.

[62] SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

Kosovo's Resettlement Policy Framework,[63] developed under the World Bank's LPTAP, asserts that this problem will be addressed through rehabilitated land:

> *There is an acute shortage of good agricultural land in the area around the proposed mining and power complex. The option of providing a plot of rehabilitated land is intended to encourage the Project Company to rehabilitate and make use of a large area of overburden dumps that is presently owned by KEK. To make this option more attractive, the Project Company will offer affected landowners a larger area of land than the plot that is affected and/or a package of additional benefits, which might include technical assistance and/or the use of shared equipment.*

The Shala RAP indicated the intent to implement the rehabilitated mining land option for people with land-based livelihoods as the resettlement village does not offer any agricultural land. The Shala RAP states:

> *Registered and recognized owners of affected rural land in the Project Footprint are entitled to Cash compensation equivalent to the replacement value of their affected landholdings…Owners of land zoned as agricultural are not entitled to a replacement plot in the resettlement village.*
>
> *Where landowners and tenants are involved in productive land-based livelihoods, in Shala principally subsistence agriculture, KEK is also committed to providing these households with access to alternative lands and resources sufficient to restore or improve livelihood activities…Landowners who can demonstrate a commercial or subsistence dependence on the affected property may be eligible to receive rehabilitated land (on overburden dump areas presently owned by KEK) equivalent to the replacement value of their affected landholdings in lieu of cash.*

The problem with this option is that it has not been proven that the rehabilitated land will be suitable for food production or other agricultural uses. Even once land has been fully rehabilitated, it will still take time and funding to monitor the soil and water quality to determine whether or not it is safe for food production.[64] In fact, according to the World Bank Kosovo Country Environmental Analysis much of the 1,000 hectares of overburden land that is currently slated to be cleaned up and reclaimed "will not be suitable for agriculture again".

The Shala RAP does not provide any details or specific measures for livelihood restoration. There is no indication of any women-specific measures or outcomes to be monitored.

Conclusion on IDA-16 Gender Commitments

Even though the World Bank proposed Kosovo Power Project is an IDA16 project, a category A project, and an extractive industries project, all of which raise red flags for gender concerns, it did not trigger a gender screening. Thus, it missed the first measure on the Bank's IDA16 gender pledge that the Social Development Network (SDN) would screen all IDA-16 projects to determine whether any sex differentiated impact is expected.

The Bank got off to a good start with efforts to include women and women's civil society organizations in SESA and resettlement consultations. Unfortunately, although women's participation indicated gender-specific concerns, the Bank did not follow through and identify sex differentiated impacts, gender-specific measures, or sex differentiated socio-economic indicators to be monitored. The project has not been designed to specifically mitigate any impacts on women.

[63] Ministry of Environment and Spatial Planning, 2009. Resettlement Policy Framework for Land Acquisition for the New Mining Field Zone. Republic of Kosovo, 2009.

[64] Some data may be obtained from the Clean Up and Land Reclamation Project (CLRP) that was initiated in 2007.

This case study produced a partial gender screening of the proposed project, which indicated significant sex-disaggregated impact concerns. As described above, mercury and PM pollution stemming from the proposed new power plant stands to further exacerbate Kosovo's very poor record on maternal and child health. Therefore, the project undermines Kosovo achieving MDGs 4 and 5. The project poses substantial risks to women's livelihoods and means of subsistence through negative impacts to agriculture and resettlement. Although women have been recognized in the resettlement process, there is no indication of equitable allocation of compensation and livelihood rehabilitation. With the commencement of initial resettlement, there are not yet meaningful livelihood restoration plans for either men or women and no gender-specific livelihood restoration measures. Thus, the project stands to harm women's and children's health and economic opportunities for women – the two gender priorities of IDA16.

A gender screening would have indicated that a rigorous gender analysis was necessary, which should have translated into a gender-responsive project. It is important to note here that not all proposed projects can be rectified through the addition of gender-specific measures. In the case of the Kosovo Power Project, there is not enough agricultural land for the resettlement of families who depend on it for income and subsistence. There has not been an acceptable resolution to this project-induced problem. In some cases, in order for a project to be considered gender-responsive, it may require the Bank to select an alternative option.

The Bank's IDA16 gender approach thus far has centered on enhancing maternal health and women's economic opportunities through health, education, and agriculture sector projects – this is the approach in Kosovo. The Bank concentrates on development sectors that pose an opportunity to provide benefits to women. The Bank struggles to incorporate gender-responsive design to projects that pose significant gender-differentiated risks.

Lastly, the Kosovo case points to the importance of conducting a gender analysis in the project pre-appraisal stage. The TOR for the Kosovo Environmental and Social Impact Assessment (ESIA) indicates that social issues will include "gender-related issues."[65] However, other than this single sentence, gender related issues are not mentioned anywhere else in the TOR, such as where it describes the type of data to be collected for the Socio-economic-cultural Assessment.[66] Even if the ESIA includes a gender analysis, the Bank's Energy Options Analysis has already concluded that the coal power plant is the project to be proposed to the Board. Furthermore, in May 2013 a request for proposals is due to go out to pre-qualified bidders to develop the project ahead of any World Bank Board approval. In order to influence investment decisions, a gender analysis needs to be required as input to alternatives assessments to ensure all significant project-associated risks and benefits have been considered.

Gender Recommendations

Kosovo Power Project:

- **Ensure the Protection of Women and Children** - The World Bank should not go forward on the Kosovo Power Project until a rigorous gender analysis has been completed and acceptable resolutions have been developed for identified gender-specific project risks, including *inter alia:* lack of livelihood and means of subsistence restoration; and risks to maternal and child health from mercury and other pollution (e.g. PM, SO_2, and NO_x).

[65] World Bank Kosovo Power Project ESIA TOR, pg. 7.

[66] This is especially important because the Kosovo Power Project's TOR for the ESIA specify that in most cases studies or data are already available, largely due to the Bank's and other donors' upstream work on the project, and the ESIA will rely on these studies.

- **Prioritize Pro-gender Development** - The World Bank should give priority to development projects in Kosovo that support IDA16 gender objectives, such as refurbishment and sustainable extension of the irrigation system for agricultural production, agriculture development grants for women, and energy - sector developments that do not increase pollution that harms maternal and child health, e.g., energy efficiency and renewable energy**.**

IDA-17 Replenishment: Negotiations for the IDA-17 replenishment have already begun. The World Bank's key proposed themes for IDA 17 include Maximizing Development Impact (as the overarching theme), Inclusive Growth, Gender Equality, and Climate Change Resilience. Lessons learned from the Kosovo Power Project case demonstrate that in order to enhance Inclusive Growth and Gender Equality IDA-17 operations must:

- **Require Pre-appraisal Gender Screening/Analysis** - All IDA projects must undergo gender screening to determine potential gender differentiated impacts and to indicate whether or not a rigorous gender analysis is required to be completed by Bank staff during the project pre-appraisal stage.

- **Ensure Gender-Responsive Projects** - The Bank must develop clear guidelines that determine when a project meets gender-responsive criteria and when the Bank must select an alternative project because the proposed project's gender impacts are too significant and cannot be adequately resolved through the addition of gender-targeted measures.

III. IDA-16 Climate Change Commitments

Regarding climate change, IDA Deputies and Borrower Representatives requested that during the IDA-16 period IDA focuses on: building **climate resilience and capturing mitigation opportunities**, and strengthening monitoring and reporting of IDA resources used for mitigation and adaptation. The World Bank's IDA-16 climate response included (emphasis added):

> "Recent global assessments suggest that the rate and magnitude of the changes in the climate system are likely to be greater than suggested even five years ago; this adds to the urgency to move towards climate resilient development…Given these challenges, IDA countries have to prepare for large-scale and possibly **unprecedented and transformational actions** to move to **low carbon and climate resilient development pathways**…**IDA funded activities clearly need to minimize climate related risks to poverty alleviation**… This includes policies that combine the objectives of increasing energy access and low carbon growth, and policies that support resilience such as promoting **agricultural productivity and efficiency of water use**."[67]

Thus, IDA funded activities should support, climate change mitigation in the form of low carbon growth and, climate resilient development, in the form of, *inter alia*, agricultural productivity and efficient water use**.**

Kosovo Power Project and IDA-16 Climate Change Commitments

Kosovo is vulnerable to climate change because it is already suffering from water shortage concerns and the largest employer in Kosovo is agriculture, which is a climate-sensitive sector. Although Kosovo's greenhouse gas (GHG) emissions represent a small amount relative to global emissions, given acceptance into the EU is a stated goal, the EU's overall climate change targets need to be considered. Moreover, if Kosovo does eventually join

[67] World Bank, 2012. IDA16 Mid-Term Review Achieving Climate Resilient Development Progress Report. World Bank, IDA Resource Mobilization Department Concessional Finance and Global Partnership. October 2012.

the EU, it will be subjected to the EU's carbon price and its GHG emissions will become a real cost and not simply an externality.

Mitigation through Low Carbon Growth

Due to the eminent closing of the Kosovo A coal power plant, Kosovo has an opportunity to truly put itself on a low-carbon development path. The World Bank is obliged to make certain priority is given to viable low carbon energy options. In addition to the IDA-16 climate change priorities, the WBG's *Strategic Framework for Development and Climate Change (SFDCC)* sets out specific criteria that must be met before the World Bank can provide support for coal power projects. The six criteria include:[68]

(i) there is a demonstrated developmental impact of the project including improving overall energy security, reducing power shortage or access for the poor;

(ii) assistance is being provided to identify and prepare low-carbon projects;

(iii) optimization of energy sources by considering the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation;

(iv) after full consideration of viable alternatives to the least-cost (including environmental externalities) options and when the additional financing from donors for their incremental cost is not available;

(v) coal projects will be designed to use the best appropriate available technology to allow for high efficiency and therefore lower GHG emissions intensity; and

(vi) an approach to incorporate environmental externalities in project analysis will be developed.

The ultimate purpose of the Bank's climate criteria is to ensure that the WBG is putting forth the best possible projects in terms of benefits to the poor and the lowest carbon-based energy, i.e. not simply marginally better than the existing, outdated technology used by the old Kosovo A power plant.

For each proposed coal project, the Bank must engage an "External Panel of Experts" to independently evaluate compliance with the SFDCC screening criteria.[69] In the case of the proposed Kosovo Power Project, the Expert Panel's evaluation did not conclude outright that there was non-compliance with any of the six SFDCC criteria. However, the Panel did admit reservations indicating less than full compliance with a number of criteria, including criteria II, III, IV and V.[70] This assessment finds that the Expert Panel failed to adequately address several important areas and when they did report reservations the Panel should have determined non-compliance with several of the *SFDCC* criteria. These short comings are discussed below.

Shortcomings of the World Bank's Alternatives Analysis

The World Bank's Power Supply Options Analysis for Kosovo (2011)[71] concluded that "a portion of [Kosovo's electricity] load would be most economically served by the [proposed] lignite plant—a base load plant—and another portion of load by higher cost peaking plants." On that premise, the Bank's Options Analysis assumes that in addition to 600 MW of thermal base load generation, there will also be 305 MW from the Zhur hydropower plant (as a peaking plant), and 395 MW from other renewable sources (providing 170 MW of firm capacity).

[68] World Bank, 2008. *Development and Climate Change: A Strategic Framework for the World Bank Group*.

[69] World Bank, 2010. *Operational Guidance for World Bank Group Staff: Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change*, at 4.

[70] Beér, Mielczarski and Taylor, (2012). *Kosovo Power Project Report of the SFDCC External Expert Panel to the World Bank*.

[71] DHInfrastructure, 2011. Background Paper: Development and Evaluation of Power Supply Options for Kosovo. A World Bank-commissioned report, December 2011.

However, multiple expert analyses contradict the Bank's conclusion.[72] These studies found that the proposed coal project will be extremely costly and will necessitate a sharp increase in tariffs, and that a mixture of efficiency, technical upgrades, improved demand-side management and renewable alternatives can provide a lower cost alternative for Kosovo's energy needs.

The Bank has rightly concluded that the proposed coal plant project does not address Kosovo's peak load needs, which means the project will not address Kosovo's current energy shortages that are primarily during peak demand. It is not technically feasible to cycle coal-fired boilers on and off to meet peak load needs.[73] The World Bank LPTAP Appraisal (2006) indicates that power shortages in Kosovo occur for peaking power and are most pronounced in winter because of heating needs. Furthermore, the Appraisal reports that Kosovo has surplus power during non-peaking time.

Therefore, the proposed new power plant is stated as necessary to replace the loss in base load power due to the shutdown of the Kosovo A power plant and to supply projected increases in electricity demand to 2025. The new KRPP would produce approximately 4,319 GWh/year to replace Kosovo A's current capacity of 1,740 GWh/year.[74] One expert review of the Bank's Options Analysis conducted by a former US EPA Director found that the proposed construction of 600MW of new base load generating capacity would lead to base load capacity that is three times higher than existing Kosovo demand, including peak demand, and four times higher when corrected for avoidable losses, such as technical losses.[75] The expert review concluded that:

- Kosovo's 2010 electric "base load" consumption, including waste and theft, would be met by slightly more than 400 MW of base load generation, far less than the 618 MW net generation that would be provided by the refurbished Kosovo B plant.
- Energy efficiency efforts would reduce this need even further and would allow Kosovo B to meet base load generation needs through 2025 – even at a 4.5 per cent per annum increase in GDP.[76]

In addition to questionable base load generation needs, the World Bank's former Chief Technical Specialist for Renewable Energy and Energy Efficiency conducted an analysis that also contradicts the need for a new coal plant. This study recommends a low-carbon scenario for Kosovo, which includes[77]:

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[72] Kammen, Daniel M., M. Mozafari and D. Prull, 2012. *Sustainable Energy Options for Kosovo An analysis of resource availability and cost.*; Buckheit, 2012. Reevaluating Kosovo's Least Cost Electricity Option Preliminary Evaluation of the World Bank's December, 2011 "Background Paper, Development and Evaluation of Power Supply Options for Kosovo."

[73] "Base load" power generators typically operate more or less continuously at 70 to 90 percent of their rated capacity, and do not shut down except for maintenance. "Peak load" units typically run for a few hours at a time at low capacity factors when demand reaches high peak levels.

[74] Kosovo A estimate obtained from World Bank's Options Analysis (2011). The new KRPP estimate is based on: 580 MW * 0.85 (capacity factor) * 8760 hours/year * 1 GW/1000 MW.

[75] Buckheit, Bruce. 2012. Reevaluating Kosovo's Least Cost Electricity Option: Preliminary Evaluation of the World Bank's December, 2011 "Background Paper, Development and Evaluation of Power Supply Options for Kosovo." Prepared for The Sierra Club and The Kosovar Institute for Development Policy (INDEP), January 2012. available at:

http://action.sierraclub.org/site/DocServer/Reevaluating_Kosovo_s_Least_Cost_Options_for_Electricity.pdf?docID=8861

[76] Seasonal base load variation would be met through greater utilization [than the Bank analysis assumes] of Kosovo B in the near term; planning efforts should anticipate that annual base load will grow and that, at some point seasonal capacity that is economically efficient at 20 – 40 percent load factors will need to be added.

[77] Daniel M. Kammen, M. Mozafari and D. Prull, 2012. *Sustainable Energy Options for Kosovo An analysis of resource availability and cost.* Available at, http://rael.berkeley.edu/energyforkosovo

- Meeting Kosovo's forecasted electrical demand to 2025 through a combination of renewable resources, grid upgrades, energy efficiency measures and regional cooperation on electricity imports.[78]
- Creating over 60% more jobs than the scenario that includes the new KRPP coal plant.[79]
- Producing less expensive electricity than produced by the new KRPP coal plant - Even in the absence of externalities the LCOE[80] for the 'Base Case Scenario' (including the new coal power plant) is above the cost for the 'Low-Carbon Scenario'. If externalities get included, the cost of energy generation from the 'Base Case Scenario' could become 3 times more expensive.

This low-carbon scenario proposes a small component of geothermal as a renewable source of base load energy generation – an important opportunity for Kosovo that the World Bank has not assessed for its Options Analysis.

The World Bank also does not fully explore hydropower and wind coupling opportunities possibly afforded through greater coordination with Albania's energy system. The construction of a new 400 kV interconnection line with Albania is ongoing and should be ready in 2013. With the new line, Kosovo's current capacities for electricity exchange with Albania will be substantially upgraded. The new line is specifically expected to improve the energy supply in Kosovo during the winter, when Kosovo experiences its highest demand. The World Bank's Options Analysis only considers a scenario of exchanges between Kosovo's thermal power generation and Albania's hydropower, not the possibility of exchange with other renewable sources, such as wind.[81]

The new interconnection may affect Kosovo positively in terms of a more secure power supply during Kosovo peak times and may offer greater grid integration potential of Kosovo renewable resources, like wind. A full consideration of the opportunities stemming from regional /Albanian integration needs to take place prior to going ahead with the proposed Kosovo Power Project.

Assistance to Low Carbon Development Not Prioritized

With regards to upstream engagement in Kosovo, the World Bank has been providing technical assistance on the energy sector for over a decade, which has provided the institution with ample time to develop the required studies on renewable energy and to accomplish measureable outcomes on energy efficiency and improvements to technical losses. However, even though the 2006 LPTAP Appraisal Report Procurement Plan listed a Renewable Energy Options Study, such a Bank study never took place.

As a result, the World Bank's 2011 Options Analysis still relied on very preliminary assessments for wind, solar, and geothermal.[82] A March 2012 National Background Report on Energy for Kosovo states that "with the exception of some basic studies, there are no detailed or reliable data of the potential for Kosovo utilization of

[78] The low-carbon scenario includes an increase in capacity for biogas, wind and solar from the base scenario together with a conservative estimation of 100MW of geothermal capacity coming online between 2020 and 2025.

[79] It is worth noting that this estimation does not yet include job opportunities from energy efficiency measures and this is while energy efficiency has the highest number of job opportunities per unit of energy generation.

[80] LCOE = levelized cost of energy

[81] The Bank's Options Analysis dismisses greater regional integration opportunities based on general long-term SEE regional predictions of energy needs – not evidence specific to Kosovo and Albania cooperation.

[82] For example, most of the Bank's assumptions on RE are based on a study that is described as a preliminary, top-down assessment: Mercados Energy Markets International, Kosovo - Regulatory Framework for RES – Procedures and Methodology for RES Electricity Pricing Task 1 Report, May 2009. The only other wind assessment is based on a limited amount of sites: NEK UMWELTECHNIG AG: Wind Resource Assessment -Kosovo, December 2010. The Bank dismisses geothermal potential based on one limited study: European Commission Liaison Office to Kosovo, Lot No. 4 Assessment Study of Renewable Energy Resources in Kosovo, main report, July 2008, p.7.

wind energy."[83] Even though the Bank acknowledges that wind studies are very preliminary, the Bank's Options Analysis concluded that "the potential for new wind capacity appears to be limited. A 2010 study…carried out by consultants NEK Technologies, concluded that there were very few areas with wind speeds exceeding 6 m/s a minimum needed for commercial potential in the region." However, these same consultants in August 2012 came to a very different conclusion:

> "The wind measurement campaigns, which have been conducted by us at selected locations, have shown that there are quite a few suitable locations in the country where a successful development of wind energy projects is possible."[84]

In addition, no Bank support is forthcoming for the development of any specific renewable project, even though such opportunities exist. According to the Kosovo Energy Regulatory Office (ERO), Kosovo has at least 15 applications for small hydropower with a total capacity of 128 MW (the Bank's analysis only considered an 80 MW potential) and for 128 MW of wind.[85] Instead, the Bank's Options Analysis states that new RE capacity "will be scattered throughout the country, and whether it gets built or not depends on private sector initiative to develop it." The Bank has not fully explored all potential alternatives.

Based on insufficient Bank assistance to prepare low carbon analyses and no Bank investment in already identified specific low-carbon projects, the proposed Kosovo Power Project does not meet the requirements of the SFDCC criteria II or IV. The SFDCC Expert Panel conceded that neither wind nor natural gas alternatives have been fully analyzed, which makes it difficult to understand why the Panel concluded that the proposed project met criteria II and IV.[86] It appears that the Expert Panel assumed that the criteria do not require it to review the quality or comprehensiveness of studies or actions that have been undertaken. This approach would appear to violate the spirit and intent of these criteria. It seems evident that the criteria are intended to ensure project decision-making is made on the basis of a rigorous and comprehensive assessment of renewable energy and energy efficiency alternatives. Studies that are done poorly or are not considered in decision-making should not suffice.

Furthermore, very little progress has been made so far on improving energy efficiency and tackling technical and commercial losses. The Bank's 2011 Options Analysis states that "Progress to date includes establishing and funding a number of programs that might reasonably be expected to result in EE gains."[87] However, the 2012 National Background Report on Energy states that "Even though a slight reduction of distribution losses was recorded recently, they still represent ca. 38% of total supplied electricity."

Even though the Expert Panel found that the project mostly complied with criterion III on the evaluation of the possibility of meeting the country's needs through energy efficiency and conservation stating that "there are a number of projects and actions that have been implemented in Kosovo, ranging from awareness raising to

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[83] Naser Sahiti, 2012. National Background Report on Energy for Kosovo. Associate Professor, Faculty of Mechanical Engineering, University of Prishtina, Prishtina, March 2012.

[84] NEK initiates a further wind energy project in Kosovo. August 21, 2012. http://www.nek.ch/windenergie-geothermie-e/news/meldungen/20120821_Budakova.php?navanchor=

[85] European Commission, 2011. Kosovo 2011 Progress Report, Communication from the Commission to the European Parliament and the Council: Enlargement Strategy and Main Challenges 2011-2012. European Commission Staff Working Paper, Brussels, October 12, 2011.

[86] *SFDCC Expert Panel Report*, at 11.

[87] According to the 2012 National Background Report on Energy for Kosovo, two programs on energy auditing of buildings have been completed and the implementation of energy efficiency measures recommended by energy auditors is underway. An Energy Efficiency Agency (EEA) has been established to help support local authorities prepare energy efficiency plans. The Government of Kosovo has prepared the Kosovo Energy Efficiency Plan 2010-2018 (KEEP).

improving the energy efficiency of many public buildings." The Panel also expressed reservations based on the need for increased effort to reduce energy demand and the technical and commercial losses.

Ten years in the making, the World Bank's approach to Kosovo's energy sector still lacks a serious commitment to support a low-carbon development path. According to the Bank's Country Partnership Strategy for Kosovo (2012-2015), the Bank is still in the early phases of low-carbon projects, even though much of this work was supposed to have begun over six years ago. Currently, the Bank is preparing a $32 million Energy Efficiency and Renewable Energy project for FY2014, "to help improve the EE of public buildings, provide financing and credit enhancement for biogas and solar water heating, and promote solar power and small hydropower." The Bank also plans to support additional studies to assess the potential for wind power and geothermal power.

However, long before any energy efficiency and renewable options analyses were planned, the Bank appears to have already committed to a coal-based development plan for Kosovo. Included in the World Bank's Lignite Power Technical Assistance Project (LPTAP) of 2006 was the objective "to assist the Government in attracting qualified private investors to develop lignite mines and build new capacity for lignite thermal power generation..." To achieve these objectives, LPTAP financed, *inter alia*, the preparation of the Kosovo Power Project, including the Transaction Advisor (PricewaterhouseCoopers), Legal Advisor (Hunton & Williams), and Safeguards Advisor (ERM Italia).

Shortcomings of the World Bank's Economic Analysis

In addition to the mentioned expert analysis that found low carbon scenario to be the least cost option, there are other compelling reasons to doubt that the proposed project is the least-cost alternative. The Bank's economic analysis of the new KRPP coal plant is missing substantial costs associated with mining and environmental externalities of coal.

Unaccounted mining costs: To begin, the World Bank's *Operational Guidance* on its climate criteria for coal projects is clear that the impacts of upstream activities such as coal mining and processing must be internalized if they are "developed for the purposes of supplying fuel feed stock for specified coal-based power generation facilities…."[88] Although the proposed new Sibovc South mine complex clearly meets this standard, the Bank's 2011 Options Analysis does not include the substantial costs associated with the mine's development and operations, including those caused by expansion of mining operations, resettlement, impacts on local agriculture, road upgrades and maintenance, mine reclamation, and ash dump costs (associated with mining and Kosovo C).

Costs associated with mining would substantially add to the cost estimates in the economic analysis for the new KRPP coal plant. Development of the mine alone is estimated to cost $300 million.[89]

Resettlement problems & costs: The New Mining Field of the proposed project will involve acquisition of land that is currently under agricultural production as well as fertile land that could be brought under production in the future. The new mining field will acquire approximately 13% of the territory of the Obiliq Municipality, which is mainly inhabited by large families who work in agricultural enterprises or independently as subsistence farmers.[90] Unfortunately, the SESA reports that there is not enough replacement agricultural land to resettle

[88] *Operational Guidance*, at 3.

[89] The new mine to supply the 600MW plant will require an investment of $300 million in constant prices over the period 2007-2038. As cited in: Kosovo Lignite Power Initiative Proposed Lignite Power Development Project (LPDP): Economic Analysis (downloaded from the World Bank's project website, file dated May 11, 2011).

[90] World Bank, 2008. Strategic Environmental and Social Assessment (SESA): Environmental and Social Safeguard Advisory Services for Private Sector Participation in the Development of New Generation Capacity, Related Transmission and the Development of the Sibovc

people who rely on farming for their livelihoods.[91] The significant permanent relocation and rehabilitation of land related to the mining are associated with high resettlement costs that have not been taken into account by any World Bank economic analysis of the proposed project. Based on methods in the World Bank's Involuntary Resettlement Sourcebook (2004), resettlement costs for the Kosovo Power project are estimated to approximately equal $33 million.[92] (For additional details on Resettlement, see Gender section above)

Under-estimated Project GHG emissions: The World Bank's Options Analysis only accounted for CO_2 emissions from the new coal plant. It did not account for GHG emissions associated with black carbon or the mining operation.

In addition to CO_2 emissions, the coal plant will also add to climate change through substantial PM emissions, also referred to as Black Carbon. Particulate matter is a heat-trapping agent, absorbing solar radiation, and, even at great distances, decreasing reflectivity (albedo) by settling in snow and ice.[93] The contribution of particulates (from coal, diesel, and biomass burning) to climate change has, until recently, been underestimated.[94] Though short-lived, the global warming potential per volume is 500 times that of CO_2.

Currently, particulate matter (i.e., coal dust) from the active mining area is a large contributor to air pollution in Kosovo. Thus, the new mining operations stand to add to Black Carbon emissions. In addition, coal mining can be a significant source of methane (CH_4) emissions. Methane is a greenhouse gas that has a global warming potential 21 times more potent than CO_2.[95] The World Bank has not evaluated the project-associated methane emissions, and is not requiring a coalbed methane capture operation or that the KRPP power plant be designed to co-fire the project-generated coalbed methane.

Under-estimated Environmental Externalities: In addition to the under-estimation of GHG emissions, the Bank's economic analysis does not fully consider all of the types of significant environmental externalities, including mercury emissions, water scarcity, and lost agricultural production.

The World Bank's Energy Options Analysis did not consider the costs posed by mercury pollution (for a detailed discussion of project associated mercury pollution see the Gender Section above). Methodologies exist for monetizing impacts on cognitive development and cardiovascular disease due to mercury exposure and such costs should have been included for the coal option in the Bank's analysis.[96]

Lignite Field. Government of Kosovo, Ministry of Energy and Mining, World Bank Lignite Power Technical Assistance Project (LPTAP). June, 2008.

[91] *Ibid.*

[92] Given the basic data needed for estimating resettlement costs are lacking, it is necessary to rely on average resettlement expenses for other World Bank projects. World Bank-supported hydropower projects' completion reports indicate resettlement costs of an average of 11 percent of overall project costs. [World Bank, 2004. Involuntary Resettlement Sourcebook]

[93] *Hansen, J., M. Sato, P. Kharecha, et al* . 2007. *Climate change and trace gases. Philos. Transact. A Math Phys Eng Sci.* ***365****: 1925–1954; and Jacobson, M.Z.* 2002*. Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing global warming. J. Geophys. Res.* ***107****: (D19), 4410, doi:10.1029/2001JD001376, 22pp. [pp ACH 16-1 to 16-22]. http://www.stanford.edu/group/efmh/fossil/fossil.pdf (accessed December 9, 2010).; and Ramanathan, V. & G. Carmichael.* 2008*. Global and regional climate changes due to black carbon. Nat. Geosci.* ***1****: 221–227..*

[94] Epstein, Paul, and J. Buonocore, et. al. Full cost accounting for the life cycle of coal. *Annals of the New York Academy of Sciences*, Volume 1219, February 2011. See also: Bounding the role of black carbon in the climate system: A scientific assessment. *Journal of Geophysical Research: Atmospheres*. 2013. 10.1002/jgrd.50171

[95] Global Warming Potentials (GWPs) are a quantified measure of the globally averaged relative radiative forcing impacts of a particular greenhouse gas. It is defined as the cumulative radiative forcing – both direct and indirect effects – integrated over a period of time from the emission of a unit mass of gas relative to some reference gas. Carbon dioxide (CO_2) was chosen by the IPCC as this reference gas and its GWP is set equal to one (1). Methane's GWP is equal to twenty-one (21).

[96] For direct costs of mercury emissions from coal-fired power plants causing mental retardation and lost productivity in the form of IQ detriments see Trasande *et al*. *Trasande, L., P. Landrigan & C. Schechter.* 2005. *Public health and economic consequences of methyl*

Significant health costs – Table 4 shows that for each year of operation, the new KRPP will result in an estimated 77 million Euros in health costs to Kosovars. This amounts to 3.1 billion Euros over the life of the plant or more than double the initial investment.

Table 4. Health Costs of KRPP under EU Standards (2010 Euros)

Health Impacts	Incidence	Annual Costs
Deaths	44	
Life years lost	493	58,500,000
Life years lost due to infant deaths	26	1,390,000
Asthma attacks children (cases)	843	840
Asthma attacks adults (cases)	5,199	5,200
Lower respiratory symptoms children (days)	32,220	1,350,000
Lower respiratory symptoms adults (days)	44,664	1,880,000
Sickness days	81,375	8,400,000
Work loss days	9,982	3,010,000
Total		**77,100,000**

Source: Myllyvirta L, 2013.[97]

In addition, it is important to note that Table 4 does not represent all of the health costs associated with the proposed World Bank project, including costs associated with worker's health impacts or heavy metals such as mercury.

Climate Change Resilience – Risks to Agricultural Productivity and Water Supply

Kosovo is vulnerable to climate change because it is already suffering from water shortage concerns and the largest employer in Kosovo is agriculture, which is a climate-sensitive sector. The proposed Kosovo Power Project undermines efforts to improve agricultural productivity and ensure efficient water use. As previously noted, farmland and crops in Kosovo are damaged by a multitude of activities associated with the use of coal, including: coal mining pollution, coal combustion pollution, reduced irrigation water, soil contamination from acid rain, and land conversion due to mining activities (for a detailed discussion on the project associated risks to agricultural productivity, see the Gender Section above).

Furthermore, efficient water supply for drinking, agriculture, and for the proposed power plant and mining are highly uncertain. Even though multiple assessments conducted in the project preparation stage warn of water shortages, especially in the case of climate change-induced pressures, the Bank has glossed over these warnings.[98] Instead, the Bank is relying on an incomplete water analysis, based on highly uncertain data as identified by the analysis itself, including *inter alia*: population growth, water demand and consumption, land uses, climate change impacts, and sources/levels of pollution. The Bank's current Water Study[99] specifically

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mercury toxicity to the developing brain. Environ. Health Perspect. ***113****: 590–596; and Trasande, L., C. Schechter, K. Haynes & P. Landrigan.* 2006*. Mental retardation and prenatal methylmercury toxicity. Am. J. Ind. Med.* ***49****: 153–158.*

[97] Myllyvirta L, 2013. Silent Killers: Why Europe must replace coal power with green energy. Greenpeace International, Amsterdam. Forthcoming. Based on exposure-response coefficients from EU NEEDS and CAFE CBA projects, high-resolution gridded population data for 2010, and modeled increases in annual average pollutant concentrations, using the EMEP MSC-W atmospheric chemical-transport model with 2008 meteorological data and 2010 baseline emission data. The US case results were obtained through additional modeling done by Greenpeace based on the emissions in Table 1.

[98] World Bank SESA, 2008 and Water Security for Central Kosovo - *The Kosovo - Ibër River Basin and Ibër Lepenc Water System.* Ministry of Environment and Spatial Planning. March 2011, edited March 2012.

[99] Water Security for Central Kosovo, 2012.

downplays water needs based on conservative assumptions, including: low population growth; moderate growth in irrigation (8,000 ha out of a potential 18,000 ha); unaccounted mining demand, and decreased per capita consumption. In addition, the World Bank's coal power technology options analysis (2011) did not include consideration of water efficient technologies for the new KRPP plant, such as a dry cooling tower system.

As such, citizens of Kosovo have expressed great concern over the project's impact on water scarcity. In response to these concerns, the World Bank proposes $18 million for a *Water Supply Project* for FY2015. This project intends to improve the water supply from the Ibër-Lepenc Canal through the repair of the canal, protection against physical damage, short-term storage along the canal, and capacity building of canal management. It is uncertain whether this project will be implemented (e.g., depends on IDA-17 funds) and to what degree and under what specific circumstances the planned water system improvements ensure long-term water supply to all users. Although such a project is very welcome and may help alleviate some supply risks to drinking water and to the coal plants, it specifically does not address irrigation.

Given that the agriculture sector is the highest employer in Kosovo and the biggest contributor to GDP, and is deemed by the Bank to be a priority for IDA-16 climate resilient development, the Bank's lack of attention given to assessing the proposed Kosovo Power Project's impacts on the agriculture sector undermines IDA-16 climate change commitments.

The World Bank needs to provide a comprehensive understanding of how the coal power plant and mining activities contribute to or threaten the IDA16 climate resilience objectives and the goals of Kosovo's Agriculture and Rural Development Strategy 2009-13, including; improved agriculture quality standards; increased employment opportunities; and facilitated entry to the EU.

Just because the Bank is supporting some country programs that advance climate change resilience, such as agriculture and water supply in Kosovo, it does not justify supporting a project that clearly contradicts resilience, such as the Kosovo Power Project. With such an approach, the Bank harms IDA countries' chances for climate change resilient development.

No World Bank Additionality

The proposed Kosovo Power Project does not provide any World Bank additionality with regards to energy access for the poor or advanced technology diffusion.

Unclear Impacts on Poor: A recent expert analysis[100] of World Bank project documents and energy options analysis, finds that significant tariff increases will be needed to support financing of the simultaneous development of a new mine, renovation of Kosovo B plant and the construction of the proposed new 600 MW plant. The expert analysis also found that the Bank's Background Paper significantly underestimates the tariff increases that will be required in the near term, and fails to examine the impacts of these increases on the Kosovo economy and the poor. The currently proposed project does not address these issues, and has no measures to increase or protect energy access for the poor.

Furthermore, the World Bank Kosovo Country Partnership Strategy (2013-2015) states that a Poverty and Social Impact Assessment (PSIA) still needs to be conducted to determine ways of mitigating the impact of higher electricity tariffs on poor households. The CPS Results Matrix stipulates a development outcome of "improved quality of electricity service, with secure supply to all paying customers." Even though electricity tariffs are expected to substantially increase, the CPS offers no Bank benchmarks for increasing or maintaining energy

[100] Buckheit, Bruce C. 2012. Reevaluating Kosovo's Least Cost Electricity Option: Preliminary Evaluation of the World Bank's December, 2011 "Background Paper, Development and Evaluation of Power Supply Options for Kosovo." The Sierra Club and The Kosovar Institute for Development Policy (INDEP). January 2012.

access for the poor and does not have any Bank assistance planned to implement safety net programs for the poor for protection against a reduction in energy access for the poor.

Not the Best Available Technology: The World Bank has indicated that the proposed new KRPP power plant will be a circulating fluidized-bed (CFB) plant with a generating efficiency of 38 percent (LHV basis), thus stipulating a subcritical plant.[101] As the power plant generation efficiency improves it reduces the fuel consumption as well as CO_2 and other pollutant emissions discharged from the plant. Thus, higher efficiencies discharge a smaller quantity of flue gas, i.e. emissions, for each MWh generated. If the proposed new plant utilized a supercritical pulverized coal (PC) lignite unit, it could achieve a generating efficiency of 42 percent (LHV basis) or higher. Using supercritical lignite-burning technology could result in an 8% reduction in emissions of all pollutants.[102]

The SFDCC coal criterion 5 stipulates that "coal projects will be designed to use the best appropriate available technology to allow for high efficiency and, therefore, lower GHG emissions intensity." Although the SFDCC Expert Panel did not find the project in non-compliance of this criterion, it did suggest modifications.[103] The modifications specifically relate to achieving the highest possible efficiency for the new plant. The Expert Panel believes that efforts should be made by the Government to encourage project bidders to provide a plant with the highest possible efficiency rather than simply meet a minimum efficiency level (as required in the present draft Request for Proposals). The Expert Panel notes that higher plant efficiencies may be achieved through the use of advanced lignite drying techniques and/or the use of supercritical units.

With regard to emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x), particulate matter (PM), and mercury, the World Bank simply stipulates that the plant will meet EU directives, which is what the government of Kosovo would require whether or not the World Bank were involved in the project. As such, the EU directives do not represent the highest levels of pollution abatement. In comparison, if the coal plant were built to meet US standards for new plants it would emit 90% less SO_2, 100% less NO_x, and 100% less mercury.[104]

Conclusion on IDA-16 Climate Change Commitments

In 2010, the WBG's Independent Evaluations Group issued a final recommendation regarding WBG support for coal stating "To meet power demands, the World Bank Group's scarce human and financial resources are best spent in helping clients find domestically preferable alternatives to coal power, such as through increased energy efficiency. Coal support should be a last resort when lower cost and concessionally-financed alternatives have been exhausted and when there is a compelling case WBG support would reduce poverty or emissions."[105]

Overall, the Bank has not demonstrated a robust approach to low carbon alternatives for Kosovo. Instead of prioritizing analyses and actions to support a low carbon development path for Kosovo, the Bank has dragged its

[101] The Request for Proposal (RFP) for the Kosovo C Power Plant Project requires the investor to use the best available technology with a minimum thermal efficiency of 37% [LHV basis], and the Bank expects 38 to 39 percent. World Bank, 2011. Kosovo: Kosovo Power Project, Terms of Reference for the SFDCC Expert Panel. Energy Sector Unit, Europe and Central Asia Region, World Bank, June 14, 2011, Annex 1, page 17.

[102] Assuming the same level of flue gas emissions control for the supercritical plant as for the sub-critical plant, the analysis uses 2 percent reduction in all emissions for each percentage point increase in efficiency.

[103] Beer, Mielczarski, and Taylor, 2012. Kosovo Power Project Report of the SFDCC External Expert Panel to the World Bank. January 2012.http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTENERGY2/0,,contentMDK:22970700~pagePK:210058~piPK:210062~theSitePK:4114200,00.html

[104] Mainhardt, Heike. 2013. Comparison of Pollution and Health Impacts of the Proposed World Bank Kosovo Power Project under Different Standards and Supercritical Technology. February 2013. Publication forthcoming.

[105] IEG, 2010. *Climate Change and the World Bank Group: Phase II The Challenge of Low-Carbon Development*. World Bank Group, Independent Evaluations Group, August 5, 2010.

feet on the necessary energy efficiency measures, technical upgrades and renewable resource studies and projects. As a result, the World Bank is not treating coal as a "last resort" in Kosovo.

Instead, based on very limited analyses of alternatives, the Bank continues pushing forward with a project that will lock Kosovo into a high carbon development path for 40 years before viable "alternatives have been exhausted." While multiple expert studies found that the proposed coal project will be extremely costly and will necessitate a sharp increase in tariffs, and that a mixture of efficiency, technical upgrades and renewable alternatives can provide a lower cost alternative for Kosovo's energy needs.

Once the proposed new plant is built, there will be substantial excess base load capacity in the system. This will create perverse incentives to increase the use of electricity to justify the initial investment. In this way, committing to construction of the new unit at this time will undermine efforts to reduce transmission losses, improve energy efficiency and invest in renewable energy.

Furthermore, the World Bank proposed new 600 MW coal plant and significant coal mining expansion will further exacerbate current water scarcity issues in Kosovo and pose risks to agricultural productivity. As such, the project stands to undermine IDA-16 climate change commitments to promote climate resilient development through agricultural productivity and efficient water use.

Lastly, given the SFDCC Expert Panel concluded that the proposed project complied with the World Bank's SFDCC climate criteria for coal – even though wind and geothermal alternatives were not fully considered; GHG emissions were under-estimated; substantial costs of the mining operations were omitted; and environmental externalities associated with mercury pollution and lost agricultural production were unaccounted – This raises serious concerns regarding the climate criteria, the Bank's guidance on the application of climate criteria and the adequacy of the Expert Panel process more generally.

Climate Change Recommendations

Kosovo Power Project:

- **Direct Bank Support to Low-Carbon Development First** - The World Bank should first support the direct implementation of energy efficiency measures, reduction of technical and commercial losses of energy, renewable energy projects, refurbishing Kosovo B, and regional integration measures prior to the development of any new lignite-based project. Refurbishment of Kosovo B will provide a number of years of base load capacity. During which time, low carbon alternatives deemed to be economical can be pursued and may very well render the new coal plant unnecessary or at the very least render a reduction in size.

- **Ensure Adequate Water Supply for Drinking and Agricultural Production –** The World Bank should not go forward on the Kosovo Power Project until it can realistically ensure an adequate water supply for the full range of potential future water balance scenarios for the Iber-Lepenc water system, including: high level increase in drinking water and high level increase in irrigation in an extremely dry year (i.e., potential climate change impacts). Sufficient water supply must be ensured for meeting the irrigation goals of Kosovo's Agriculture and Rural Development Strategy 2009-13.

IDA-17 Replenishment: IDA-17 operations need to be enhanced to ensure a robust approach to Climate Change Resilience. A robust approach to resilience needs to be clear that Bank support for some programs in a given country that advance climate change resilience, such as agriculture, water, and renewable energy, does not justify supporting other projects in a country that contradict resilience. Lessons learned from the Kosovo Power Project demonstrate that in order to enhance Climate Change Resilience, IDA-17 operations will need to:

- **Require Priority Sequencing of Low Carbon Alternatives** – In order to ensure a robust approach to climate change resilience, the World Bank needs to move beyond elusive low carbon strategies for countries and rationalizing support for projects in a given country that contradict resilience simply because support is also being provided for projects that advance resilience. All IDA-17 operations must adhere to clear guidelines on priority sequencing of low carbon alternatives. IDA-17 operations must demonstrate that low carbon alternatives have been exhausted (not simply preliminary studies) prior to appraisal of more carbon intensive projects, like fossil fuel developments.

- **Ensure Sufficient Water Supply** – Given climate change poses risks to water resources and the World Bank has identified efficient water use as critical to advancing climate resilient development, all IDA-17 operations must ensure sufficient long-term water supply for all sectors. All energy operations must adequately demonstrate that the proposed operation does not pose a risk to future water demand under a scenario for high level increases in drinking water and irrigation in an extremely dry year (i.e., with potential climate change impacts).

- **Require Additionality of World Bank Assistance:** Given the burning of fossil fuels is the number one contributor to greenhouse gas emissions and that climate change is anticipated to negatively affect developing countries and the poor disproportionately, if the Bank determines it must still go forward with a fossil fuel-based operation, then it must adequately demonstrate WBG additionality with regards to poverty reduction and best available technology diffusion. All IDA-17 fossil fuel projects must directly provide increased energy access to the poor through project-specific measures. All IDA-17 fossil fuel projects must utilize the best available technology with regards to generation efficiency and pollution abatement.