Business



RETHINKING COAL EXTRACTION & USE IN THE FACE OF CLIMATE CHANGE

STOP NEW FOSSIL FUEL PROJECTS

Increased incidences of droughts, shifting seasons, floods, more hot days and heat waves have made the impacts of climate change and variability more evident. The impacts of climate change in Zimbabwe are likely to stall the country's development, pose a serious risk to food security and adaptive capacity.

At international level, Zimbabwe has committed to negotiations on climate change having been among the first countries to sign and ratify the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and also acceded to the Kyoto Protocol in 2009. Through acceding to various instruments, Zimbabwe has also continued to support the United Nations efforts to curb the escalation of greenhouse gas (GHG) emissions. Taking heed of the glaring impacts of climate change, the government of Zimbabwe developed a National Climate Change Response Strategy (NCCSR) in 2014 to quide national response measures in addressing the impacts of climate change. However, translation of this response strategy into action remains a dream yet to be realised. Zimbabwe is famous for producing super blueprints but drastically fails implementation. One of the guiding principles of the NCCSR is "Mainstreaming climate change into policy and legal framework as well as development planning." It has however been appalling to note that the policy directions assumed this far are in contradiction with this guiding principle. Zimbabwe has planned the building of 15 new coal plants (of which 6 are still in the pre-permit stage) while the country is already grappling with the effects of climate change on a society dominated by agriculture.

The country's vulnerability to the adverse effects of climate change makes adaptation a national priority, demanding policy direction at the highest level and the integration of climate change issues into national development planning processes at national, provincial, district and local levels. Regrettably, the impacts of climate change are evidently felt at local level and most felt by poor communities due to their low adaptive capacity.

The energy sector stands at the centre of the climate change discourse in Zimbabwe, because it is the major contributor of GHG emissions. It contributes the biggest share (60.7 per cent) of the country's total GHG emissions, followed by agriculture 20.7 per cent, industrial processes 16.6 per cent and waste 1.9 per cent. Greenhouse gas emissions from the energy sector emanate from combustion of carbon-based fuels as well as fugitive emissions during coal mining and handling processes. It is therefore clear that any serious and meaningful climate change response strategy must embrace the reduction of GHG emissions. Government must stop funding and expanding fossif fuel powered projects. Recently, Zimbabwe commissioned a power station extension project in Hwange. The coal fuelled power station extension project funded by China to the tune of 1.5 billion was celebrated for the possibility of creating up to 7000 jobs directly and indirectly and for feeding an additional 600MW into the national grid. However, the social, economic and environmental cost of increased coal extraction and use far outweigh the purported benefits.

Over the years coal mining in Hwange District has posed serious negative impacts on the physical, biological, and social aspects of the environment which have not be adequately addressed because of the purported economic

Agriculture remains key sector in the economy

EFORE the Bantu migration from East and Central Africa, the denizens of this part of the world were nomadic hunter-gatherers. According to Wikipedia, "the San or Saan peoples are members of various Khoesan-speaking indigenous hunter-gatherer groups representing the first nation of southern Africa, whose territories span Botswana, Namibia, Angola, Zambia, Zimbabwe, Lesotho and South Africa". The San, or Bushmen. were gradually pushed out of present-day Zimbabwe by the

Remnants of the San can still be found in the drier parts of southern Africa where they eke out a living in the harsh deserts of the south. The Bantu people who supplanted the San were livestock herders and were also engaged in crop production. They were mainly subsistence farmers, growing sufficient food for their needs and upkeep.

Bantu people.

The idyllic life of the Bantu people shattered

For centuries the Bantu



WITH GLORIA NDORO-MKOMBACHOTO

Agriculture remains a key sector in the economy

Agriculture has remained the mainstay of our economy since pre-colonial times. In fact, before colonialism, agriculture was the main economic activity. As Zimbabwe modernised and industrialised, agriculture became a key component of this modernisation and industrialisation process.

Agriculture provides food for the population, raw materials for industry, employment for the people and is a source of foreign currency on account of exports. Prior to the fast-track land redistribution exercise of 2001, agriculture accounted for 41% of exports and it constituted about 18% of the country's GDP. A third of the population was engaged in agricultural activities in the 1990s.

This was to change when

hem, chaos or bloodletting. It could have been done with some measure of decorum, empathy and dignity. The new leadership, who has the benefit of hindsight, has I hope, learnt lessons from what happened here.

As a consequence of the chaotic nature of the land redistribution exercise, production plummeted, hundreds of thousands of farmhands lost their jobs, and food shortages became the order of the day. As the agricultural sector collapsed, economic havoc was unleashed upon the land. Zimbabweans emigrated in droves as they sought succor and sustenance in foreign lands. Hordes of hungry citizens swarmed border towns of our neighbours in desperate search for food and other necessities of life. The breadbasket had become a basket

babwe today, you will see that most of the farmland is lying fallow and this has been going on for years. "Amasimu kawalinywanga" "Minda varara" "The fields are lying fallow" for too long. This situation cannot be allowed to continue like this indefinitely. We need to utilise this land for the benefit of the country. Some of the characters who were allocated farms were mere speculators who took up the land, not because of love for agriculture, but just because it was being given for free.

Use it or loose it

I think there is merit in adopting a landholding policy which says "use it or lose it". Also charging a modest land rental could be helpful in weeding out time-wasters who will voluntarily give up the land because of cost considerations. But I guess it is a forlorn hope to expect bureaucrats and policymakers to do anything about the under-utilisation of the land because they are conflicted. They are the ones guilty of under-utilising the land. It's like expecting criminals to apprehend

Impacts of coal extraction and use must be put into consideration with regards to reduction of fossil energy use. Coal is the largest contributor to dimate change and also the least efficient source of energy. Coal has been recognised as the deadliest electricity source on the planet, killing up to 280,000 people per 1000 terawatt hours of electricity generated. The World Health Organisation (WHO) has shown that air pollution kills around 7 million people a year, and both mining, preparation, transport and combustion of coal are extremely polluting.

Recounting the costs of coal mining and use

An independent environmental impact assessment conducted by the Centre for Natural Resource Governance revealed that atmospheric air has been affected by the emissions from the Zimbabwe Power Company (ZPC) furnaces. The continuous emissions will in the long run contribute to acid rain, ozone depletion and global environmental problems that can potentially lead to reduced rainfall and an increase in temperatures. The burning of coal by ZPC emits pollutants. These pollutants include particulate matter (PM) and ground-level ozone (03) - the key ingredients of smog - along with nitrogen oxides (NOx), sulphur oxides (SOx), volatile organic compounds (VOCs) and carbon monoxide (CO). As such the air in Hwange is heavily polluted

The burning of coal in coal powered stations contributes an enormous amount of greenhouse gas emissions, namely carbon dioxide and methane, into the atmosphere.

Water contamination is also caused by coal dust settling on the surface water environment as well as from leaching and toxic drainage of particulates. Contaminated water sources in turn pose a health hazard to people and animals. Acidic water from coal mines produced by the leaching of sulphide minerals present in the coal have a direct impact on drinking water quality, aquatic life and corrosion of equipment and structures. Residents of Dheka village in Hwange have lost cattle after drinking contaminated water in Dheka

Increased salt load and metals from leaching of toxic pollutants destroy wetlands and their ecosystem.

Cumulative effect of mining activities produces high noise levels from blasting, drilling, crushing and movement of vehicles to the detriment of surrounding communities. Learning in schools is disrupted, communication is hampered and socialisation disturbed while vibration often leads to cracking of houses and other buildings in the vicinity.

Inhaling of coal dust and methane gas has several health complications on host communities. It leads to increased asthma, wheezing and cough in children, inhalation of respirable coal dust causes pneumoconiosis or black lung disease (permanent scarring of lung tissues) in coal mine workers and host communities as well as radiation exposure. Coal also contains low levels of uranium, thorium, and other naturally occurring radioactive isotopes whose release into the environment may lead to radioactive contamination. Coal plants emit radiation in the form of radioactive fly ash, which is inhaled and ingested by people and incorporated into crops.

Given these and other environmental impacts of non-renewable energy extractivism and use, coal in particular, it is worthwhile for Zimbabwe to start embracing and tap into other forms of renewable technologies. The shift towards cleaner and greener energy will protect the agro-based economy in the face of crippling effects of climate change. The use of renewable energy is low (less than 1%). The major renewable energy resource currently used is hydropower from Kariba. There are other known sites where electricity could be produced on the Zambezi River Basin such as the Batoka, Mupata, Katambora and Devil's gorges as well as on perennial rivers in the eastern highlands and the large to medium scale irrigation dams across the country which lie unutilised. Being a country with plenty of sunshine hours, Zimbabwe should seriously invest in solar energy technology and reduce the demand for fossil powered energy. The current ambitious investment drive should not overlook the glaring environment impacts of extractivism and its bearing on climate change and human welfare.

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people enjoyed a life of abulidance which was punctuated now and again by hardships associated with crop failure on account of locust infestation or drought or intrusion of warlike interlopers. The idyll of this predictable and rustic life was rudely shattered by the arrival of the settler colonialists, who grabbed the best land and relegated the indigenous people to marginal and peripheral lands characterised by poor soils and low rainfall patterns.

The colonials also started mining and industrial enterprises which required manpower. Thus began the inception of the working classes and wage earners or proletariat. The farming operations of the settlers required workers. This process and other endeavours in the service industries formed the basis of the diversification of the Zimbabwean economy and gave impetus to the urbanisation process.

I think there is merit in adopting a landholding policy which says "use it or lose it". Also charging a modest land rental could be helpful in weeding out time-wasters who will voluntarily give up the land because of cost considerations. But I guess it is a forlorn hope to expect bureaucrats and policymakers to do anything about the underutilisation of the land because they are conflicted. They are the ones guilty of under-utilising the land.

RODERT Mugabe, the then president, saw his political fortunes waning after he lost the referendum on the adoption of a new constitution. In a desperate attempt to ward off imperiding political oblivion, Mugabe initiated the land redistribution exercise. Because it was a knee jerk response to what he perceived to be his loss of political support, the exercise was unplanned, illthought out and carried out in a haphazard manner. The result was chaos on the farms. Marauding gangs were unleashed upon unsuspecting black (non-Zanu) and white farmers alike. Valuable farming equipment and infrastructure was vandalised or looted. Some farmers lost not only land and property but also life and limb in the process.

The well-connected got the best farms

Farmland was distributed to many, including the wellconnected to kith and kin, acolytes and hangers-on like confetti showered at a wedding, of the political establishment. The power elite got the lion's share of the farms and more often than not they got multiple farms in flagrant violation of their own laws. No regard was paid to whether the new beneficiaries had the knowledge or the wherewithal to undertake farming operations. It was a free for all. While this gambit did pay dividends for Mugabe in that he was able to purchase another 17 more years' tenure at state house, the cost to the country was lackluster and extensive.

It is common cause that there is a strong case for land redistribution. But the manner, motive and way Mugabe carried out this exercise left a lot to be desired. There was no need for lawlessness, maycountries took in the farmers Mugabe was chasing away. Shamelessly, Zimbabwe went on to buy maize from these very same farmers chased away, in the process expending scarce foreign currency and paying higher prices than would have been paid had the farmers remained in Zimbabwe

Zimbabwe needs to move on and reclaim its place as a breadbasket of Southern Africa. The major reason why Zimbabwe does not have a currency of its own today is because there is no production in the country. For the country to have its own currency it needs to produce both for domestic consumption and for export.

Agriculture remains the

low hanging fruit in terms of resuscitating production in the country. Zimbabwe's land is in abundance, so is the water, knowhow, human resources and so on. Farmland is a finite resource, which should be allocated carefully so that we can reap optimal benefits from its usage. Ordinarily market forces take care of resource allocation but given our circumstances where title deeds are no longer respected a deliberate policy to allocate land optimally should be followed. The land policy should be well thought out and enunciated so that there is transparency and predictability.

To my mind command agriculture is a short-term knee jerk administrative mechanism which needs to be replaced by a comprehensive, well thought out agricultural policy which takes into account matters such as, the land tenure system, training / extension services, financing, marketing etc.

In most places around Zim-

ble. The electorate has up this challenge to for powers that be to lister the honourable thing.

In recent years I h ticed that more and mo land in the communal not being utilised. Wh be the logical expla Could this be due to tored rural urban mi We hear some vocal talking about land sl but at the same time land lying fallow in nal lands. Some peo have land in the co lands which they are lising clamour the mo land hunger. Their sl strident voices rev across the land. Sly serving politicians pa tion and cry out in un the people have spoke people are also at the f in invading former cial farmlands and own unused land in munal lands.

Some might argue t munal land is margi and therefore und There is no useless dies and gentlemen. is valuable if you l know-how and imag Our fathers used to land fruitfully and to send us to school ceeds from that land there is need to int these contradictions cogent and comprehe ricultural policy can ioned for the benefit of

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