Zimbabwe's Rio Energy Ltd's plans to construct a US$ 3 Billion thermal power plant in Sengwa, Gokwe District, with financial assistance from China Gezhouba Group Corporation are at an advanced stage. Rio- Energy Ltd, a subsidiary of the Zimbabwe Stock Exchange (ZSE) listed RioZim recently confirmed the commencement of the Sengwa Coal Plant construction. The power plant at Sengwa will be constructed in four phases of about 700 megawatts each, bringing total capacity of the thermal plant to 2,800 megawatts. The activities that have already been completed to pave way for the construction of thermal plan include; a full design and feasibility of the power station as well as the design of power evacuation lines, a coal mining plan and fuel coal delivery to the station. The thermal power plant is expected to produce electricity for both local consumption and exportation.

This thermal power project has been on the cards since the 1990s but could not take off due to lack of funding. Part of the project entails construction of a 250-kilometer pipeline that will transport water from the Zambezi River to the Sengwa plant, and construction of a 420 kilovolt-ampere power line, both which will be developed by Power China, a renowned international energy company. The plant will be fired by coal from Rio Zim's coal fields in Sengwa with proven ore reserves in excess of 525 million tonnes, enough to “support a 10,000-megawatt plant at Sengwa”, according to Caleb Dengu, chairman of Rio Energy. RioZim, through Rio Energy Ltd owns coal mining claims in Sengwa. There is evidence that the commencement of the Sengwa power plant is now imminent, with precise indications that construction will start this year.

The conclusion of this coal plant investment deal is a negative step by the Government of Zimbabwe of increasing energy supply in the country through a globally condemned fossil fuel technology. There is no doubt that addressing energy deficits in the country remains at the centre of the country's economic recovery, social and economic development and transformation. Notwithstanding the energy needs of the country, the proposed project comes with environmental and social cost costs which cannot go unchallenged. This paper analyses the political -economy of the project and its likely impacts on social and environmental rights of the communities in Sengwa. The analysis is meant to provoke debate among communities and civil society regarding transparency and accountability the Sengwa Coal Power Plant project.
Zimbabwe’s interest in coal mining and expanding generation of energy from fossil fuels (thermal power energy) is both economic and political. In this section, the article discusses the political and economic factors of the Sengwa project and its associated risks.

WORSENING ECONOMIC SITUATION AND PRESSURE ON GOVERNMENT TO REVIVE THE ECONOMIC SITUATION

Zimbabwe has been going through a long period of political and economic distress. The country moved into a “Second Republic” following the removal of Robert Mugabe through a military-led soft coup in November 2017. Under the Second Republic’s “Zimbabwe is open for Business” mantra, the government hoped to turn the trajectory by attracting foreign direct investment (FDI), engaging international and multi-lateral lending institutions, strengthening regional ties, strengthening Zimbabwe’s relations with its traditional allies such as China and Russia as well as re-setting relations with the West. However, Zimbabwe has not made any progress in securing investments from the West on account of human rights violations. The East (Russia, China and other Asian countries) has been receptive to the government’s call for Zimbabwe is Open for Business as a lot of “mega deals” have been reportedly signed between Zimbabwe and China, including Russia between 2017 and now. However, there is nothing to show of these deals as the economic situation has been regressing ever since.

The government is under immense pressure to revive the economy before the 2023 elections. Reviving the economy will be important for the incumbent president and the ruling party to gain the hearts of the electorate. With only 2 years left before the next harmonised elections, the government of Zimbabwe’s “Open for Business” mantra is now in overdrive to attract as much investment as possible. However, such desperation for investments is pushing the government to facilitate deals...
that may not be favourable to the people of Zimbabwe and the environment. The Government is racing to the bottom by attracting unfavourable deals which do not translate to positive sustainable development.

THE NEED TO BOOST ENERGY PRODUCTION IN THE COUNTRY

Zimbabwe is currently in need of a huge investment in the energy sector given the fact that its current production levels are not sufficient to sustain the demand arising from industries and homes. This is attributed to population increase, rapid urbanisation and an upsurge in mining operations and companies. With the US$12 billion mining strategy, giving the mining sector production targets, the demand for energy will certainly increase and further stress the supply deficits. Zimbabwe has a national power demand ranging between 2200 - 2400 megawatts but only provides about 1300 megawatts. The nation’s current power supply is backed by imports from Eskom (South Africa) and Mozambique11. Whilst the local power production is backed by two main plants, Kariba Hydro and Hwange thermal power plants whose current installed capacities are 1050 MW and 1520 MW12, respectively. The huge difference between the local current power production and the installed capacities of the plants is instructive. Factors that have been attributed to the failure of Zimbabwe to produce power at optimum levels include low levels of coal production, obsolete equipment and frequent dry spells13. In 2019, Kariba hydro power station was generating less than a third of its optimum capacity of 1050MW attributed to low water levels caused by the 2018/2019 severe drought14. The addition of the 2 800 MW Sengwa Coal Power Plant (installed capacity) is likely to make a huge positive impact on energy supply in the country. When completed, the Sengwa Plant project will increase the dominance of the coal fired power in the country’s electricity supply matrix. However, the capacity of the project to make significant impact on the energy production levels is questionable given that the project will rely on Zambezi River water. Zambezi River, which Zimbabwe shares with Zambia and Mozambique, has been failing to fill Kariba dam due to inadequate rains upstream and diverting some of the water to Sengwa will exacerbate trans-boundary conflicts15.

MINING AND ENERGY SECTORS LINKAGES

The move to ensure that the Sengwa coal powered project investment deal sails through, reaffirms the reliance of government on energy and mining, for economic revival. The country heavily relies on mining sector for socioeconomic transformation following the collapse of commercial agriculture. However, the mining sector is also heavily dependent on energy. Approximately 40% of the country’s energy demand is driven by mining and other heavy industries16. Zimbabwe is endowed with about 26 billion tonnes of coal reserves17. As Zimbabwe intensifies its efforts to solve its perennial energy problems, one of its easy reach options is to exploit its vast coal reserves.

However, Zimbabwe is now intensifying coal exploitation against a growing global campaign to decarbonise the energy sector. The country has about 26 billion coal reserves with a potential to last over 100 years. Zimbabwe aims is to scale up coal mining from the current level of about 3 million tonnes of coal production annually to 15 million tonnes by 202018. The bulk of the coal is used in electricity generation with some power plants operating below capacity because of coal shortages19. Coal production contributes to about 66% of Zimbabwe’s energy production. About 2% of coal (about 47 thousand tonnes in 2016) mined in Zimbabwe’s major coal mines (Hwange Colliery,
Makomo, Sengwa and others) is for exports. Thermal electricity generation, therefore, becomes one of the major activities through which Zimbabwe can consume its own coal. However, coal is quickly becoming an obsolete mineral and Zimbabwe is now under pressure to exploit this resource before it is completely banned.

DUE DILIGENCE ON THE INVESTORS AND PROJECT BENEFICIARIES

China Gezhouba Group Corporation (CGGC) and Power China International are both developers and investors of the Sengwa Coal Powered Station. Power China is a sister company of Sino Hydro which recently completed work on the Kariba South Hydropower expansion project and is currently expanding thermal power generation in Hwange. In June 2018, the government secured $1.4 billion funding for the expansion of a 600MW Hwange thermal power station from China again. Projects that are done by Sino Hydro company are financed by the Chinese’s biggest financial institutions such as the State-owned China Exim Bank. As for the Sengwa project, the Industrial and Commercial Bank of China has formally expressed interest in financing the project and it is negotiating with Sino Sure, also known as the China Export and Credit Insurance Corporation to cover the country risks insurance cost. The vast majority of infrastructure financing arrangements done by China in the African continent are financed by the China Exim Bank.

The direct beneficiary of this investment is a private company, Rio Energy Ltd, a subsidiary of the Zimbabwe Stock Exchange (ZSE) listed diversified miner Rio Zim, whose beneficial ownership is yet to be publicly known. A closer look at the company’s profile shows that Rio Zim’s operations chiefly cut across gold and diamond mining and processing, that are Renco Mine (Masvingo), Cam and Motor (Kadoma) and Dalny (Chegutu) mines as well as base metal processing at Empress Nickel Refinery. As already established, the local private company, Rio Zim is one of the beneficiaries of the coal mining deposits and has an Independent Power Producers (IPP) licence to generate energy from coal.

FINANCING OF THE INVESTMENT

This private project is being funded through debt financing. Bankability of the project is being mainly driven by the fact that there is a widening power supply gap in Zimbabwe and in the southern African region. Therefore, Rio Energy Ltd is likely to pay back the loan through the returns it will get by selling electricity to other mining and manufacturing entities locally and exporting to other countries in the Southern Africa (most likely to Eskom in South Africa and Namibia Power Corporation in Namibia) through the Zimbabwe Electricity Distribution and Transmission Company (ZEDTC) power grid. Exportation of electricity will generate foreign currency for Rio Energy Ltd and ZEDTC and the country. Rio Zim’s 2018 published financial statements shows that the company intended to sign a power purchase agreement (PPA) with state-owned Zimbabwe Electricity Distribution and Transmission Company (ZETDC) as part of its 2019 targeted milestones. The PPA is a critical element in reaching financial close for project funding as it guarantees a future market for the power to be generated from the project, hence its bankability with regards to ability to pay back loans. In 2015, Eskom South Africa indicated that it would purchase the power but would not invest in the project. The company cited unbankability of Zimbabwe Electricity Supply Authority (ZESA) as the main reason why they were not interested in bankrolling the project.

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21. China Gezhouba Group Company Limited (CGGC), a member of China Energy Engineering Group Co., Ltd, is a state-owned enterprise CGGC has diverse businesses covering the construction, environmental protection, real estate, cement, civil explosion, highway, water engineering, equipment manufacturing and finance sectors CGGC is the subsidiary of the China Energy Engineering Corporation, one of the world’s largest construction and engineering firms.
22. www.zela.org
23. https://miningzimbabwe.com/riozim-thermal-power-project-to-take-off/
27. https://www.herald.co.zw/sengwa-project-set-for-takeoff/.
28. https://www.chronicle.co.zw/ekom-eyes-3400mw-sengwa-power-project/.
29. The PPA is a critical element in reaching financial close for project funding as it guarantees a future market for the power to be generated from the project, hence its bankability with regards to ability to pay back loans. In 2015, Eskom South Africa indicated that it would purchase the power but would not invest in the project. The company cited unbankability of Zimbabwe Electricity Supply Authority (ZESA) as the main reason why they were not interested in bankrolling the project.
SINO-ZIMBABWE INVESTMENT RELATIONS AND PREDATORY LENDING

China has been closely involved in Zimbabwe’s affairs since the liberation war. However, the commercial interests in resource exploitation and infrastructural development became visible after the fallout between Zimbabwe’s former President Mugabe and the West. In this proposed project, the marriage between China Gezhouba Group Corp, Power China and Rio Energy is evidence of how China’s businesses are earning preferential advantage over other global investors in Zimbabwe. RioZim had short-listed six prospective investors, among them Power China and US electrical systems giant General Electric (GE), for the project before making the final decision to go with the Chinese state-owned firm.

One of China’s development approach is providing low-interest loans (soft loans) and resource backed loans to African nations. Chinese's soft loans seem attractive, but they cost nations in the long run if the governments fail to pay of the debts. Critics have labelled China’s generosity in issuing loans often guaranteed with natural resources as new form of colonialism, especially in a debt-ridden country like Zimbabwe. There is evidence of how these soft loans have locked other countries in debts distress, for example Angola.

CHINA AND IRRESPONSIBLE INVESTMENT

In Africa, including Zimbabwe, Chinese investments and mining companies have a bad record of violating health, environmental, labour and other human rights issues. Recently through the Situational reports produced by ZELA and CNRG to assess the mining sector developments in light of COVID-19, it has been discovered that nearly all Chinese mining companies including those involved in coal mining in Hwange are failing to adequately provide their workforce with COVID-19 Personal Protective Equipment (PPE). Resultantly, their workers are being exposed to risks of contracting or spreading COVID-19. The situational reports highlight an upsurge of human rights violation cases (labour, safety, health) in Chinese owned companies. This implies that Chinese companies have weak systems or no systems in place for conducting due diligence processes and adequately applying responsible business practices to avoid conflicts and human rights violations in their mineral production and supply chains. It is surprising that Chinese companies operating in Zimbabwe are not seen or reported to be complying with the OECD Due Diligence on mineral supply chains yet China as a country has adopted this framework. Since China is complying with OECD Due Diligence on responsible mining chains, there is an expectation that the project investor or lender should conduct due diligence process on respect of human rights in Zimbabwe and the borrower. The fact that Chinese government has continued to invest in or undertake infrastructural projects without paying adequate attention to issues of human rights and conflicts indicate lack of will by the Chinese government to comply with OECD framework that it has adopted.

The Zimbabwean government on the other side has also been found wanting on promoting responsible investment especially in mining and infrastructural projects. There is no political will to compel Chinese investors to respect human rights that are provided for in the Zimbabwe’s 2013 constitution because the government is desperate to attract FDI and maintain Chinese financing.

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33 https://www.herald.co.zw/sengwa-project-set-for-takeoff/
35 https://www.id.go.jp/English/Data/Africa_file_Manualreport/ira_11.html
36 Organisation for Economic Cooperation and Development (OECD)
37 Adherence to the OECD Guidance helps companies to respect human rights, avoid contributing to conflict and cultivate clean and transparent mineral supply chains and sustainable corporate engagement in the mineral sector.
38 https://mneguidelines.oecd.org/responsible-business-conduct-china.htm
APPROPRIATION OF LAND AND FORCED RELOCATIONS OF FAMILIES.

Construction of coal fuelled power plants requires large tracts of land for their set up. Coal power plants require 12.21 acres per megawatt produced (0.05 per square kilometres). Therefore, the proposed Sengwa Coal Thermal Power Plant (CTPP) will require approximately 138, 32 square kilometres of land. It is most likely that the land earmarked for the project is currently under communal settlements. As such, many families stand to be forcibly moved to give priority to the construction of the power plant, the new town and the construction of the 250 km pipeline and the 420-kilovolt ampere power line. This 138 square kilometres does not include land that will fall in the path of the 250km pipeline and the 420-kilovolt power line. Therefore, the proposed Sengwa Thermal Power Project will involve involuntary acquisition of land from communal farmers, forceful acquisition of private and communal assets or restrictions on land use and access to local natural resources without adequate compensation. Evidence from the Chisumbanje Ethanol project shows the downside of large-scale investments on communal settlements. Zimbabwe’s relocation history has shown that business and private capital will always prevail over the affected community needs and wants. Appropriation of land leads to;

- Disruption of livelihoods for the Sengwa community. Sengwa is a rural community that relies on subsistence cotton farming and fishing. The establishment of the plant will result in household income losses, reducing self-reliance among families and destruction of safety nets.
- Community’s failure to access traditional livelihood assets after relocation. In similar previous developments, the government has failed to handle relocations, an example being in Marangewhere people were relocated to pave way for diamond mining in 2009. The Tokwe Mukosi dam disaster in 2014 led to extreme impoverishment of the relocated families.

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• Violations of basic human rights are experienced as the communities will be forcibly moved to other locations without their Free Prior and Informed Consent. In 2009, soldiers were used to forcefully move over 900 families from Marange to Arda Transau, to pay way for the mining of diamonds. In 2014, 2,500 families were forced to stay at Chingwizi camp for six months after flooding caused by the Tokwe-Mukosi dam.
• Communities are likely to be relocated without adequate compensation which will lead to vulnerability to hazards such as hunger, homelessness, diseases and other new socio-economic challenges. Use of force usually results in permanent physical and social injuries.
• Relocation may deprive communities’ access to essential public amenities such as clinics, schools and clean sources of portable water.

Living near coal power plants is associated with respiratory and breathing complications41. For instance, one major by-product of CTPPs is sulphur dioxide which affects the respiratory system and causes asthma and chronic bronchitis as well as cardiac diseases. Mercury, another by product, damages brain, nervous system, kidneys and the liver. It also causes neurological and birth defects. Ironically, the country signed the Minamata Convention on Mercury of October 2013 where it committed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds42. This project will exacerbate the negative effects of mercury on health of the host communities. Besides sulphur and mercury, there are many other emissions which have serious health impacts on communities living close to the coal project.

41 https://www.thermalwatch.org.in/environmental-impact-assessment/impacts-power-plants
42 The Convention is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds
• Rural communities have a symbiotic relationship with their environment and destruction of ecological systems results in serious disruption of traditional ecosystems and communities’ way of life.
• The largest consumers of coal for power generation globally (China, India, the USA and South Africa) have shown that such plants require large amounts of water to function properly. Clean water is a scarce commodity and coal fired plants consume a lot of water causing water shortages to communities. Sourcing water from the Zambezi River has detrimental effects on downstream users.
• Coal plants take huge tracks of land, involve massive digging and scrapping of the earth’s surface. This has massive impact on biodiversity.
• Thermal power plants emit large amounts of mercury and generate large quantities of fly ash which destroy the surrounding biodiversity.
• Coal plants release dozens of toxic substances into the air and water causing massive health and environmental harms. The environmental and human damage caused by burning coal violates the rights of communities and the Sengwa project will not be an exception to this.
• Runoff from mines and spills from power plants contaminate drinking and irrigation water with toxic pollutants violating the rights to life, health, water and environment that are guaranteed in the Constitution of Zimbabwe.\textsuperscript{43}
• The people living near the power plants suffer the most as they have to breathe toxic pollutants that contribute to illness or death, thereby violating their right to life and a healthy environment.\textsuperscript{44}

\textsuperscript{43} Constitution of Zimbabwe Chapter 4, Section 48, 73, 76 and 77
\textsuperscript{44} Joint Stakeholders submissions “Universal Period review of South Africa 27th Session 2017”
Government’s inaction to provide information has also contributed to making Zimbabwe’s mining and energy projects less transparent and accountable. Basic information essential to ensuring informed environmental decision making and holding mining and energy companies accountable is not publicly available. In May, 2020 ZELA wrote to the Zimbabwe Energy Regulatory Authority (ZERA), the Ministry of Environment and Climate Change and the Environmental Management Agency (EMA) demanding a proof that an Environmental Impact Assessment (EIA) exercise for the project was conducted, in line with section 62 of the Constitution as read with section 4 of the Environmental Management Act. Through the same letter, ZELA also demanded to know if EMA is in possession of an EIA certificate, whether or not the EIA speaks to socio-economic impacts of the project, whether or not the EIA speaks to the climate change implications of the project and the mitigatory measures to these impacts. The feedback that ZELA got from Zimbabwe Energy Regulation Authority (ZERA) indicates that EIA is yet to be conducted.

Our experience working in the extractive and natural resources sectors show that communities are rarely meaningfully informed during the mining approval process resulting in uniformed and poor government and industry decisions that do not reflect the community’s perspective and needs. Citizens’ access information such as EIA is a right under Section 62 of the Zimbabwe’s 2013 constitution. Without access to information and meaningful consultation, communities cannot defend the rights threatened by mines and power plants, exercise their right to participate in decision making and access effective remedies for human rights violations.
There is also a huge concern that the Sengwa project will negate the progress that the country has made towards addressing climate change. Already the investment is coming at a time when the world is moving towards renewable energy and battling to control global warming. Coal is a dirty fossil fuel whose continued use has been receiving global condemnation as one of the chief drivers of global warming. This mineral is one of the largest contributors to global Greenhouse Gas (GHG) emissions such as carbon dioxide, sulphur dioxide, nitrogen oxide and mercury. The GHGs produced during the combustion of coal are heat trapping gases that further contribute to global warming46.

At a time when the world is moving towards a just energy transition as can be evidenced by the commitment and binding undertaking obligation of nations, Zimbabwe seems to be regressing47. Through the Paris Agreement, countries agreed to cut their dependence on the use fossil fuels and to make concerted efforts to reduce global temperatures. Zimbabwe has shown great commitment to addressing climate change by ratifying the United Nations Framework Convention on Climate Change, the Paris Agreement, and the Kyoto Protocol. Despite this massive support for the climate change agenda, the country continues to greatly rely on coal powered thermal power stations that emit large amounts of greenhouse gases. As a signatory to the Paris Agreement, Zimbabwe has set its Intended Nationally Determined Contributions (INDCs) emission reduction at 33% by the year 2030. The country’s Intended Nationally Determined Contributions stress renewable energy development as a goal in tackling emissions and developing the national energy grid. Despite its efforts to support climate energy issues, the country continues to expand fossil fuel projects and this is an indication of a regression in terms of addressing Climate change. Given that coal is a finite resource and the need for the country to fully embrace renewable energy by 2040, there is an outright risk that Zimbabwe is investing in a stranded asset48.

46 https://www.ucsusa.org/resources/coal-and-air-pollution
47 2015 Paris Agreement.
CONCLUSION

It is the view of ZELA and CNRG that attracting responsible investment in mining and energy sectors is critical for Zimbabwe’s economic revival and sustainable development trajectory. While this investment has a potential to bring relief to Zimbabwe’s energy security albeit relying on coal fired fuel, its social and environmental impacts will likely be devastating and unimaginable both to the Sengwa community and the country at large. The need to respect social and environmental rights is integral to the achievement of inclusive economic growth and other Sustainable Development Goals (SDGs) that the country is signatory to. As such, the project is expected to promote the realisation of these rights instead of violating them. ZELA and CNRG firmly believe that there must be a balance between attracting FDI and respect for human rights as enshrined in Zimbabwe’s 2013 constitution. If the Sengwa Coal Plant project does not include progressive measures to address climate change related aspects and responsible investment thresholds as is the case with other old coal investments, it must be rejected due to the aforementioned reasons.
The government must respect the Paris Agreement and consider implementing the Renewable Energy Policy by accepting environmentally friendly energy investments. There is need for Zimbabwe to leverage on existing clean energy sources that are yet to be leveraged which are clean and more sustainable.

The government and investors should commission a transparent Environmental Impact Assessment (EIA) that quantifies environmental and social-economic impacts of the Sengwa project and the report should be accessed by citizens since it their access to information constitutional right found in Section 62 of the 2013 Zimbabwean Constitution. Without access to information and meaningful consultation, communities cannot defend the rights threatened by mines and power plants, exercise their rights to participate in decision making and to have effective remedies for human rights violations.

The Environmental Management Authority should ensure that the EIA process for the Sengwa project incorporate mitigation strategies to respond to the climate change impacts of the project.

The developers and investors should carry out a due diligence process on human rights associated with their business supply chain actors. The Due Diligence process should include an assessment of risks associated with sources of mining inputs, equipment and other services and how to address any cases of human rights violations and conflicts identified in the supply chain.

Government should also consider adopting and applying the OECD Guidance in the mining sector to make it mandatory for companies that want to attract investors to conduct Due diligence process on human rights and responsible based on OECD guidelines. This will promote responsible investment in coal and other mining activities.

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