Osvaldo Gratacós, CAO Vice President Compliance Advisor/Ombudsperson International Finance Corporation 2121 Pennsylvania Avenue, NW Washington, DC 20433, USA E-mail: CAO@worldbankgroup.org

Re: Complaint regarding the International Finance Corporation's investments in Kenya Commercial Bank and Co-Operative Bank of Kenya

Dear Mr. Gratacós,

This complaint is filed by Save Lamu and the Kwasasi Mvunjeni Farmers Self-Help Group (also known as the Kwasasi Farmers Self-Help Group), from Lamu County, Kenya.¹ Save Lamu is a community-based umbrella organisation made up of over 40 other organisations from Lamu, Kenya. The Kwasasi Mvunjeni Farmers Self-Help Group is a collective of farmers who have been displaced without compensation by infrastructure associated with the proposed 1,050-megawatt coal-fired power plant in Lamu. We jointly oppose the project due to grave concerns about serious risks posed by the coal plant to our communities' health, livelihoods, food security, environment and valuable cultural heritage.² Lamu County is home to Lamu Old Town, a UNESCO-recognised World Heritage site,³ as well as critically-important coastal mangrove forests. Our farmers are being displaced from their land, losing their income and food security, without a clear plan for their compensation. Tourism and artisanal fishing, the two most important industries in Lamu, face existential threats from the plant's potentially dramatic disruption of the distinct character of the area and the productivity of its marine environment. Indigenous communities are being further marginalised, losing access to critical natural and cultural resources that they have sustainably managed for generations. Our concerns about those risks have been exacerbated by the lack of meaningful community consultation and participation in project design.

We believe that the International Finance Corporation (IFC) is contributing to this potentially disastrous project through two financial intermediary clients, Co-Operative Bank of Kenya and Kenya Commercial Bank, both of which have provided financial support to companies involved in the development of the coal plant. In addition, the IFC has a history of relationships with other financial institutions that have been linked to the coal plant. This pattern of investment leads us to fear that the current investments in Co-Operative Bank and Kenya Commercial Bank are not – or will not be – the IFC's only connections to the Lamu coal plant and its severe risks and impacts in our community.

¹ This complaint is filed with the support of Accountability Counsel and Natural Justice. Please see Annex 1 for a more detailed description of Save Lamu, Kwasasi Mvunjeni Farmers Self-Help Group, their representatives and relevant contact details. A representation agreement is attached in Annex 2.

² These concerns have also been raised by international institutions such as the United Nations Educational, Scientific and Cultural Organization (UNESCO). See UNESCO, Report Of The World Heritage Centre/ICOMOS/ICCROM Advisory Mission To Nairobi Concerning Lamu Old Town, Kenya (Apr. 2018), p. 20 and sec 3.4.2 <u>https://whc.unesco.org/document/167872</u> ["UNESCO Report (2018)"] UNESCO, Report on the Reactive Monitoring Mission to Lamu Old Town Kenya (Feb. 2015), p. 20, http://whc.unesco.org/document/135436.

³ In 2011, UNESCO-recognised Lamu Old Town as a World Heritage site of Outstanding Universal Value. Lamu Old Town has retained its traditional functions and remains a significant center for education in Islamic and Swahili culture in East Africa. For more information, see UNESCO "Lamu Old Town" https://whc.unesco.org/en/list/1055/.

Construction of the project appears imminent, despite clear and ongoing violations of the IFC's Sustainability Framework. We fear that these violations will only get worse as the project moves forward. Among other concerns:

- The environmental and social impact assessments to date omit critical aspects of the project, including: coal mining and transportation including a planned 15-kilometre (km) coal conveyor belt; a 2,000-acre limestone mining concession and associated mining operations; the approximately 9km site access road; the displacement of hundreds of farmers, fisherpeople and other land users by project infrastructure; and major reported changes to coal plant technology;
- Affected people were not adequately identified or consulted in project planning, including in the development of the July 2016 Environment and Social Impact Assessment Study (ESIA) or since its release. Some affected communities, including indigenous communities and those that will be impacted by planned limestone mining in Witu, were not consulted at all. Others were given superficial, incomplete, and unbalanced information. Community-based organisations, including Save Lamu, have faced intimidation when they have tried to attend, or organise their own, meetings about the project;
- Hundreds of farmers, pastoralists and other land users, including indigenous and other vulnerable communities, are expected to be displaced from the project site and by other project infrastructure, yet no Resettlement Action Plan has been publicly released in full for public consultation. While a Summary Resettlement Action Plan is available, it is not readily accessible and it lacks sufficient detail to fully understand the displacement impacts and how they will be mitigated and compensated. It also appears to significantly underestimate the scale of displacement, especially of fisherpeople who will no longer have access to productive fishing grounds. There is no Indigenous Peoples' Plan, no Free, Prior and Informed Consent, and no culturally-appropriate compensation for affected indigenous peoples;
- Pollution and biodiversity impacts have not been properly assessed and patently lack adequate mitigation measures. The extraction and return of water from and to Manda Bay poses serious risks to biodiversity through entrainment and thermal pollution. Dredging and other disturbances during construction and operation will cause significant and serious damage to critical mangrove, sea grass and coral reef habitats. Air pollution, including acid rain, threatens the health of our communities and our environment, as well as the delicate architecture of Lamu Old Town;
- The risks posed by this project to our unique cultural heritage have been grossly underestimated. Lamu Old Town, only 20 km from the project is, is an internationally-recognised World Heritage site of outstanding cultural value. Neighbouring islands also have numerous archaeological remnants of history dating as far back as the 14th century. As confirmed by UNESCO, that cultural heritage is threatened by air pollution, population influx and unmanaged development, as well as the loss of traditional livelihoods caused by the coal plant;
- No real consideration has been given to other, less-polluting, energy sources or to alternative project sites. The alternatives assessment contained in the ESIA is based on false assumptions and flawed reasoning regarding the viability of renewable energy sources;
- There has been no genuine assessment of cumulative impacts, despite the fact that Lamu is a central node along the planned Lamu Port-South Sudan-Ethiopia Transport (LAPSSET)

Corridor, an infrastructure mega-project with various major developments (including a 32berth deep-sea port, a resort city, and an oil refinery and pipeline) planned specifically for Lamu. The Lamu coal plant – whether a formal component of LAPSSET or not – clearly relies on infrastructure associated with that mega-project, including the port. Yet the ESIA makes no mention of the cumulative impacts on our communities associated with these other major, planned developments;

- There have been insufficient efforts to ensure that affected people will share in project benefits; and
- As a result, there is no broad community support for this project.

Given that the risks of this project are so profound and the proposed mitigation measures are patently inadequate, neither IFC nor its clients can support the Lamu coal plant without gross violations of the IFC Performance Standards and the IFC's Environmental and Social Sustainability Policy. Accordingly, the IFC must take immediate steps to restrict its clients' participation in this disastrous project and to review any new investments in the Kenyan financial sector closely to avoid any further contribution.

Finally, we note that, although this complaint focuses on the environmental and social impacts of the proposed coal plant, serious doubts have also been raised about the economic viability of this project.⁴ This intensifies our concerns about the environmental and social risks because we fear that our communities will suffer greatly because of a project that will not even meet its claimed development goals.

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⁴ See Witness Statement of Hindpal Singh Jabbal in the National Environment Tribunal at Nairobi, attached in Annex 3; letters from United States Senators to African Development Bank Group President and Executive Director dated May 28, 2018 attached in Annex 5.

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I. A 1,050-megawatt coal-fired power plant for UNESCO-recognised Lamu

In 2013, the Kenyan Government proposed construction of a 1,050-megawatt coal-fired power plant in Lamu County. If constructed, the plant will be the first coal-fired power plant in Kenya.

Lamu County is the northernmost county on the coast of Kenya. It borders the Indian Ocean to the southwest and the Republic of Somalia to the northeast. It includes mainland territory and over 65 islands, which form the Lamu Archipelago. Five of those islands are permanently inhabited: Lamu, Pate, Manda, Kiwayu, and Ndau.

Lamu County is internationally recognised for the richness of its marine and terrestrial environments, including its marshlands, grasslands, savannahs, baobab and mangrove forests, coral reefs, beaches and sand dunes.⁵ Lamu hosts 70% of Kenya's mangroves, a critically important natural resource that protects against erosion and flooding and serves as a breeding ground and nursery habitat for various fisheries.⁶

The proposed 975-acre coal plant site is on the Lamu mainland, adjacent to those vitally important coastal mangrove forests. The land is being compulsorily acquired from local farmers, who, years after displacement was announced, continue to face uncertainties around the extent and type of compensation and resettlement support they will receive.⁷ At least 109 farmers and their families have already been displaced by the construction of the site access road, without any consultation or compensation.⁸



Figure 1: The proposed location of the Lamu coal plant

Source: UNESCO, Report of the World Heritage Centre/ICOMOS/ICCROM Advisory Mission to Nairobi Concerning Lamu Old Town, Kenya (Apr. 2018), figure 6.12.

⁵ Including the Dodori National Reserve, the Kiunga Marine National Reserve (a designated UNESCO Biosphere Reserve) and wetland areas protected under the Ramsar convention. *See further* Section III.D below.

⁶ Lamu County Spatial Plan (2016-2026) Final Report (Vol. I, May 2017), p. 124.

As discussed in Section III.E below, statements regarding the amount of land to be acquired, and the type of compensation that will be given, have varied significantly, and the full Resettlement Action Plan is yet to be publicly disclosed.

⁸ See section III.B.2 below.

This proposed site is approximately 20 km north of Lamu Old Town, on Lamu Island. Lamu Old Town is a UNESCO World Heritage Site, as the oldest and best-preserved Swahili settlement in East Africa. It is a small, conservative, and preserved society, maintaining its traditional architecture and its distinct social, cultural, and religious functions up to the present day.⁹

We understand that coal for the plant will be imported from southern Africa, with ocean-going ships utilizing a specific coal berth at the currently-under-construction Lamu Port in Manda Bay (a major development in its own right, discussed further below).¹⁰

In September 2014, the government awarded the contract for the coal plant to Amu Power, a special-purpose vehicle established by Gulf Energy, a privately held Kenyan energy company, and Centum Investment, a publicly traded Kenyan investment firm. In May 2018, U.S. multinational General Electric (GE), Amu Power and Centum announced a "collaboration agreement" to supply GE's ultra-supercritical coal plant technology to Amu Power (with an opportunity for GE to acquire an equity interest in Amu Power),¹¹ although few further details of that arrangement have been publicly confirmed or released. Financing for the US\$2 billion project is expected to be met by:¹²

- 75% debt financing in the form of two syndicated loans: a US\$1.2 billion loan arranged by the Industrial and Commercial Bank of China and a US\$300 million loan linked at one stage to the Standard Bank of South Africa (who subsequently decided against participation);¹³ and
- 25% equity financing from Amu Power's shareholders.

As discussed in Section II below, many details of those financing arrangements remain unclear.

According to the ESIA dated July 2016,¹⁴ the coal plant will include three supercritical¹⁵ coalfired thermal generating units. On average, it is envisaged that the power plant will burn about 2.8

⁹ UNESCO "Lamu Old Town" <u>https://whc.unesco.org/en/list/1055/</u>.

¹⁰ Kurrent Technologies Environment and Social Impact Assessment (ESIA) Study for the Proposed 1,050MW Coal Fired Power Plant Project, Kenya (16 Jul. 2016), Chapter 4 <u>https://www.amupower.co.ke/esia.html</u>. [2016 ESIA] As explained in Section III, we understand that the Kenyan government eventually plans to develop a coal mine in Kitui, Kenya. Even if these plans move forward, there will be a several-year period in which coal imports will be necessary.

See, among others, GE Africa Newsroom "Kenya's Amu Power Signs Clean Coal Technology Agreement with GE" (May 2018) <u>https://ge.africa-newsroom.com/press/kenyas-amu-power-signs-clean-coal-technology-agreement-with-ge</u>. However other reports have raised doubts about whether the agreement will eventuate: deCOALonize Kenya via Medium "450 million dollar deal between Gulf Energy & General Electric for the development of coal power still under discussion" (Jun. 2018) <u>https://medium.com/@deCOALonize/450-million-dollar-deal-between-gulf-energy-general-electric-for-the-development-of-coalpower-a9c4497fea8</u>; Professor Daniel Kammen, RAEL Berkeley "General Electric Reconsiders Investment In Lamu Coal Plant" (Jul. 2018) <u>https://rael.berkeley.edu/2018/07/general-electric-reconsiders-investment-in-lamu-coal-plant/</u>. See also letter from GE to Save Lamu (19 Feb. 2019), attached in Annex 4.

¹² Amu Power, submission to Kenya Energy Regulatory Commission (28 Sept. 2016); Reuters "UPDATE 2-Kenya's Centum to finalise power plant funding this year" (12 Jun. 2018) <u>https://www.reuters.com/article/centum-invt-results/update-2-kenyas-centum-to-finalise-power-plant-funding-this-year-idUSL8N1TF0CF.</u>

¹³ We understand that Standard Bank was mandated as the lead arranger for the US\$300 million loan, but subsequently decided against any involvement with the project: 350.org "Standard Bank Sets The Record Straight on Financing Lamu" (19 Oct. 2017) <u>https://350africa.org/standard-bank-sets-the-record-straight-on-financing-lamu/</u>; The Star "Standard Bank says not funding Lamu Coal" (18 Oct. 2017) <u>https://www.the-star.co.ke/news/2017/10/18/standard-bank-says-not-funding-lamu-coal_c1654106</u>. *Compare* Standard Bank Group, *Annual Integrated Report 2015* at p. 47 "Standard Bank and ICBC have concluded debt financing agreements with a consortium of Kenyan investors for the building of the 1000 megawatt Amu coal-fired power plant." https://thevault.exchange/?get_group_doc=18/1461565691-SBG_FY15_Annualintegratedreport.pdf.

¹⁴ 2016 ESIA, Chapter 4.

¹⁵ As discussed in section III.B.4 below, GE's ultra-supercritical technology is substantially more efficient than the supercritical technology the 2016 ESIA describes. That said, ultra-supercritical technology does not allay our concerns: substantial risks of pollution, displacement and other disruptions to our environment and society remain.

megatons (Mt) of coal per annum, or 10,000 metric tons per day. Following combustion, ash will be disposed in an ash yard (with 15 years' capacity). The plant will operate a once-through cooling system, utilizing seawater extracted from Manda Bay via an intake canal. Cooling water will then return to Manda Bay via a submerged pipe and outfall system, desalinated and at an elevated temperature. Seawater will also be used to scrub flue gases, as part of wet flue gas desulphurisation system. Exhaust gases will be released to the atmosphere from a stack around 210 meters high. The facility will operate 24 hours per day, seven days per week subject to scheduled maintenance. The coal plant will also require the following infrastructure:

- Limestone mining at Witu. A 2,000-acre mining concession has been approved by local authorities for this purpose. The limestone will be used as part of the wet flue gas desulfurization process. It will be transported by both land and sea to the power plant;
- A coal receiving system including a coal berth at the Lamu port, coal handling equipment and a conveyor system approximately 15 km long to transport coal from the port to the coal stockyards;
- Two coal stockyards with a total of 30-38 days' coal capacity (up to 420,000 metric tons);
- A 400-kV substation;
- A permanent workers' colony accommodating 250-300 persons;
- A newly constructed rail system to transport coal if Kenyan coal becomes available;
- Associated roads, buildings and other structures.

Despite GE's May 2018 announcement that it would be providing ultra-supercritical technology to the Lamu coal plant,¹⁶ we are not aware of any updated technical or environmental and social assessments in the months since. While this technology would represent an improvement on the supercritical technology described in the 2016 ESIA, as set out in section III.B.6 below, the threat of pollution and other substantial impacts on communities remains.

The proposed coal plant has progressed through a number of Kenyan regulatory requirements, although many gaps and inadequacies remain:

- 14 March 2016: Amu Power submitted the Environmental Impact Assessment Study Report (EIA) to the National Environment Management Authority (NEMA);
- 29 July 2016: A Gazette Notice was published inviting public comments on the EIA, with a deadline of 29 August 2016;
- 7 September 2016: NEMA granted the EIA licence, only eight days after the final deadline for public comments;
- 28 September 2016: Amu Power applied to the Energy Regulatory Commission (ERC) for a licence to generate electricity;

¹⁶ See note 11.

- 27 October 2016: during the public comment period, Save Lamu sent objections to the ERC licence application;
- 7 November 2016: Save Lamu and several individual residents of Lamu appealed the granting of the EIA licence at the National Environment Tribunal (NET). They are awaiting a judgment in this matter;
- February 2017: the ERC summarily dismissed Save Lamu's objection to the ERC licence application; however, the licence has not yet been gazetted.¹⁷

Construction of the coal plant itself is yet to begin, although development of the site access road – and resulting displacement of Kwasasi farmers – is underway. At least 109 farmers and their families have already lost their income and food security, without compensation or consultation.¹⁸

The proposed Lamu coal plant and its impacts can only be fully understood in the context of the LAPSSET Corridor mega-project, described by the Kenyan government as East Africa's largest and most ambitious infrastructure project. Whether or not the proposed Lamu coal plant represents a formal component of the LAPSSET project, the development of these projects is clearly intertwined in various ways. Major components of LAPSSET to be located in Lamu include:¹⁹

- A 32-berth deep sea port in Manda Bay. The construction of Phase 1 of LAPSSET, three berths, the causeway and a range of port buildings, is currently underway (see Figure 2), with the first berth expected to be completely in June 2019, and the first ship scheduled to dock in November 2019. This has already required significant mangrove clearance, dredging and reclamation of land. Through 2030, a further 29 berths are planned: a major development by international standards;
- An industrial facility near the port. The industrial area will include potentially highlypolluting activities, including: oil-refining and petrochemical industry; food- and fruitprocessing factories; a live animal quarantine centre; wood-processing; textile industry; ship repair and building; material processing for corridor construction; and a service base for offshore oil and gas production. The port and industrial area will make up a Special Economic Zone (SEZ);
- Highways, including the Lamu-Garissa-Isiolo highway (537km) and a separate Lamu-Witu-Garsen road (115km) prioritised to facilitate the initial transport of cargo to and from Lamu port (by connecting to existing road infrastructure);
- A Lamu-Isiolo standard gauge railway, to transport cargo to and from the Lamu port;
- Lamu-Lokichar crude and product oil pipelines. The pipelines will transport oil from the South Lokichar in Turkana to Lamu for export;

¹⁷ Some ERC records indicate that the ERC granted the electricity generation licence on 3 March 2017, although this has been difficult to confirm.

See Letter from Kwasasi Farmers Self Help Group to Ministry of Transport (31 Aug. 2018), Letter from Kwasasi Farmers to the Chairperson, National Land Commission (5 Nov. 2018), and Letter from Kwasasi Farmers Self Help Group to the Chairperson, National Land Commission (13 Jan. 2019), all attached in Annex 4.

¹⁹ LAPSSET website <u>http://www.lapsset.go.ke</u>; UNESCO Report (2018), §3.2.3; Business Daily "Lamu residents set to reap from completion of mega projects" (8 Jan. 2019) https://www.businessdailyafrica.com/corporate/shipping/Lamu-residents-set-to-reap-from-completion-of-mega-projects/4003122-4926618-11swalp/index.html.





Source: UNESCO, Report of the World Heritage Centre/ICOMOS/ICCROM Advisory Mission to Nairobi Concerning Lamu Old Town, Kenya (Apr. 2018), figure 6.4.

- A new Lamu metropolis on the mainland, expected to host one million residents by 2030;
- A resort city, including a golf course and multi-storey hotels (see Figure 3);

- Electricity transmission lines between Lamu-Garissa-Isiolo-Lokichar;
- A new international airport. Preliminary facilities, including a runway and terminal, have already been completed;
- A pipeline supplying water to Lamu from a multipurpose dam on the Tana river;
- A desalination plant; and
- Construction of several new jetties.

Figure 3: Planned Lamu resort city



Source: LAPSSET Master Plan, shared by UNESCO, Report of the World Heritage Centre/ICOMOS/ICCROM Advisory Mission to Nairobi Concerning Lamu Old Town, Kenya (Apr. 2018), figure 6.8.

The Kenyan Government describes the proposed Lamu coal-fired power plant as an "associated project" of LAPSSET;²⁰ however ties between the two projects appear even closer than that. Among other connections, the LAPSSET Corridor Development Authority is the entity acquiring the land on which the Lamu coal plant is proposed to be built.²¹

There is some division in the greater Lamu community with regard to the coal plant, as well as several other LAPSSET developments. As discussed in detail in Section III, many community members oppose the plant and hold grave concerns about the potential impacts of constructing a coal power plant in this culturally- and ecologically-rich environment and have been active in protesting the plant. This is especially true once individuals have accurate information about the likely impacts of the project. Some community members, however, have been vocal in their support for the plant, due to promises of much-needed jobs, compensation and economic development.

As set out in Section III, these community concerns and divisions are exacerbated by the failure to meaningfully consult us. Information provided in community meetings has been superficial,

²⁰ "Associated Projects" <u>http://www.lapsset.go.ke/projects/others/</u>.

²¹ See Letter from LAPSSET Corridor Development Authority to the National Land Commission regarding the Approval of Resettlement Action Plan for the Proposed 1,050 MW Coal Fired Power Plant in Kwasasi, Lamu County (23 Aug 2018), attached as Annex 5 to this complaint.

inaccessible, inaccurate and unbalanced. The Resettlement Action Plan has not been publicly disclosed in full, despite the expected displacement of hundreds of local residents,²² and the ESIA was long-delayed and remains incomplete.²³ Save Lamu has faced retaliation and intimidation when it has tried to hold community information sessions about the project.²⁴

Despite deficient disclosure of project impacts, it is nonetheless clear that Lamu is at risk of serious air, water and land pollution, a decline in marine resources, and destruction of critical habitats. Physical and economic displacement and environmental degradation will negatively impact health, livelihoods, food security and our valuable cultural heritage. The impacts will be felt across the Lamu archipelago. Lamu residents explain:

"We, the community of Lamu, rely on our natural resources to survive – for nourishment, shelter, healthcare, to worship in our sacred spaces, and to continue our cultural traditions. Our environment is our wealth – when our environment is healthy, we are healthy. When our environment suffers, we suffer."²⁵

"We are grieved that whatever ecological value the site has now will be permanently lost. We fear the ash will be blown by our monsoon winds and may settle on nearby houses, vegetation, and ocean. There can also be runoff of these pollutants by rain and this will contaminate both our lands and water."²⁶

Before we detail those concerns, we will first explain the IFC's connection to this potentially disastrous project.

II. The IFC is supporting this potentially devastating project

Due to a lamentable lack of transparency on the part of international financial institutions, it is difficult to trace the investment chain supporting a project like the Lamu coal plant. However, based on the limited available information, we believe that the IFC is materially exposed to the Lamu coal plant through two financial intermediary (FI) clients, Kenya Commercial Bank and Co-operative Bank of Kenya (see Figure 4). IFC also has a history of investments in other FIs that have been linked to the companies developing the coal plant.

²² "Kenya: Lamu County Puts Coal-Fired Power Plant on Hold" AllAfrica (Aug. 2016), <u>http://allafrica.com/stories/201608100091.html</u>; Letter from LAPSSET Corridor Development Authority to the National Land Commission regarding the Approval of Resettlement Action Plan for the Proposed 1,050 MW Coal Fired Power Plant in Kwasasi, Lamu County (23 Aug. 2018), attached as Annex 5 to this complaint; Baraka FM "Lamu coal plant woes deepen as land owners reject compensation" (5 Sept. 2018) <u>http://barakafm.org/2018/09/05/lamu-coal-plant-woes-deepen-as-land-owners-rejectcompensation/</u>. In addition to the farmers located at the project site, the Summary of the Full Resettlement Action Plan (undated) – disclosed by the African Development Bank – describes the likely displacement of fisherpeople, mangrove harvesters, beekeepers and a grain business: <u>https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Kenya -_Lamu_Coal_Power_Project_%E2%80%93_RAP_Summary.pdf</u>.

²³ Notice of Appeal, National Environmental Tribunal Appeal No. NET/196/2016, 3-4, <u>http://accountabilitycounsel.org/wp-content/uploads/2017/11/NET-Notice-of-Appeal-Cover-Page-w_-NET-Stamp-and-Appeal.pdf</u>; Save Lamu, Letter to African Development Bank Attn : Gabriel Negatu (24 Nov. 2017) attached in Annex 4.

See Human Rights Watch and National Coalition for Human Rights Defenders, They Just Want to Silence Us" Abuses Against Environmental Activists at Kenya's Coast Region (2018) <u>https://www.hrw.org/sites/default/files/report_pdf/kenya1218_web2.pdf;</u> Accountability Counsel "Escalating Threats in Lamu, Kenya Interfere with Local Communities" Right to Public Participation" (24 May 2017) <u>https://www.accountabilitycounsel.org/2017/05/escalating-threats-in-lamu-kenya-interfere-with-local-communities-right-to-public-participation/</u>.

²⁵ Save Lamu, The Lamu County Biocultural Community Protocol: The Lamu Indigenous Community and their Rights to the Preservation of their Natural Resources, Cultures, Heritage and Management of Biodiversity (Dec. 2018), §6.0. http://www.decoalonize.org/wp-content/uploads/2019/04/Lamu-County-BCP-2.pdf [BCP].

²⁶ BCP, §9.1.2.

The key IFC projects, for the purpose of this analysis, are:

IFC project	Type of financing	Approval date	Status	E&S categorisation			
Kenya Commercial Bank							
Kenya Commercial Bank III – Project 32805	Loan	May 16, 2013	Active	FI-2			
Kenya Commercial Bank Limited – Project 36791	Loan and possible equity	Sep 22, 2016	Active	FI-2			
Co-Operative Bank of Kenya							
Coop Bank Kenya – Project 31321	Loan	Oct 5, 2012	Active	FI-2			
Co-Operative Bank II, Project 35393	Loan	Dec 22, 2015	Active	FI-2			
Co-Operative Bank III, Project 41133	Loan	Mar 27, 2018	Active	FI-2			
AMSME Coop Bank, Project 601493	Advisory services	Oct 11, 2016	Active	FI-2			
DFS Coop Phase 2, Project 602467	Advisory services	Oct 12, 2017	Active	FI-2			

Before explaining the links between the IFC and the Lamu coal plant in more detail, we note that the IFC has recently started indicating "use of proceeds/beneficiaries" – being the "target" sector(s) for the lending – for *some* of its loans, on its website. This is a recent development. However, in many cases the sector identified within the "use of proceeds" section does not match the full scope of the project description. In addition, this "use of proceeds" section provides no explanation for how and whether any ring-fencing is enforced; even though a priority sector is "targeted", this may not actually prevent the use of the funding for other lending activities.

A. Kenya Commercial Bank

In 2013 and 2016, the IFC made two loans - both still active - to Kenya Commercial Bank (KCB) totalling US\$225 million.²⁷ In addition, the IFC's Board of Directors appears to have approved a US\$70 million equity investment in KCB.²⁸

²⁷ In addition, the IFC provided a \$100 million loan to Kenya Commercial Bank in June 2011: IFC Project Information Portal, *Kenya Commercial Bank II* (2011) <u>https://disclosures.ifc.org/#/projectDetail/SPI/29664</u>. However, the status of that project recently changed to "Completed."

²⁸ IFC Project Information Portal, Kenya Commercial Bank Limited (2016). <u>https://disclosures.ifc.org/#/projectDetail/SII/36791</u>.

1. 2013 loan to KCB – Project 32805

Kenya Commercial Bank III – Project 32805				
Approved: May 16, 2013	Status: Active	E&S categorisation: FI-2		

This project entails a US\$150 million "straight unsecured senior loan" to KCB "to provide the Bank with significant long-term financing to support its strategic objectives."²⁹

While the project description refers to a desire to "increase access to finance for crucial sectors of the economy such as SME's, agribusiness, microfinance and ... mortgage lending", the loan does not appear to have any ring-fence that would restrict its deployment to those activities.

On the contrary, the project description indicates that the project is intended to be of wide scope. Its "expected development impact" includes such broad objectives as "enhancing competition in the banking sector in Kenya" and "supporting the development of a robust regional banking platform." The broad scope is also reinforced by the IFC's "environmental and social categorization rationale", which indicates that the IFC's appraisal of this project covered KCB's entire portfolio including corporate lending (the latter accounting for approximately 50% of KCB's total portfolio).

There is no "use of proceeds" section of the project disclosure.

2. 2016 loan to, and possible equity investment in, KCB

Kenya Commercial Bank Limited – Project 36791			
Approved: Sep 22, 2016	Status: Active	E&S categorisation: FI-2	

This second project is principally comprised of a US\$75 million senior loan facility to KCB.³⁰ While the project description and the "use of proceeds/beneficiaries" section emphasise the SME sector, other aspects of the project disclosure indicate that the scope of this loan is much broader. The project description describes the loan as "part of a US\$250 million capital raising exercise by KCB to strengthen the Bank's capital position in the context of the increased regulatory capital buffer requirements. The "environmental and social categorization rationale" also refers to KCB's total portfolio, as "a universal bank which provides financial services to SME, corporate and trade clients across a number of sectors predominantly in construction, manufacturing, services and trade." For these reasons, we have no reason to believe that there are *traceable, enforceable* limits on use of proceeds to the SME sector.

The IFC's project description also refers to a \$70 million equity investment approved by the Board, however the status of that component is not clear. If such an equity investment was made, then the IFC is clearly exposed to all of KCB's investment activities.

3. KCB's loan to Centum Investment

Following the IFC's investments in KCB in 2013 and 2016, KCB has provided financing to Centum Investment, the majority shareholder in Amu Power.

²⁹ IFC Project Information Portal, *Kenya Commercial Bank* (2013) <u>https://disclosures.ifc.org/#/projectDetail/SII/32805</u>.

³⁰ IFC Project Information Portal, *Kenya Commercial Bank Limited* (2016). <u>https://disclosures.ifc.org/#/projectDetail/SII/36791</u>.

Its 2017 Annual Report indicates that Centum had an undrawn committed facility worth 240.7 million KSh from KCB in 2017, down from 15.4 billion KSh in 2016.³¹ Centum Investment was able to draw down this credit as needed to fund its business operations, including to finance the Lamu coal plant.

Although this committed facility does not appear in Centum's 2018 Annual Report,³² its interim financial statements for 2019 show total borrowings of 1.2 billion KSh from KCB as of 30 September 2018, up from 128.5 million KSh in March of that year.³³ It is not clear from the interim financial statements how those funds are being deployed.

B. Co-Operative Bank of Kenya

1. 2012 loan to Co-Operative Bank

Coop Bank Kenya – Project 31321					
Approved: Oct 5, 2012	Status: Active	E&S categorisation: FI-2			

In December 2012, the IFC provided a US\$60 million, seven-year senior loan to Co-Operative Bank "to support its long-term lending" and "for on-lending to corporate business," among other purposes.³⁴

While the IFC project description and the "use of proceeds" section indicate that the loans will be targeted towards SMEs, the loan does not appear to be strictly ring-fenced around these end-users. The project's primary objective is expressed much more broadly: "to support the Bank's growth, address its balance sheet maturity mismatch, and help it meet its US\$ funding needs." The IFC's "environmental and social categorization rationale" also indicates that the loan will be deployed broadly across Co-Operative Bank's portfolio: "This transaction involves providing a long-term credit facility for up to US\$60 million for on-lending to **corporate business**,³⁵ housing and agribusiness" (our emphasis). Accordingly, there appears to be nothing that would prevent the proceeds of this loan being deployed in favour of the Lamu coal plant.

2. Additional investments in Co-Operative Bank

The IFC has continued to support Co-Operative Bank's activities through two further loans and two advisory services projects.³⁶

³¹ Centum Investment, 2017 Annual Report, pp. 206-207. <u>http://www.centum.co.ke/images/docs/Annual_Report_2017.pdf.</u>

 ³² Centum Investment, 2018 Annual Report, p. 187 <u>http://www.centum.co.ke/images/docs/CICL_Full_-Annual_Report_FY18.pdf</u>.
³³ Centum Investment, Interim Report and Financial Statements: 6 Month Period Ended 30 September 2018, p. 30 <u>https://centum.co.ke/images/docs/CICP_Group_Interim_Financial_Statement_30_September_2018.pdf</u>.

³⁴ IFC Project Information Portal, *Coop Bank* (2012) <u>https://disclosures.ifc.org/#/projectDetail/SII/31321</u>. In addition to the loan, a further US\$5 million trade line was proposed for the bank, under IFC's Global Trade Finance Program (GTFP). However, this investment does not appear in the project "as approved by the Board."

³⁵ Which constitutes 19% of Co-Operative Bank's total portfolio, according to the IFC's project disclosure.

³⁶ Loans: Co-Operative Bank II, Project 35393 (Approved: 22 Dec. 2015) <u>https://disclosures.ifc.org/#/projectDetail/SII/35393</u>; and Co-Operative Bank III, Project 41133 (Approved: 27 Mar. 2018) <u>https://disclosures.ifc.org/#/projectDetail/SII/41133</u>. Advisory services: AMSME Coop Bank, Project 601493 (Approved: 11 Oct. 2016) <u>https://disclosures.ifc.org/#/projectDetail/AS/601493</u>; DFS Coop Phase 2, Project 602467 (Approved: 12 Oct. 2017) <u>https://disclosures.ifc.org/#/projectDetail/AS/602467</u>.

Co-Operative Bank II, Project 35393	Loan: US\$105 million	Approved: Dec 22, 2015	Status: Active	E&S categorisation: FI-2
<i>Co-Operative Bank</i> III, Project 41133	Loan: US\$150 million	Approved: Mar 27, 2018	Status: Active	<i>E&S categorisation:</i> <i>FI-2</i>

AMSME Coop Bank,	Advisory	Approved: Oct	Status:	E&S categorisation:
Project 601493	services	11, 2016	Active	FI-2
DFS Coop Phase 2,	Advisory	Approved: Oct	Status:	E&S categorisation:
Project 602467	services	12, 2017	Active	FI-2

A 2015 and 2018 loans potentially provide further exposure to the proposed coal plant.

- The 2015 project comprises a senior loan of up to US\$105 million "to provide the Bank • with long-term funding to (i) support increased lending to SMEs and co-operatives ... and (ii) to promote affordable housing ..."³⁷ While this description indicates that the funding is targeted, there is no explanation of whether or how these funds are *effectively* ring-fenced so that they do not support other lending activities.
- The 2018 project comprises a senior loan of US\$150 million to the Co-operative Bank "to help strengthen the Bank's long-term funding position and enable it to expand its lending operations to the underserved micro small and medium enterprises (MSMEs) segment in Kenya."³⁸ Although, again, the project description mentions small and medium-sized enterprises, there is no clear evidence of any ring-fence around that sector.

The advisory services are similarly said to support the Bank's capacity to serve small and medium enterprises³⁹ and the Bank's transition to a digital bank.⁴⁰ However, without more information about the precise support provided, it remains possible that these advisory services have generally strengthened Co-Operative Bank's lending systems and services such that they have contributed to the Lamu coal plant.

3. Co-Operative Bank supports the Lamu coal plant

The Co-Operative Bank is contributing, or potentially contributing, to the development of the Lamu coal plant in two ways.

First, in April 2014, following the IFC's first loan, Co-Operative Bank issued a \$5 million bid security bond backing Amu Power's proposal to develop the plant.⁴¹ The bond, which appears to still be

Coop Bank II, Project 35393 (Approved: Dec. 22, 2015) <u>https://disclosures.ifc.org/#/projectDetail/SII/35393</u>. Co-Operative Bank III, Project 41133 (Approved: 27 Mar. 2018) <u>https://disclosures.ifc.org/#/projectDetail/SII/41133</u>. 37

³⁸ 39

AMSME Co-op Bank, Project 601493 (Approved: Oct. 11, 2016) https://disclosures.ifc.org/#/projectDetail/AS/601493. 40

DFS Coop Phase 2, Project 602467 (Approved: Oct. 12, 2017) https://disclosures.ifc.org/#/projectDetail/AS/602467.

⁴¹ Power Purchase Agreement for 981.5 Mw Coal-Fired Power Plant between Amu Power and Kenya Power & Lighting (4 Aug. 2017) http://www.decoalonize.org/wp-content/uploads/2018/07/170804.-Amu-Power-KPLC-Power-Purchase-Agreement-lamu-coal.pdf.

active, insures Kenya Power & Lighting Company (KPLC) – which has signed a 25-year agreement to purchase power from the Lamu coal $plant^{42}$ – against failure by Amu Power to make the plant operational by the agreed date.

Second, it is clear that Co-Operative Bank has an active, long-standing banking relationship with Centum Investment. $^{\rm 43}$

Most recently, on 3 April 2017, Co-Operative Bank provided a 982.1 million KSh overdraft/guarantee facility, that is renewable annually.⁴⁴ In Centum's 2018 Annual Report, the overdraft/guarantee facility remained in place and its value increased to almost 1.5 billion KSh.⁴⁵

Centum's 2017 Annual Report also shows an undrawn committed facility provided by Co-Operative Bank, worth approximately 17.8 million KSh, down from 2.3 billion KSh in 2016.⁴⁶ Its 2018 Annual Report shows that the undrawn facility increased to almost 29 million KSh.⁴⁷

All of these facilities are general in nature, meaning Centum Investment can use the capital as it sees fit, including to finance the development of the Lamu coal plant.

While Centum's 2019 interim financial statements do not list any bank borrowings from Co-Operative Bank as of 30 September 2018 (down from almost 1.5 billion KSh in March 2018), these statements are abbreviated and do not include the undrawn committed facilities listed in the full Annual Reports. We have strong reason to believe that Co-Operative Bank continues to be involved, given their long history of providing banking services to Centum Investment.

⁴² *Id.*

⁴³ See, for example, Centum Investment, 2017 Annual Report, p. 6 <u>http://www.centum.co.ke/images/docs/Annual Report 2017.pdf;</u> Centum Investment, 2016 Annual Report, p. 3 <u>http://www.centum.co.ke/images/docs/CentumAnnual Report.pdf;</u> Centum Investment, 2014-2015 Annual Report, p. 10 http://www.centum.co.ke/images/docs/Annual Report 2014_2015.pdf.

⁴⁴ Centum Investment, 2017 Annual Report, p. 208.

⁴⁵ Centum Investment, 2018 Annual Report, p. 188 <u>http://www.centum.co.ke/images/docs/CICL_Full_-Annual_Report_FY18.pdf</u>.

⁴⁶ Centum Investment, 2017 Annual Report, pp. 206-207.

⁴⁷ Centum Investment, 2018 Annual Report, p. 187.

Figure 4: Diagram of IFC connections to the coal plant



C. Centum Investment is critical to the development of the coal plant

The IFC's financial connections to Centum, through the Co-Operative Bank and Kenya Commercial Bank, represent a substantial, material exposure to the proposed Lamu coal plant.

As of the date of this complaint, and as far as we are aware, Centum is the majority (51%) shareholder in Amu Power: the special purpose vehicle that will construct and operate the coal plant.

Even if GE acquires equity in Amu Power,⁴⁸ Centum Investment will continue to maintain a substantial equity stake in that entity. As the largest shareholder, Centum will be contributing a significant proportion of the expected US\$500 million (25%) equity financing that the shareholders are expected to contribute.⁴⁹

We also have reason to believe that the CEO of Centum Investment (James Mworia) is actively involved in coal plant planning and decision-making. He is frequently cited by news reports providing updates on the coal plant.⁵⁰ And when we raised our concerns about the project with the CEO of Amu Power (Francis Njogu), he copied Mr. Mworia in his response.⁵¹

As a result, the IFC's financial exposure to Centum Investment represents a material exposure to the proposed Lamu coal plant and its impacts.

It is apparent that the identified financial connections between IFC and the proposed Lamu coal plant generally flow through Centum Investment. However, we note that this is not to say that other connections to IFC do not exist. Centum Investment is a public company; therefore, it publishes Annual Reports that contain some relevant investor information. Gulf Energy – the other confirmed shareholder in this project – is privately-held and therefore does not publish even this limited information. Accordingly, the above summary of IFC connections should not be treated as comprehensive.

D. The IFC has demonstrated a pattern of exposure to the Lamu coal plant

The IFC's investments in the Co-Operative Bank and Kenya Commercial Bank are not the first time we have identified connections between the IFC and the proposed Lamu coal plant.

In April 2016, Save Lamu wrote to the IFC to alert it to the fact that two of its financial intermediary clients, Kenya's Equity Bank Limited and Standard Bank of South Africa, appeared to be investing in the coal plant.⁵² The IFC responded to our correspondence advising that Equity Bank confirmed that it will not be providing any financing to the proposed coal project, although its investment arm was providing fundraising services.⁵³ The IFC also clarified that Standard Bank was no longer an IFC client, although it is not clear when that relationship ended. We understand that, for a time, Standard Bank was the lead arranger for the second tranche of debt financing for the Lamu coal plant.⁵⁴ Although it reports that it is no longer involved, Stanbic Bank, a subsidiary of Standard Bank, continues to provide overdraft and revolving credit facilities to Centum Investment, according to the company's latest Annual Report.⁵⁵

⁴⁸ By letter, GE has explained to Save Lamu that "GE has the opportunity to acquire a 20% equity interest in the Lamu project. However, before GE would invest any equity ... it would need to conduct comprehensive due diligence ... before seeking the necessary internal approvals to move forward with this potential equity investment": Letter from GE to Save Lamu (19 Feb. 2019) attached in Annex 4.

⁴⁹ Amu Power, submission to Kenya Energy Regulatory Commission (28 Sept. 2016); Reuters "UPDATE 2-Kenya's Centum to finalise power plant funding this year" (12 Jun. 2018) <u>https://www.reuters.com/article/centum-invt-results/update-2-kenyas-centum-to-finalise-power-plant-funding-this-year-idUSL8N1TF0CF</u>

⁵⁰ See, for example, Reuters "UPDATE 2-Kenya's Centum to finalise power plant funding this year" (12 Jun. 2018) <u>https://www.reuters.com/article/centum-invt-results/update-2-kenyas-centum-to-finalise-power-plant-funding-this-year-idUSL8N1TF0CF</u>.

⁵¹ Email from Mr. Njogu (Amu Power) to Lani Inverarity (on behalf of Save Lamu) (14 Mar. 2016), attached in Annex 4. Note that despite Mr. Njogu's promise to "revert", no further response was received.

⁵² Letter from Save Lamu to the IFC (8 Apr. 2016), attached in Annex 4.

⁵³ Letter from the IFC to Save Lamu (22 Apr. 2016), attached in Annex 4.

⁵⁴ See Note 13.

⁵⁵ Centum Investment, 2018 Annual Report, pp. 189-190 <u>http://www.centum.co.ke/images/docs/CICL_Full_-Annual_Report_FY18.pdf</u>.

Accordingly, it is clear that IFC is investing – or has invested – throughout the Kenyan and broader regional financial sector in institutions that are financing or otherwise supporting the companies involved in the development of the Lamu coal plant.

Given this history, we fear that the IFC's current investments in Co-Operative Bank and Kenya Commercial Bank are not – or will not be – the IFC's only connections to the Lamu coal plant and its severe risks and impacts in our community.

E. Other World Bank Group connections

For completeness, we add that the World Bank appears to have funded the Kenyan government's efforts to develop the Lamu coal plant through a \$40 million infrastructure support program.

The World Bank's \$40 million Infrastructure Finance/Public Private Partnership Project (IFPPP), launched in 2012 and scheduled to close in 2022, is designed to improve Kenya's ability to attract private financing for infrastructure projects.⁵⁶ The IFPPP has a number of components, the most notable of which is a \$20 million mechanism designed to make a pipeline of infrastructure projects "bankable."⁵⁷ Under this component, World Bank funds are used to "engage feasibility consultants, transaction advisors, lawyers and other consultants as necessary to properly prepare projects for tender as PPPs," including "the financing of safeguards assessments."⁵⁸ The program's other components are designed to improve the government's overall capacity to attract private investment to infrastructure projects.

The IFPPP appears to have assisted in two key aspects of the Lamu coal plant's development, according to regular monitoring reports released by the World Bank and the Kenyan government. According to a January 2018 implementation report, the World Bank provided transaction advisory services that resulted in the successful negotiation of the coal plant's power purchase agreements.⁵⁹ Negotiating power purchase agreements would have been a major milestone in making the project bankable. Earlier, in 2015, the World Bank claimed some credit when the Kenyan government successfully issued expressions of interest for the Lamu coal plant and five other projects as part of the "wider Kenya PPP program."⁶⁰

We understand that this World Bank project is outside of the scope of the CAO's mandate. Nonetheless, we provide this information by way of context: the IFC should be aware that Kenya is aggressively pursuing an infrastructure program that includes the Lamu coal plant and should be accounting for this when considering and monitoring investments in the Kenyan financial sector.

⁵⁶ The World Bank, *Kenya Infrastructure Finance/PPP Project* (Project ID P121019) <u>http://projects.worldbank.org/P121019/kenya-infrastructure-financeppp-project?lang=en&tab=overview</u>.

 ⁵⁷ The World Bank, Integrated Safeguards Data Sheet: Concept Stage for the Kenya Infrastructure Finance/PPP project (P121019) (8 May 2012) <u>http://documents.worldbank.org/curated/en/853661468752729275/pdf/ISDS0Print0P12008201201336528716007.pdf</u>.
⁵⁸ Id.

 ⁵⁹ The World Bank, *Kenya Infrastructure Finance/PPP project (P121019): Implementation Status & Results Report* (2 Jan. 2018) <u>http://documents.worldbank.org/curated/en/485711514922420354/pdf/Disclosable-Version-of-the-ISR-Kenya-Infrastructure-Finance-PPP-project-P121019-Sequence-No-10.pdf;</u> The World Bank, *Report of Auditor-General* (30 Jun. 2017), p. 3 <u>http://documents.worldbank.org/curated/en/744861516799074909/pdf/Infrastructure-Finance-and-Public-Private-Partnership-Project-IDA-Cr.pdf.</u>

⁶⁰ The World Bank, *Report of Auditor-General* (30 Jun. 2015) <u>http://documents.worldbank.org/curated/en/858931468043510937/pdf/IDA-51570-KE-FY2015-AUDITS.pdf.</u>

III. The IFC's investments violate, or risk violating, its Sustainability Policy and the IFC Performance Standards

The IFC's various investments in KCB and Co-Operative Bank⁶¹ are all subject to the 2012 IFC Performance Standards⁶² (IFC PS) and IFC Policy on Environmental and Social Sustainability⁶³ (IFC Sustainability Policy), and other relevant policies and standards, as set out in detail below. Taken together, these policies require that the IFC, KCB and Co-Operative Bank each take steps to avoid, mitigate and manage the environmental and social risks posed by the Lamu coal plant.⁶⁴ And, ultimately, if the IFC cannot assure itself that an investment will meet the requirements of the IFC PS within a reasonable period of time, it should not make that investment.⁶⁵

In addition to the IFC PS and the Sustainability Policy, the following policies, guidelines and procedures are also relevant:⁶⁶

- IFC's Guidance Notes to the Performance Standards on Environmental and Social Sustainability;⁶⁷
- IFC's Environmental and Social Review Procedures;⁶⁸
- IFC's / World Bank Group's Environmental, Health and Safety Guidelines (EHS Guidelines);⁶⁹
- IFC's Environmental Health and Safety Guidelines for Thermal Power Plants;⁷⁰
- The Directions to the World Bank Group's Energy Sector (which restricts financial support for greenfield coal power generation projects to rare circumstances, because of the

⁶⁶ The CAO's compliance review mandate extends to all IFC/MIGA policies, Performance Standards, guidelines, procedures, and requirements whose violation might lead to adverse environmental and/or social outcomes: Operational Guidelines, para. 4.3.

⁶¹ Although the IFC's project information portal does not state this explicitly, we have assumed that the 2012 loan to the Co-Operative Bank (project 31321) is subject to the 2012 Performance Standards as the loan was approved after those Performance Standards came into force.

⁶² International Finance Corporation, *Performance Standards on Environmental and Social Sustainability* (1 Jan. 2012), <u>https://www.ifc.org/wps/wcm/connect/115482804a0255db96fbffd1a5d13d27/PS_English_2012_Full-Document.pdf?MOD=AJPERES.</u> [IFC PS]

⁶³ International Finance Corporation, Policy on Environmental and Social Sustainability (1 Jan. 2012) <u>https://www.ifc.org/wps/wcm/connect/7540778049a792dcb87efaa8c6a8312a/SP_English_2012.pdf?MOD=AJPERES</u>. [Sustainability Policy]

⁶⁴ See, among other provisions, Sustainability Policy paras. 33-37.

⁶⁵ Sustainability Policy, para. 22.

⁶⁷ IFC International Finance Corporation's Guidance Notes: Performance Standards on Environmental and Social Sustainability (1 Jan. 2012). <u>https://www.ifc.org/wps/wcm/connect/e280ef804a0256609709ffd1a5d13d27/GN_English_2012_Full-Document.pdf?MOD=AJPERES</u>.

⁶⁸ IFC Environment, Social and Governance Department Environmental and Social Review Procedures Manual <u>https://www.ifc.org/wps/wcm/connect/d0db8c41-cfb0-45e9-b66a-522c88f270a5/ESRP_Oct2016.pdf?MOD=AJPERES.</u>

⁶⁹ IFC / World Bank Group Environmental, Health, and Safety General Guidelines (30 Apr. 2007) https://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES.

⁷⁰ IFC / World Bank Group Environmental, Health, and Safety Guidelines for Thermal Power Plants (19 Dec. 2008) https://www.ifc.org/wps/wcm/connect/dfb6a60048855a21852cd76a6515bb18/FINAL Thermal%2BPower.pdf?MOD=AJPERES&id =1323162579734. Note that a revision process is underway: IFC / World Bank Group Environmental, Health, and Safety Guidelines for Thermal Power Plants (draft revised version) (Jun. 2017) https://www.ifc.org/wps/wcm/connect/9a362534-bd1b-4f3a-9b42a870e9b208a8/Thermal+Power+Guideline+2017+clean.pdf?MOD=AJPERES.

environmental and social impacts of those projects)⁷¹ and the "Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change".⁷²

As explained below, despite the early stage of this project, violations of these policies are already occurring. Given that the risks of this project are so profound and that the proposed mitigation measures are patently inadequate, none of these institutions can support the Lamu coal plant without further, grave violations of these policies. Accordingly, the IFC must take immediate steps to restrict its clients' participation in this project.

A. Financial intermediaries are not complying with the IFC PS, and the IFC is not appropriately securing or supervising this obligation

The IFC PS and the Sustainability Policy impose detailed and significant environmental and social (E&S) risk mitigation obligations at every level of the investment chain between IFC and the Lamu coal plant. Given the clear inadequacies in the E&S due diligence produced by Amu Power to date – set out in detail below – the vague, fleeting and largely boiler-plate E&S risk and mitigation plan disclosures on the IFC's project disclosure portal are inadequate to demonstrate that IFC and its clients are complying with those obligations.

For its part, the IFC must conduct appropriate environmental and social due diligence before seeking approval for any investment, to assure itself that the investment and its outcomes will be consistent with the objectives of the IFC PS – that is, that the project will not pose undue and unmitigated risks or impacts on the environmental or local communities.⁷³ It must only finance investment activities that are expected to meet the requirements of the IFC PS within a reasonable period of time.⁷⁴ This due diligence includes reviewing the client's assessments of environmental and social risks and ensuring that those risks are adequately identified and appropriate mitigation plans are in place. In the case of financial intermediary (FI) investments, the IFC must review the existing portfolio and prospective business activities of its FI clients to identify activities where the FIs, and therefore the IFC, could be exposed to risks as a result of their investments, and must define requirements for managing these risks. IFC must also review the implementation capacity of FIs, as well as their environmental and social risk management system.⁷⁵

The IFC must introduce appropriate conditions securing environmental and social performance into its investment agreements with its clients. These conditions include complying with the applicable requirements of the IFC PS and specific conditions included in action plans, as well as relevant provisions for environmental and social reporting, including notification of any material changes impacting on environmental and social risks.⁷⁶

⁷¹ "Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector" (2013) <u>http://documents.worldbank.org/curated/en/745601468160524040/pdf/795970SST0SecM00box377380B00PUBLIC0.pdf.</u>

⁷² World Bank Group Operational Guidance for World Bank Group Staff Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change (Mar. 2010)

http://siteresources.worldbank.org/EXTENERGY2/Resources/CGN_20100331.pdf.

 ⁷³ Sustainability Policy, paras. 7, 20-21.
⁷⁴ Sustainability Policy, para 22

 ⁷⁴ Sustainability Policy, para. 22.
⁷⁵ Sustainability Policy, para. 24.

 ⁷⁵ Sustainability Policy, para. 34.
⁷⁶ Clients must inform the IEC with the IEC withe IEC with the IEC with the IEC with the IEC withe IEC withe

⁷⁶ Clients must inform the IFC when there is a material change in their businesses or when they plan to enter into a new business area that is materially different from what was represented when the IFC obtained Board approval. In such circumstances, the IFC will assess whether the new business area poses environmental and/or social risks and/or impacts, and if so, the IFC will require the client to adjust its Environmental and Social Management System (ESMS) in a manner consistent with those risks and/or impacts: Sustainability Policy, para. 25.

The IFC must then conduct regular monitoring and supervision of its investments.⁷⁷ IFC supervision may include visits to recipients of FI loans/investments, particularly high risk subprojects.⁷⁸ If the IFC finds that the client is failing to comply with those commitments, the IFC must work with the client to bring it back into compliance, and if the client fails to re-establish compliance, the IFC will exercise its rights and remedies, as appropriate.⁷⁹

The IFC's Project Information Portal provides no assurance that these due diligence and supervisory obligations are being met. Under the heading E&S "Mitigation Measures / ESAP", for each of the key projects discussed above, IFC simply publishes a boilerplate statement that it requires its "Financial Intermediary clients applying the Performance Standards ... to develop External Communications Mechanisms to receive and review inquiries or complaints from any interested party regarding the E&S risks and impacts of their operations."⁸⁰

This limited, boilerplate statement – referring solely to the existence of grievance mechanisms – is completely incongruous with the substantive and detailed E&S risk mitigation obligations imposed by the IFC PS on its financial intermediary clients. As clients of the IFC, KCB and Co-Operative Bank must:

- Conduct E&S due diligence on individual transactions;⁸¹
- Have effective E&S risk management systems in place, consistent with the principles contained in IFC PS 1;⁸²
- Comply with the IFC Exclusion List and follow respective national law;⁸³
- Require higher risk business activities they support to apply relevant requirements of IFC PS (those requirements are discussed in detail in the following sections).⁸⁴ Any investment activities relating to Amu Power clearly meet this test. Further, given Centum Investment's integral role in the development of the Lamu coal plant as Amu Power's majority shareholder, any financial support for Centum that is capable of being applied to the Lamu development (including general working capital) would also constitute a high-risk investment;
- Monitor those business activities for compliance with environmental and social safeguards.⁸⁵

⁷⁷ Sustainability Policy, para. 45.

⁷⁸ Id.

⁷⁹ Sustainability Policy, para. 24.

⁸⁰ Kenya Commercial Bank (2013) <u>https://disclosures.ifc.org/#/projectDetail/SII/32805</u>; Kenya Commercial Bank Limited (2016). <u>https://disclosures.ifc.org/#/projectDetail/SII/36791</u>; Coop Bank (2012) <u>https://disclosures.ifc.org/#/projectDetail/SII/31321</u>; Loans: Co-Operative Bank II, Project 35393 (Approved: 22 Dec. 2015) <u>https://disclosures.ifc.org/#/projectDetail/SII/35393</u>; Co-Operative Bank III (2018) <u>https://disclosures.ifc.org/#/projectDetail/SII/41133</u>.

⁸¹ Sustainability Policy, paras. 33 and 35: Environmental and social risk management is part of the responsibilities that FIs assume. The IFC's policies require FIs to carry out individual transaction appraisal and monitoring as well as overall portfolio management in accordance with the environmental and social risk profile of its activities and that of individual transactions.

⁸² Sustainability Policy, para. 35; IFC PS 1, paras. 1, 5-6.

⁸³ Id.

⁸⁴ Id. The Sustainability Policy, para. 35 explicitly provides that: "FIs with portfolio and/or prospective business activities that present moderate to high environmental or social risks (i.e., Category FI-1 and FI-2) will require higher risk business activities they support to apply relevant requirements of the Performance Standards." The IFC's investments in KCB and Co-Operative Bank are all categorised as FI-2.

⁸⁵ Sustainability Policy, para. 33.

In cases where the IFC provides equity or financial support of a general purpose to a FI, without a specified end use, these requirements will apply to the entire portfolio of the FI that is originated from the time the IFC became a shareholder or investor.⁸⁶

No information publicly disclosed by the IFC or its clients KCB or Co-Operative Bank provides any evidence that any of those parties are taking specific steps to ensure that Centum and Amu Power are conducting comprehensive E&S risk due diligence and mitigation in compliance with the IFC PS. On the contrary, as we explain below, although Amu Power claims to be compliant with the IFC PS,⁸⁷ it is clear that these standards are already in open violation. We fear that these violations will only get worse as the project moves forward.

B. Impact assessments to date ignore critical project components

The most extensive impact assessment released to date is the Environmental and Social Impact Assessment Study prepared by Kurrent Technologies for Amu Power, dated July 10, 2016 (2016 ESIA).⁸⁸ It followed the Environment Project Report (EPR), essentially a scoping document for the ESIA, dated September 2015.⁸⁹ Both the EPR and the ESIA, however, are deeply flawed and fail to account for major risks posed by the construction of a coal-fired power plant in this culturally- and ecologically-rich location.

The 2016 ESIA's assessment of environmental and social risks and impacts is immediately rendered incomplete by the fact that it fails to assess the impacts of various major project components and related facilities. Most seriously, the ESIA omits any substantive discussion of coal mining and transportation including the 15km coal conveyor system, limestone mining activities, and the 9km site access road.

As already discussed, KCB and Co-Operative Bank, as IFC clients, are required to conform to the IFC PS. In addition, they must ensure that any high-risk business activities that they support – including the activities of Amu Power and Centum Investment in the development of the Lamu coal plant – themselves comply with the IFC PS.⁹⁰

A fundamental requirement of the IFC PS is the thorough (and early) identification of "all" potential environmental and social risks and impacts of "the project", so that appropriate baseline data can be collected and so that actual and potential impacts can be mitigated and monitored. IFC PS 1 requires that the client establish and maintain a process for identifying the E&S risks and impacts of "the project".⁹¹ "The project" is defined as "a defined set of business activities, *including those where specific physical elements, aspects, and facilities likely to generate risks and impacts have yet to be identified*" (our emphasis).⁹² The E&S due diligence process must "consider *all* relevant environmental and social risks and impacts of *the project*" (our emphasis).⁹³

⁹² IFC PS 1, para. 4.

⁹³ IFC PS 1, para. 7.

⁸⁶ Sustainability Policy, para. 37.

 ⁸⁷ Kurrent Technologies Environment and Social Impact Assessment (ESIA) Study for the Proposed 1,050MW Coal Fired Power Plant Project, Kenya (Jul. 16, 2016), chapter 2.6 <u>https://www.amupower.co.ke/esia.html</u>. [2016 ESIA]
⁸⁸ Id

⁸⁸ Id.

⁸⁹ Kurrent Technologies Environment Project Report Study for the Proposed 1050MW Coal Power Plant, Lamu County, Kenya (Sept. 2015) <u>http://www.decoalonize.org/wp-content/uploads/2017/03/Coal-Plant-EPR-1.pdf</u>.

⁹⁰ Sustainability Policy, para. 35.

⁹¹ IFC PS 1, para. 7. As discussed in detail below, in Section III.E-III.G, the ESIA not only failed to properly define the scope of "the project," it also failed to address significant impacts related to displacement, indigenous peoples and cultural heritage.

For greenfield developments that are likely to generate potential significant environmental or social impacts – a test clearly met by the proposed Lamu coal plant – the IFC PS requires a "comprehensive" ESIA identifying and assessing those risks and impacts.⁹⁴

That assessment of risks and impacts must also extend to the project's entire "area of influence". That is:⁹⁵

- The area likely to be affected by: (i) the project and the client's activities and facilities that are directly owned, operated or managed (including by contractors) and that are a component of the project; (ii) impacts from unplanned but predictable developments caused by the project that may occur later or at a different location; or (iii) indirect project impacts on biodiversity or on ecosystem services upon which Affected Communities' livelihoods are dependent;
- Associated facilities, which are facilities that are not funded as part of the project and that would not have been constructed or expanded if the project did not exist and without which the project would not be viable; and
- Cumulative impacts (discussed further in section III.I below).

If assets to be developed, acquired or financed have yet to be defined, the client should document the establishment of an environmental and social due diligence process ensuring that risks and impacts will be adequately identified at some point in the future when the physical elements, assets, and facilities are reasonably understood.⁹⁶

This risk identification process provides the foundation for the development of risk mitigation and management programs and plans that are critical to ensuring that E&S risk and impacts generated by a project are avoided or addressed.⁹⁷

In this case, in order to comply with the IFC PS, the FIs should have identified the risk posed by their financial support for the development of the Lamu coal plant, as part of their business activities, and worked with their clients (Amu Power and Centum Investment) to mitigate and manage the risk posed by that coal plant in accordance with the IFC PS.

For their part, Amu Power and Centum Investment are required by the IFC PS to thoroughly identify and assess the risks and impacts posed by the Lamu coal plant project across its "entire area of influence", including any major developments in those project plans. The E&S assessments to date fall far short of that standard, as they fail to address significant components of the project.

⁹⁴ IFC PS 1, note 11; Guidance Note 1, GN23. The key process elements of an ESIA generally consist of (i) initial screening of the project and scoping of the assessment process; (ii) examination of alternatives; (iii) stakeholder identification (focusing on those directly affected) and gathering of environmental and social baseline data; (iv) impact identification, prediction, and analysis; (v) generation of mitigation or management measures and actions; (vi) significance of impacts and evaluation of residual impacts; and (vii) documentation of the assessment process (i.e., ESIA report): Guidance Note 1, GN23.

⁹⁵ IFC PS 1, para. 8; Guidance Note 1, GN21.

⁹⁶ IFC PS 1, para. 7; Guidance Note 1, GN30 and GN60.

⁹⁷ IFC PS 1, paras. 13-16.

1. Coal mining and transportation system

The ESIA lists a coal conveyor system as one of the "key components" of the proposed project, yet it does not identify or assess its impacts.⁹⁸ Likewise, the coal conveyor was not considered in preliminary studies that form the basis of the ESIA, such as the EPR or the Climate Change and GHG

Figure 5: Coal receipt and approximate conveyor route



Figure 4-2: Coal receipt and approximate conveyor routing

Source: 2016 ESIA, Chapter 4, Figure 4-2, §4.6.1.2.

⁹⁸ 2016 ESIA, Chapter 1: Executive Summary, §1.3.

Emissions Study.⁹⁹ The coal conveyor will be built for the sole purpose of transporting coal to the project site and will be developed and controlled by the project proponent, Amu Power.

The ESIA briefly describes a 15km coal conveyor system with transfer towers that will connect the coal receiving berth at the Kililana port to the coal stock yard within the project site,¹⁰⁰ and then attempts to explain the omission of any impact assessment by stating that "[t]he design of the coal conveyor system is currently in the design phase and was unavailable at the time of undertaking this ESIA Study and consequently, no environmental and social impacts have been identified or assessed."¹⁰¹ However, while the fact that the conveyor was still in a design phase may have limited the ability of the ESIA to discuss its precise impacts, there is no excuse for the ESIA's failure to make any attempt to estimate its impact based on the types of impacts one might expect from such a conveyor system. The map included in the ESIA (see Figure 5) indicates that planning is sufficiently advanced that the approximate route of the conveyer system is known.

As already discussed, the IFC PS 1 requires that impacts are identified and assessed for all "specifically identified" project elements, aspects and facilities; it does not require that final designs be available before any impact assessment is attempted.¹⁰²

The coal conveyor system is a critical project component; it is specifically identified, and it clearly forms part of the project's area of influence. Therefore, it should have been included in the ESIA's assessment of project impacts.

The ESIA also fails to document any intended due diligence process for assessing the impacts of this project component once the final design is available.¹⁰³ Since the ESIA was publicly released more than two years ago, no further assessment has been published, and local people remain unaware of the potential impacts of the coal conveyor system.

Finally, the ESIA fail to describe in any detail the coal mining and transportation process prior to the conveyor system, stating simply that, based on an unnamed study, "coal deliveries are expected to occur from large mining companies in South Africa and Mozambique" by ship or rail.¹⁰⁴ This lack of detail prevents any meaningful impact assessment and alternatives analysis related to coal acquisition and transportation.

2. Site access road

In addition to the coal conveyor system, an access road is being constructed to the project site to accommodate all other traffic. Although the site access road is being constructed by the Ministry of Transport, it is clearly a component of the coal plant project for the purpose of the IFC PS.

At least 109 local farmers and their families, including members of indigenous Bajuni, Aweer and Giriama communities, have already been displaced from their land in order to construct this access

⁹⁹ See 2016 ESIA, Appendix 4: Climate Change and GHG Emissions Study, §4.4: Overview of Lamu Power Plant Emission Causing Activities.

¹⁰⁰ 2016 ESIA, Chapter 1, §1.3.

¹⁰¹ 2016 ESIA, Chapter 4: Description of the Project, §4.6.1.2.

¹⁰² IFC PS 1, para. 8.

¹⁰³ Contrary to IFC PS 1, para. 7.

¹⁰⁴ 2016 ESIA, Chapter 4: Description of the Project, §4.6.1.1.

road. They have also lost homesteads and temporary housing structures. Because farming is seasonal, most of those farmers – many of whom reside on Pate Island in the off-season – were not present when the land was razed. These farmers have not been consulted about, or compensated for, the impacts of the road. One of those farmers explains:¹⁰⁵

"At my homestead, cashew nut trees were cut down for the road, while I was away. My farm, the road cuts down the middle of it. I wasn't around. It was off-season. If I had been, I would have likely reacted with force to try to stop it. Instead, I returned to my farm and saw what had happened. My cashew nut trees had been cut down for the road. ... They came with machines. They came here and destroyed our trees. I wasn't consulted at all. To date, I have not been informed of anything at all. No sort of communications. Here we are. This has left me wondering, are we baboons, animals, or are we humans? It would even be better to be an animal than to be treated like this."

As discussed further in section III.E below, this uncertainty about the extent of displacement and whether or not the farmers will be compensated has plunged this community into a state of severe vulnerability. Some farmers have left adjacent land unattended, even though it is preparation season, because they fear further damage to their crops. Opportunistic settlers are taking advantage of the situation, to claim unattended land, in the hope that they will receive compensation (further displacing the rightful owners/users).

"When there is uncertainty about where the [site access road] will extend to, and what land will be razed next, it affects not only the farmers who are already displaced, but everyone nearby. No one knows who will be next, nor what will happen. The developers do whatever they want, no consultation, no information. And these farmers are out of the box [the coal plant boundary] – their land wasn't supposed to be affected by the coal plant. So if they are displaced and had their land razed, who's next?"

The farmers self-organised as the Kwasasi Mvunjeni Farmers Self-Help Group and have been raising their concerns with Kenyan authorities since 2018. To this date, no consultation and no compensation has been made.¹⁰⁶

The 2016 ESIA ignores this project component. It states: "The environmental and social impacts of the access road will be considered when a route selection has been determined and a Variation to the EIA License will be applied."¹⁰⁷ In violation of the requirement to assess the impacts of this project component once it was "reasonably understood"¹⁰⁸, we are not aware of any supplementary impact assessment, nor any variation to the EIA License, for this road. Nor are we aware of any other, distinct EIA License, permitting this road. In the meantime, the displaced farmers have been left in a state of severe food and financial insecurity without compensation or consultation in a severe violation of IFC PS 5 (discussed separately in section III.E below).

3. Limestone mining in Witu

Similarly, the ESIA does not assess the impacts of limestone mining operations in Witu, nor the transportation of this limestone by both land and sea to the power plant. The ESIA makes clear that

¹⁰⁵ See further Letter from Kwasasi Farmers Self Help Group to Ministry of Transport (31 Aug. 2018) attached in Annex 4.

¹⁰⁶ Letter from Kwasasi Farmers Self Help Group to the Chairperson, National Land Commission (13 Jan. 2019) attached in Annex 4.

¹⁰⁷ 2016 ESIA, Chapter 4, §4.7.1.

¹⁰⁸ IFC PS 1, para. 8.

limestone mining will be a potentially critical part of the project.¹⁰⁹ A limestone receiving system and gypsum handling system are listed as key project components, yet the ESIA provides no discussion of limestone mining activities, their impacts, or planned mitigation measures.¹¹⁰ Limestone mining activities are often associated with significant impacts, including dust and noise impacts and potential changes to an area's groundwater.

Witu is a sensitive area in which to undertake such an activity. It is home to the Witu Forest Ecosystem, a biodiversity hotspot,¹¹¹ as well as the Tana River Delta, with its permanent and seasonal waterways. Witu also forms part of the traditional grazing grounds of the Orma indigenous peoples.¹¹² Moreover, we are also concerned about the impacts that transporting the limestone may have on the towns and communities along the transportation route.

The E&S impacts of limestone mining in Witu and transportation of limestone from Witu to the power plant should have been identified, assessed and properly disclosed to affected people early in the project cycle. The 2016 ESIA does not provide any reason for this omission, nor does it identify limestone mining as an activity to be carried out by a third party or treated as a cumulative impact.

4. General Electric (GE) deal – ultra-supercritical technology

Almost two years after the 2016 ESIA was published, Centum, Amu Power and GE announced that GE would be supplying ultra-supercritical (USC) technology for the Lamu coal plant. According to multiple press releases, GE Power entered into an agreement with Gulf Energy, one of the major shareholders in Amu Power, to provide "Ultra Super-Critical clean coal technology components (boiler and steam turbine generator) and air quality control systems for the Lamu Coal Power Plant", with an opportunity for GE to acquire shares in the project.¹¹³ Following that announcement, few further details or confirmation of the arrangement have been released.¹¹⁴

As is apparent from the releases, Amu Power and its developers insist that this USC technology will substantially mitigate the E&S impacts of the Lamu coal plant as compared to the supercritical technology assessed in the 2016 ESIA.¹¹⁵ However, they have not published any updated E&S assessments to support those statements. The fact that such critical project componentry was apparently changed, without releasing any updated E&S assessments and abatement plans, is unfortunately typical of the incomplete and inadequate due diligence and stakeholder engagement throughout the development of this project. Moreover, to the extent such statements suggest that the E&S concerns will be largely resolved by this new technology, they are fundamentally misleading and incorrect. It is true that USC plants are generally considered to be more efficient than supercritical coal plants because they

¹⁰⁹ A concession of 2,000 acres was granted by the County Assembly (presumably to Amu Power) for limestone mining in Witu: 2016 ESIA Chapter 4, §4.2. See also §4.3, describing the need for limestone for the wet flue desulfurization system.

¹¹⁰ In discussing cumulative impacts on traffic and transportation, the 2016 ESIA does mention potential impacts of transportation of limestone from "identified quarries" to the coal plant site. 2016 ESIA Chapter 10: Cumulative Impact Assessment, §10.3.14. However, the impacts of the limestone mining itself are not identified or discussed.

¹¹¹ Lamu County Spatial Plan (2016-2026) Final Report (Vol I, May 2017) §4.3.1.2.

¹¹² BCP, §4.2 and discussed further in section III.F below.

¹¹³ See, among others, GE Africa Newsroom "Kenya's Amu Power Signs Clean Coal Technology Agreement with GE" (May 2018) <u>https://ge.africa-newsroom.com/press/kenyas-amu-power-signs-clean-coal-technology-agreement-with-ge</u>. However other reports have raised doubts about whether the agreement will eventuate: deCOALonize Kenya via Medium "450 million dollar deal between Gulf Energy & General Electric for the development of coal power still under discussion" (Jun. 2018) <u>https://medium.com/@deCOALonize/450-million-dollar-deal-between-gulf-energy-general-electric-for-the-development-of-coalpower-a9c4497fea8</u>; Professor Daniel Kammen, RAEL Berkeley "General Electric Reconsiders Investment In Lamu Coal Plant" (Jul. 2018) <u>https://rael.berkeley.edu/2018/07/general-electric-reconsiders-investment-in-lamu-coal-plant/</u>.

¹¹⁴ See Letter from GE to Save Lamu (19 Feb. 2019), attached in Annex 4

¹¹⁵ 2016 ESIA, Chapter 4.

can extract more power per ton of coal.¹¹⁶ However, the type of steam cycle technology used—whether subcritical, supercritical, or ultra-supercritical—has no impact on the emissions per ton of coal burned; USC plants will simply burn through a ton of coal slightly more slowly than other types of plants.¹¹⁷ As discussed in more detail below, relevant emissions include sulphur dioxide, nitric oxides and particulate matter, which negatively affect the respiratory system, and mercury, which causes a variety of neurological conditions. In addition to these health effects, other by-products of the power plant, such as heated wastewater and acid rain, threaten the fragile mangrove environment and rich fisheries of Manda Bay and risk damaging the World Heritage Site of Lamu Old Town.

5. Impacts of these omissions

These omissions subvert the goals of IFC PS 1 and the ESIA process, which require a holistic approach to ensure consideration of overlapping impacts from separate project components and to develop mitigation and avoidance measures that account for the full scope and degree of impacts. These omissions have rendered community consultation processes deeply inadequate, as those consultations fail to address significant project elements. Even if the design of certain components remains uncertain, a preliminary assessment should have been conducted and adequate baseline data should have been collected to ensure a full assessment of impacts once project designs become clearer. And although the ESIA was released over two years ago, project proponents have released no revisions or additions to correct these glaring omissions.

C. Community consultation has been superficial, incomplete, and undermined by serious intimidation and retaliation

Another critical element of the E&S risk identification and mitigation planning process is meaningful, informed community consultation. IFC PS 1 is clear that consultation must be a genuine, iterative and two-way process:¹¹⁸

- The client will undertake a process of consultation in a manner that provides the affected communities with opportunities to express their views on project risks, impacts and mitigation measures, and allows the client to consider and respond to them.
- Effective consultation is a two-way process that should: (i) begin early in the process of identification of environmental and social risks and impacts and continue on an ongoing basis as risks and impacts arise; (ii) be based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information which is in a culturally appropriate local language(s) and format and is understandable to affected communities; (iii) focus inclusive engagement on those directly affected as opposed to those not directly affected; (iv) be free of external manipulation, interference, coercion, or intimidation; (v) enable meaningful participation, where applicable; and (vi) be documented. The client will tailor its consultation process to the language preferences of the affected communities, their decision-making process, and the needs of disadvantaged or vulnerable groups.

¹¹⁶ Lauri Myllyvirta, Energy Post "How much do ultra-supercritical coal plants really reduce air pollution?" (28 Jun. 2017) <u>http://energypost.eu/how-much-do-ultra-supercritical-coal-plants-really-reduce-air-pollution/</u>.

¹¹⁷ *Id.*

¹¹⁸ IFC PS 1, para. 30.

In cases involving "potentially significant adverse impacts on Affected Communities" (a threshold easily satisfied by a large greenfield coal plant development), the client must undertake, an Informed Consultation and Participation (ICP) process:¹¹⁹

- ICP involves a more in-depth exchange of views and information, and an organised and iterative consultation, leading to the client's incorporating into their decision-making process the views of the affected communities on matters that affect them directly, such as the proposed mitigation measures, the sharing of development benefits and opportunities, and implementation issues.
- The consultation process should: (i) capture both men's and women's views, if necessary through separate forums or engagements; and (ii) reflect men's and women's different concerns and priorities about impacts, mitigation mechanisms, and benefits, where appropriate.
- The client will document the process, in particular the measures taken to avoid or minimise risks to and adverse impacts on the Affected Communities, and will inform those affected about how their concerns have been considered.

For projects with adverse impacts to Indigenous Peoples, the client is required to engage them in a process of ICP and in certain circumstances the client is required to obtain their Free, Prior, and Informed Consent (FPIC): see section III.F below.

Finally, to ensure that these requirements are met, "through its own investigation, IFC will determine whether the client's community engagement is one that involves ICP and enables the participation of the Affected Communities, leading to Broad Community Support for the business activity by Affected Communities."¹²⁰

Consultations to date have fallen woefully short of these standards.

Meetings about the project were held in early 2015, but abruptly stopped in June 2015. At the time of these early meetings, no detailed or meaningful information had been released about the project, its potential impacts (including major community concerns about health impacts, air and water pollution, ash storage and resettlement) or proposed mitigation measures. At some meetings, participants received no project materials whatsoever. At other meetings, attendees received a project information brochure, but this brochure lacked information about basic project components and only briefly referred to negative impacts.¹²¹ Critical components, like the hazardous waste storage facility, were not included in these documents, and descriptions of coal storage and transport systems were too vague to enable a meaningful understanding of them. The brochure was not translated into the local language, Kiswahili. This high-level and culturally inappropriate treatment of project impacts is inadequate to allow communities to develop an informed opinion of the proposed project.

¹¹⁹ IFC PS 1, para. 31.

¹²⁰ Sustainability Policy, para. 30.

¹²¹ 2016 ESIA, Appendix 9B: Social Impact Assessment Study Appendices, at 1.1 (Project Brochure).

Raya Ahmed, a member of Save Lamu recalls:¹²²

"I attended a meeting of the proposed coal plant on 24th of January 2015 at a Save Lamu Representatives Workshop at MwanaArafa Restaurant Gardens in Lamu Island. ... we were allowed very little time to ask questions regarding the project as the Project Developer had to attend another meeting scheduled on the same day. ... once pointed questions were raised regarding the operations of the plant, such as whether the coal plant will produce other forms of waste besides the ash dump and fly-ash highlighted in the presentation and what toxins these wastes do contain, as well as my question on what mitigation and emergency response measures have been put in place in case of major accidents from the project, Mr. Gandhi [the consultant author of the ESIA] averred that specialist studies were still underway to determine the precise impacts of this plant and he would share these with the community once completed."

Other questions were answered with misleading and incorrect information. Another member of Save Lamu, at the same meeting, recalls that:¹²³

"[Mr. Gandhi] further stated that ocean waters will however not be affected by the coal generating plant as they will use state of the art technology. However, I later learnt that this technology would be a once-through cooling water system from the power plant where water will be released back to Manda Bay at elevated temperatures."

Because of this lack of detailed, accurate information, many comments from community members during early consultation meetings focused on requesting additional information, rather than being able to comment meaningfully on specific aspects of the project. Appendix 9B of the ESIA shows that in many instances, project representatives were unable to respond to questions about the project's social and environmental impacts and the proposed mitigation measures, instead explaining that these issues would be covered in later studies.¹²⁴

The Environmental Project Report (EPR), released in late 2015, provided some additional information on the project, but no consultations were held around or following its release. Following the release of the ESIA in July 2016, we are only aware of one community meeting on 26 August 2016, which cannot be considered a consultation because, following a last-minute location change, it was held in a location that was inaccessible to most residents of Lamu, due to travel distance and costs. Mohamed Bakar, another member of Save Lamu, explains:¹²⁵

"The meeting was difficult to attend as Kwasasi, being predominantly a farming and fishing group, is a remote area 21 kilometres from Lamu Town and not accessible by public transport."

Members of the Kwasasi Mvunjeni Farmers Self-Help Group were not even aware of that meeting; they were not notified nor informed, and had no idea at that time that they would be affected by the access road.

¹²² Witness Statement of Raya Famau Ahmed in the National Environment Tribunal at Nairobi. *See also* Witness Statement of Mohamed Athman Bakar in the National Environment Tribunal at Nairobi. Both are attached in Annex 3.

¹²³ Witness Statement of Mohamed Mbwana in the National Environmental Tribunal at Nairobi, attached in Annex 3.

See, e.g., 2016 ESIA, Appendix 9B at 3.1.1 (Stakeholder Engagement Log No. 1: Save Lamu representatives), item 18 (question regarding emergency response measures in case of accidents); 14, item 20 (question regarding impacts on sources of traditional medicine such as roots and leaves); 111, item 11 (concerns regarding impacts to fish population and fishing community); 125, item 8 (question regarding impacts to marine ecology and aquatic life).

¹²⁵ Witness Statement of Mohamed Athman Bakar in the National Environment Tribunal at Nairobi, attached in Annex 3.

The ESIA also includes references to studies and guidelines¹²⁶ that are not accessible to affected communities.

Further, contrary to the requirements of ICP, the ESIA fails to genuinely respond to any of the comments and concerns that were expressed during those earlier community meetings. For example, project stakeholders and community groups repeatedly raised concerns regarding the lack of an adequate alternatives assessment early in project planning to justify developing a coal plant. However, the ESIA does not include this assessment (see further Section III.H below). Similarly, local groups and affected people questioned the dangers of the cooling water intake process and the chosen location of the project along the vulnerable mangroves and beaches of Manda Bay in the project's early planning phases.¹²⁷ Communities also raised concerns about the public health impacts of air emissions, ash storage and other hazardous waste produced by the plant. Nonetheless, the project design in the ESIA is nearly identical to the design outlined in the 2015 EPR and matches information in the brochure distributed during introductory meetings in early 2015. Moreover, the ESIA fails to explain the failure to change the project design in light of serious community concerns.¹²⁸

The ESIA public comment and government approval process further confirms that stakeholder engagement was not meaningful. Despite the many deep flaws outlined in public comments submitted to the Kenyan National Environmental Management Authority (NEMA), that agency issued an approval of the EIA License on September 7, 2016, just six days after the close of the public comment period, without requiring any changes to the ESIA based on the stakeholder feedback NEMA had received, including detailed written feedback submitted by Save Lamu and Natural Justice.¹²⁹ Given this timeline of events, it is clear that the public comment period was not a genuine opportunity for stakeholders to input into the development of the ESIA, as required by the IFC Sustainability Framework.

As discussed above, a case raising NEMA's failure to meaningfully integrate public comments prior to issuing the EIA License is awaiting judgment from Kenya's National Environmental Tribunal (NET).¹³⁰ Filed by Save Lamu along with several individual residents in November 2016, the case argues that NEMA erred in granting a license based on poor social and environmental assessments and an inadequate public consultation process and includes demands to void the EIA License and conduct a new ESIA, based on current information and involving consultation with all relevant stakeholders. The NET directed that all activity related to the coal plant must stop pending the resolution of the case, and that stay has been in place since November 2016.¹³¹ Hearings on the case are have concluded, but a judgment is yet to be issued.

Additionally, we have already described the lack of any public consultations or updated E&S risk assessments or abatement plans following the announcement that GE will be providing USC technology for the coal plant, as opposed to the supercritical technology described by the 2016 ESIA.

¹²⁶ Including Chinese language guidelines such as GB 18599-2001 related to ash storage.

¹²⁷ See Letter from Save Lamu to Amu Power (13 Mar. 2016), attached in Annex 4.

¹²⁸ IFC PS 1, para 31: "The client ... will inform those affected about how their concerns have been considered."

¹²⁹ See Letter from Save Lamu and Natural Justice to National Environment Management Authority (29 Aug. 2016), attached in Annex 4.

¹³⁰ Notice of Appeal, National Environmental Tribunal Appeal No. NET/196/2016, 3-4, <u>http://accountabilitycounsel.org/wp-content/uploads/2017/11/NET-Notice-of-Appeal-Cover-Page-w_-NET-Stamp-and-Appeal.pdf</u>.

¹³¹ Re: Stop Order for the Proposed Construction of a 1050 MW Coal Fired Power Plant and Associated Facilities and Amenities at Kwasasi Area, Hindi Division, Lamu County, National Environmental Tribunal (14 Nov. 2016) <u>http://www.decoalonize.org/wpcontent/uploads/2017/04/NET.pdf</u>.

Furthermore, the consultation failures described above are exacerbated by the fact that the project stakeholders identified by the ESIA do not include all groups that will be materially impacted by the project. As already discussed, the farmers displaced by the site access road were not consulted at all. Further, the list of project stakeholders does not include Witu residents,¹³² even though the ESIA Project Description affirms that a large land concession in Witu was granted as part of the project approval process, specifically for the purpose of limestone mining.¹³³ As discussed above, impacts of the site access road, limestone mining in Witu, and transportation of limestone from Witu to the project site have been completely omitted from the ESIA. These unjustified and unreasonable omissions are linked to the failure to appropriately identify or consult with the Kwasasi Mvunjeni farmers, Witu residents, or those living along the limestone transport route about how the project may directly impact them.

Similarly, indigenous communities affected by the coal plant have been excluded. The only indigenous groups acknowledged by the 2016 ESIA and the Summary RAP are the Aweer (who use the project site for hunting and foraging) and Bajuni peoples, however Orma, Sanye, and Swahili indigenous communities will also be affected by the project. None of these groups have been meaningfully consulted to the level of ICP.¹³⁴ In fact, many indigenous communities have not been consulted at all.

Finally, a pattern of intimidation by government officials has impeded attempts by local groups to hold information sessions to engage and discuss project impacts as a community. In particular, Save Lamu and many of its member organisations have attempted to hold meetings aimed at fostering better discourse across Lamu's many communities about sustainable development, the proposed projects, and external threats to local livelihoods, the ecosystem, health, and wellbeing, both during the period in which Amu Power held community meetings and after Amu Power discontinued these meetings in 2015 and 2016. However, public officials have repeatedly enacted barriers to prevent these community meetings from taking place and have even acted to discredit the work of these groups. The intimidation is multifaceted and has continued for many years. Members of Save Lamu have been subjected to mobile phone tracking, and their ability to conduct activities in certain areas of Lamu County, for instance in Mpeketoni and Hindi, has been restricted.

In March 2015, shortly after Save Lamu first began engaging in meetings regarding the proposed coal plant, the organisation and several of its leaders faced serious intimidation in the form of a criminal investigation from the Kenyan Criminal Investigation Department (CID). Apparently using their investigation into the June 2014 terrorist attacks in Mpeketoni as a pretext, members of the CID investigation team accused Save Lamu of being connected to the attacks, got a warrant to investigate Save Lamu, raided the Save Lamu office and took files, secured bank statements from Save Lamu's bank, and required Save Lamu leadership to go to Nairobi for interrogations.¹³⁵ While the CID's investigation seemed to eventually cease, Save Lamu is not aware of the official conclusion.

On numerous other occasions, government officials have denied groups permission to host public information meetings about the project, or effectively prevented meetings from taking place by repeatedly postponing their decision.¹³⁶ In 2017, the Lamu County Commissioner publicly accused activists of demanding bribes and accepting payment to oppose the project, without citing any

¹³² 2016 ESIA, Appendix 10: Stakeholder Engagement Plan, §4.

¹³³ 2016 ESIA, Chapter 4, §4.2. The list of project stakeholders was developed based on an initial mapping analysis done in 2014.

¹³⁴ See further section III.F below.

¹³⁵ See Annex 8 (confidential) for more information.

¹³⁶ See, e.g., deCOALonize Kenya via Medium "Save Lamu Facing Intimidation and Interference" (9 May 2017) <u>https://medium.com/@deCOAL/save-lamu-facing-intimidation-and-interference-9007309d166e.</u>

evidence.¹³⁷ In 2018, Walid Ahmed and Ishaq Abubakar, two Lamu-based activists, were arrested following a protest organised to call for the immediate suspension of the Lamu Coal project because the protest route varied slightly from their detailed formal notification regarding the peaceful march.¹³⁸ They were later released on bond without charge, although they faced a further week of intimidation and threats that prevented them from traveling or conducting normal activities.

A recent report by Human Rights Watch and the Kenyan National Coalition for Human Rights Defenders indicates that these incidents are not isolated: their research documents harassment and intimidation against at least 35 environmental activists in Lamu county by police, military, and other government officials between 2013-2018.¹³⁹ Security forces have broken up protests and restricted public meetings – including those related to LAPSSET and the proposed coal plant – and threatened, arrested, and prosecuted activists on various charges. Additionally, the report documents the disappearance of two people involved in resisting LAPSSET-related land acquisition in Lamu. In 2016, Mohamed Avukame, a land rights activist from Manda Island, was kidnapped in Mombasa by people wearing police uniforms. At the time, he was outside the office of Muslims for Human Rights, where he had taken documents regarding irregular land acquisition and compensation related to the LAPSSET project.¹⁴⁰ He has not been seen since. In a similar incident, also in 2016, Pate Island resident Ali Bunu was kidnapped near his home along with his son and brother; a relative witnessed him being shot by attackers, and he is believed dead. He had been resisting the LAPSSET-related acquisition of his land.¹⁴¹

Where intimidation by public officials affects a community's ability to publicly meet and discuss a project, the IFC and its clients have a particular responsibility to ensure that meaningful consultations take place and that affected communities are free to participate without any intimidation or coercion.¹⁴² The ESIA, which lacks evidence of any consultation meetings whatsoever during the past three years, does not establish the required degree of consultation.

Accordingly, this stakeholder consultation process fails to meet the minimum requirements of the IFC Sustainability Framework. The inadequate level of information provided in advance of consultation meetings prevented affected people from engaging meaningfully in project planning and design. Further, consultations should have continued throughout the project's planning stages. As new information on project design, potential impacts and mitigation measures became available, it should have been relayed to communities in a timely manner, both prior to and during community consultation meetings. Without these minimum measures, project proponents have not been able to achieve Broad Community Support for the project among local affected people and other community stakeholders.¹⁴³ Additional consultations must be held, and the IFC and its clients must take proactive steps to ensure that these consultations provide an opportunity for all affected people to raise concerns and voice dissent, free of any intimidation or coercion.

¹³⁷ The Star, "Critics of Lamu coal-fired plant are corrupt, says state official" (29 Mar. 2017) <u>http://www.the-star.co.ke/news/2017/03/29/critics-of-lamu-coal-fired-plant-are-corrupt-says-state-official_c1533287</u>.

¹³⁸ Save Lamu "Two Save Lamu Activists Arrested For Organizing Fossil Free Protest" (26 May 2018) <u>https://www.savelamu.org/lamu-break-free-campaign-against-coal-goes-bad-as-2-arrested/;</u> Human Rights Watch and National Coalition for Human Rights Defenders "They Just Want to Silence Us" Abuses Against Environmental Activists at Kenya's Coast Region" (2018) https://www.hrw.org/report/2018/12/17/they-just-want-silence-us/abuses-against-environmental-activists-kenyas-coast.

¹³⁹ Human Rights Watch and National Coalition for Human Rights Defenders, pp. 2, 60.

¹⁴⁰ *Id.*, pp. 26-27.

¹⁴¹ *Id.*, pp. 27-28.

¹⁴² "Effective consultation ... should ... be free of external manipulation, interference, coercion, or intimidation": IFC PS 1, para. 30.

¹⁴³ Sustainability Policy, para. 30.

D. Failures to fully analyse and mitigate air and water pollution, biodiversity, ecosystem and climate impacts

In addition to the overarching obligations under IFC PS 1 to take steps to avoid, minimise and compensate E&S impacts,¹⁴⁴ PS 3 (Resource efficiency and pollution prevention), PS 4 (Community health, safety and security) and PS 6 (Biodiversity, conservation and sustainable management of living natural resources) include specific obligations to avoid and reduce harm to the natural environment and, with it, associated impacts on community health and livelihoods. Among other critical obligations:

- IFC PS 3 requires the client to apply best practice technically and financially feasible resource efficiency and pollution prevention principles and techniques to avoid, or where avoidance is not possible, minimise adverse impacts on human health and the environment;¹⁴⁵
- IFC PS 4 similarly requires that the client must establish preventive and control measures consistent with good international industry practice to avoid or minimise impacts on community health and safety. Mitigation measures again must favour the avoidance of risks and impacts over minimisation;¹⁴⁶ and
- IFC PS 6 requires, as a matter of priority, that the client avoid impacts on biodiversity and ecosystem services (the benefits that people derive from ecosystems).¹⁴⁷ Obligations are heightened for natural and critical habitats,¹⁴⁸ including legally protected and internationally recognised areas,¹⁴⁹ of which there are many in the vicinity of the planned coal plant.
- 1. Methodological weaknesses in ecological baseline studies call into question ESIA findings

The first step in identifying such risks and impacts is the collection of "recent environmental and social baseline data at an appropriate level of detail."¹⁵⁰

The Ecological Impact Assessment Study, included as Appendix 5 to the 2016 ESIA, acknowledges a number of gaps and issues with on-site information collection. These issues call into question the reliability of some of its findings. For example, the section notes that the study of avifauna included significantly fewer point counts than is recommended for this type of study and that on-site observations were limited to one vantage point for just a few hours, during a time of day when birds are not typically active.¹⁵¹ Combined, these factors make it difficult to trust the study's avifauna findings. Moreover, the study also notes that there is a lack of pre-existing data for the area to supplement the sparse baseline studies,¹⁵² further calling into question the reliability of conclusions.

The mammal study similarly notes that the field sampling time was limited to only five days in the field, and as a result some target mammals were not sampled at all.¹⁵³ It notes that such a study

¹⁴⁴ See the mitigation hierarchy referred to in IFC PS 1, "Objectives".

¹⁴⁵ IFC PS 3, para. 4.

¹⁴⁶ IFC PS 4, para. 5.

¹⁴⁷ IFC PS 6, para. 7.

¹⁴⁸ IFC PS 6, paras. 13-15 (Natural habitats) and paras 16-19 (Critical habitats).

¹⁴⁹ IFC PS 6, para. 20.

¹⁵⁰ IFC PS 1, para. 7.

¹⁵¹ 2016 ESIA, Appendix 5, §7.1.

¹⁵² *Id.*

⁵³ *Id.* at §7.3.

would typically involve both daytime and night-time sampling, during both dry and wet season, but night-time and wet season sampling were not possible in this case due to security concerns (preventing night-time visits) and time constraints.¹⁵⁴

The study of coastal freshwater wetlands and marine biodiversity is similarly flawed. For instance, it was primarily based on "rapid reconnaissance," and "sampling efforts for the five major taxonomic groups (marine invertebrates, seagrasses, fishery, coral reefs and mangroves) was low because there were only ten days of sampling."¹⁵⁵

These gaps in on-site information gathering severely discredit the baseline's findings, especially regarding local fauna in the land and marine areas surrounding the project, and violate the IFC PS's clear guidance that "[t]he assessment of project- and site-specific risks and impacts should be based on current and verifiable primary information."¹⁵⁶ Moreover, the explanations for these gaps – time constraints imposed by the ESIA contractor, Kurrent Technologies, or security concerns – are troubling, considering that an accurate and thorough baseline assessment is a critical foundational requirement for any assessment of social and environmental impacts. Contractor-imposed restrictions on the amount of time that experts were allowed to spend collecting baseline data suggests a lack of commitment to managing social and environmental impacts, which goes completely against the requirements of the IFC PS. Not to mention that there is no evidence that project proponents have used the intervening years since the original baseline sampling took place to conduct additional information gathering to bolster the baseline data and fix any of the known deficiencies in the original studies. Time constraints posed by security concerns, on the other hand, suggest that the proposed location of the project may be unnecessarily risky, a factor that is also entirely unaddressed in the ESIA.

The gaps and sampling issues noted in the Ecological Impact Assessment Study call into question whether its findings are an accurate portrayal of the existing, pre-project ecological environment. Baseline assessments are a critical aspect of any impact assessment, and once construction begins it will become impossible to remedy any inadequacies in the baseline.

2. The assessment of biodiversity impacts lacks detailed information necessary to develop adequate mitigation measures

As mentioned above, IFC PS 6 places stringent requirements on clients to avoid impacts on biodiversity and ecosystem services.¹⁵⁷ The obligations imposed by IFC PS 6 are heightened when the project poses risks to natural and critical habitats, both of which exist in the vicinity of the proposed Lamu coal plant:

• In relation to natural habitats (areas with largely native or unmodified species or ecological functions¹⁵⁸), the client must not significantly convert or degrade those habitats unless: no other viable alternatives within the region exist for development of the project on modified habitat; consultation has established the views of stakeholders, including affected

Id. The note regarding time constraints preventing wet season sampling is curious, since the sampling occurred in January 2015, and the ESIA was not publicly released until July 2016, suggesting ample time to collect additional samples at other times of year.

¹⁵⁵ *Id.* at §7.5.

¹⁵⁶ Guidance Note 1, GN20. This passage continues: "Accurate and up-to-date baseline information is essential, as rapidly changing situations, such as in-migration of people in anticipation of a project or development, or lack of data on disadvantaged or vulnerable individuals and groups within an Affected Community, can seriously affect the efficacy of social mitigation measures."

¹⁵⁷ IFC PS 6, para. 7.

¹⁵⁸ IFC PS 6, para. 13.
communities, with respect to the extent of conversion and degradation; and any conversion or degradation is mitigated according to the mitigation hierarchy (with no net loss of biodiversity where feasible).¹⁵⁹

• In areas of critical habitat (of high diversity value¹⁶⁰), IFC PS 6 provides that the client will not implement any project activities unless: no other viable alternatives within the region exist for development of the project on non-critical habitats; the project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values; the project does not lead to a net reduction in the global and/or national/regional population of any critically endangered or endangered species over a reasonable period of time; and a robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the client's management program.¹⁶¹

The client must also retain external experts with appropriate regional experience to assist in the development of a mitigation hierarchy that complies with PS 6 and to verify the implementation of those measures.¹⁶²

Lamu County is home to a number of legally-protected marine, forest and wildlife reserves, which qualify as natural and critical habitats.¹⁶³ Most notably:

- To the northeast of the project site lies the Boni-Lungi Forest Ecosystem including the Boni and Dodori National Reserves.¹⁶⁴ This indigenous forest ecosystem links forests and grasslands to the north and southwest to create an important wildlife corridor. It is part of the internationally-recognised East Africa coastal forest biodiversity hotspot.¹⁶⁵ The reserves are an important refuge for elephants, the rare hirola¹⁶⁶ and Aders' duiker antelopes, birds, lions, giraffe and hippo.¹⁶⁷ Both reserves form part of the traditional lands of the Aweer (Boni) people.¹⁶⁸ These coastal forests are also important rainfall catchment areas and provide a host of resources of local, national, and global value.¹⁶⁹
- Also to the northeast of the project site, the Kiunga Marine National Reserve consists of shoreline and about 50 islands and coral reef in the Lamu Archipelago.¹⁷⁰ The reserve is important for nesting seabirds, green turtles and dugongs and hosts relatively pristine mangroves. It is a designated UNESCO Biosphere Reserve.¹⁷¹

¹⁵⁹ IFC PS 6, para. 14.

¹⁶⁰ IFC PS 6, para. 16.

 ¹⁶¹ IFC PS 6, para. 17.
 ¹⁶² IFC PS 6 para 8

 ¹⁶² IFC PS 6, para. 8.
 ¹⁶³ IFC PS 6 para 20

¹⁶³ IFC PS 6, para. 20.

¹⁶⁴ The Boni and Dodori National Reserves were gazetted in 1976.

Lamu County Spatial Plan, §4.3.1.1; <u>https://www.cepf.net/our-work/biodiversity-hotspots/coastal-forests-eastern-africa</u>.

¹⁶⁶ Thought to be the world's rarest antelope: IUCN Red List, "Hirola", <u>https://www.iucnredlist.org/species/6234/50185297</u>.

¹⁶⁷ Lamu County Spatial Plan, §4.3.

¹⁶⁸ BCP, §§4.4 and 6.4. The gazetting of these National Reserves significantly limited the Aweer people's access to resources essential for their livelihoods and to their sacred sites, contributing greatly to their current vulnerability.

See, e.g., Paul Matiku, Nature Kenya "The Coastal Forests of Kenya: Forests data, threats, socio-economic issues, values, stakeholders, challenges, strategies, investment and enabling environment: A national synthesis report for the development of the WWF-EARPO Eastern Africa Coastal Forests Ecoregion Programme" (2004) <u>http://coastalforests.tfcg.org/pubs/National-Synthesis-Ken.pdf</u>.

¹⁷⁰ Gazetted in 1979.

¹⁷¹ Biosphere reserves are sites established by countries and recognised under UNESCO's Man and the Biosphere Programme: <u>http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=KEN+04&mode=all</u>.

• To the southwest of the project site and in the vicinity of project-related limestone mining, the Witu Forest Reserve is known to hold at least nine species of threatened plants, including the critically endangered Euphorbia tanaensis that is endemic to the Witu forest. Its woodlands and grasslands provide an important grazing area for buffalo, topi, waterbuck and bushbuck.¹⁷²

In addition, Lamu is surrounded by a range of other critical and natural marine and habitats, as shown in Figure 6.



Figure 6: Critical ecologically significant areas in Lamu County

Source: Lamu County Spatial Plan (2016-2026) Final Report (Vol I, May 2017).

We fear that the proposed Lamu coal plant poses grave risks to these ecologically significant areas, both those near to project infrastructure but also those further afield due to the mobility of air and marine pollution. However, in contravention of IFC PS 6, the 2016 ESIA provides insufficient details to fully measure those impacts, and therefore fails to identify adequate avoidance and mitigation measures. These failures have prevented any meaningful consultation on those impacts, in further violation of IFC PS 6.

The Ecological Impact Assessment Study, which is annexed to the ESIA, indicates that there are many natural and critical habitats surrounding the project site,¹⁷³ and that the project will modify at least some of these habitats. However, the ESIA does not provide details of the degree or scope of these

¹⁷² Lamu County Spatial Plan, §4.3.1.2.

¹⁷³ See 2016 ESIA, Appendix 5, Ecological Impact Assessment Study, §7.4, listing critical habitats including sea grass beds, coral reefs, estuaries, mangroves, lagoons and rocky shores. See also 2016 ESIA, Appendix 5, §3.2.10-3.2.13.

impacts. For example, as discussed below, the ESIA lacks information on the exact impacts of dredging, entrainment of marine organisms in cooling water intake systems, and the planned discharge of elevated temperatures of water into the surrounding marine environment. It does not address at all with the biodiversity impacts of the planned 15km coal conveyor system and the limestone mining in Witu. Without this information, the project cannot develop effective avoidance and mitigation measures for negative impacts, nor can it accurately establish the value of the biodiversity and ecosystem services that will be destroyed.

a. Impacts from dredging

The 2016 ESIA states that "dredging activities during the construction phase are projected to cause significant and serious damage to the neighbouring mangroves, sea grasses and coral reef habitats."¹⁷⁴ It gives the example of the construction of Mokowe jetty, where approximately 100 hectares of mangrove forest were killed by sediment from dredging activities.¹⁷⁵

As alarming as these statements are, the 2016 ESIA addresses the impacts of dredging in generic rather than site-specific terms. The ESIA itself notes that many significant factors were not considered, preventing any specific prediction of the nature, degree and scope of these impacts. For example, the assessment does not take into consideration the specific design of intake and discharge structures, the construction of which "may include" offshore dredging.¹⁷⁶ Moreover, the ESIA makes no real attempt to quantify the amount of material that will be dredged.¹⁷⁷ Similarly, while the ESIA notes that sedimentation resulting from dredging is a serious concern,¹⁷⁸ it does not provide information on the likely sedimentation impacts in this case. Changes in availability of nutrients and dispersion of contaminants during dredging and disposal are mentioned as theoretical impacts of dredging, but the ESIA provides no information or assessment of how these impacts are likely to manifest at this project site.¹⁷⁹

In addition to these significant gaps in information regarding dredging impacts, the mitigation measures are seriously under-developed. For example, mitigation measures include recommendations to "consider the timing of the dredging" based on knowledge of local hydrodynamics and tidal patterns in order to minimise sediment dispersion, and to identify an access route for the dredger and barges that will avoid damaging coral reefs, without including any assessment of how to do this or whether these measures are feasible and likely to be effective.¹⁸⁰ Without further analysis, it is difficult to believe that minor changes to timing and route will be sufficient to avoid the admittedly significant and serious effects of dredging and sedimentation on delicate marine habitats in the vicinity of the project site.

b. Impacts from entrainment and impingement of marine organisms

Despite the availability of less harmful technology,¹⁸¹ the coal plant proposes to use a oncethrough cooling system. The ESIA states that organisms may become caught (entrained) in the water intake systems and/or caught on the outer screen of the intake valve (impinged).¹⁸² It notes that both

 ²⁰¹⁶ ESIA, Chapter 8: Assessment of Potential Environmental and Social Impacts and Mitigation Measures, §8.9.1, p. 53.
 Id.

¹⁷⁶ *Id.* at p. 52.

¹⁷⁷ The 2016 ESIA merely states that it "may be on the order of several hundred thousand m³." *Id.*

¹⁷⁸ Id.

¹⁷⁹ *Id.* at p. 53.

¹⁸⁰ *Id.* at p. 55, Table 8-31.

¹⁸¹ See Witness Statement of Mark Chernaik in the National Environmental Tribunal at Nairobi, 1.4 attached in Annex 3.

¹⁸² 2016 ESIA, Chapter 8, §8.9.1 at 54-55.

scenarios may result in the death of local marine organisms,¹⁸³ but it provides no assessment of the extent or magnitude of the impact (i.e. how many organisms are likely to succumb to this fate and how will this affect the marine biosphere overall). No measures are proposed to avoid or mitigate these impacts.

c. Impacts from the rise in water temperatures

Manda Bay is both a coastal bay and an estuary, possessing water of intermediate salinity, with tidal influence. Such estuaries are extraordinarily productive marine resources.¹⁸⁴

The project's once-through water-cooling system will release used cooling water back into the sea at an elevated temperature of 9 degrees Celsius higher than the ambient water temperature.¹⁸⁵ Even slightly increased temperatures can cause significant impacts in complex aquatic systems, by decreasing the level of dissolved oxygen, increasing metabolic rates and forcing migration. All of these ecological impacts can give rise to significant changes in aquatic biodiversity.¹⁸⁶

The 2016 ESIA admits that this thermal pollution could change the distribution and composition of marine organisms in an area, citing widespread harm caused by a different, smaller (only 1-2 degree Celsius) water temperature change in the same region.¹⁸⁷ However, without any adequate justification, the 2016 ESIA fails to provide any site-specific analysis to determine the likely impacts on marine life in this case.¹⁸⁸ Considering that the Lamu coal plant is likely to release water that is 9 degrees Celsius higher than the ambient water temperature, those impacts could be catastrophic. Moreover, the project could avoid such impacts through the use of an alternative cooling system.¹⁸⁹

The ESIA's Marine Thermal Discharge Study assesses various discharge options and asserts that the chosen option complies with the IFC requirement that thermal discharge not cause an increase in water temperature of more than three degrees Celsius beyond a certain area.¹⁹⁰ However, this three degree requirement should be viewed as a minimum "floor", which is not necessarily adequate to ensure the protection of flora and fauna in the sensitive marine environment surrounding the project.¹⁹¹ The IFC has other standards that explicitly require a thermal discharge system to be designed to prevent negative impacts and avoid endangering sensitive areas or significantly impacting breeding and feeding habits of local organisms.¹⁹² The complete absence of an analysis of site-specific impacts for a design component

¹⁸³ 2016 ESIA at 54.

¹⁸⁴ See further Witness Statement of Mark Chernaik in the National Environmental Tribunal, 3.2 attached in Annex 3.

¹⁸⁵ 2016 ESIA, Chapter 8, §8.4.1 at 22.

¹⁸⁶ Witness Statement of Mark Chernaik in the National Environmental Tribunal, 3.2, attached in Annex 3.

¹⁸⁷ 2016 ESIA, Chapter 8, §8.4.1 at 22 ("Water for cooling the systems will be obtained directly from the sea, used for cooling then released back into the sea; at the discharge point, the temperature differential of the ambient and discharged water will be about 9°C. Without adequate mitigation measures, waters with such elevated temperature differentials can potentially be harmful to sensitive habitats such as coral species. For instance, the 1997–1998 El Niño weather phenomenon in East Africa resulted in a sea temperature rise of 1–2°C in March–April 1998, resulting in widespread coral bleaching and mortality in the region.").

¹⁸⁸ *Id.* at 23.

¹⁸⁹ Witness Statement of Mark Chernaik in the National Environmental Tribunal, 3.2 attached in Annex 3.

¹⁹⁰ See 2016 ESIA Appendix 1: Hydrodynamic Modelling Report, §4.1 at 27.

¹⁹¹ The standard is found in the IFC's General Environmental Health and Safety Guidelines and is framed as one of a number of considerations that must be taken into account when setting project-specific performance standards for wastewater effluents. IFC General EHS Guidelines (30 Apr. 2007), p. 26 <u>http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES.</u>

¹⁹² IFC Environmental Health and Safety Guidelines for Thermal Power Plants (19 Dec. 2008), p. 10 <u>http://www.ifc.org/wps/wcm/connect/dfb6a60048855a21852cd76a6515bb18/FINAL_Thermal%2BPower.pdf?MOD=AJPERES&id</u> <u>=1323162579734</u>. Note that this standard is specific to thermal power plants, unlike the 3-degree Celsius requirement, which is a general requirement applying to all wastewater discharges. [EHS Guidelines for Thermal Power Plants]

with potentially significant and broad-ranging implications for local marine habitats falls far from meeting the standards set by the IFC PS.

d. Impacts from the ash yard

In addition to broader obligations to prevent pollution and avoid impacts on biodiversity and ecosystem services, IFC PS 3 places specific obligations on clients to avoid and reduce the generation of waste. Where waste cannot be avoided, recovered or reused, the client must treat, destroy, or dispose of it in an environmentally sound manner that includes the appropriate control of emissions and residues resulting from the handling and processing of the waste material. If the generated waste is considered hazardous, the client must adopt good international industry practice for its environmentally sound disposal.¹⁹³

According to the ESIA, waste from the project, including fly ash, bottom ash and gypsum, will be disposed of in an ash yard for 15 years.¹⁹⁴ The ash yard will receive approximately 592,000 m³ of ash waste per year over the course of 15 years.¹⁹⁵ The total amount of coal ash that the site will contain is 26,740,000 m³.¹⁹⁶ There are no planned efforts to recycle ash, as required by IFC PS 3, into less harmful and economically-beneficial coal combustion products.¹⁹⁷

Such ash yards require a significant amount of otherwise arable land, carry major environmental and community health risks, including leakage and air pollution, and have irreversible environmental impacts. Despite this, the ESIA provides little information about the standards that will be used to construct the yards, citing Chinese Standard GB 18599-2001 without providing an English translation.¹⁹⁸

Nor does the ESIA provide any specific details about how the coal ash yard will be maintained, even as it notes that the area is prone to monsoons that may disperse and destabilise the mound of coal in the ash yard.¹⁹⁹ The risks associated with a breach could be catastrophic. In 2008, 4,200,000 m³ (a fraction of the amount of ash that will eventually be stored at Lamu) was released during a spill at the TVA Kingston coal-fired power plant in the United States.²⁰⁰ Following that spill, water quality tests near the spill site revealed elevated levels of lead and thallium, which are linked to birth defects and nervous system disorders.²⁰¹ In the decade since the spill, a current lawsuit alleges that over 180 workers who supported the clean-up effort have died or are critically ill as a result of their exposure to the coal ash.²⁰² While asserting that the coal ash yard at Lamu will "be maintained, taking into consideration stability requirement[s],"²⁰³ the ESIA does not provide any further specifics about those maintenance measures.

https://www.scientificamerican.com/article/tennessee-coal-ash-spill/.

¹⁹³ IFC PS 3, para. 12. See also the EHS Guidelines for Thermal Power Plants, p. 12.

¹⁹⁴ 2016 ESIA, Chapter 4, §4.6.5.

¹⁹⁵ *Id.* at 20.

¹⁹⁶ *Id*.

 ¹⁹⁷ See also the EHS Guidelines for Thermal Power Plants, which recommends recycling of solid wastes as one of its "recommended measures to prevent, minimize, and control the volume of solid wastes from thermal power plants" – p. 12.
 ¹⁹⁸ 2016 ESIA, Chapter 4, §4.6.5.

¹⁹⁹ *Id.* at 21.

 [&]quot;Kingston Fossil Plant coal fly ash slurry spill," Wikipedia

https://en.wikipedia.org/wiki/Kingston Fossil Plant coal fly ash slurry spill. 201 "The Lasting Damage of the Tennessee Coal Ash Spill," *Scientific American* (undated, but 2009)

Jamie Satterfield, "180 new cases of dead or dying coal ash spill workers, lawsuit says," *Knox News* (28 Mar. 2018) <u>https://www.knoxnews.com/story/news/crime/2018/03/28/tva-coal-ash-spill-cleanup-roane-county-lawsuits-dead-dying-workers/458342002/.</u>

²⁰³ 2016 ESIA, Chapter 4, 21.

The report also fails to explain how ash will be stored after the estimated 15-year capacity - a glaring omission for a project with a 25-year timeframe - and how the waste will be treated when the plant is decommissioned.

Finally, the 2016 ESIA does not explain how it will control fugitive PM emissions in the air from the ash storage (specifically) – discussed further in section III.D.4 below.²⁰⁴

3. Destruction of ecosystem services

The IFC PS impose specific protections for ecosystem services: the benefits that people derive from ecosystems.²⁰⁵ Those benefits might include products that support their food security or their livelihoods, or nonmaterial cultural services.²⁰⁶ In addition to a general obligation to minimise impacts on ecosystem services, IFC PS 6 places heightened requirements to avoid adverse impacts on priority ecosystem services of relevance to affected communities, where the client has direct management control or significant influence over such ecosystem services.²⁰⁷ If these impacts are unavoidable, the client must minimise them and implement mitigation measures that aim to maintain the value and functionality of those priority services.

As indicated already, the proposed coal plant clearly poses significant risks to *priority* ecosystem services of relevance to affected Lamu communities. A majority of the communities in Lamu still depend on nature-based livelihoods such as fishing, mangrove cutting, hunting and gathering, pastoral livestock keeping, farming, eco-tourism and many others,²⁰⁸ that will be negatively affected by the proposed Lamu coal plant. Lamu residents explain:

"We as fishermen and mangrove cutters understand that the once-through cooling system that is to be used by Amu Power will endanger the marine life as a result of volumes of water being sucked in from the bay to cool their machinery and returned to the bay as heated water. This cooling system will cause death to countless marine animals by vacuum pressure pulling water in and taking with it large numbers of fish, shellfish, and their eggs which will kill them through heat, physical stress, or by chemicals used to clean the cooling system. We understand that larger marine life may be killed or injured when they are trapped against screens at the intake point. We also understand that the cooling system will endanger our mangrove forests as they will be subjected to the heated wastewater. We are aggrieved that our coastal ecology will be tremendously affected and we will lose our natural resources, which we use for our livelihoods."²⁰⁹

"We, the farmers in Lamu County, are also aware that coal burning creates air pollution that is a mixture of carbon dioxide and other chemicals. We understand that when it rains, this mixture turns into acid rain and can cause loss of plant life and harm to human health. We are afraid of these negative effects, which we understand will cause loss of our livelihoods and also affect our health."²¹⁰

²⁰⁴ *Contra* EHS Guidelines on Thermal Power Plants, pp. 5 and 12-13.

²⁰⁵ IFC PS 6, para. 7.

²⁰⁶ IFC PS 6, para. 2. ²⁰⁷ IFC PS 6, para. 25

²⁰⁷ IFC PS 6, para. 25.

 ²⁰⁸ BCP, §8.1.5.
 ²⁰⁹ BCP, §9.1.

²¹⁰ BCP, §9.1.7.

"Our natural resources are ... a magnet for tourism. We have visitors who come to Lamu to experience traditional Swahili culture ... They also come to experience our beaches, swim in our pristine waters and sail on our traditional dhows."²¹¹

"The mangrove forests are of incredible ecological and economic value to Lamu. Not only are they the nursery for much of the marine life on coastal waters but they also represent economic value."²¹²

As shown in Figure 7, a community resource mapping exercise undertaken by Save Lamu in 2014-2016 confirms that the wide-range of critical natural and cultural resources in the vicinity of the coal plant and related developments.



Figure 7: Natural and Cultural Resources in Lamu

Source: Community Mapping of Natural and Cultural Resources in Lamu, attached in Annex 6.

The 2016 ESIA states generally that some of the ecosystem services that currently benefit the local community may be eliminated or reduced as a result of the project, without including a detailed assessment of the degree or scope of impacts or their priority for affected communities.²¹³ Table 8-33 in the ESIA purports to assess ecosystem service impacts from the project, but it is too vague to be effective, as it does not specify which ecosystem services are being assessed or how each of these services will be affected by the project. For example, as described above, marine organisms are likely to

²¹¹ BCP, §6.6

²¹² BCP, §8.1.4.

²¹³ 2016 ESIA, Chapter 8, §8.10.1.

be significantly impacted by aspects of the coal plant's design which are not yet fully understood, including the disposal of used cooling water into the surrounding marine environment, and the potential entrainment of organisms into cooling water intake systems. These processes will likely have an impact on local fish and shellfish populations, and therefore on local fishing livelihoods, but the risks are not specifically assessed, and it is not clear whether they were included in the ESIA's brief, single-page coverage of impacted ecosystem services. While is impossible to truly understand the project's potential impacts on priority ecosystem services based on the ESIA's assessment, the High Court of Kenya recently awarded 1.7 billion KSh as compensation to 4,700 fisherpeople affected by the Lamu port development.²¹⁴ The coal plant will have similarly grave impacts on thousands of fisherpeople, in addition to its impacts on farmers and others who rely on natural resources in the vicinity of the project site.

Further, the ESIA identifies only two mitigation measures to address these impacts: support initiatives to create alternative sources of livelihoods for the local community; and support the enforcement of fishery laws to prevent overfishing or fishing in protected areas.²¹⁵ Both of these measures are too general to be effective. No detail is provided regarding how the project will support livelihoods initiatives, nor is there any analysis of whether the listed alternative livelihoods would serve as adequate substitutes for fishing, one of the county's main economic activities. It is not possible to fully assess the adequacy of the alternative livelihoods plan without further information.

Moreover, neither of these mitigation measures would help preserve or restore ecosystem services for local people. Instead, they both indicate a strategy to end or reduce traditional fishing practices around the project site. This would not only represent a loss of livelihoods, but also a loss of traditional knowledge and therefore cultural heritage. A member of the Bajuni indigenous community explains that this loss of cultural heritage is already underway; a loss that will be exacerbated as more residents are forced out of their traditional livelihoods. "We used to know how to make dhow boats well, but the knowledge is being lost…"²¹⁶

In addition to being grossly incomplete, this approach to mitigation is out of line with the mitigation hierarchy envisioned by the IFC PS, which requires avoidance of impacts to be prioritised, with other options such as compensation or offsets used only as a last resort. Finally, the ESIA's approach to mitigation measures does not serve the intended purpose of *restoring the value and functionality* the priority ecosystem services that are being impacted.²¹⁷

4. The air quality baseline assessment is flawed and air pollution impacts have not been properly assessed

As already mentioned, IFC PS 3 requires that, during the project life-cycle, the client apply technically and financially feasible resource efficiency and pollution prevention principles and techniques that are best suited to avoid, or where avoidance is not possible, minimise adverse impacts on

²¹⁴ Mohamed Ali Baadi and others v. the Attorney-General and others (No. 22 of 2012) High Court of Kenya (Judgment dated 30 Apr. 2018) <u>https://www.elaw.org/ke_LAPSSET_Summary_30April2018</u>. The judgment is currently under appeal, and compensation has not yet been awarded, which is leading to tensions and suspicion within the community.

²¹⁵ 2016 ESIA, Chapter 8, Table 8-33.

²¹⁶ BCP, §6.1.

²¹⁷ IFC PS 6, para 25.

human health and the environment.²¹⁸ The risks and impacts identification process must be based on recent baseline data.²¹⁹

a. Air quality baseline assessment is flawed

A thorough and reliable baseline assessment is a prerequisite to accurately assessing a project's air pollution impacts. The air quality baseline assessment for this project was conducted based on a weak sampling methodology and contains unrealistic findings, which undermines all project impact assessments conducted based on this data. The results are so questionable that experts have described them as "implausible".²²⁰

For instance, the Atmospheric Dispersion Monitoring Report describes that the impact of pollutant emissions to ambient air quality was calculated by adding predicted air concentration of pollutants to the existing (baseline) air concentration of pollutants.²²¹ The resulting concentration of pollutants must be below certain set values. In this case, the baseline air concentration of pollutants was determined by collecting single 4-hour samples of particulate concentrations at each of ten monitoring sites.²²² A single 4-hour time period is a woefully short timeframe from which to deduce baseline particulate concentrations.²²³ A more typical sampling method for detecting concentrations of particulate matter is exemplified in a recent Environmental Impact Assessment for a coal mine in India: "The duration of sampling of PM10, PM2.5, SO2, and NO2 was each twenty-four hourly continuous sampling per day and CO and Ozone was sampled for 8 hours continuous thrice in 24 hour duration monitoring. The monitoring was conducted for two days in a week for three months."²²⁴

In this case, the inadequate duration of the testing resulted in baseline pollutant measurements that are implausibly low. The ESIA records concentrations of PM 2.5 and PM 10 that are each below $1\mu g/m^3$ at nearly every monitoring site.²²⁵ In even the most pristine environments, ambient air concentrations of PM2.5 are typically between 5-10 $\mu g/m^3$.²²⁶ While it is not impossible that the particulate concentrations recorded near the project site are correct, the combination of a very short sampling timeframe and implausibly low results calls into question the legitimacy of the baseline air quality analysis.

There are also dramatic differences in the reports on baseline air quality monitoring contained in different appendices. For example, Appendices 14a and 14b reports that PM2.5 concentration at Bargoni Village, assessed during an almost four-hour period on 10 January 2015, found concentrations of 17,917 $\mu g/m^{3}$,²²⁷ while Appendix 2 reports that PM2.5 concentrations at the same location over a four-hour

²¹⁸ IFC PS 3, para. 4.

²¹⁹ IFC PS 1, para. 7.

²²⁰ Witness Statement of Mark Chernaik, 4.1 attached in Annex 3.

²²¹ 2016 ESIA, Appendix 2: Atmospheric Dispersion Modelling Report, §5.7.1 at 36.

²²² Id. at §3.1, p. 16; 2016 ESIA Appendix 14A: Baseline Air Quality Assessment Report for the Proposed Lamu Coal Power Plant Project at 10.

²²³ Witness Statement of Mark Chernaik, 4.1 attached in Annex 3.

²²⁴ Environmental Impact Assessment for the Proposed Expansion of Parsa East and Kanta Basan Opencast Mine and Pit Head Coal Washery, Chapter 3: Baseline Environment Status, Vimta Labs Limited, 23.

²²⁵ 2016 ESIA Appendix 2 at 19, Table 3-4 and 3-5.

For example, when scientists looked at background levels of PM2.5 in a 'relatively clean Southern African Savannah environment' - the Botsalano game reserve in South Africa, located 50km from the nearest city - the background level they found was 10.5 µg/m3. Laakso, L., Laakso, H., Aalto, P. P., Keronen, P., Petäjä, T., Nieminen, T., ... & Molefe, M. (2008). Basic characteristics of atmospheric particles, trace gases and meteorology in a relatively clean Southern African Savannah environment. *Atmospheric Chemistry and Physics Discussions*, 8(2), 6313-6353, *available at* https://hal.archives-ouvertes.fr/file/index/docid/304062/filename/acpd-8-6313-2008.pdf.

²²⁷ 2016 ESIA, Appendix 14a at 16; Appendix 14b.

period sometime between 10 January and 17 February 2015 resulted in a measured concentration of 18.0 μ g/m³.²²⁸ Similar discrepancies are visible across other sample sites. A discrepancy of this magnitude must be investigated and explained before any of the air quality reports can be considered reliable.

Because the baseline data is added to projected coal plant emissions, in order to quantify air quality impacts, these inadequacies in the baseline fatally undermine the entire analysis of project air pollutant impacts.

b. Inadequate mitigation of air pollution impacts

Like all other coal plants, the Lamu coal plant will emit many chemicals and particulates that are linked to severe health and environmental impacts, including sulfur dioxide (SO₂), oxides of nitrogen (NO_x), particulate matter (PM), and mercury.²²⁹

Despite assertions to the contrary,²³⁰ the Lamu coal plant will cause such emissions even if its technology is upgraded from supercritical to ultra-supercritical technology as announced by Amu Power and GE. By way of comparison, before abatement measures, the following emissions are typical of supercritical and ultra-supercritical (USC) power plants:

	Sub-critical	Supercritical	Current USC	A-USC
Thermal efficiency, %(HHV)	36.2	38.5	39.2	42.7
Net heat rate, Btu/kWh	9,430	8,860	8,700	7,990
(HHV)				
Coal feed rate, kg/hr	384,000	361,000	355,000	326,000
Flue gas mass flow, kg/hr	3,420,000	3,151,000	3,098,000	2,827,000
Volume at boiler outlet,	66,700	61,400	60,400	55,100
actual m ³ /min				
NO_X and SO_2 , kg/MWh	0.127	0.121	0.118	0.109
PM ₁₀ , kg//MWh	0.0422	0.0399	0.0395	0.0363
PM _{2.5} , kg/MWh	0.0535	0.0508	0.0499	0.0458
CO ₂ , kg/MWh	900	851	836	763

Figure 8: Key Performance Results from A-USC Study

Source: Jeffrey N. Phillips and John M. Wheeldon, "Economic Analysis of Advanced Ultra-Supercritical Pulverized Coal Power Plants: A Cost-Effective CO2 Emission Reduction Option?" Advances in Materials Technology for Fossil Power Plants: Proceedings from the Sixth International Conference, 55, Table 3 (2010).

Under IFC PS 3, the Lamu coal plant is required to use pollution prevention techniques best suited to avoid harmful impacts on human health and environment. However, as discussed below, the 2016 ESIA provides no reassurance that the best-suited abatement measures will be utilised.

²²⁸ 2016 ESIA, Appendix 2, Table 3-4.

²²⁹ See Office of the Compliance Advisor Ombudsman, CAO Audit of IFC Investment in Coastal Gujarat Power Limited, India, 31 (22 Aug. 2013).

²³⁰ See, for example, Kenya News Agency "The 'Pains And Gains' Of Lamu's Mega Projects" (12 Jan. 2019) <u>http://www.kenyanews.go.ke/the-pains-and-gains-of-lamus-mega-projects/</u>.

Oxides of Nitrogen (NO_x)

Oxides of nitrogen emitted by coal plants react with atmospheric chemicals to create smog, nitrous oxide, and nitrogen dioxide (NO₂).²³¹ These air pollution mixtures cause health effects, including bronchitic symptoms in asthmatic children and reduced lung function.²³² NO₂ exposure is also linked to increased susceptibility to viral and bacterial infections and airway inflammation.²³³

The IFC's EHS Guidelines on Thermal Power Plants recommend that a plant take a number of steps to minimise NO_x emissions, including using low NO_x burners.²³⁴ In addition to this, the guidelines recommend combustion modifications, such as low excess air-firing, and additional NO_x controls for boilers, such as a selective catalytic reduction system.²³⁵

According to the 2016 ESIA, the Lamu coal plant aims to mitigate its NO_x emissions by utilizing low nitrogen oxide burners, as recommended by these guidelines.²³⁶ However, it does not mention whether any of the additional measures recommended by the IFC will be incorporated into the design, merely stating that the system will be "designed to meet or exceed the World Bank Group's 2008 air emission guidelines."²³⁷ Without further information on the additional measures taken, it is unclear how or if the guidelines will be met or exceeded.

Sulphur Dioxide (SO₂)

Sulphur dioxide (SO₂) emissions from coal plants are linked to respiratory impacts, particularly among children with asthma.²³⁸ Studies involving asthmatics have shown that exposure to SO₂ for as brief a period as ten minutes can lead to changes in pulmonary function and respiratory symptoms.²³⁹ SO₂ may also accelerate the rate of diseases and decrease life expectancy in areas surrounding power plants.²⁴⁰

The IFC Guidelines for SO₂ emissions recommend burning fuels with lower sulphur content when feasible and using flue gas desulfurization (FGD) technology to neutralise the plant's sulphur emissions.²⁴¹ According to the 2016 ESIA, the Lamu coal plant will burn coal with a sulphur content between 0.5% and 2.4%²⁴² and will aim to mitigate its SO₂ emissions by installing a wet flue gas desulfurization system.²⁴³

²³¹ Erica Burt et. al, "Scientific Evidence of Health Effects from Coal Use in Energy Generation," University of Illinois at Chicago School of Public Health, 6 (Apr. 2013).

²³² World Health Organization, "WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide: Global update 2005," 16 (2006) [WHO Guidelines].

²³³ U.S. Environmental Protection Agency, "Risk and Exposure Assessment to Support the Review of the NO2 Primary National Ambient Air Quality Standard," 31 (Nov. 2008).

²³⁴ EHS Guidelines on Thermal Power Plants, 4.

²³⁵ *Id*.

²³⁶ 2016 ESIA, Chapter 4, §4.6.4.

²³⁷ Id.

²³⁸ "Scientific Evidence of Health Effects from Coal Use in Energy Generation," 5.

²³⁹ WHO Guidelines, 18.

²⁴⁰ Muhammad Ehsan Munawer, "Human health and environmental impacts of coal combustion and post-combustion wastes," 17 *Journal of Sustainable Mining* 87, 88 (22 Dec. 2017).

²⁴¹ EHS Guidelines on Thermal Power Plants, 4.

A sulfur content of less than 1% is considered to be low, while a sulfur content of between 1-3% is considered to be medium. Sulfur content of greater than 3% is high. Stanley P. Schweinfurth, "An Introduction to Coal Quality," The National Coal Resource Assessment Overview, 2 (2009). Based on this, the coal burned at the Lamu plant would have low to medium sulfur content.

²⁴³ 2016 ESIA, Chapter 8, §8.2.2.

FGD technology does significantly reduce SO₂ emissions, but can lead to other impacts not accounted for in the 2016 ESIA.

In the FGD process, the SO₂ emitted by burning coal mixes with a calcium or sodium-based alkaline reagent, which neutralises the SO₂ and converts it into a solid compound.²⁴⁴ The power plant at Lamu will utilise a seawater scrubbing FGD process.²⁴⁵ In plants that use this technology, seawater—which the plant has already taken in for cooling purposes—is used as the reagent instead of other alkaline chemicals.²⁴⁶

The IFC's Environmental, Health and Safety Guidelines state that seawater FGD systems have an efficiency of up to 90% for removing SO₂.²⁴⁷ However, the guidelines also note, "impacts on the marine environment need to be carefully examined (e.g., reduction of pH, inputs of remaining heavy metals, fly ash, temperature sulphate, dissolved oxygen, and chemical oxygen demand)."²⁴⁸ The ESIA does not account for any of these different impacts related to its FGD system. More information is necessary to understand whether the Lamu power plant's SO₂ abatement technologies will harm the delicate coastal mangrove ecosystem.

Of additional concern, a recent study found that mercury concentration near the discharge outlets and aeration pools of seawater scrubbing FGD systems was significantly higher than at reference points located 2.5 kilometres and 8 kilometres away from the power plant, respectively.²⁴⁹ Additionally, there appeared to be significant transfers of mercury from the water to the air.²⁵⁰ The study concluded, "The Hg pollution to the marine environment should . . . be of great concern and there should be long-term monitoring."²⁵¹ The ESIA does not account for this. While acknowledging that mercury is a by-product of coal combustion, it states that the emission treatment systems (including FGD, electrostatic precipitators, and a smokestack) will be sufficient to mitigate mercury emissions.²⁵²

Based on these findings, while FGD technology may effectively mitigate a large portion of SO_2 emissions from coal-fired power plants, it may make other impacts worse. Further impact assessments are necessary to understand the full scope of these impacts in the Lamu context.

Particulate Matter

Ambient particulate matter (PM) is composed of very small particles of pollution mixed with water. PMs with a diameter of less than or equal to $2.5 \ \mu m$ (PM_{2.5}) cause a variety of health problems in humans. Fossil fuel power plants generate PM_{2.5} in two different ways: they emit PM_{2.5} directly as a by-

²⁴⁴ U.S. Environmental Protection Agency, "Air Pollution Control Technology Fact Sheet," 3, <u>https://www3.epa.gov/ttncatc1/dir1/ffdg.pdf</u>.

²⁴⁵ 2016 ESIA, Chapter 4, §4.4.

²⁴⁶ Katsuo Oikawa et. al, "Seawater flue gas desulfurization: Its technical implications and performance results," 22 Environmental Progress 67, 67 (20 Apr. 2004).

²⁴⁷ EHS Guidelines on Thermal Power Plants, 4.

²⁴⁸ *Id*.

Liu et. al, "Mercury distribution in seawater discharged from a coal-fired power plant equipped with a seawater flue gas desulfurization system," 18 *Environmental Science and Pollution Research International* 1324, 1324 (Sept. 2011).
 Id et 1321

²⁵⁰ *Id.* at 1331.

 $^{^{251}}$ *Id*.

²⁵² 2016 ESIA, Chapter 8, §8.10.3.1.

product of combustion, and also emit NO_x and SO₂, which combine with other atmospheric chemicals to create forms of $PM_{2.5}$.²⁵³ This latter contribution is known as secondary particle formation.²⁵⁴

Secondary particle formation is the most important contribution of coal-fired power plants to PM_{2.5} pollution, responsible for over 90% of population exposure to particulate matter. An air pollution expert who conducted air quality modelling on the Lamu coal plant found that the air quality modelling conducted for the plant failed to accurately assess the degree and impacts of secondary particulates pollution, as this measure of PM2.5 was excluded from the modelling.²⁵⁵ As the formation of secondary particles is ignored by the ESIA, the ground-level concentrations of PM2.5 resulting from the emissions from the proposed power plant are likely underestimated.

PM_{2.5} emissions are linked to a number of health impacts, including "cardiopulmonary diseases, lung cancer, and numerous other respiratory illnesses and associated morbidity."²⁵⁶ Indeed, approximately three percent of deaths related to heart and lung conditions, and five percent of lung cancer deaths can be attributed to particulate matter globally.²⁵⁷ PM_{2.5} can lead to adverse health effects from both short and long-term exposure.²⁵⁸ A recent study found that ambient PM_{2.5} was the fifth ranking mortality risk factor in 2015, and was responsible for approximately 4.2 million deaths worldwide.²⁵⁹

The 2016 ESIA says that electrostatic precipitators (ESPs) will be used to capture particles from flues and smokestacks, without detailing the specific technology that will be used.²⁶⁰ ESPs can be effective at reducing particulate matter air pollution, even into the micrometre range.²⁶¹ However, while some ESPs have an efficiency of as much as 99.5% in removing particulate matter in general, they are less effective at removing particles in the PM_{2.5} range and below, which are more harmful to human health.²⁶² Because of a lack of detail in the 2016 ESIA, it is not known how effective the Lamu coal plant ESPs will be.

Finally, an air pollution expert further advises that, contrary to the modelling approach used by the ESIA, most of the population exposure to pollution will take place more than 100 km away in population centres such as Garissa and Voi.²⁶³ Similar studies conducted for other power plants using the same modelling as the Lamu ESIA found that for most sources, a radial distance of a thousand kilometres from the source was needed to capture 50% of the population exposure to PM_{2.5} pollution

²⁵³ Jonathan J. Buonocore et. al, "Using the Community Multiscale Air Quality (CMAQ) model to estimate public health impacts of PM_{2.5} from individual power plants," 68 *Environment International* 200, 200 (2014).

²⁵⁴ Sander, S.P., Seinfeld J.H., 1976. Chemical kinetics of homogeneous atmospheric oxidation of sulfur dioxide Environmental Science and Technology 10, 1114–1123. See also Richards L.W., 1983. Comments on the oxidation of NO2 to nitrate: day and night Atmospheric Environment, 17, 397–402.

²⁵⁵ Lauri Myllyvirta, Save Lamu & Ors v National Environment Management Authority & Anor (2016) NET Appeal 196/2016.

²⁵⁶ Sarah Penney et. al, "Estimating the Health Impacts of Coal-Fired Power Plants Receiving International Financing," Environmental Defense Fund, 2 (2009).

 ²⁵⁷ World Health Organization, "Health Effects of Particulate Matter: Policy implications for countries in eastern Europe, Caucasus, and central Asia" (2013) <u>http://www.euro.who.int/___data/assets/pdf__file/0006/189051/Health-effects-of-particulate-matter-final-Eng.pdf.</u>
 ²⁵⁸ WHO Guidelines, 9.

²⁵⁰ WHO Guidelines, 9.

²⁵⁹ Aaron J. Cohen et. al, "Estimates and 25-year trends of the global burden of disease attributable to ambient air pollution: an analysis of data from the Global Burden of Diseases Study 2015," 389 *The Lancet* 1907, 1907 (13 May 2017).

²⁶⁰ 2016 ESIA, Chapter 4, §4.3.

²⁶¹ David Hosansky, "Electrostatic Precipitator," *Green Technology: An A-to-Z Guide*, ed. Dustin Mulvaney and Paul Robbins at 154-155.

²⁶² Hu Bin et. al, "PM_{2.5} and SO₃ collaborative removal in electrostatic precipitator," 318 *Powder Technology* 484, 484 (1 Jun. 2017).

²⁶³ Lauri Myllyvirta and Clifford Chuwah, Assessing the Air Quality, Toxic and Health impacts of the Lamu Coal-Fired Power Plant (Greenpeace, 2017) <u>http://accountabilitycounsel.org/wp-content/uploads/2017/11/FINAL-Air-Quality-toxic-and-health-impacts-modelling-study-of-the-Lamu-Coal-Plant.pdf</u>.

caused by the emissions.²⁶⁴ The area of 50km x 50km, as modelled in the Lamu ESIA, is woefully inadequate, representing only 0.1% of this 1,000km radius.

Mercury

Coal combustion accounts for 24% of global atmospheric mercury, making it the second largest anthropogenic source of mercury behind small-scale gold mining.²⁶⁵ "Coal does not contain high concentrations of mercury, but the combination of the large volume of coal burned and the fact that a significant portion of the mercury present in coal is emitted to the atmosphere yield large overall emissions from this sector."²⁶⁶

Mercury is linked to severe health impacts in humans, including neurological effects such as "memory loss, moodiness, depression, anger, and sudden bursts of anger/rage/violence, self-effacement, suicidal thoughts, and lack of strength to resolve anxiety or resist obsessions or compulsions."²⁶⁷ It also affects kidney health, the cardiovascular system, and may cause infertility.²⁶⁸

The primary way that humans are exposed to mercury is through fish consumption.²⁶⁹ This is particularly troubling because—as the ESIA itself notes—fishing is the second largest driver of the Lamu economy; 75% of the fish are wild-caught from the surrounding marine environment.²⁷⁰ One particularly shocking statistic about the potency of mercury is that, "[j]ust one drop, 1/70th of a teaspoon [of mercury] can contaminate a 25-acre lake to the point that the fish are unsafe to eat."²⁷¹ While the marine environment around the Lamu plant is different from a contained lake, and the mercury will disperse differently, the impacts of mercury on the area should be analysed further due to the gravity of its effects on local fisheries and human health.

Mercury is emitted from coal combustion both as a vapour (90% of mercury emissions) and in coal ash (10% of mercury emissions).²⁷² While the mercury in coal ash can be effectively removed using particulate control equipment, the mercury in vapour form is not so easily removed.²⁷³

The IFC Guidelines recommend minimizing mercury emissions using abatement technology such as ESPs and FGD.²⁷⁴ However, these technologies may not effectively reduce the risk of harmful mercury emissions: "ESPs cannot be effective control devices unless [mercury] condenses into particulates at or before the device."²⁷⁵ The 2016 ESIA does not provide any information regarding whether mercury from the Lamu plant is likely to condense into particulates prior to reaching the plant's

²⁶⁴ Zhou Y et al 2006. The influence of geographic location on population exposure to emissions from power plants throughout China. Environment International 32, 365–373.

²⁶⁵ UN Environment Programme, "Global Mercury Assessment," 9 (2013).

²⁶⁶ *Id.* at 6.

²⁶⁷ Ki-Hyun Kim et. al, "A review on the distribution of Hg in the environment and its human health impacts," 306 *Journal of Hazardous Materials* 376, 381 (2016).

²⁶⁸ *Id.* at 381-82.

²⁶⁹ V.M. Fthenakis et. al, "An assessment of mercury emissions and health risks from a coal-fired power plant," 44 *Journal of Hazardous Materials* 267, 279 (1995).

²⁷⁰ 2016 ESIA, Chapter 5, §5.11.7.3.

²⁷¹ Patricia Glick, "The Toll from Coal: Power Plants, Emissions, Wildlife, and Human Health," 21 Bulletin of Science, Health, and Society 482, 487 (Dec. 2001).

²⁷² "An assessment of mercury emissions and health risks from a coal-fired power plant," 271.

²⁷³ *Id.*

²⁷⁴ EHS Guidelines on Thermal Power Plants, 6.

²⁷⁵ "An assessment of mercury emissions and health risks from a coal-fired power plant," 272.

ESPs. Other technologies, such as a "fabric filter", are more effective.²⁷⁶ The ESIA for the Lamu plant does not mention fabric filter technology.

Additionally, seawater FGDs (the type of desulfurization system proposed at the Lamu plant) have actually been shown to emit higher levels of mercury at their marine discharge outlets, as discussed above. The 2016 ESIA fails to account for this.

Given the severe health risks associated with mercury emissions, more information on its abatement is necessary.

Fugitive emissions from coal yard not properly assessed

In addition to other risks posed by coal ash storage (discussed in section III.D above), the 2016 ESIA fails to assess the quantity or the potential impacts of fugitive emissions from coal ash storage, stating simply that there is "insufficient information and lack of quantifiable data" to determine the full impact.²⁷⁷ Given that the ESIA states the approximate amount of coal to be stored at the site (up to 420,000 metric tons),²⁷⁸ the decision not to estimate the amount of fugitive emissions is unjustified.²⁷⁹

<u>Acid rain</u>

The ESIA states that the Lamu power plant may also have indirect effects on the environment due to acid rain.²⁸⁰ Indeed, many studies have established that NO_x and SO_2 emissions from coal power plants are a major contributor to acid rain.²⁸¹ While the ESIA notes that acid rain poses a threat to plant growth and aquatic ecosystems, it does not consider the impact of the acid rain on nearby Lamu Old Town, a UNESCO World Heritage Site.

"The impact of acid deposition on stone monuments made of marble and limestone and on building materials containing large amounts of carbonate have been recognised for over a century."²⁸² The sulphurous and nitric acids react with the calcite in these materials, dissolving it.²⁸³

The historic buildings in Lamu Old Town would be particularly vulnerable: the construction materials used in many buildings include lime and coral.²⁸⁴ Lime consists of calcium and hydrogen,²⁸⁵ while coral is made up of the calcium carbonate skeletons secreted by coral polyps.²⁸⁶ As a result, both the lime and coral construction materials would be at high risk of damage from acid rain.

In spite of this, the ESIA does not mention any specific methods of mitigating the harm posed to Lamu Old Town by acid rain.

²⁷⁶ U.S. Environmental Protection Agency, "Control of Mercury Emissions from Coal Fired Electric Utility Boilers: An Update," Air Pollution Prevention and Control Division, National Risk Management Research Laboratory White Paper, 5 (18 Feb. 2005).

²⁷⁷ 2016 ESIA, Appendix 4: Climate Change and GHG Specialist Study, 49.

²⁷⁸ 2016 ESIA, Chapter 4, §4 at 15.

²⁷⁹ See further Witness Statement of Dr. David Obura in the National Environment Tribunal at Nairobi, attached in Annex 3.

²⁸⁰ 2016 ESIA, Chapter 8, §8.10.2.4.

²⁸¹ Anita Singh and Madhoolika Agrawal, "Acid rain and its ecological consequences," 29 Journal of Environmental Biology 15, 15 (Jan. 2008).

²⁸² *Id.* at 21.

 ²⁸³ U.S. Geological Survey, "How does acid precipitation affect marble and limestone buildings?" <u>https://www.usgs.gov/faqs/how-does-acid-precipitation-affect-marble-and-limestone-buildings?qt-news_science_products=0#qt-news_science_products.</u>
 ²⁸⁴ UNESCO, "Lamu Old Town" https://who.unesco.org/en/list/1055

UNESCO, "Lamu Old Town" <u>https://whc.unesco.org/en/list/1055</u>.
 "Colsium Hudrovide," Engularization Pritannias https://uuuu britannia

²⁸⁵ "Calcium Hydroxide," Encyclopaedia Britannica <u>https://www.britannica.com/science/calcium-hydroxide</u>.

²⁸⁶ National Oceanic and Atmospheric Administration, "How Do Corals Grow? What Forms Do They Take?" (6 Jul. 2017) <u>https://oceanservice.noaa.gov/education/kits/corals/coral03_growth.html</u>.

For all of the above reasons, the analysis of air pollutant impacts in the ESIA is wholly inadequate to meet the stringent pollution risk identification, avoidance and minimisation obligations imposed by IFC PS 3, 4 and 6.

5. Climate Change Impact Assessment

In addition to the anti-pollution obligations already discussed, IFC PS 3 requires the client to consider alternatives and implement technically and financially feasible and cost-effective options to reduce project-related greenhouse gas (GHG) emissions during the design and operation of the project.

The recent severe drought experienced in Kenya is a testament to the climate change vulnerability of the country. Lamu communities fear that they are being hit particularly hard:

"We are vulnerable to climate risks due to our dependency on natural resources for food, fuel, and shelter. Currently, we are one of the areas in Kenya that face drought in what experts believe is aggravated by climate change. We are struggling to cope with this adverse situation. We are therefore against building a coal plant in Lamu because we believe coal will worsen our situation."²⁸⁸

The Climate Change and GHG Specialist report states that the Lamu coal plant will increase the country's GHG emission by between 6% - 10%.²⁸⁹ Kenya's 2015 Intended Nationally Defined Contribution projects that national emissions will grow by approximately 3.4% year on year to 2030,²⁹⁰ thus this one plant will alone contribute almost double all other emissions combined: an untenable option when the country needs to be, and has committed to, reducing its overall GHG emissions and projected growth in emissions. This is in direct contradiction to Kenya's low carbon and sustainable development path as set out in the National Climate Change Action Plan and in violation of Kenya's commitments under the Paris Agreement.²⁹¹

Furthermore, it is important to note that the Climate Change and GHG specialist study report was compiled "post completion of the ESIA",²⁹² and as a result, "only a desktop exercise was possible."²⁹³

The Climate Change and GHG Specialist report has two components, however neither truly addresses the climate change impacts of the construction of the coal plant compared to less-polluting alternatives:

• The first component – the climate risk assessment – is an assessment of the risks posed by climate change *to* the project,²⁹⁴ as opposed to the climate risks posed *by* the project.

²⁸⁷ IFC PS 3, para. 7.

²⁸⁸ BCP, §9.1.7.

²⁸⁹ 2016 ESIA Appendix 4, §7.5.

²⁹⁰ Ministry of Environment and Natural Resources, *Kenya's Intended Nationally Determined Contribution* (23 Jul. 2015) http://www.environment.go.ke/wp-ontent/uploads/2015/07/Kenya_INDC_20150723.pdf.

²⁹¹ See also letters from United States Senators to African Development Bank Group President and Executive Director dated May 28, 2018 attached in Annex 5.

²⁹² 2016 ESIA Appendix 4, §2.1.

²⁹³ 2016 ESIA Appendix 4, §2.3.

²⁹⁴ 2016 ESIA Appendix 4, §1.1.2 ("This Climate Change Specialist Study has the following objectives: Undertake a high level assessment of the physical risks facing the development, such as high temperatures, floods, strong winds, monsoons etc, and identify adaptation measures that could reduce the risk or take advantage of opportunities") and §2.1.

• The second component – the GHG assessment – makes extremely brief recommendations as to how the *coal plant* can reduce its GHG footprint, such as "green building features" in the design of offices and accommodation.²⁹⁵ However, it fails to make any meaningful recommendations as to the primary source of GHG emissions: coal combustion. It includes no recommendations for more efficient combustion. And it includes no assessment of energy alternatives or a non-project scenario.²⁹⁶ It also fails to explain how the incremental GHG emissions from the coal plant will ultimately contribute to climate change impacts in the region.²⁹⁷

As a result, the ESIA fails to meaningfully identify or mitigate the likely climate change impacts of the proposed coal plant.

E. The extent of physical and economic displacement has been obscured and overlooked

In addition to the severe environmental risks just discussed, thousands of people, including members of indigenous communities, face displacement from their farmland and other critical natural resources as a result of the Lamu coal plant and its related infrastructure. Local beekeepers, hunters and gatherers, fisherpeople, tourism operators and mangrove harvesters also face severe livelihood impacts as a result of limits on access to existing resources, as well as dramatic changes to the environmental and culture of the broader area. Some will also lose seasonal structures in which they live while using the land.

Despite the severity of this impact, shockingly little information is publicly available about the scope of displacement and planned resettlement measures. The 2016 ESIA fails to analyse resettlement issues in any detail, and a comprehensive Resettlement Action Plan (RAP) is yet to be released. Even now, over two years after the public release of the ESIA, the full RAP remains undisclosed (only an incomplete public summary is available), without which affected communities lack access to critical details about the project's displacement impacts (including an accurate statement of the amount of land being acquired and the number of families affected) and proposed mitigation and compensation measures. While a summary of the RAP is available,²⁹⁸ that undated document is wholly inadequate to understand and assess the full scope of displacement and the planned mitigation and compensation measures. This uncertainty is creating deep anxiety and vulnerability for those displaced, some of whom have stopped cultivating the land even though they are yet to be compensated, because the land seemingly has no future.²⁹⁹ The uncertainty also allows opportunistic settlers to claim land (including land left alone by despondent farmers) in the hope that it will result in compensation. Residents explain:³⁰⁰

"The lack of a RAP caused anxiety among community members, particularly because the land is not titled, instead, it is land that has been occupied by community members for generations.

²⁹⁷ *Id. See further* 2016 ESIA Appendix 4, §3.3.

²⁹⁵ 2016 ESIA Appendix 4, §8.

²⁹⁶ 2016 ESIA Appendix 4, §§1.1.2, 3.1.1 and 8.

²⁹⁸ Full Resettlement Action Plan Summary - Lamu Coal Project (undated), <u>https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Kenya - Lamu Coal Power Project %E2%80%93 RAP Summary.pdf</u> [RAP Summary].

²⁹⁹ See also Daily Nation "At what cost will Lamu coal power plant be to Man and sea?" (9 April 2018), where a local farmer explains "Five acres of my land is up for sale to Amu Power and I am anxiously waiting for them to finalise the process … As long as the sale hangs over it, I cannot farm as I have no idea when they will come calling; so I have not grown anything on it for over four years, and I am forced to rely on the small income I make from selling coconuts." <u>https://www.nation.co.ke/news/In-Lamu--a-coal-power-plantfaces-opposition/1056-4378174-dajthdz/index.html</u>.

³⁰⁰ BCP, §9.1.5.

Since the coal plant has been in the media for two or more years, people have been coming to Kwasasi and occupying or purchasing land. That means that the original owners are fewer in numbers and many new owners, capitalizing on the proposed project are now holding land and thereby having a conflict of interest over the project. The situation continues to create anxiety among community members. This is due to the lack of transparency of the process and a lack of a RAP for the area."

From our own research, we believe that the resettlement impacts from the proposed Lamu coal plant fall into four categories, all of which include members of indigenous communities:

- 1. Displacement of approximately 675 farmers from farmland at the project site;
- 2. Displacement of hunters, gatherers, beekeepers and mangrove harvesters and other resource users from the project site;
- 3. Displacement of at least 109 farmers from farmland crossed by the site access road;
- 4. Economic displacement of fisherpeople and tourist operators due to environmental degradation, maritime restrictions and other substantial interruptions to the character and



quality of the Lamu archipelago.

Figure 9: Displacement from homesteads and seasonal structures

Mohamad Shee, the Chair of the Kwasasi Mvunjeni Farmers Self-Help Group is shown here with the temporary housing structure in which he resides when he is cultivating his land at Kwasasi.



Another temporary residence used by a member of the Kwasasi Mvunjeni Farmers Self-Help Group.

IFC PS 5 (involuntary resettlement) applies to the full range of these impacts. Involuntary resettlement, in this context, refers both to physical displacement (relocation or loss of shelter) and to economic displacement (*loss of assets or access to assets* that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on use of land or other resources (including maritime resources).³⁰¹ In recognition of the severe impacts of displacement on communities, IFC PS 5 insists that involuntary resettlement should be avoided. However, where involuntary resettlement is unavoidable, it should be minimised and appropriate measures to mitigate adverse impacts on displaced persons should be carefully planned and implemented with meaningful consultation and participation of those affected.³⁰² Those displacement risks should be identified as part of the E&S impact assessment under IFC PS 1,³⁰³ and detailed mitigation measures must be formally recorded (and consulted) in a RAP or a Livelihood Restoration Plan.³⁰⁴ The client is not absolved of these obligations if the resettlement process is government-managed.³⁰⁵ On the contrary, if the

³⁰¹ IFC PS 5, paras. 1 and 5.

³⁰² IFC PS 5, para. 2.

³⁰³ IFC PS 5, para. 4.

³⁰⁴ IFC PS 5, para. 14.

³⁰⁵ IFC PS 5, paras. 30-31.

government resettlement measures do not satisfy PS 5, the client must prepare a Supplemental Resettlement Plan to fill those gaps.³⁰⁶

Rather than demonstrating a careful attempt to identify risks of displacement, the 2016 ESIA barely mentions it. It indicates that the RAP will be limited to farming communities, even though other communities will be economically displaced. It also underestimates the scale of displacement – describing acquisition of land as limited to 880 acres.³⁰⁷ The figure contradicts various other public notices and documents provided by the project proponent and the Kenyan Government, all of which vary by approximately 100 acres. For example:

Date	Document	Project Area
02/11/2015	Daily Nation – Notice of Action issued by the National Land Commission	351.8 ha (869.31 acres)
29/04/2016	Kenya Gazette – Land Acquisition Notice issued by the National Land Commission	387.363 ha (957.194 acres)
10/07/2016	EPR – Appendix 8.11.6	975 acres
10/07/2016	EPR – Appendix 4 and Appendix 12.2.3	880 acres
28/09/2016	Application to the Energy Regulatory Commission submitted by Amu Power	865 acres
August 2017	ESIA Summary	975 acres
Undated	RAP Summary (AfDB website)	975 acres

Furthermore, the ESIA provides no further information regarding the number of people who will be resettled, the eligibility criteria nor the methods for compensation. And its assessment of alternative sites does not mention physical resettlement or economic displacement impacts, focusing instead on consideration of the relative costs of each site.³⁰⁸

Ordinarily, the development and publication of a RAP or a Livelihood Restoration Plan might overcome these weaknesses. However, not in this case. To our knowledge, no comprehensive RAP or Livelihood Restoration Plan has ever been published or shared with affected people. Instead, a summary RAP is available online (it is not known how widely this has been circulated). While the summary RAP is more informative than the 2016 ESIA, and acknowledges a broader range of displacement impacts, it still lacks crucial details, including:

³⁰⁶ IFC PS 5, para. 31.

³⁰⁷ 2016 ESIA Chapter 9: Overview of the SEP, GM and RAP, §9.4 at 8.

³⁰⁸ 2016 ESIA Chapter 6: Project Alternatives, §6.1. This section also cites coal dust impacts as the primary (perhaps only) reason not to site the project near the Mombasa port, yet it does not provide any comparative assessment of the relative pollution impacts to Manda Bay and the surrounding area.

- It does not detail the eligibility criteria for all of the various categories of people displaced by the project.³⁰⁹ The official list of local landowners and land users who will receive compensation is still unknown, four years after the initial consultations on this project took place. In particular, the fate of the many farmers who lack title deeds, but have customarily used the land at the coal plant site to grow crops, remains uncertain. The impacts of this uncertainty are severe. We understand that farmers relying on Government assertions of resettlement and compensation have neither been paid nor have they been able to continue to grow crops at the planned project site.³¹⁰ The position of farmers displaced by the site access road also remains unclear, as those farmers have not been consulted at all about the acquisition nor any proposed compensation.³¹¹ Opportunistic settlers have taken advantage of the situation to claim land in the hope of receiving compensation, further displacing the rightful owners/users;
- It does not acknowledge that any affected people lived seasonally on the land in temporary structures and homesteads;³¹²
- It does not recognise that farmers cultivated the land using rotational techniques, where land is left to rest and recover. This creates a risk that land in rest will be incorrectly treated as unoccupied land. It also amplifies the impact of displacement, because not only are farmers losing cultivated plots, but their rotational system is fundamentally disrupted. This reduces the productivity of the broader zone;
- It understates the scope of the displacement of fisherpeople. It quantifies the scope of • displacement of people from fishing grounds as totalling "3 BMUs" (beach management units), totalling 124 fishers.³¹³ It provides no maps or reasoning to support this figure. We believe that this grossly understates the scope of displacement of fisherpeople. Fishing is the second largest driver of the Lamu economy, after tourism. We believe that at least nine BMUs will be directly affected, as they rely on the waters near the project site.³¹⁴ We estimate that at least 4,700 artisanal fisherpeople will be directly and indirectly impacted by the coal plant, as they utilise the waters in and around Manda Bay and will be impacted by the deterioration in the marine environment and restrictions on fishing and accessing shipping lanes. A recent decision of the High Court of Kenya, regarding the Lamu port development and LAPSSET more generally, supports our concern: it found that as many as 4,700 traditional fisherpeople would be negatively impacted by the port project due to the construction of the port, the effects of dredging, loss of access to sea routes, and the destruction of coral reefs and mangrove forests.³¹⁵ It further found that their interests in their traditional fishing grounds amounted to a legal property right, and that any losses must be remedied with financial compensation as well as livelihood restoration support.³¹⁶ We believe that the impacts caused by the coal plant will be of a similar scale;

³⁰⁹ RAP Summary, §9.

³¹⁰ "Kenyans at loggerheads over coal plant at world heritage site," Reuters (5 Jan. 2017), *available at* <u>http://www.reuters.com/article/us-kenya-coal-idUSKBN14P1U5</u>.

³¹¹ *See* section III.B.2 above.

³¹² RAP Summary, §2.

³¹³ RAP Summary, §2.

³¹⁴ BCP, §9.1.7.

Mohamed Ali Baadi and others v. the Attorney-General and others (No. 22 of 2012) High Court of Kenya (Judgment dated 30 Apr. 2018), paras. 291-304 <u>https://www.elaw.org/ke_LAPSSET_Summary_30April2018</u> (judgment under appeal).

³¹⁶ *Id*.

- It does not acknowledge any negative livelihood impacts on tourism operators. Tourism is the largest contributor to Lamu's economy, the home of a well-known World Heritage Site. Tourism operators face grave impacts on the livelihoods due to dramatic alterations to the character and quality of Lamu's culture and environment. Impacts on coral and marine resources, as well as impacts on Lamu Old Town's architecture and culture, will negatively affect the tourism industry; and
- It does not recognise the full range of impacts on indigenous peoples and other traditional and vulnerable communities, as discussed further in section III.F below. Orma, Sanye and Swahili people are not acknowledged at all. There is no suggestion that indigenous communities have given FPIC for the project's construction on land customarily used by them.³¹⁷

Figure 10: Traditional boats



Fishing and traditional dhow boats play a critical role in Lamu's culture and economy, sustaining its two most important economic activities: fishing and tourism.

In addition, neither the 2016 ESIA nor the Summary RAP demonstrate that displaced people will receive the type and quality of resettlement benefits required by IFC policy. It is clear from the summary RAP that proposed compensation is focused on compensating, in monetary terms, a specific loss (the

³¹⁷ See IFC PS 7, para. 15: "If such relocation is unavoidable the client will not proceed with the project unless FPIC has been obtained as described above."

calculations used are not disclosed) – rather than focusing on what is necessary to restore livelihoods. A RAP or Livelihood Restoration Plan, required by IFC PS 5, should achieve both.³¹⁸

For example, the summary RAP says that mangrove cutters will be compensated for loss of livelihoods for a period of one year while they adapt to other sources of income,³¹⁹ without providing any indication about what other sources of income are available and without promising any assistance or support to develop those new livelihoods.

Similarly, the summary RAP says that the fisherpeople who will lose their fishing grounds will be compensated for a year for loss of livelihoods as they look for other sources of livelihoods. They will also be provided with modern fishing gear and boats to enable them to fish further offshore.³²⁰ The document contains no details, however, regarding how the acquisition, selection, and distribution of modern fishing gear and boats would be undertaken, not to mention the necessity of providing significant training and preparation to allow fisherpeople to successfully make this change. Nor is there any analysis of whether one year of income is sufficient to both enable those families to continue their standard of living while also allowing those fisherpeople to invest in developing productive fishing grounds offshore.

For Aweer people (the traditional users of the project site), the summary RAP says that they "will be considered for unskilled job opportunities in the project during construction and operation phase",³²¹ a wholly inadequate response for traditional communities who are facing a range of threats to their cultural heritage, as well as livelihood impacts from the project.

Given the fact that displacement is already taking place, without a comprehensive and fully consulted RAP and IPP, the development of the Lamu coal plant is already in breach of IFC PS 5.

F. Impact assessments to date ignore indigenous peoples and other vulnerable groups

Throughout the IFC PS, there are requirements to identify and take account of the specific interests of, and impacts on, indigenous peoples. In addition, IFC PS 7 (indigenous peoples) imposes heightened obligations on any project that adversely impacts indigenous communities, including:

- Obligations to carry out an Informed Consultation and Participation (ICP) process, that includes indigenous peoples' representative bodies and organisations (e.g., councils of elders or village councils), as well as members of the indigenous peoples themselves, and that allows sufficient time for their own decision-making processes;³²²
- Obligations to avoid and minimise such adverse impacts, including efforts to avoid and otherwise minimise the area of land proposed for the project and to avoid and otherwise minimise impacts on natural resources;³²³ and
- Heightened resettlement obligations, including a requirement to create an Indigenous Peoples' Plan (IPP), to provide culturally appropriate compensation and sustainable

³¹⁸ IFC PS 5, paras. 9, 20-22 (physical displacement) and 25, 27-28 (economic displacement).

³¹⁹ RAP Summary, §10.

³²⁰ RAP Summary, §10.

³²¹ RAP Summary, §10.

³²² IFC PS 5, paras. 9, 10.

³²³ IFC PS 5, para. 14.

development opportunities, and, in the event of relocation or adverse impacts on critical cultural heritage, to comply with the principles of Free, Prior and Informed Consent (FPIC).³²⁴

Lamu County is home to a number of indigenous communities who have carved out distinctive livelihoods over the centuries utilizing its rich and diverse marine, coastal, forest and grassland environments. The indigenous communities of Lamu County include the Bajun, Swahili, Sanye, Aweer (more commonly known as the Boni), and Orma, as well as the Giriama, Mji kenda, and Kore Maasai, among others.³²⁵ The Bajun (estimated population 25,000)³²⁶ are fisherpeople, boat-makers, farmers and mangrove cutters who traditionally live along the mainland coast and on the islands of the Lamu Archipelago.³²⁷ The Sanye (estimated population 500)³²⁸ and the Aweer (estimated population 2,500)³²⁹ are hunter-gatherers who have inhabited the forest area and foraged in the grasslands and mangrove creeks since ancient times. The Sanye speak a click language, which is said to be one of the oldest languages on the African continent.³³⁰ The Orma are semi-nomadic pastoralists (estimated population 7,000).³³¹ Their rangeland covers three counties including Lamu, Tana River, and Garissa as they follow pastureland for grazing their cattle, goats, sheep and camel, an important aspect of the regional economy.³³² Lamu communities that identify themselves as Swahili³³³ include the Wa-Siyu, Wa-Pate, and Wa-Amu (the people of Siyu, Pate and Lamu). The Wa-Siyu and Wa-Pate are predominantly farmers and the Wa-Amu, living in the largest town in the county, are traders, farmers, and fisherpeople.

All of these groups practice the Islamic faith.³³⁴ They have distinct traditional decision-making processes.³³⁵ Those communities all face displacement from the project site, adverse impacts on their livelihoods, impacts on their cultural heritage, and loss of access to traditional land and resources in and around the project site.

The Bajun will be deeply affected by the loss of traditional fishing grounds and mangroves. Impacts from the coal plant will exacerbate losses already suffered as a result of the Lamu port development.

"The port and coal projects are going to affect our fishing grounds, including the areas in the vicinity of Manda Bay and in the creeks off the Manda Bay channel including Dodori and Ndununi Creek. These areas are important to us for fishing and shellfish of all kinds."³³⁶

³³¹ Kanyinke Sena, p. 9.

³²⁴ IFC PS 5, paras. 9, 14-15.

³²⁵ See also Kanyinke Sena, Report on Expert Mission by a Member of the UN Permanent Forum On Indigenous Issues: Lamu Port-South Sudan-Ethiopia Transport Corridor (LAPSSET) and Indigenous Peoples in Kenya attached in Annex 7.

³²⁶ Kanyinke Sena, p. 9.

³²⁷ Although the Bajun are often academically defined as being part of the Bantu "Swahili" community, in Lamu, Swahili communities that are indigenous to islands in Lamu East mostly refer to themselves as Bajuni, while those from Lamu West mostly refer to themselves as "Swahili". The name Swahili", which roots from the Arabic word "Sawahel", meaning the coast, which was given by the Arabs to the indigenous community they found living along the East African Coast from Somalia to Mozambique: BCP, §§3.0 and 4.1.

³²⁸ Kanyinke Sena, p. 9.

³²⁹ Kanyinke Sena, p. 9.

³³⁰ BCP, §4.3.

³³² BCP, §1.0.

The name Swahili", which roots from the Arabic word "Sawahel", meaning the coast, which was given by the Arabs to the indigenous community they found living along the East African Coast from Somalia to Mozambique: BCP, §3.0.
 BCP, §4.0

³³⁴ BCP, §4.0.

³³⁵ BCP, §7.0.

³³⁶ BCP, §6.1.

"We are aggrieved that our coastal ecology will be tremendously affected and we will lose our natural resources, which we use for our livelihoods."³³⁷

Members of the Bajun "have communal farming areas on the mainland where we live seasonally. During the planting season, we travel to the mainland and plant maize, sesame and millet, among other crops."³³⁸ Members of the Kwasasi Mvunjeni Farmers Self-Help Group, who were displaced by the site access road, include members of the Bajuni, as well as Aweer and Giriama communities.

The traditional territory of the Aweer is located in the northeastern forested area of Lamu County. The Aweer will suffer severely from any deforestation associated with the coal plant and related infrastructure,³³⁹ as well as displacement from traditional hunting and gathering areas.

"This area has been our home from time immemorial. Over the years, we have been sustainable hunters of small mammals and survived on wild fruits, tubers and collecting honey from the forests. We also hold the forests with high regard as we have numerous sacred sites protected within."³⁴⁰

The Orma are semi-nomadic pastoralists, who move their cattle throughout the Lamu mainland looking for good pasture.

"We identify the wetlands and grasslands in the western part of the county as our traditional pastoral lands. From Witu we move both north towards the forest areas and south to the Tana Delta. In the dry seasons, we bring our herds to the Tana Delta and after the rains, we move them to the savannah areas as far as Voi."³⁴¹

The Sanye use the forests to gather honey, fruits, and roots. They are also small-scale farmers planting maize, sesame seeds and cassava. Traditionally, they lived in the southern forests and grasslands of Lamu, between Lamu Island and Witu town on the mainland, however they have been forcibly displaced by government settlement schemes, leaving them scattered in urban areas and small villages without land security.³⁴²

The Swahili are also farmers, fisherpeople and livestock keepers, in addition to traders of the agricultural products produced by the other groups:

"We also traded for agricultural and livestock products from our neighbours, most notably the Bajun and Orma and marketed their products in our regional and international trade circles. The Bajun have traded with us their excess grains from their farmlands on the mainland and the Orma have sold their cattle to us, which we have sold to the Arab Gulf states. We also depend on the fisher folk and mangrove cutters from the Bajun Islands for our marine resources and building supplies and for trading purposes in our regional markets. The hunter and gatherers of the forest also play a role in our regional economy by supplying honey and mats for our urban populations."³⁴³

³³⁷ BCP, §6.2.

³³⁸ *Id.*

³³⁹ Kanyinke Sena, p. 11.

³⁴⁰ BCP, §4.4.

³⁴¹ BCP, §4.2. ³⁴² BCP §4.3

³⁴² BCP, §4.3. ³⁴³ BCP 84 5

³⁴³ BCP, §4.5.

"Many of us in Lamu are able to rely on our nature-based livelihoods for our survival. Our ancestors before us also relied on the areas' natural resources for their livelihoods. It has been our most reliable service provider. Within our community in Lamu, we have a number of different livelihood groups that are linked and intertwined. The ethnic groups within Lamu often share livelihoods – and because of this, communities live in peace as they are intertwined with an interdependency that has been crucial for survival."³⁴⁴

The loss of livelihoods will not solely have an economic impact, but also a loss of traditional knowledge and cultural heritage. If not practiced, traditional methods are lost.

"Farming is not simply our livelihood – we have cultural and spiritual traditions that are integrated into our farming practices. We, the Bajun, have traditional songs that we sing during the preparation of the ground for planting and for harvesting. We have someone who leads the farming who is selected amongst ourselves because of their knowledge, experience, and responsibility. We are given advice on where best to farm, including soil fertility, by a traditional astrologer, otherwise termed as 'mwalimu', in a tradition called "kushikamwitu." A ritual "sadaka" offering is also made to prepare for farming, with the mwalimu deciding the best type of goat and time and day for the offering (called the "kuvuwadha"). Other community rituals to prepare the land for farming include the "Kusonga" and a reciting of the Holy Quran (Chapter Yasin) and prayers to encourage success, as well as offerings to God in recognition of the blessings of a good harvest (called the "Kudarawa)."³⁴⁵

"As farmers, we are vulnerable because most of us do not have documentation to show ownership of our land. We are also concerned because we are not allowed to enter the forest to retrieve the wild fruits that grow there like dhichakwi, pepeta, mabungo, tundukuwa, kungu, makoma, maganda ya kamwa, kunazi, matongaandukwaju. The Lamu Port and other LAPSSET infrastructure are a great concern to us. We are concerned that our traditional farming lands will be grabbed, that our natural resources will be decimated by the number of people living in the county and that our traditional conservation methods will not be respected."³⁴⁶

They also fear the loss of access to culturally significant sites. The Sanye "have already lost some of our ancestral burial grounds and we have a real worry that we will continue to lose more."³⁴⁷

Finally, the groups fear the impacts associated with population influx, including environmental degradation, disruption of cultural values and practices, and a further marginalisation within society.³⁴⁸

"The increase in population from the building of the port and other infrastructure will result in great destruction of our natural resources like mangroves, which are used for building houses and this too will impact the marine environment like fish breeding grounds and protecting the coast against natural flooding. Terrestrial forests too will be under duress from the increase in population and the other LAPSSET components and coal powered plant that need large tracts of land for development. We fear that our resources will be depleted and we will lose our livelihood and heritage."³⁴⁹

³⁴⁴ BCP, §6.0.

³⁴⁵ BCP, §6.5.

³⁴⁶ BCP, §6.5. ³⁴⁷ BCP §6.2

³⁴⁷ BCP, §6.3.

³⁴⁸ *See also* Kanyinke Sena, pp. 11-13.

³⁴⁹ BCP, §6.2.

"We fear that with the increasing numbers of newcomers moving to Lamu to look for jobs, we will be forced to move to make room for them. Our traditional way of life will forever disappear as we move to towns and villages seeking shelter. We will lose our way of life and the natural resources that we use for our livelihood will be lost forever."³⁵⁰

"We are vulnerable when we speak of development projects because we (the Sanye) lack any political representation in the county, let alone nationally. We of the Aweer community have one elected representative in the County Assembly, but this is not enough to protect our vulnerability against developers who take our lands away from us. Generally speaking, we have very little formal education. Many of us have not completed primary education and we struggle to send our children to schools. Because of our literacy levels, business people, developers and government officers take advantage of us. We, the Sanye have not one title deed among all our community members. And we, the Aweer, are also facing problems with land security."³⁵¹

Nowhere in the 2016 ESIA is there any detailed assessment of the ethnic or socio-economic characteristics of the affected communities, nor any acknowledgement of indigenous peoples other than extremely brief mentions of the Aweer (Boni) and Bajuni people.³⁵² In fact, the ESIA includes little consideration of social risks at all, let alone the kind of nuanced vulnerability and indigenous peoples' considerations required by IFC PS 1 and 7. Nor are we aware of any specific consultations of affected indigenous communities. There is no evidence that meaningful consultation, let alone FPIC, has been undertaken for these communities. No Indigenous Peoples Plan exists for this project.

The client is also required identify individuals and groups that may be directly and differentially or disproportionately affected by the project because of their disadvantaged or vulnerable status.³⁵³ The ESIA makes only the briefest reference to possibly disproportionate impacts on women during the displacement and resettlement process, without any planned mitigation measure tailored to that concern.³⁵⁴

Nor does the summary RAP adequately analyse and address these issues. While the Aweer and Bajuni communities are mentioned briefly in the Summary RAP, no adequate measures have been put in place to protect them from disproportionately suffering the adverse impacts of this project. For instance, the summary RAP acknowledges that Aweer people will lose access to land which they use for hunting, gathering and bee keeping, but does not state how many are impacted nor the results of any consultation. Moreover, as discussed above, it says that the Aweer "will be considered for unskilled job opportunities in the project during construction and operation phase",³⁵⁵ a wholly inappropriate response for a traditional community that is facing threats to its cultural heritage as well as its livelihood and environment. It also briefly mentions impacts on the Bajun, but without detailing those impacts or how

³⁵⁰ BCP, §6.4.

³⁵¹ BCP, §6.4.

³⁵² 2016 ESIA, Chapter 8, §§8.11.7 and 8.14.1.

³⁵³ IFC PS 1, para. 12. This disadvantaged or vulnerable status may stem from an individual's or group's race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. The client should also consider factors such as gender, age, ethnicity, culture, literacy, sickness, physical or mental disability, poverty or economic disadvantage, and dependence on unique natural resources: note 18.

³⁵⁴ 2016 ESIA, Chapter 8.11.6.

³⁵⁵ Summary RAP, §10. *See also* §5.12.5 where the Summary RAP briefly acknowledges that "The land within the proposed project site was previously under community land where the parcel was occupied way-back by the PAPs' ancestors. The Bajuni community from the islands used this parcel for farming purposes while the Awer community used it to put up beehives."

they will be mitigated.³⁵⁶ It does not refer to any other indigenous communities. Two affected people, in total, are identified as vulnerable on the basis that they are widows. The only mitigation and compensation measures identified for vulnerable and indigenous groups are:³⁵⁷

- For the two vulnerable widows, the project Resettlement Steering Committee through the community shall provide additional assistance to them to make sure they have bank accounts, are notified when the compensation money is wired to their accounts and are sensitised on how they should invest the money so as to have a source of livelihood. They should also be notified of any job or business opportunities emanating from the project.
- For the Aweer community that has depended on the project area for hunting and other foraging activities, they will be considered for unskilled job opportunities in the project during the construction and operation phase, without any reference to whether these jobs are considered culturally appropriate by those affected communities.

These measures are grossly inadequate to protect indigenous peoples and other vulnerable groups from disproportionate adverse impacts from the development of the Lamu coal plant. To the contrary, this dismissive treatment by the project developers exacerbates their vulnerability and marginalisation in Lamu County.

G. Unique cultural heritage is under threat

In addition to the specific threats faced by indigenous peoples, the Lamu community at large faces negative impacts on its priceless cultural heritage. Lamu Old Town is the oldest and best-preserved example of Swahili settlement and is a significant centre for education in Islamic and Swahili culture in East Africa. It is a conservative and preserved society, maintaining its social and cultural integrity, as well as its authentic architecture and important religious functions, up to the present day. For these reasons, Lamu Old Town was included on the World Heritage List in 2001 as a cultural property of Outstanding Universal Value.³⁵⁸

UNESCO holds grave fears for this cultural heritage, with the development of LAPSSET and the coal plant. Those fears have prompted a number of monitoring missions and a range of recommendations, many of which remain unfulfilled.³⁵⁹ A Heritage Impact Assessment, cited by UNESCO but not publicly available at this time, explains a number of key concerns:³⁶⁰

"While Lamu Island and the Lamu Old Town World Heritage property is physically removed from the direct [LAPSSET] project footprint and the likely negative impacts to the tangible attributes of the core zone of the WH property are mostly indirect, there are many direct and indirect impacts effected on the setting of the WH property – the Lamu Archipelago cultural landscape - and the cumulative negative effects on the natural and cultural heritage of this cultural landscape will have a permanent high negative impact on the WH property."

"There is ... a potential of not only marginalizing the community but total disruption of a tradition and all sustaining traditional lifestyle developed and nurtured over millennia with the

³⁵⁶ Summary RAP, §2. *See also* §5.12.5.

³⁵⁷ Summary RAP, §10.

³⁵⁸ UNESCO "Lamu Old Town" <u>https://whc.unesco.org/en/list/1055/.</u>

 ³⁵⁹ UNESCO, Report Of The World Heritage Centre/ICOMOS/ICCROM Advisory Mission To Nairobi Concerning Lamu Old Town, Kenya (Apr. 2018), <u>https://whc.unesco.org/document/167872</u> ["UNESCO Report (2018)"]; UNESCO, Report on the Reactive Monitoring Mission to Lamu Old Town Kenya (Feb. 2015), <u>http://whc.unesco.org/document/135436</u> ["UNESCO Report (2015)"].
 ³⁶⁰ UNESCO Report (2018) 3.4.1 p. 26

³⁶⁰ UNESCO Report (2018), 3.4.1, p. 26.

attendant loss of their heritage. Traditional values, roots, freedom of movement and loss of a sense of community sharing common values with the associated linkages to highly significant archaeological sites that weave a common thread of history and sense of place and belonging is likely to be lost forever.

Figure 11: Lamu Old Town



A public square in Lamu Old Town





Typical doors and passageways in Lamu Old Town

In relation to the coal plant specifically, UNESCO lists the following cultural risks:³⁶¹

- Loss of traditions associated with the loss of livelihoods from fishing;
- The threat posed by air pollution to delicate coral stone constructions in Lamu Old Town and elsewhere;
- Impact of higher population densities (including unmanaged development, insecurity, health implications) and changes to the Swahili character of the local communities; and
- Aesthetic impacts from the coal plant infrastructure.

UNESCO points out that the 2016 ESIA does not adequately address these risks. The 2016 ESIA proposes a series of rules and regulations on its staff and contractors, for example to report "chance finds" and to dress modestly, however these regulations lack all proportion to the dramatic and irreversible impacts on cultural heritage posed by the project.³⁶² The 2016 ESIA fails to address more significant questions such as the placement of worker accommodation and the demographics of workers (including age and ethnicity). As UNESCO says, "[the ESIA] underestimates the impact of higher densities and changes to the Swahili character of the local communities. ... It is the social and cultural life of the day-to-day activities that will be strongly affected, and this issue needs to be studied and better understood before effective mitigation measures can be developed."³⁶³ The 2016 ESIA also fails to take account of the impact of pollution – including acid rain – on culturally-significant sites.³⁶⁴

The ESIA also fails to address potential impacts on historical sites near the coal plant, including two mosques (misikiti) identified as historic sites during Save Lamu's community resource mapping (see Figure 7 above), as well as a graveyard and wells, that could be harmed during construction. These types of sites, particularly the historical mosques, are key symbols of and ways to preserve our community's culture and identity. The presence of these types of sites also help communities when they need to make land claims and/or prove how long they have been in an area.

This shallow and superficial assessment of cultural heritage impacts violates the requirements of IFC PS 1 and 8 (cultural heritage). The distinct, conservative and preserved culture of Lamu Old Town and its surrounds, as an internationally-recognised and legally protected cultural heritage, constitutes "critical cultural heritage" for the purpose of IFC PS 8.³⁶⁵ As a result, the client is required to avoid impacts on that critical cultural heritage. In exceptional circumstances when impacts on critical cultural heritage are unavoidable, the client will use a good faith negotiation process with affected communities that results in a documented outcome.³⁶⁶ The client must also retain external experts to assist in the assessment and protection of critical cultural heritage. The 2016 ESIA provides no evidence that those requirements have been met.

³⁶¹ UNESCO Report (2018), pp. 27-29.

³⁶² 2016 ESIA, Chapter 8, §§ 8.12 and 8.14.

³⁶³ UNESCO Report (2018), p. 29.

³⁶⁴ See section III.D. 4 above. ³⁶⁵ IEC PS 8 para 13

³⁶⁵ IFC PS 8, para. 13. ³⁶⁶ IFC PS 8, para. 14

³⁶⁶ IFC PS 8, para. 14.

H. Alternatives assessment is based on false assumptions and flawed reasoning

1. The ESIA does not provide sufficient justification for rejecting cleaner alternative energy sources

As discussed at length in this complaint, it is well-known that coal-fired power plants pose grave human health and climate-related risks. It is for this reason that the World Bank Group itself has committed to provide financial support for greenfield coal power generation projects *only* in rare circumstances.³⁶⁷ The IFC PS also requires the IFC and the project client to consider alternatives to the project, to ensure that negative E&S impacts are not avoidable.³⁶⁸ The IFC's EHS Guidelines for Thermal Power Plants specifically recommend the use of "the cleanest fuel economically available (for example natural gas is preferable to oil, which is preferable to coal)" in order to minimise air pollution.³⁶⁹ The alternatives analysis conducted for the Lamu coal plant fails to establish such rare circumstances exist to justify a coal-fired power plant – as opposed to less harmful renewable energy – in this case.

The alternatives assessment for the coal plant relies on flawed reasoning and faulty assumptions to reject alternative, less polluting energy sources. Its consideration of some alternatives is so brief and lacking in analysis that it is not possible to determine whether economic, technical, environmental and social factors were properly weighed. This section of the ESIA does not meet the IFC PS requirements for consideration of project alternatives. As a practical matter, it fails to justify the decision to develop a higher-polluting energy source.

The ESIA's alternatives assessment states that the coal-fired power plant was selected as the preferred project option to fulfil the need for a "least cost steady state power plant."³⁷⁰ The assessment purports to consider less-polluting options, including solar and wind, but the assessment of the cost and feasibility of these options is based on flawed assumptions and outdated information.

For example, the ESIA asserts that neither solar nor wind power can be stored or used as base load, and that neither type of power generation in Kenya should exceed 10% of the average electricity demand due to the variable nature of power generation, "otherwise the grid may become unstable."³⁷¹ However, the claim that wind and solar energy cannot power more than 10% of a grid, "otherwise the grid may become unstable,"³⁷² is false. According to a recent study published by scientists with Stanford University, "an all-sector [Wind, Water, Solar] energy economy can run with no load loss over at least 6 [years] at low cost. ... this zero load loss exceeds electric-utility standards for reliability."³⁷³ Other studies have found that solar power can be effective as the primary power source for a large grid,³⁷⁴ and Denmark has been sourcing at least 40% of its power needs from wind since 2008.³⁷⁵ Another study

³⁶⁷ "Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector" (2013) <u>http://documents.worldbank.org/curated/en/745601468160524040/pdf/795970SST0SecM00box377380B00PUBLIC0.pdf</u>.

³⁶⁸ See IFC PS 1, note 11 among other obligations identified above.

³⁶⁹ EHS Guidelines for Thermal Power Plants, p. 3.

³⁷⁰ 2016 ESIA Chapter 6, §6.2.9.

³⁷¹ *Id.* at §§ 6.2.7, 6.2.8.

³⁷² *Id.* at §6.2.7.

³⁷³ See Witness Statement of Mark Chernaik, attached in Annex 3.

³⁷⁴ See, e.g., Jacobson, M. Z., Delucchi, M. A., Cameron, M. A., & Frew, B. A., Proceedings of the National Academy of Sciences 112 (49) "Low-cost solution to the grid reliability problem with 100% penetration of intermittent wind, water, and solar for all purposes" pp. 15060-15065 <u>http://www.pnas.org/content/112/49/15060.full</u>.

³⁷⁵ Sovacool, B. K., Utilities Policy, 17(3) "The intermittency of wind, solar, and renewable electricity generators: Technical barrier or rhetorical excuse?" (2009) pp. 288-296 <u>https://www.researchgate.net/profile/Benjamin_Sovacool/publication/46495038_The_intermittency_of_</u> <u>wind_solar_and_renewable_electricity_generators_Technical_barrier_or_rhetorical_excuse/links/00b7_d526620ca159ea000000.pdf</u>. Renewables also account for just over 40 percent of electricity production in Germany: *see* Reuters "Renewables overtake coal as

found that solar and wind power alone can reliably power a large energy grid (covering one-fifth of the United States).³⁷⁶ Similarly, a recent study specific to sub-Saharan Africa suggests that there is no need to limit wind and solar power sources to a minor portion of total grid power.³⁷⁷ This report bases energy modelling for sub-Saharan Africa on assumptions for wind and solar energy reliance far exceeding 10% of the grid, indicating that it does not see 10% as a relevant limitation.

Further, utility-scale wind and solar may be cheaper alternatives than the proposed coal plant. The ESIA says the coal-fired power plant has the lowest-levelised cost of electricity (LCOE), at $US \notin 7.52$ /kilowatt hour (kWh).³⁷⁸ However, recent studies have found that the LCOE from utility-scale solar and wind is on par with or lower than this estimate. According to a 2013 publication by the Lawrence Berkeley National Laboratory, recent power purchase agreements for photovoltaic projects in the United States have fallen dramatically in recent years, by about US\$25/megawatt hour (MWh) per year on average from 2008-2013, and the LCOE in 2013 for utility-scale solar power was as low as US\$50-60/MWh, which amounts to US5-6¢/kWh.³⁷⁹ These estimates are significantly lower than the estimated $\xi 7.52$ /kWh LCOE of the coal plant.

While the figures from the Lawrence Berkeley study focus on the US solar market, they nonetheless call into question the ESIA's assertions that the coal-fired power plant has the lowest LCOE of the options considered. As the ESIA notes, Kenyan Feed in Tariffs for solar and wind energy will artificially inflate prices for those energy sources initially,³⁸⁰ but these tariffs are temporary, and they do not apply to larger developments.³⁸¹ Wind and solar energy sources are already cheaper than coal, and their prices are likely to fall further, making these smarter options for Kenya in the long run.

Along other parameters, wind and solar energy appear more favourable than a coal plant, even according to the ESIA's own assessment. In rationalizing the decision to develop a coal-fired power plant, the ESIA notes that it has a relatively quick development timeline. However, the ESIA establishes the development timeline for the coal plant as around 36 months, whereas the timelines for solar and wind are less than 12 months and 24-30 months, respectively.³⁸²

Overall, the ESIA's approach of briefly listing positive and negative considerations for each "alternative" considered, without any true analysis, does not provide enough information to rule out wind and solar alternatives as less destructive, and potentially more economical, alternative options for Kenya's power needs. Our communities want those alternatives:

Germany's main energy source" (3 Jan. 2019) <u>https://www.reuters.com/article/us-germany-power-renewables/renewables-overtake-coal-as-germanys-main-energy-source-idUSKCN10X0U2</u>:

³⁷⁶ Budischak, C., Sewell, D., Thomson, H., Mach, L., Veron, D. E., & Kempton, W., Journal of Power Sources, 225 "Cost-minimized combinations of wind power, solar power and electrochemical storage, powering the grid up to 99.9% of the time" pp. 60-74 <u>http://www.edleaver.com/homepage/Archives/2013/06/pdf/CostMinimizedCombinationsOfWindSolarA</u> <u>ndElectrochemicalStorage.pdf</u>.

³⁷⁷ Castellano, et al. "Brighter Africa: The growth potential of the sub-Saharan electricity sector" (2015) p. 29, fn 43.

³⁷⁸ 2016 ESIA Chapter 6, §6.2.9.

³⁷⁹ Bolinger, M. "Utility-Scale Solar 2012: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States" (2014) p. 25 <u>http://escholarship.org/uc/item/3cf3876s.pdf.</u>

Kenya has set Feed in Tariffs for solar and wind power of US¢11/kWh and US¢12/kWh, respectively. ESIA Chapter 6, §§ 6.2.7, 6.2.8.

³⁸¹ Feed-in-Tariffs Policy on Wind, Biomass, Small Hydro, Geothermal, Biogas and Solar Resources Generated Electricity, Kenyan Ministry of Energy (Dec. 2012), Appendix 2, p. 16, *available at* <u>http://www.erc.go.ke/images/docs/fitpolicy.pdf</u>. The Feed in Tariff does not apply to solar projects larger than 40 MW or wind projects larger than 50 MW.

³⁸² 2016 ESIA Chapter 6, §§6.2.5, 6.2.7, 6.2.8.

"We do not want our environment and local livelihoods at risk since we significantly depend on our natural resources. Therefore, we request that the government examine alternatives in renewable clean energy."³⁸³

2. The alternatives assessment does not adequately justify the chosen project location

The assessment of alternatives to the chosen project location does not take account of relevant social and environmental criteria. Throughout the "Alternatives Assessment" section, monetary cost is the primary consideration in weighing each option. For example, the option to select an inland site that would reduce environmental impacts to the Kenyan coastline, as well as environmental and social pressures on nearby Lamu Old Town (a World Heritage site), is ruled out in just two sentences, citing prohibitive costs and providing no assessment whatsoever of other factors.³⁸⁴ The ESIA does not discuss the physical resettlement or displacement impacts of any of the proposed sites, including the chosen site, making a comparison of resettlement impacts between potential locations impossible. It cites coal dust impacts as the primary (perhaps only) reason not to site the project near the Mombasa port, yet it does not provide any comparative assessment of the relative pollution impacts to natural or critical habitats in Manda Bay and the surrounding area, including from the associated Lamu Port construction.³⁸⁵ The resulting cost-focused assessment of alternatives provides no basis to determine whether resettlement impacts or impacts to natural or critical habitats could have been avoided through an alternative project location. This falls far short of the IFC PS requirements to avoid involuntary resettlement and impacts to critical and natural habitats wherever possible.

3. The ESIA does not assess cleaner alternatives to critical design components

The alternatives assessment broadly describes two fuel combustion options, but provides no analysis to support the decision to use a supercritical pulverised coal fired boiler,³⁸⁶ as opposed to more efficient ultra-supercritical technology.³⁸⁷ While Amu Power and GE have since announced that ultra-supercritical technology will be employed, there remains some doubt about whether that arrangement has been finalised, and no updated E&S assessments have been published to provide details of that technology or whether critical abatement measures will be employed.³⁸⁸

Consideration of alternative cooling system technologies and ash management options are similarly conclusory. The decision to use a once-through cooling system is explained in one sentence, stating that this is the most efficient option for cooling using supercritical boiler technology,³⁸⁹ without acknowledging the significantly increased risks to the marine environment (explained above) of using this type of cooling system. The ESIA only describes the different cooling systems, but does not give advantages and disadvantages of each. Although hybrid cooling is listed as one of the alternatives, the report does not describe it or any other environmentally cleaner alternatives such as recirculated wet cooling³⁹⁰ or other advanced cooling systems.

³⁸³ BCP, §9.1.2.

³⁸⁴ 2016 ESIA Chapter 6, §6.1.

³⁸⁵ *Id.*

³⁸⁶ 2016 ESIA Chapter 6, §6.4.

³⁸⁷ See, for example, Poulsen, H. (2006). Advantages of Ultra Super Critical Technology in Power Generation. International Conference on Clean Coal Technologies for our Future CCT2005, Sardinia, Italy 10- 12 May 2005. http://www.bwe.dk/download/articles_pdf/art-cct2005.pdf.

³⁸⁸ See Section III.B.4.

³⁸⁹ 2016 ESIA, §6.5.3 at 14.

³⁹⁰ Research has shown that recirculating cooling systems use and release less water and can therefore reduce impingement and entrainment: Kristin Gerdes and Christopher Nichols, "Water Requirements for Existing and Emerging Thermoelectric Plant Technologies" *National Energy Technology Laboratory* (Aug. 2008)

The dry ash storage option is likewise explained with a simple statement that wet ash storage requires a lot of water, without acknowledging the air pollution risks posed by dry ash storage.³⁹¹ These brief statements are not adequate to evaluate the possible environmental and social advantages of alternative designs. Further, this cursory assessment provides no information on alternative methods for managing environmental and social risks.

I. Cumulative impacts of LAPSSET have been ignored

In addition to the direct impacts of the project, the IFC and its clients are required to take account of the "Cumulative impacts that result from the incremental impact ... from other existing, planned or reasonably defined developments at the time the risks and impacts identification process is conducted."³⁹² The IFC PS Guidance Notes specifically flag that, "in situations where multiple projects occur in, or are planned for, the same geographic area" – as is the case with Lamu and the various LAPSSET developments – "it may also be appropriate for the client to conduct a Cumulative Impact Assessment (CIA) as part of the risks and impacts identification process."³⁹³

The 2016 ESIA's CIA acknowledges that a number of projects are "envisaged" in the area, including LAPSSET project components, but decides not to include them in the CIA because it claims that the timeline for their development is unknown.³⁹⁴ The CIA does include brief mentions of various LAPSSET projects, but the impacts of the separate components are not identified or assessed separately, and in many sections consideration of LAPSSET is missing entirely. For example, LAPSSET components are not considered in assessing potential population increase or impacts to water resources, waste, involuntary resettlement, infrastructure (needed to accommodate a population increase), public services, transportation, and traffic.

Contrary to the conclusion of the ESIA, most of the LAPSSET components planned in Lamu had a sufficiently clear timeline at the time the ESIA was being developed that they could and should have been considered in the coal plant's CIA. In fact, the ESIA names LAPSSET as one of the major energy-intensive projects in Kenya that justifies the need for the coal plant,³⁹⁵ making its exclusion from the cumulative impacts analysis particularly inappropriate.

The LAPSSET project components relevant to Lamu County are currently in various phases of development, with some in early preparation while others are already under construction. The ground-breaking for the development of Lamu Port took place in 2012, and since then, various infrastructure facilities have been built. The LAPSSET website lists a clear target timeline for this component, with the first berth to be completed by 2018 (now slightly delayed to June 2019³⁹⁶) and an additional two berths

http://www.netl.doe.gov/energyanalyses/pubs/Water%20Benefits%20Primer_09_02_08.pdf; Union of Concerned Scientists, 'Nuclear Power and Water' *UCSUSA* (Dec. 2011) http://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/fact-sheet-water-use.pdf; May, J., and Van Rossum, M.K, "The Quick and the Dead: Fish Entrainment, Entrapment, and the Implementation and Application of Section 316(B) of the Clean Water Act" *Vermont Law Review* Vol. 20:376-493 (1995). Recirculating cooling systems are, however, more expensive than once-through cooling systems. It is therefore clear that the project proponent is selecting cheaper alternatives that are less environmentally friendly rather than the most suitable technologies.

³⁹¹ 2016 ESIA, §6.6.1 at 15.

³⁹² IFC PS 1, para. 8. See also PS 3, para. 11.

³⁹³ Guidance Note 1, GN 38.

³⁹⁴ 2016 ESIA Chapter 10: Cumulative Impact Assessment, §10.1.

³⁹⁵ 2016 ESIA Chapter 3: Need for the Project, §3.3.

³⁹⁶ Daily Nation "Kenyans to wait longer for first berth at Lamu Port" (1 Oct. 2018) <u>https://www.nation.co.ke/news/Kenyans-to-wait-longer-for-port-berth/1056-4786110-y065hdz/index.html</u>; Daily Nation "Questions persist on Lamu port viability as first ship set to dock (31 Mar. 2019) <u>https://www.nation.co.ke/business/Questions-persist-on-Lamu-port-viability/996-5049626-tfkqaa/.</u>

by 2020.³⁹⁷ Other LAPSSET components were in similarly advanced stages of planning at the time the ESIA was published. For instance, an ESIA for the Lamu-Garissa Road, financed by the African Development Bank, was completed in April 2016.³⁹⁸ Improvement works for the Manda Airport are already complete (having begun in 2011).³⁹⁹ Resort cities in Lamu are at the planning stage, while last year the Government of Kenya signed an agreement for initial works on the crude oil pipeline that will end at the Lamu Port.⁴⁰⁰

While these components have varying development timelines and the specific impacts of some may have been uncertain at the time the ESIA was released, this does not justify excluding them from consideration in the CIA. The CIA states that its scope includes the entire 25-year operational life of the project.⁴⁰¹ Even if some LAPSSET components are in their early phases, all components are far enough along that they are likely to be developed within the next 25 years. The ESIA should have considered whatever information was available about the potential impacts of each LAPSSET component that is likely to be developed in the next 25 years while the coal plant is operational.

Each of LAPSSET's components comes with unique risks and impacts, from the environmental impacts associated with multiple construction works in a small town to the many social impacts that will accompany the anticipated large increase in population. Together, these projects are likely to have sweeping implications for the people and environment in Lamu County. This is precisely the type of scenario that the IFC's CIA requirements were designed to address, and it is crucial that the coal plant ESIA be revised to consider the impacts of each LAPSSET project component individually, and across all impact categories. This assessment should pay particular attention to the potential social impacts of each component, which seem particularly likely to overlap with those of the coal plant and may be devastating for the communities in the area if not properly identified and mitigated.

J. Affected people will not adequately share in project benefits – resulting in a lack of broad community support

The IFC PS recognises that both broad community support and benefit-sharing are critical to the comprehensive management of E&S risks and the maximisation of positive project impacts. For projects involving significant negative impacts on affected communities, the IFC commits itself to investigating whether broad community support exists.⁴⁰² The IFC PS also include obligations designed to ensure that affected communities have opportunities to share in project benefits:⁴⁰³ without which broad community support is unlikely.

The ESIA states that the purpose of the proposed 1,050MW coal-fired power plant is to provide Kenyans with electricity at a cost-effective price in order to grow the economy and lists "increased affordability, reliability and stability of electricity supply" as one of the project's primary social

³⁹⁷ LAPSSET Authority "Lamu Port" <u>http://www.lapsset.go.ke/projects/lamu-port/</u> (last accessed 19 Mar. 2019).

³⁹⁸ Systra Group ESIA Study Report: Consultancy Services for Environmental & Social Impact Assessment and Detailed Engineering Design of Lamu-Garissa Road (Apr. 2016) <u>https://www.nema.go.ke/images/Docs/EIA%20-%201270%20-</u> %201279/ESIA%20_1272%20Lamu-Garissa%20road%20report.pdf.

³⁹⁹ LAPSSET Authority "Airports" <u>http://www.lapsset.go.ke/projects/airports/</u> (last accessed 19 Mar. 2019).

LAPSSET Authority "Resort Cities" <u>http://www.lapsset.go.ke/projects/resort-cities/</u> (last accessed 19 Mar. 2019) and "Oil Pipelines" <u>http://www.lapsset.go.ke/projects/oil-pipelines/</u> (last accessed 19 Mar. 2019); Business Daily "Tullow signs deal to build oil pipeline" (24 Oct. 2017) <u>http://www.businessdailyafrica.com/corporate/companies/Kenya-Sh210-billion-crude-oil-pipeline-deal-Tullow/4003102-4153716-q6f1p2z/index.html</u>.
 401 2016 FSIA Chemter 10 §10.2

⁴⁰¹ 2016 ESIA Chapter 10, §10.2.
⁴⁰² Sustainability Policy, para 30

⁴⁰² Sustainability Policy, para. 30.

⁴⁰³ IFC PS 1, para. 12, 31; IFC PS 5, para. 9 (involuntary resettlement); IFC PS 7, paras. 15 and 17 (indigenous communities).
impacts.⁴⁰⁴ As discussed above, the ESIA does not include a RAP or an IPP, and the issue of benefit sharing for affected people is not otherwise addressed in the ESIA.

Moreover, based on discussions in prior community consultations, it does not appear that Amu Power has made every effort to ensure that communities resettled, economically displaced or otherwise harmed by the project will be able to share in the project's primary potential benefit. As mentioned in the community consultation notes, many affected households do not have an electricity connection.⁴⁰⁵ Electricity access is often more dependent on electricity distribution, than generation,⁴⁰⁶ however, Amu Power has made no commitments to ensure that local Lamu communities will receive power hook-ups, arguing that only KPLC has this mandate.⁴⁰⁷ Yet, even if Amu Power does not have the mandate to provide electricity hook-ups itself, its responsibility under the IFC PS nonetheless requires further efforts to "provide opportunities to displaced communities and persons to derive appropriate development benefits from the project."⁴⁰⁸ In this case, it is easy to imagine that Amu Power could make such efforts given the Government of Kenya's role in commissioning this project. The ESIA does not indicate whether obvious steps have been taken, such as arranging with KPLC to cover the costs of local electricity hook-ups through the project budget.

Finally, we understand that project benefits from employment are overstated, as 40% of jobs will be reserved for Chinese workers.⁴⁰⁹

IV. Our efforts to raise these issues with Amu Power, its investors and other project stakeholders

We have attended stakeholder consultation meetings where we asked questions about our concerns. Those questions were not answered or were answered dismissively, with misleading information.⁴¹⁰ We have tried to participate in additional meetings, but have been excluded and were made to feel unsafe.⁴¹¹ We have provided comments in writing, directly to Amu Power, its shareholders (Gulf Energy and Centum), its investors (including the IFC) and relevant government authorities, and indirectly through official consultation processes, including:

- Letter from Save Lamu to the African Development Bank (1 Oct. 2015) *response* received 1 Nov. 2015 copied to Amu Power
- Letter from Save Lamu to National Environment and Management Authority (12 Nov. 2015)

⁴⁰⁴ 2016 ESIA Chapter 8, §8.11.1 at 85. However, other statements in the ESIA call into question this point. For example, ESIA Chapter 1, §1.5 states that the power that will be generated by the Project is already earmarked for reasonably foreseeable energy intensive industrial projects, such as a railway, Konza City Technopolis, other LAPSSET projects in Lamu, and the steel smelting and manufacturing sector.

⁴⁰⁵ 2016 ESIA Appendix 9B, §3.1.18 (Stakeholder Engagement Log No. 18: Women), Item 4.

⁴⁰⁶ James Ryan Hogarth & Ilmi Granoff, Overseas Development Institute "Speaking truth to power: why energy distribution, more than generation, is Africa's poverty reduction challenge" (May 2015) <u>https://www.odi.org/publications/9406-truth-power-energy-povertyambition-africa</u>. For this reason, distributed renewables generally better serve the needs of the energy poor: Lucy Stevens and others, Practical Action Policy and Practice "Poor People's Energy Outlook 2016" (2016).

https://policy.practicalaction.org/resources/publications/item/poor-people-s-energy-outlook-2016.

⁴⁰⁷ 2016 ESIA, Appendix 9B, Community Consultation Notes at 157.

⁴⁰⁸ IFC PS 5, para. 9.

⁴⁰⁹ 2016 ESIA Chapter 4 §4.9.9.

⁴¹⁰ *See* Witness Statements of Raya Ahmed, Mohamed Bakar, Mohammed Mbwana in the National Environment Tribunal, attached in Annex 3; and Section III.C above.

⁴¹¹ See Save Lamu Facing Intimidation and Interference, deCOALonize, Medium (9 May 2017) <u>https://medium.com/@deCOAL/save-lamu-facing-intimidation-and-interference-9007309d166e;</u> and more in Section III.C above.

- Letter from Save Lamu to Lamu County Land Management Board (17 Nov. 2015) copied to Amu Power
- Letter from Save Lamu to the African Development Bank (25 Nov. 2015) copied to Amu Power *response received 18 Dec. 2015 copied to Amu Power*
- Letter from Save Lamu to Amu Power (13 Mar. 2016) receipt acknowledgement received by email from Mr. Njogu (Amu Power) (14 Mar. 2016) but no substantive response received
- Letter from Save Lamu to International Finance Corporation (8 Apr. 2016) *response received 22 Apr. 2016*
- Letter from Save Lamu and Natural Justice to National Environment Management Authority (29 Aug. 2016)
- Letter and comments from Save Lamu and Natural Justice to Energy Regulatory Commission (28 Oct. 2016)
- Letter from Save Lamu to Industrial and Commercial Bank of China (21 Dec. 2016) *no response received*
- Letter from Save Lamu to the African Development Bank (27 Nov. 2017) no response received
- Letter from Save Lamu to Industrial and Commercial Bank of China (12 Dec. 2017) *no response received*
- Letter from Save Lamu to Industrial and Commercial Bank of China (13 Jun. 2018) *no response received*
- Letter from Kwasasi Farmers Self Help Group to Ministry of Transport (31 Aug. 2018) *no response received*
- Letter from Kwasasi Farmers to the Chairperson, National Land Commission (5 Nov. 2018) *no response received*
- Letter from Kwasasi Farmers Self Help Group to the Chairperson, National Land Commission (13 Jan. 2019) copied to National Environment Management Authority – no response received from National Land Commission; receipt acknowledgement and planned actions from National Environment Management Authority (4 Feb. 2019) but no substantive response received⁴¹²
- Letter from Save Lamu to General Electric (16 Jan. 2019) *response received 19 Feb.* 2019
- Letter from Save Lamu to Chinese Embassy (14 Feb. 2019) no response received

⁴¹² We note that the letters from the farmers to various Kenyan agencies were formal requests for access to information, and the lack of appropriate response from these agencies constitutes a violation of Kenyan law.

This correspondence is attached in Annex 4. As indicated above, despite these good faith attempts to engage, we have never received a substantive, detailed response to our concerns.

V. We seek compliance review to investigate our concerns

We oppose the coal plant because of the threats it poses to the future of our communities in Lamu. The proposed Lamu coal plant poses permanent, irreversible and existential threats to critical aspects of our livelihoods, culture and our environment. Our concerns about those risks have been exacerbated by the lack of meaningful community consultation and participation in project design. At least 109 families have already been left without income or food security, having been displaced from their farmland without compensation.

We believe that the IFC is contributing to this potentially disastrous project through two financial intermediary clients who are providing financial support to companies involved in the coal plant. In addition, the IFC has a history of relationships with other financial institutions that have been linked to the coal plant. This pattern of investment leads us to fear that the current investments in Co-Operative Bank and Kenya Commercial Bank are not – and will not be – the IFC's only connections to the Lamu coal plant and its severe risks and impacts in our community. This raises significant concerns about how the IFC is appraising, managing and monitoring its substantial investments in the Kenyan financial sector.

Finally, we are concerned about specific, clear and ongoing violations of the IFC's Sustainability Framework in the development of the Lamu coal plant, including the IFC Performance Standards and relevant EHS Guidelines. We fear that these violations will only get worse as the project moves forward. Accordingly, we urgently seek compliance review by the CAO to investigate the IFC's and its clients' compliance with relevant environmental and social principles, standards and regulations. We expect that the CAO will find significant non-compliance on the part of the IFC and its clients, without any ability for their investments to meet the requirements of the IFC PS within a reasonable period of time.⁴¹³ Accordingly, the IFC must take immediate steps to restrict its clients' participation in this disastrous project and to review any new investments in the Kenyan financial sector closely to avoid any further contribution.

[Signatures over page]

⁴¹³ *Contrary to* Sustainability Policy, para. 22.

Kwa niaba ya : Save Lamu

ABUBAKK MOHAMED AL

Saini:

Jina:

Marning

Jina: MOHAMED MEMANA Saini: Masse

Jina: AD AON LACI KOMBO Saini: Al Jung.

Jina: KHADIJA ABDILLAH Saini:





Jina: KHADYA SHEKUWE Saini: Khadaya

Jina: WALID ATTUED ALI Saini:

Tarehe: 27/3/2019

Jina: Ishaq Abubakar Paini:

Jina: Khadija Ernst Saini: Me

Jina: ELBUSAIDY SWALEH Saini: Sapl

Jina: Porto M. Sono Saini: Saini:

Jina: Saini:

Raya Faman

Saini:

Jina: Khadya Juma

Kwa niaba ya: Kwasasi Farmers Self Help Group

Jina: ALI SALIM Saini: Aug