

EXTRACTIVES
AND
SUSTAINABLE DEVELOPMENT II:
*ALTERNATIVES TO THE
EXPLOITATION OF EXTRACTIVES*



Friedrich-Ebert-Stiftung
Zimbabwe Office
6 Ross Avenue
Belgravia
Harare
Zimbabwe

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FOREWORD

It is widely asserted that the vast endowment of resources in Zimbabwe offers opportunity for the future, if utilised sustainably. One of the country's critical sectors in the economy is the extractive sector. At the same time industrial investment in many countries in Africa – and this is the case for Zimbabwe as well - has not resulted in social and economic development and has at times been mired in scandal. There is an emerging consensus that the extractive sectors are externally driven and continue to benefit multinational companies and a few national elites at the expense of local communities and citizens in general.

The exploitation of high-value natural resources has often been cited as a key factor in triggering, escalating or sustaining violent conflicts around the globe. Communities often suffer from displacement, pollution, and a lack of meaningful voice in decisions about whether or not to extract.

There has been a growing recognition in Zimbabwe that the current economic model governing the extractive sectors has failed to promote sustainable and just economic development. Government has concurred in its current economic blue print, the Zimbabwe Agenda for Sustainable Socio-economic Transformation ZIMASSET, the need to step up efforts for sustainable development and environmental protection.

Although economic benefits from the increased activity of extractive industries are often seen as an indicator of growth, the downside of this is its impact on the eco-system and human society.

The issue of decent jobs in the sector has also become topical as poor working conditions and lack of investment in proper skills management indicates exploitation not only of natural resources but of human resources as well. These aspects are underestimated and largely ignored by mainstream economic and political debates centring around conventional extractivism-models based on high levels of FDI. Environmental and social impacts are thus seen as sacrifices for greater benefits.

There is, a greater need to come up with alternative economic models that depart from the corporate extractivism to ensure that social and economic rights are progressively realised through the exploitation of natural resources. It is vital to advocate for these models to raise awareness on illicit financial outflows, human rights abuses and environmental disaster and to foster the debate towards sustainable investment and tax policies. The authors in this publication discuss the political economy of the exploitative extractives industry in Zimbabwe and interrogate the social impact of current modes of extraction and proffer alternatives as they make a contribution to the call for Sustainable Development.

With this publication *Extractives and Sustainable Development II: Alternatives to Extractives Exploitation* and the introductory publication *Extractives and Sustainable Development I: Minerals, Oil & Gas Sectors in Zimbabwe*, FES hopes to contribute to a constructive public debate on the way to a sustainable and thriving economy in Zimbabwe.

Brigitte Juchems
Resident Representative
Friedrich-Ebert-Stiftung Zimbabwe
Harare, December 2016

1. EXTRACTIVISM AND SUSTAINABLE ALTERNATIVE MODELS OF ECONOMIC DEVELOPMENT

Naome Chakanya

INTRODUCTION

Resource extraction is defined as the appropriation of huge volumes of natural resources or their intensive exploitation, most of them exported as raw materials to global markets (Gudynas, 2013). Historically, extractivism has been focused on minerals, oil and gas, but more recently it has expanded to include water, forest products, newer forms of energy such as solar and hydro and industrial forms of agriculture, which grab land and extract vast quantities of water in the production process.

Various studies and literature have widely acknowledged resources extraction as a key component of economic growth and development for resource-rich countries. Financial institutions such as the World Bank and the International Monetary Fund (IMF) have encouraged extractivism as the major engine for fuelling economic growth. Undoubtedly, their model of extractivism has been underpinned by neo-liberal orthodoxies and sutured by global capitalism, which has resulted in the enclave model of the extractive sectors, where extractivism has expanded, but with few linkages to the local economy. This model has been questioned ever since the independences in the 1960s and 70s of some African countries and the failure of the financial reforms of the '80s and '90s to break it.

In fact, the high level of concentration and specialisation in the export of raw commodities from the enclave extractive sectors has exposed several African countries to the whims of commodity price fluctuation and left them vulnerable to price shocks. The latter have negatively affected export revenues, balances of payments, public finances, inflation and exchange rates and augments countries' inability to manage their economies (Pedro, unpublished). Further to the commonly known 'Dutch Disease'¹ and the 'resource curse', he shows that the problem is compounded when the commodities are not beneficiated locally, if value addition is insignificant, local content minimal and sector forms are an enclave locked in global value chains with limited linkages with the local economy. As a result, such countries lose out on the potential multiplier effects of job creation, poverty reduction and effective sustainable development.

Given the adverse effects of the traditional model of extractivism and its continued inability to reduce poverty in resource-rich countries, Nnimo Bassey (2014) argues that extraction is really a euphemism for 'resource amputation' and that if it continues to satisfy international corporations' and financial institutions' need for super-profits at the expense of the ordinary citizenry, then, it is better to 'leave the oil in the soil, the coal in the hole and the tar sands in the land!'

By contrast, development practitioners have reiterated that 'developmental' extractivism is about moving from enclaves to well-linked clusters and diversified economies by establishing resource-processing industries that could provide the feedstock for manufacturing and industrialisation (downstream value addition).

The debates on how extractivism can lead to sustainable development have led some in Latin America to review the various types of extractivism. As a result, there has been emergence of 'new' types of extractivism by the political left/socialists. They have coined the terms 'neo-extractivism' and 'post-extractivism', with the later gaining momentum in the sustainable development framework.

Clearly, this calls for a search for the key ingredients of the post-extractivist model of development necessary to translate resource abundance and extractivism into wealth-creation and the equitable sharing of benefits anchored on pro-poor policies, and done in ways that promote the realisation of human rights and sustainable development. In any case, the need to search for sustainable and alternative models of economic development with respect to extractives is long overdue, especially in Zimbabwe, where the use of natural resources has resulted in leakages of resource revenue, corruption, environmental degradation, social exclusion, militarisation and their politicisation.

This paper analyses existing literature on the historical developments in the extractive sectors and the relationship between natural resources and sustainable development. It further interrogates the role of natural resources sectors in national development. In addition, it proposes alternative models of extractivism that are anchored on sustainable development. Lessons from models of extractivism from other resource-rich countries and how to leverage natural resources for sustainable development are also explored.

1. THE DISCOURSE ON EXTRACTIVISM

Minerals, oil and gas have long dominated the extractive sectors and the discourse thereon. More recently, though, extractivism has expanded into sectors including forestry and agriculture, fishery and water.

1.1 The Historical Evolution of the Extractivism and the Development Path

The majority of today's wealthy nations started their developmental path by accessing natural resources –minerals, land and forests – abroad, mostly in Africa (UNRISD, 2012). During the colonial era, Europe's exploitation of minerals in Africa fuelled its economic growth. Extractive economic models were based on Europe's economic needs, which led to the industrial revolution. Ultimately, such extraction guaranteed colonials the raw materials, cheap energy and food that would help them to develop and to accumulate capital. Unfortunately for mainland Africa, and Zimbabwe in particular, this had devastating social, economic and environmental impacts, much of which continues to be felt by local communities.

Globalisation and growing global demand for Africa's natural resources has reinforced the colonial vision of the continent as the producer and exporter of raw materials. The African Mining Vision adopted by the African Union Commission of 2009 underscored the fact that 'these historical deficiencies inherent in Africa's mining industry made the industry a supplier of strategic minerals to industrialised countries with inadequate returns to the continent and an "enclave" industry with no direct linkages to Africa's economy (TWN, 2012). Regrettably, in this post-independence era, African governments have failed to leverage natural capital to spearhead and underpin natural resource-based industrialisation, poverty reduction and sustainable development. In most cases, the abundance of natural resources has worsened the lives of certain population groups.

Moreover, climate change and the global energy crisis has seen extractivism expand. This is due to the fact that countries cannot meet their own energy demands. There has been continued

overconsumption of energy in many of the countries in the global North, with the United States leading, and by the emerging consumption and energy needs of the rapidly growing middle classes in parts of the global South. The latter include Brazil, Russia, India, China and South Africa (BRICS group), Mexico, Indonesia and Turkey. Consequently, this energy 'crisis' has intensified the search for other forms of cheap existing and new energy sources (solar, biofuel, hydro, among others), both of which, in varying degrees, have resulted in extremely negative social and environmental impacts. Today, then, extractivism is becoming dominant in the sector of renewable energy.

1.2 More Recent Trends in Extractivism: Emerging Players

More recently, emerging countries such as China, Russia, Brazil and India have required a considerable amount of additional raw material to further develop their economies. This has further entrenched the extractive focus on resource-rich countries in Africa and Latin America.

China in particular has emerged as the face of new and more intense competition for Africa's resources, and Zimbabwe has not been spared. With its remarkable growing economy, it has identified Africa as the future engine of its economic growth. The relationship between China and Africa – and more so Zimbabwe – graduated from political solidarity (especially during the struggle for independence) to an economic relationship, especially following the start of the new millennium. Today, China is seen as the 'new coloniser' of Africa, displacing the traditional Western and European economic relations. This was reiterated by the African Labour Research Network (ALRN):

Africa sells materials to China and China sells manufactured products to Africa. This is a dangerous equation that reproduces Africa's old relationship with colonial powers. (2009: 235)

The Government of Zimbabwe's relationship with China was strengthened by the crafting of the 'Look East' policy in 2002, which came in the wake of the souring political and economic relations with the West after the 'Fast Track Land Reform Programme' of 2000. ALRN (Ibid.: 238) further noted that an article in *The Herald* of 24 April 2007 read:

Blessed with a sound natural resource base and an abundance of tobacco, textiles and cotton that China is in dire need of; along with an educated human resource base; Zimbabwe has what it takes to justify the faith China has bestowed.... To this end, we encourage the Government to give incentives to encourage more investment from the East as Zimbabwe has the potential to become the hub of Chinese investment in Sub-Saharan Africa, if not the whole continent.

Such policies and public statements by the government opened the space for the scramble for natural resources, for China in mining and agriculture especially. Whilst China's long-term strategy, economic ambitions and intentions in Africa are exceptionally clear in its national policies (accessing key raw materials, markets and a greater role in international politics), those of many African countries, including Zimbabwe, sadly remain unclear and weak (SARW, 2012). Zimbabwe's engagement with China is founded on it being a provider of raw materials, with little or no sustainable transfer of skills and technology, social responsibility, primary commodity beneficiation (value-addition), job creation for locals or the investment in its national economy.

Thus, rather than Chinese and other foreign investors in extractive sectors providing relief and prospects for Zimbabwe's socioeconomic development, they have further entrenched its dependence on the export of natural commodities, rent-seeking behaviour by the elite and concentrating profit and power in the hands of the few. This has undermined long-term resource-based development, broad-based and inclusive development and the economic development

of its citizenry, those rural communities where the majority of these resources are found in particular. Chinese investments in Zimbabwe's extractive sectors, and other African countries, does not promote a win-win arrangement. It is instead an arrangement where China competes and outwit locals and damages the environment. There is no evidence of it even attempting to support a sustainable mutual socioeconomic development trajectory.

The challenge regarding the country's extractive sectors is for the government to change the status quo, China and other foreign investors such as Russia, moving to one that is more positive and will foster sustainable and alternative models of economic development that are pro-poor, favourable to local employment creation and protective of the environment.

1.3 Salient Features of Extractivism: Political and Socioeconomic Features

Given the challenges discussed above, various economic terms have been developed to describe the political and socioeconomic challenges that extractive sectors place on national economies. They attest to the fact that natural resource revenues, if not managed well, do not fully benefit the economy. They may even be partially lost due to inefficiencies in the system and management, or be harmful to sustainable economic development.

Two terms include:

1. The 'resource curse' (Sachs and Warner, 2001).
2. 'Dutch Disease', which is usually characterised by short periods of increased earnings from resources as a result of heated economic activity. However, this unbalanced domination of one sector tends to damage the economy, having a negative influence on all the others (Sebastian and Crncic, 2012).¹

Other phrases include the so-called 'the paradox of a rich continent yet so poor' and 'the paradox of plenty', both coined by economists and social scientists to denote the possibly hazardous effects of natural resource income. Box 1 (overleaf) summarises salient features and effects of extractivism for most resource-rich countries.

The political dimensions of extractivism

According to UNRISD (2012), overdependence on natural resources tends to distort political process and leadership. This is reiterated by Isabelle Ramdoo (2013), who states that extractive sectors, like the issue of food security, are very sensitive and can be a threat to national security and in that it can either make or break a government and it glorifies or dishonours politicians. The common political issues arising from extractivism include:

1. Rent-seeking behaviours, which in turn create, structure and entertain incentives for all those involved in the business (mostly the elite and politicians) whilst neglecting the needs of the poor in the resource-rich communities.
2. Social and environmental conflict.
3. Social unrest and civil conflict, as was seen in Marikana, South Africa, and in Latin America (See Box 2).
4. Political leaders competing for control of resources while ordinary people are excluded from the economic processes.
5. The mismanagement of resources, which has often shaped governments' relationships with their citizens, in essence through the tax-accountability nexus.

Thus, the issues of the rule of law, respect of property rights, legislation, regulatory regimes, democracy, transparency and accountability are all hugely relevant to the search for and development of sustainable models of extractivism.

Box 1 – A summary of the salient features and political and socioeconomic effects of extractivism in resource-rich countries

1. Multinational companies promise new jobs and development as an outcome of extractivism. This is, however, entirely dependent on the politics of the country concerned. In most cases, no wealth trickles down to the poor, and in some cases poverty and inequality rises as a result of related conflict.
2. Extractivism is characterised by collusion between state and corporations, with major public finance investments, little or no transparency and corruption. This, when linked with state intervention and poor regulatory frameworks, results in major tax losses and capital flight in countries affected by extractivism.
3. Extractivism tends to have no positive impact on the region from where the raw materials are extracted.
4. Extractivism has frequently resulted in the displacement of local people. Moreover, their land is grabbed for large mining projects, oil extraction and mega-agricultural activities, etc. Worse, the local population seldom has any voice when it comes to decision-making processes.
5. The extraction of raw materials consumes enormous quantities of water and causes water pollution. Moreover, water is often scarce in the regions where extractivism takes place. One result is a decreasing groundwater level and more water scarcity. Whilst the health consequences for the local population are obvious, it can lead to conflict within the community.
6. Extractivism destroys natural resources and, in some cases, entire eco-systems upon which the livelihoods and reproduction of rural indigenous populations depend.
7. Extractivism results in the emission of additional greenhouse gases, which will have a negative impact on the local and global climate.
8. In extractive and linked industries, workers earn low wages and often have to work in dangerous conditions. For instance, they can be exposed to toxic chemicals, which will have a negative impact on their health.
9. For centuries, women as a source of unpaid labour have been central to the accumulation strategy of mining and other extractives corporations. The migrant labour system also maximises profits by inhibiting family migration and fixes responsibility for the social reproduction of the workforce and the next generation of workers firmly in the rural areas.
10. Extractivism has seen the rise of militarisation (where the state and military control resources or the physical locations where the resources are found), which represses communities.

Source: Ripplinger, April 2013

Box 2 – Extractivism and conflict in Latin America

The exploitation of minerals and hydrocarbons, and other types of extractive activities such as hydroelectricity, forestry and agriculture, is a permanent cause of social and environmental conflict in Latin America. The Observatory of Mining Conflicts in Latin America alone has identified at least 210 conflicts caused by 220 mining projects affecting 315 communities. Mexico takes the lead with 37 cases, followed closely by Peru and Chile with 36 cases each, Argentina with 26 and Colombia with 13. It is also important to mention the situation of countries such as Honduras, for though it has fewer conflicts (in this case), the levels of violence, harassment and criminalisation are high and human rights activists run the severe risk of being killed (LOPEZ, 2016).

1.4 Key Actors in Extractivism

The major actors in extractivism include the government, extractive companies, communities, civil society, academia, development partners and multilateral organisations. The UNDP lists each of their perceived roles, and some of these are listed below.

Role of the government:

- To provide legal, regulatory and policy frameworks aligned with national sustainable development plans
- To monitor and enforce regulations
- To manage and invest revenues sustainably
- To facilitate inclusion, dialogue and collaborative processes
- To ensure transparency, accountability and information.

Role of the extractive companies:

- To align core business with national and local developmental plans
- To make social investments
- To comply with the law
- To contribute to public policy and investment by paying tax.

Role of communities, civil society and academia:

- To monitor transparency
- To develop capacity
- To conduct research and gather information, data and statistics.

Role of development partners and multilateral organisations:

- To develop capacity
- To provide expertise
- To facilitate cross-country exchange and learning
- The role of extractivism as a tool for sustainable development

2. THE DISCOURSE ON EXTRACTIVISM

2.1 Conceptual Issues

Sustainable development (and/or sustainable human development) has been defined as development that meets the needs of the present generation without compromising the ability of future generations to meet theirs (LEDRIZ, 2011). Growth is a means and not an end in itself – it should translate to human development that is characterised by a reduction in poverty and inequality, greater access to productive assets, productive employment and the enjoyment of long, healthy and creative lives, environmental regeneration, gender equality and social integration. The UN first definition of sustainable development encompassed three dimensions of sustainability: economic, social and environmental (Figure 1, right). In other words, sustainable human development should be pro-people, pro-jobs and pro-nature.

The UN later incorporated a fourth critical dimension – political sustainability (Figure 2, right). Political sustainability points to the issue of good governance, that is, involving people's participation (inclusive and broad-based participation) in decision-making and its functional institutions. The United Nations Industrial Development Organisation (UNIDO) 2013 Industrial Development Report underscored the importance of strong institutions that can collect and manage revenues effectively as a necessary condition for structural transformation.

In 2001, the IMF devised a development strategy for extractive sectors that had three key components: a time-path of public investments suited to the national conditions, economic

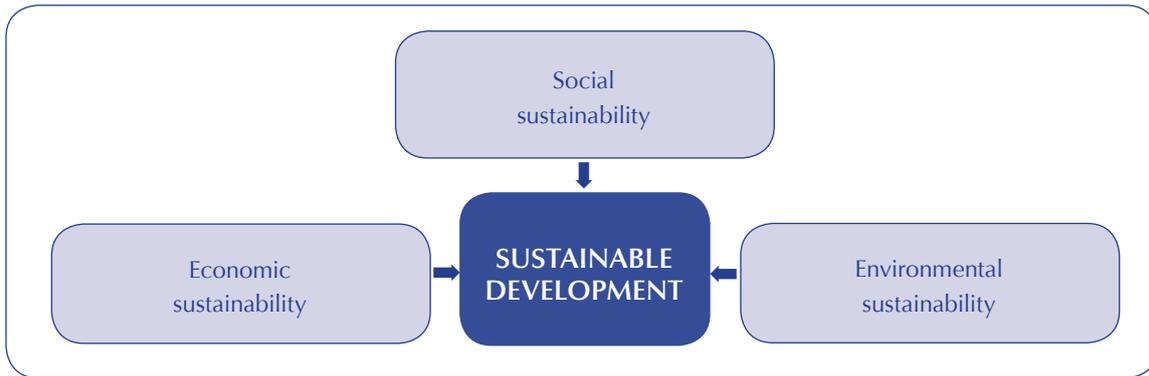


Figure 1: The three traditional dimensions of sustainable development

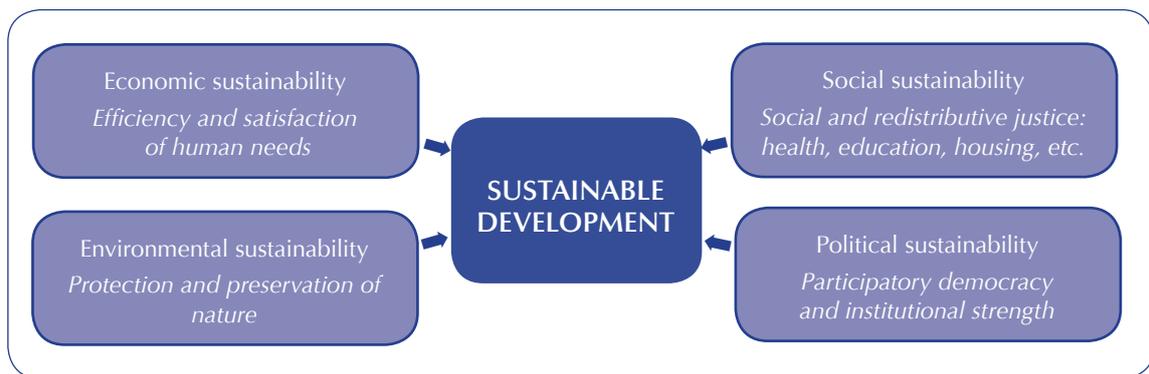


Figure 2: Reformed definition of sustainable development

policy frameworks to promote the private sector and a political framework to ensure the rule of law and macroeconomic stability. Whilst this was a noble strategy – it clearly integrates the three dimensions of sustainable development – it failed to clearly articulate where in the framework environmental issues should be placed.

It is in light of this revised definition of sustainable development that extractivism should now be situated and articulated. In this way, extractive sectors can fulfil the repeated promises of being a potential source of socioeconomic development in Africa, Zimbabwe in particular. Alternative models of economic development should be built upon and fulfil the four dimensions of sustainable development, as illustrated in Figure 2.

2.2 The potential role of extractives in sustainable development

Maria Huber (2014) noted that if properly managed, extractive sectors can contribute to sustainable development by pursuing the following routes:

1. Improving living standards (especially in resource-based communities) by financing higher levels of public and private consumption. Resource revenues can be used to finance cash transfers and requisite sectoral subsidies.
2. Addressing the lack of fiscal space needed to expand necessary public benefits such as education, healthcare and infrastructure, all which contribute to sustainable livelihoods and expand the economic opportunities of the host communities.
3. Growing economic linkages by procuring goods and services locally, thereby stimulating employment creation.
4. Working to ensure social and community development, especially in resource-rich communities.

As natural resource reserves attract foreign investors, and this investment usually improves the

local economy, the local production of various goods could result in the diversification of the local economy and lead to new job opportunities.

2.3 Types of extractivism and sustainable development

Eduardo Gudynas (2013) distinguishes three types of extractivism: depredating extractivism, cautious extractivism and indispensable extractivism. Depredating extractivism is currently the dominant form of extractivism and is the most damaging as it does not take account of any social and environmental concerns. Cautious extractivism considers certain (and always contested) social and environmental standards, but still serves as the economic basis of a country or region. Indispensable extraction, unlike the other two types, is not a true model of extractivism as it refers to the reduced extraction of resources. Its aim is to extract as little as possible, promoting instead sustainable forms such as recycling, closing material and resource flows, ending pressure on ecosystems and minimising emissions, etc. (Huber, 2014). These three types of extractivism are summarised in Table 1.

| Dominant type of extractivism | Development approach | Explanation |
|------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depredating/predatory extractivism | Conventional extractivism | No consideration of social and environmental impacts, limited influence of government. |
| Cautious/moderate extractivism | Neo-extractivism | Nationalism (state increases control of natural resources) and a consideration of environmental and social problems. However, extractivism remains the dominant industry in the economic system and involves sacrifices in other areas. |
| Indispensable/basic extractivism | Post-extractivism | Natural resource extraction is limited, alternatives are introduced and stricter regulations are implemented. |

Table 1: Types of extractivism

Source: Huber, 2014

While different resource-rich countries are in different transition phases of extractivism, Africa is dominated solely by conventional extractivism. This has resulted in varying degrees of social and environmental impacts in resource-rich countries globally.

The post-extractivism model of development for a transition that not only values the resource but also values nature, beneficiation, the renegotiating of contracts and the closure of tax loopholes, the growth of public shareholding, non-renewable natural resources, cultural beliefs and practices, human well-being and the protection of the commons as a basis for social reproduction (International Alliance on Natural Resources in Africa (IANRA), 2016). The model also proposes the creation of employment alternatives at local and regional level, embracing and strengthening existing land-based livelihoods and developing new income sources and forms of employment that are not solely limited to extractivist industries. Commitments to safeguarding food sovereignty and local food systems should be paramount in a transition model.

3 THE ROLE OF EXTRACTIVES IN ZIMBABWE'S NATIONAL DEVELOPMENT

The extractive industries in Zimbabwe have had varying contributions to different sectors of the population and economy

3.1 The Contribution of Extractives to Gross Domestic Product (GDP)

Agriculture and mining have been immense contributors to Zimbabwe's GDP. Between 1980 and 1990, agriculture contributed 16.2% and mining 4.3% (LEDRIZ, 2012). Between 1991 and 1996, the agriculture and mining sectors contributed 14% and 4%, respectively. Although the agricultural sector has suffered major setbacks, especially between 2000 and 2008 as a result of the disruption caused by the Fast-Track Land Reform Programme and severe droughts, it remains a major contributor. Between 2000 and 2007 its average was 16%. Table 2 shows the sectoral contributions to GDP between 2009 and 2014.

| Sector | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|
| Agriculture, hunting and fishing | 14.7 | 14.5 | 13.2 | 13.1 | 12.0 | 14.0 |
| Mining and quarrying | 11.4 | 10.1 | 10.9 | 10.1 | 10.4 | 9.5 |
| Manufacturing | 15.1 | 13.9 | 14.0 | 13.5 | 12.8 | 11.9 |
| Electricity and water | 3.9 | 4.5 | 4.7 | 4.3 | 4.3 | 4.5 |
| Distribution, hotels and restaurants | 17.1 | 17.3 | 15.1 | 15.3 | 16.7 | 15.8 |
| Transport and communication | 15.3 | 14.3 | 14.3 | 12.7 | 12.1 | 12.1 |
| Public administration | 2.6 | 3.7 | 3.5 | 3.6 | 3.5 | 3.6 |
| Education | 3.0 | 3.8 | 5.6 | 6.8 | 7.7 | 8.4 |
| Health | 0.5 | 1.3 | 1.2 | 1.1 | 1.1 | 1.0 |
| Other services | 4.8 | 4.9 | 4.9 | 4.0 | 3.5 | 3.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table 2: The sectoral contributions to GDP between 2009 and 2014

Source: RBZ, 2016 (Calculated from GDP at current prices by industry, US\$ million)

Table 2 indicates that two of the main extractive sectors were among the top five contributors to GDP. Between 2009 and 2014, agriculture ranked second and mining and quarrying sector fifth, whilst the electricity and water ranked seventh. Figure 3 (overleaf) shows the cumulative sectoral contribution to GDP for the same period. The distribution sector ranked highest with 16.1%, followed by agriculture (13.5%), manufacturing (13.3%), transport and communication (13.2%) and mining (10.3%).

3.2 Extractives sectors contribution to export earnings

Figure 4 (overleaf) indicates the contributions of selected sectors to overall exports from 1993 to 2012. It shows that by the turn of the millennium agriculture was the highest contributor to export earnings at 76%, followed by services (10%) and then mining (8%). During the crisis

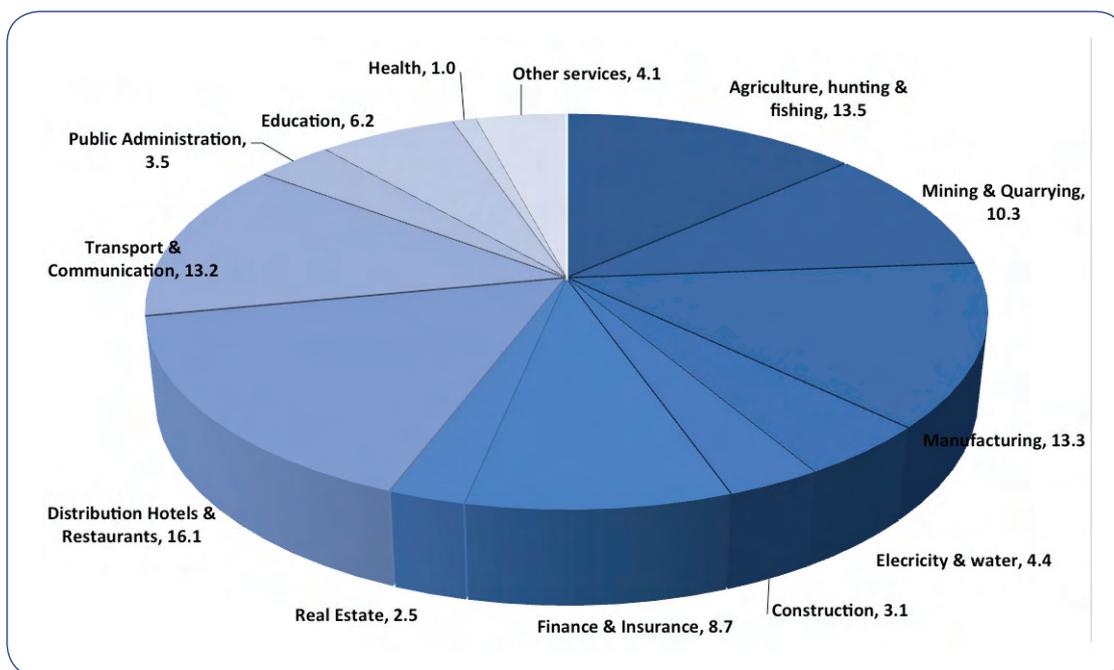


Figure 3: 2009 to 2014 – Cumulative sectoral contribution to GDP (%)

Source: RBZ, 2016 (Calculated from GDP at current prices by industry, US\$ million)

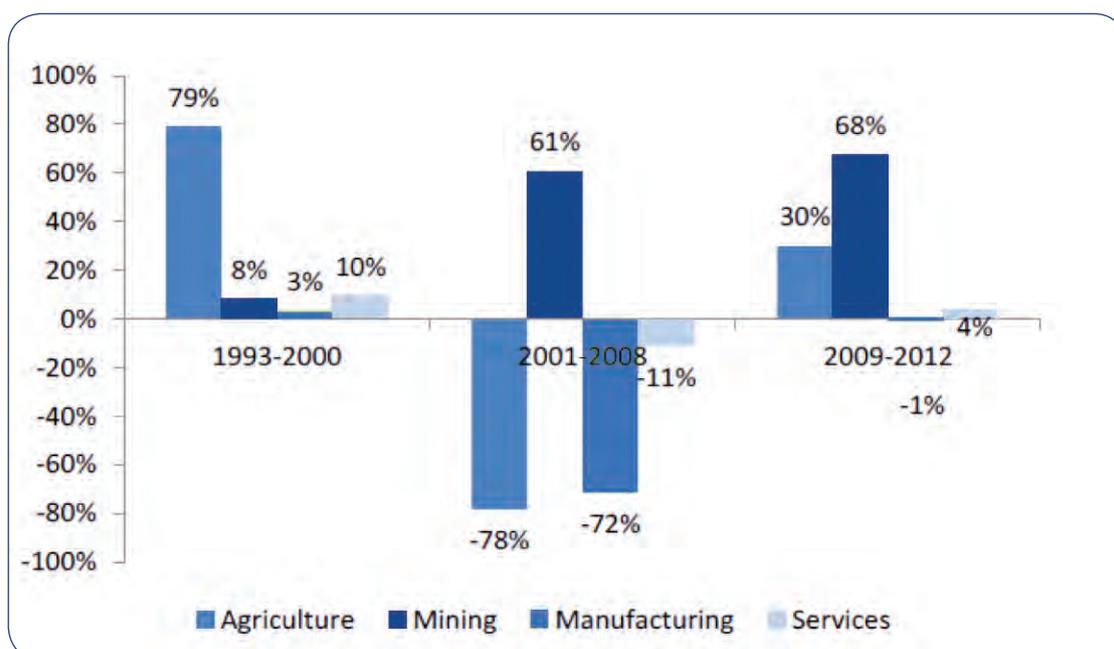


Figure 4: Sectoral contribution to exports for the period 1993–2012

Source: LEDRIZ database, 2014

period of 2001-08, mining was the most outstanding contributor (61%) whilst agriculture and manufacturing dropped drastically, by 78% and 72%, respectively. This was mainly attributed to the commodity price boom during that period. Mining emerged as the only sector that sustained the economy in terms of exports, a situation which was highly unsustainable. Between 2009 and 2012, the sector remained the highest earner of export revenue. The agriculture sector also picked up positively, rising to 30%.

Table 3: Employment by sector

| Sector | 2011 | 2014 |
|----------------------------------------------------------------------|------------|------------|
| Agriculture, forestry and fishing | 65.8 | 67.2 |
| Mining and quarrying | 2 | 1.5 |
| Manufacturing | 5 | 4 |
| Electricity, gas, steam and air conditioning supply | 0.2 | 0.1 |
| Water supply; sewerage, waste management and remediation activities | 0.1 | 0.1 |
| Construction | 1.9 | 1.6 |
| Wholesale and retail trade; repair of motor vehicles and motorcycles | 9.5 | 10.9 |
| Transportation and storage | 1.7 | 1.7 |
| Accommodation and food service activities | 0.6 | 0.5 |
| Information and communication | 0.3 | 0.4 |
| Financial and insurance activities | 0.4 | 0.3 |
| Real estate activities | 0.1 | 0.4 |
| Professional, scientific and technical activities | 0.4 | 0.4 |
| Administrative and support service activities | 1.6 | 0.9 |
| Public administration and defence; compulsory social security | 1.3 | 1.6 |
| Education | 3.1 | 2.9 |
| Human health and social work activities | 1.2 | 0.8 |
| Arts, entertainment and recreation | 0.4 | 0.5 |
| Other service activities | 2.9 | 1.6 |
| Activities of households as employers | 1.5 | 2.6 |
| Activities of extraterritorial organisations and bodies | 0.1 | 0.0 |
| Not stated | 0.1 | 0.0 |
| <i>Total percentage</i> | <i>100</i> | <i>100</i> |
| Total number | 5,431,026 | 6,265,869 |

Source: 2011 and 2014 Labour Force Survey, ZIMSTAT

Overall, the post-2009 economic rebound was anchored on mining and agriculture, although their ranking switched. The Zimbabwe Interim-Poverty Reduction Strategy Paper (August 2016) confirm that the mining and agriculture constitute a large proportion of Zimbabwe's total exports – 83% in 2014 (mining at 55.6% and agriculture at 27.6%). This clearly indicates the importance of extractive sectors in the generation of export revenue, and the volatility of an economy that only has two 'cylinders' firing.

3.3 The Contribution of Extractives to Employment

Table 3 shows the sectoral contribution to overall employment for 2011 and 2014. The share of employment in the agricultural sector has increased, rising from 65.8% in 2011 by 67.2% in 2014. That of mining declined from 2% 2011 to 1.5% by 2014. However, its small contribution

Table 4: Sectoral percentage contribution of total approved investments

| Sector | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------|-------|-------|-------|-------|-------|-------|-------|
| Agriculture | 0.2 | 0.4 | 6.5 | 2.3 | 0.4 | 0.9 | 0.5 |
| Construction | 0.2 | 49.7 | 1.8 | 12.9 | 18.9 | 2.6 | 2.6 |
| Manufacturing | 3.1 | 10.2 | 11.4 | 6.2 | 23.0 | 56.9 | 69.8 |
| Mining | 93.3 | 35.8 | 54.7 | 74.0 | 31.3 | 14.0 | 17.6 |
| Services | 1.4 | 3.5 | 1.9 | 4.4 | 25.1 | 25.0 | 9.5 |
| Tourism | 1.6 | 0.1 | 23.7 | 0.1 | 0.5 | 0.3 | 0.0 |
| Transport | 0.0 | 0.3 | 0.0 | 0.0 | 0.8 | 0.2 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Zimbabwe Investment Authority Annual Reports, 2009–2015

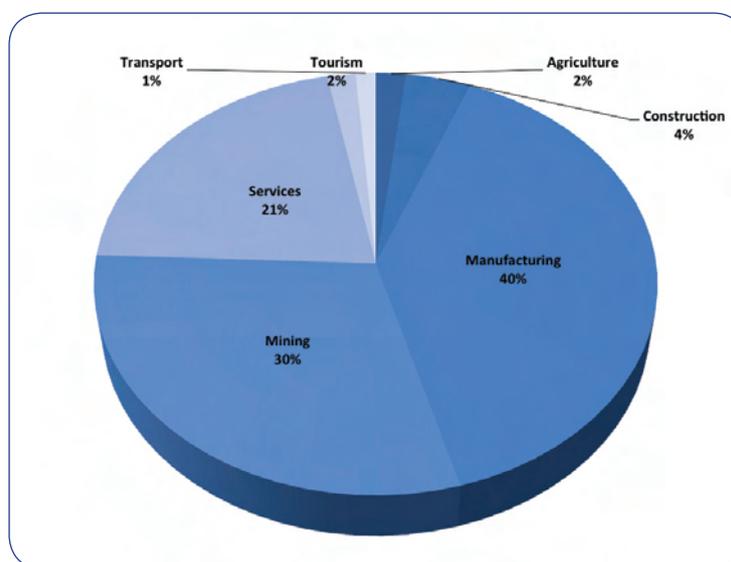


Figure 5: The sectoral contribution ZIA-approved companies (cumulative totals), 2009–2015

Source: ZIA Annual Reports, 2009 to 2015

to overall employment reflects the sector’s capital-intensive nature. The share of water, sewage and related activities remained unchanged at 0.1%.

3.4 Extractive Sectors and Investments

Table 4 indicates the percentage contribution of each sector to those investments approved by the Zimbabwe Investment Authority (ZIA). ZIA’s mandate is to promote, facilitate and co-ordinate both FDI and local investment in Zimbabwe. It clearly shows that the mining sector ranked first in terms of attraction of investments between 2009 and 2013 before being overtaken by the manufacturing sector in 2014 and 2015. This clearly shows that the role of the mining extractive sector in investment attraction. Agriculture sector was amongst the lowest in terms of investment attraction mainly due to the political uncertainties related to the sector. Figure 5 shows the sectoral percentage contribution of the number of approved companies. It indicates whilst the mining sector contributed the highest in terms of total investments in value, it ranked second in terms of the number of companies that opened between 2009 and 2015.

3.5 Extractives and Workers' Welfare

Extractive industries have an impact on the life of the people who work there

3.5.1 Wages and salaries

The contribution of extractives sectors to workers' welfare can be analysed by assessing the wages and benefits that they receive against the Poverty Datum Line (PDL) and the Food Poverty Line (FPL).

Figure 6 compares minimum wages in the agriculture and mining sectors to PDL and FPL and clearly indicates that these workers suffer crushing poverty. The paradox is that their overall contribution to the national economy is immense. Being capital-intensive and needing only to employ unskilled or semi-skilled labour, workers in the mining sector should be better remunerated. Agriculture is the biggest employing sector, but it is also one of the lowest paying.

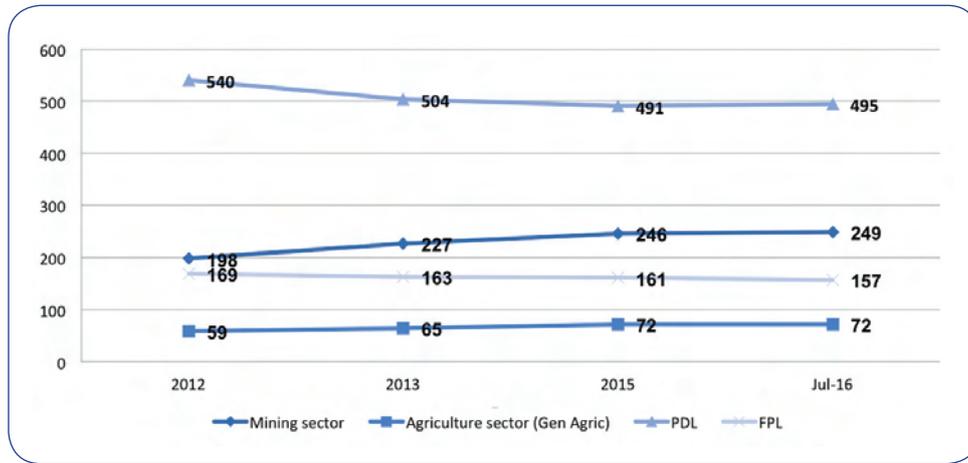


Figure 6: Trends in minimum wages, PDL and FPL (US\$)

Source: ZIMSTAT and sector unions

Table 5: Classification of households by income

| Household Description | Classification |
|-----------------------------------------------------------------------------|------------------------------------------------|
| Households whose expenditure per capita cannot meet basic food requirements | Very poor |
| Households whose monthly expenditure per capita is equal to the FPL | Poor |
| Households monthly expenditure per capita is equal or above the PDL | Non-poor |
| Households whose incomes are below the FPL | Totally poor (the very poor and poor combined) |

Minimum wages in the agriculture sector are below those of the FPL and PDL, rendering them 'totally poor' (Table 5). In the mining sector, the minimum wage has risen above the FPL but not the PDL, rendering the mining sector workers 'poor'. Thus, the economic benefits from the two sectors has not translated to better lives for the workers. As mine-workers have not benefited from the growth dividend of the mining sector, there is an urgent need to adjust and maintain the minimum wage (and for agricultural workers) so that they at least fall in line with the PDL and go towards ensuring decent living for workers and their families.

3.5.2 General working conditions

For the agriculture sector, the increasing rate of casualisation is threatening the achievement of decent working conditions for agriculture sector workers. Casualisation is associated with job insecurity, low income, lack of social security and other terminal benefits after the expiry of contracts or employment, inadequate occupational safety and health (OSH) standards and lack of voice representation. Due to the militarisation of the mining sector, workers now face various forms of victimisation, and some reported take time to be resolved by the labour court, at times up to four years. In most diamonds mines, workers are employed on a contract basis, which deprives them of job security, social security and voice representation (Zimbabwe Diamonds and Allied Workers Union, 2016). The conditions of service for workers in the agriculture and mining sectors are therefore of serious concern.

3.6. Overall Challenges with Extractive Sectors

Whilst the role of extractive sectors in terms of export earnings cannot be underscored, they do have unique challenges. These are presented – in the context of Zimbabwe – below.

3.6.1 Predatory type of extractivism

As discussed earlier in Table 1, there are three types of extractivism models, all of which exhibit different approaches to development. The two types that apply to the Zimbabwean context are conventional (predatory) extractivism and neo-extractivism (cautious/moderate extractivism). The predatory model is so called in the sense that extractive industries continue operations with no little or no consideration of the social, economic and environmental impacts, which tend to be devastating and leave host communities reeling long afterwards. (This is especially true in the case of Chinese and Russian mining companies.) In Zimbabwe, cautious extractivism is evidenced mostly in the diamond sector, where the government has at least a 50% stake in all the six joint ventures it is operating (Muyambwa, 2016). Both types of extractivism have failed to deliver a sustainable development approach. However, transitioning towards the post-extractivism model will limit the problems of the resource curse and offer a route to sustainable resource management.

3.6.2 Lack of broad-based and socially inclusive extractive sectors

Extractive sectors in Zimbabwe have failed to translate its resource endowment into broad-based and socially inclusive development. Whilst the country celebrates the positive contribution of extractive sectors to the fiscus, there are negatives – environmental degradation, social exclusion, militarisation and politicisation. These mixed results are stated in national economic blueprints and various studies by the Zimbabwe Environmental Law Association (ZELA) that show that while the country boasts of abundance of natural resources (mining, good weather, forests and wildlife, for example) and enormous export earnings from these, they have not been managed responsibly in a way that promotes broad-based sustainable development. In fact, the mining sector has maintained its enclave nature of the colonial period.

3.6.3 Corruption and mismanagement of resource revenues

Resource revenues have not been effectively used to address the lack of fiscal space needed to expand necessary public benefits such as education, healthcare, and infrastructure, especially in communities where these resources are available. This was evidenced in April 2016 by the shocking public announcement by the President that revenue totalling US\$15 billion from diamonds from Marange could not be accounted for. This is a cause of great national concern given that the country is struggling with fiscal space and massive revenue leakages.

In addition, rent-seeking and corruption behaviours, mostly by the elite and politicians, have increased, thus creating structure and incentives for all those involved, fully at the expense of the poor in the resource-rich communities. When political leaders compete for control of resources ordinary people are excluded from the economic processes. A study by Transparency International Zimbabwe in 2003 concluded that:

There is no denying that the power elites in Zimbabwe are an obstacle to socioeconomic development by engaging in mineral related corruption. Their abuse of power in the mining sector has prejudiced the country of revenues that are supposed to ensure that schools, hospitals and clinics and roads are maintained in a function state for the benefit of the poor.

The crucial question, one that has existed for a long time now, is how to manage and use resource revenue productively and across generations in a sustainable manner. To date, all that has been witnessed in the country is the mismatch between revenue generated from natural resources and local benefits due to governance issues, lack of transparency and accountability and weak institutions.

3.6.4 Unsustainable Corporate Social Responsibility (CSR) model

Traditionally, most extractive companies have used CSR as a social license in order to go about their extractive businesses (Guizar, 2015). CSR has always been seen as a way of giving back to the community, mostly in the form of projects such as building and maintaining roads, schools and hospitals, and equipping hospitals and schools, among others. In fact, these projects are treated as voluntary 'add-on soft approaches' aimed at the freedom to operate rather than being an integral part of the company business model. This was emphasised by Holly Wise and Shokol Shtylla (2007), who stated that CSR should go beyond ordinary service provision and focus on local private sector development.

ZELA has clearly spelled out that CSR is not a matter of charity but rather a question of fulfilling people's rights and building their capacity to be able to demand these. Regrettably, the current model of CSR has left local communities with a culture of dependency, expecting a company rather than their government to provide the social services they need. In this regard, questions such as who will take the responsibility for maintaining the services when the company ceases operations have been left unanswered. More often, negative impacts on communities such as environmental degradation have longer-term effects that are passed on from generation to generation.

For instance, ZELA's (n.d.) study of Mhondongori Resources Community Development Trust revealed that Mimosa mine engaged in community social investments such as building Mukwidzi Secondary School, supporting Mhondongori clinic, providing potable water and providing cement for sanitation facilities. However, despite these positive contributions, Mimosa's mine (and small-scale mines linked to it) have resulted in land degradation, deforestation, pollution (water, air, environmental), illness and deaths for humans and animals. In addition, passive participation on the part of the local community translated into low sustainability and hence the delayed sustainable development of Mhondongori ward. In some cases, mining companies are neither complying with the laws requiring them to invest in CSOTs nor meeting their CSR obligations to address mining impacts. Box 3 (overleaf) indicates some of the downsides of the current models of CSR and CSOTs.

Box 3: Examples of CSR and CSOTs in Zimbabwe:
The case of negatives outweighing the positives

Positives

1. Unki mine built houses and restored livelihoods of communities relocated by the mine.
2. Unki mine also supported maintenance of roads damaged by heavy trucks and machinery.
3. Tongogara CSOT built a school for the community.

Negatives

1. Open chrome mine pits in Zvishavane posing health danger to humans as well as livestock;
2. Mine operations causing air pollution and contamination of drinking water;
3. Conflicts between communities – there were tensions between Zvishavane and Mberengwa communities when MIMOSA mine donated money to Zvishavane CSOT and yet the Mberengwa community felt they were entitled to a share of the money since some of the claims were in their jurisdiction;
4. Dependency Syndrome – the exchange visits revealed that the government and politicians were abrogating their responsibility of community development as they referred all communities with concerns to the CSOTs. Similarly, mining companies were retracting on their CSR obligations in the name of supporting CSOTs.

Source: ZELA research reports and exchange visits

3.6.5 Failure to integrate into Global Value Chains (GVCs)

There has been massive growth of GVCs in extractive sectors such as oil, mining and agriculture (general agriculture, fishery, timber). Developed countries are increasing their efforts to maintain the largest share of GVCs; Zimbabwe has only a few highly integrated companies and global companies integrated in GVCs. For instance, extractive sectors such as mining have been highly characterised by informal and small-scale operations whose concentration is domestic and whose operations do not go beyond extracting raw material.

Ramdoe (2015) identified seven factors that inhibit the sustainable inclusion of extractive industries in Africa in GVCs, all of which are true for Zimbabwe. These are:

1. Structural factors – a weak domestic industrial base emanating from decades of challenges in designing and implementing industrial policies.
2. Lack of financial instruments to support industrial development, especially to SMEs.
3. Insufficient availability (and incentives to retain) highly qualified labour at technical and professional levels. (As countries move up the GVC they become less labour- and more skills-intensive.
4. Insufficient investment in research and development and science and technology required to move up the GVC.
5. Unconducive business environments characterised by heavy bureaucracy and red tape, which raises the cost of doing business, thus having a negative impact on competitiveness.
6. Poor, insufficient and inadequate infrastructure (electricity, telecommunications, Internet and transport).
7. Weak links between extractive sectors and efficient service delivery. These include logistics, transport, insurance, banking, professional services, communications etc.

4. SUSTAINABLE AND ALTERNATIVE STRATEGIES AND MODELS FOR EXTRACTIVE SECTORS

Various studies have proposed sustainable and alternative models for realising the socioeconomic benefits of extractivism that contribute towards SD. Various strategies and models are explained below.

4.1 The Post-Extractivism Model

It is clear that the model of conventional extractivism has failed to unlock the broad-based and sustainable development countries such as Zimbabwe require. The policy of neo-extractivism, where there is outright nationalisation of some or all extractive industries by the government for national redistribution of wealth, service provision and wider national development, has also been questioned. Scholars in Latin America (Gudynas and Aguilar, 2010) have argued that neo-extractivism has to some extent failed to address these issues. In its place, they suggest a transition to a post-extractivist model of development, which is underpinned by the growth of public shareholding, the renegotiation of contracts, efforts to close taxation loopholes and grow resource rent (through different taxation mechanisms) and develop beneficiation activities. The model also begins to address the mobilisation and demands of affected communities in the global South (and increasingly in the global North), who have mobilised to defend their lands, forests, water, ways of life and often their very lives (IANRA). However, for this model to be sustainable, it needs to be complemented by other alternative models of sustainable economic development.

4.2 A Sustainable Extractive Industries Value Chain Model

There are five links of the extractive industries value chain that are critical to realising sustainable development from extractive sectors. These are illustrated in Figure 7. Each of the five links is explained in Table 6, overleaf.

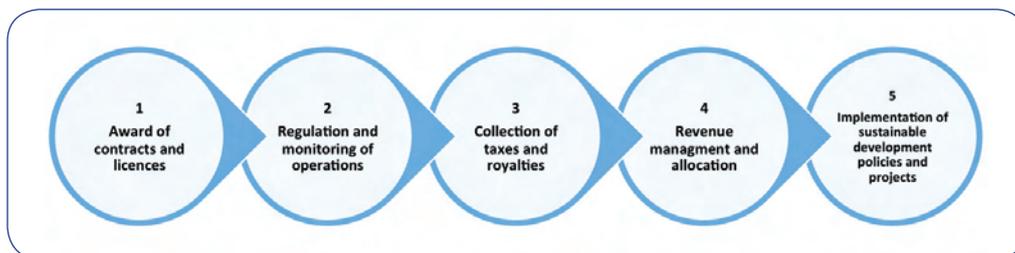


Figure 7: An effective and sustainable extractive industries value chain model

It should be noted that these links are inseparable, mutually exclusive and interdependent. Once one link is broken or is ineffective, the full potential of benefits from natural resources will not be realised. It is also clear that if all links are effectively implemented, they will contribute to the four dimensions of sustainability: economic, social, environmental and political.

4.3 A Natural Resource Revenue Management Strategy

Searching for best practices in resource management is timely and important for Zimbabwe if it is to avert the resource curse syndrome. Heng Dyna and Ngo Sothath (2013) propose five key components of an effective resource revenue management strategy (Figure 8, overleaf).

Whilst Zimbabwe struggles with mismanagement of the resources and associated revenues, some countries have managed resource extraction effectively to bring about broad-based

Table 6: Links in the value chain model

| Link | Potential areas of conflict | Measures to mitigate and prevent conflicts |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Link 1 Award of contracts and licences</p> | <ul style="list-style-type: none"> • Lack of consultation with local communities or inclusion of local concerns within the contract • Local content issues • Land disputes • Corruption | <ul style="list-style-type: none"> • Security of titles, including land • Local content policies • Environmental impact assessments • Competitive bidding and transparency of awards |
| <p>Link 2 Regulation and monitoring of operations</p> | <ul style="list-style-type: none"> • Environmental risks and disasters • Lack of governance mechanisms/compensation schemes • Tensions with security forces | <ul style="list-style-type: none"> • A strong regulatory framework and corresponding capacity • Regulations regarding exploration, exploitation, safety, health and environmental practices (including the capacity for regular compliance monitoring and enforcement) • Effective and genuine consultations as early as possible • Capacity building for regulatory agencies |
| <p>Link 3 Collection of taxes and royalties</p> | <ul style="list-style-type: none"> • Inadequate tax collection • Skimming-off of revenues, corruption and lack of monitoring • Mismatch of policies to local content • Lack of transparency | <ul style="list-style-type: none"> • Extractive Industry Transparency Initiatives (EITIs) payment transparency and promoting more informed dialogue • Payments made solely to a treasury account at the central bank • Transparency, audits and public disclosure of relevant information |
| <p>Link 4 Revenue management and allocation</p> | <ul style="list-style-type: none"> • Lack of tangible benefits or inclusive wealth-sharing schemes • Corruption/lack of transparency • Lack of government capacity to use revenue for developing public services projects | <ul style="list-style-type: none"> • Poverty reduction strategy based on revenues from EI • Revenue- and benefit-sharing with local governments • Inclusive policies for revenue-sharing |
| <p>Link 5 Implementation of sustainable development policies and projects</p> | <ul style="list-style-type: none"> • Lack of planning for economic sustainability • Lack of economic diversification • Mismatch between government and public priorities | <ul style="list-style-type: none"> • Poverty-reduction strategy based on effective use of EI revenues • Stability funds and saving funds for future generations • Infrastructure and human development determined by political consensus • Sustainable projects and capacity building with special considerations for the environment and social impact • Diversification of the economy, moving it away from extractive industries |

Source: Derived from Ríos, Bruyas and Liss (2015)

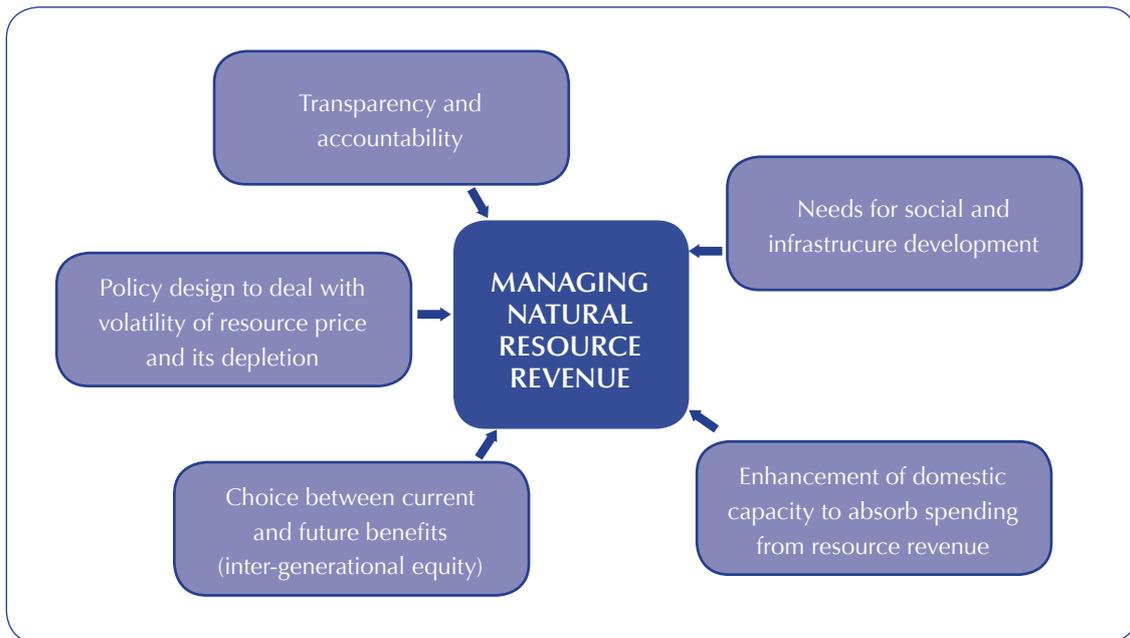


Figure 8: Five key components of an effective resource revenue management strategy

Source: Dyna and Sothath (2013)

economic growth and development for its citizens. Zimbabwe has a lot to learn from such countries. For instance, according to a study by Ramdoo (2015), some scored well in leveraging resources from extractive sectors (oil resources) for better developmental outcomes, despite having their own specific challenges. These include Australia, Canada, Botswana, Norway, Malaysia, the United States and South Africa. She further argues that the problem is not the resources themselves but rather their mismanagement. This was put forward by Dyna and Sothath (2013) in their study of six natural resource-based countries, namely Azerbaijan, Ghana, Indonesia, Nigeria, Timor Leste and Vietnam. In fact, sustainable development outcomes from natural resources is not a miracle but a result of careful planning and good governance. Dyna and Sothath argue that good governance of the extractive industries requires long-term planning, starting at an early stage in the sector's development, coupled with long-term fiscal transparency. They underscore that good governance of extractive industries revenue is not a short-term issue, but starts at the initial exploration stage and moving through to auctions and contracting, saving-spending models and long-term fiscal transparency. Here, Zimbabwe also has something to learn.

4.4 Extractive Sector Revenue-spending Models

The economic spending of natural resource revenues poses at least two special challenges namely:

1. **Fluctuations in the world commodity market.** As resource revenue fluctuates with the global commodity prices, medium-term expenditure plans should be formulated using a conservative assumption about the future price and related revenues.
2. **Securing long-term benefits.** In order to maximise citizens' welfare (health, education and other social services) from the resource revenue through generations, some proportion should be saved and carefully invested, with a draw-down policy to maximise the long-term benefits. This could happen in the form of building up human and physical capital or/and foreign assets.

In order to address these challenges, Dyna and Sothath showed various types of spending-saving models that have been adopted by some resource (oil) rich countries. However, successfully applying these models depends on the country's stage of economic development, the size and nature of the resource and its revenues, the quality of its institutions and the political economy. Table 7 (right) explores these models. Ultimately, it is important that natural resource revenue management in a country matches its development process, balancing the different models of resource revenue saving–spending model.

4.5 The Global Value Chain Model that Promotes Sustainable Structural Transformation

The 2013 UNIDO report stressed that in order to benefit from GVCs, developing countries must not rely on trade liberalisation to attract FDI in their countries, as that on its own is not an effective strategy. The report emphasised that countries that have benefited from joining GVCs only liberalised their economies after successfully implementing industrial policies leading to structural transformation. In addition, the United Nations Economic Commission for Africa (UNECA) 2015 report underscored that Africa's exports stagnated at 3.3% between 2010 and 2013 largely due to the lack of diversification and the export of unprocessed commodities (mainly from extractive sectors – agriculture and mining). The report also encouraged African countries to join GVCs at a specific stage in the production process.

In a study conducted in 2012 considered the breadth and depth of extractive linkages in eight African countries from a global value chain analysis. On the input side, the breath of linkages refers to the share of inputs that the commodity producer acquires locally. On the output side it refers to the proportion of commodity production processed by local firms. The depth of linkages refers to the extent of domestic value that is added to locally acquired inputs or locally processed/benefited outputs. The research concluded that the breadth and depth of the linkages were increasing in Ghana and Nigeria, while in Angola and Botswana the linkages were deepening. In Gabon, South Africa and Zambia the linkages were shallowing, while in Tanzania they were static. Overall, the report concluded that the linkage formation had more in breadth than depth and that there was untapped potential in stimulating linkage formation in African extractives.

Furthermore, the 2013 African Economic Outlook of the African Development Bank under the theme 'Structural Transformation with Natural Resources' recognised that Africa's comparative advantages in natural resources (energy, minerals, agriculture) and maintained that these can be sources of structural transformation through linkages, employment and FDI provided there are conducive business environment and supportive policies in place. The report recommended a four-layered approach to harness structural transformation through natural resources. These include:

- a. Putting in place the right conditions for structural transformation.
- b. Meeting the specific requirements of primary sectors to fuel transformation.
- c. Optimising revenue from natural resources and investing them wisely.
- d. Promoting structural transformation with active policies, focusing on increasing agricultural productivity and building linkages to and from extractive sectors.

Table 7: Types of resource revenue saving–spending models

| Model | Definition | Description | Benefits and Risks | Note |
|---------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Big-push spending (Nigeria and Saudi Arabia in the 1970s and 1980s; Vietnam) | All current revenues | <ol style="list-style-type: none"> 1. Government implements high spending in the early years in order to accelerate investment in infrastructure and other important sectors as a way of speeding up economic growth and poverty reduction. 2. Some governments spent all annual resource revenues while keeping the government's overall fiscal management in balance. | <ol style="list-style-type: none"> 1. Accelerates growth but faces macroeconomic instability and Dutch Disease risks 2. Privileges current over future generations in terms of their share of consumption of natural resource wealth | Not recommended for countries with weak institutions |
| Bird-in-the-hand (Norway, after fund establishment) | Real returns on current assets | <ol style="list-style-type: none"> 1. Government establishes a revenue fund and only the interest income accruing from accumulated oil revenues is spent consistently over time. 2. Government is only allowed to annually withdraw a pre-determined percentage of the value of the previous year's fund for the state budget. | <ol style="list-style-type: none"> 1. Prudent and simple saving but loss of growth opportunity 2. May create social tensions because it heavily discourages current expenditure of resource revenues in favour of saving more for future generations. | May not be recommended for LDCs with low growth and high poverty rates |
| Sustainable income (Timor-Leste) | Real returns on the sum of current assets and future revenue | <ol style="list-style-type: none"> 1. Based on the rationale that both individuals and benevolent governments should be considered forward-looking and try to smooth consumption over time in line with permanent income. 2. The country saves most resource revenues during years of rapid resource exploitation and generates financial returns through investment. 3. The yearly withdrawal amount is assumed to be the same during and after the oil boom. Hence, expenditures out of natural resource proceeds would be stable, avoiding boom-bust cycles. | <ol style="list-style-type: none"> 1. Help avoid boom-bust cycle but face uncertainty in future revenue estimation | |

| | | | | |
|----------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>Revenue Benchmarking (Trinidad and Tobago; Ghana)</p> | <p>A fixed variable share of average of revenues (moving average)</p> | <p>1. Ghana, for example, withdraws between 50-70% of the returns from the asset and moving average of receipt revenue of five years.</p> | <p>1. Flexible (stabilising and saving) but need clear benchmarking and long-term development objectives 2. The model does not guarantee fiscal sustainability or optimal intergenerational consumption of resource wealth as it is subject to discretion.</p> | |
|----------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

4.6 Re-engineering Corporate Social Responsibility (CSR) Models to Corporate Economic Responsibility (CER)

The current model of CSR has failed to deliver the full benefits from extractive sectors, especially for communities where extractive industries operate. In this regard, there is need to re-engineer the current model of CSR and CSOTs and make them more sustainable and socially inclusive, thereby engaging the local population as clients, customers, employees, producers and business-owners. Mining companies can contribute to the sustainable development of local communities perhaps by moving a step beyond traditional corporate **social** responsibility towards corporate **economic** responsibility.

This can be done through:

- Promoting business linkages with the communities and at national level:* Extractive companies should source goods and services locally and make local communities suppliers of inputs for company operations. This strengthens ties and contributes to the livelihoods of communities through income generation and allows companies to benefit from lower costs relating to transport and deliveries.

In Russia, the government has set a requirement of 70% Russian-sourced materials and services to be used in the Sakhalin II project, in which Shell is a partner (Wise and Shtylla, 2007)

In Madagascar, Sherritt Ambatovy’s ‘buy locally, hire locally’ policy is working towards supporting local entrepreneurship and the local economy in general.
- Encouraging local government to build business incubators* to support and strengthen local supplier companies to efficiently provide services to extractive companies, thus making the local business communities inclusive business partners. This, in turn has multiplier effects on community prosperity. Local businesses need to be empowered with skills so that they are able to efficiently and effectively provide services. Skills development should not be limited to workers employed by extractive industries but should also be extended to local communities in order that they can establish alternative economic activities to support them during and after resource extraction. In Azerbaijan, for example, BP created Baku Enterprises Centre to support the development of local companies as potential suppliers. The centre provides technical assistance to participating SMEs to meet bidding and other procurement requirements within the BP value chain system.
- Promoting co-investment in strengthening local universities.* Some extractive industries in Angola, Nigeria, China, Kazakhstan, China and the West Indies have co-invested in engineering, business, accounting and planning departments in local universities.

4.7 The mining–agriculture sustainable model framework

According to Ramdoo (2013), extractive companies can also play a leading role in supporting agricultural economic activities in areas where they operate. Promoting linkages outside the mining extractive sector in the field of agriculture is critical given the importance of the agriculture sector in Zimbabwe. Some countries are implementing such frameworks, for instance:

- Newmont Ghana Gold’s Ahafo Agribusiness Growth Initiative in Africa and Cuncashca Agribusiness Development in Peru (supported by Barrick Gold) have shown that company support of farmer-based organisations can make positive contributions to economic activities, productivity and job creation.
- Outside Africa, notably in Australia and Chile, there are good practices of mining companies that have successfully supported the local agricultural sector.

In their endeavour to work better with local communities, Ramdoo noted that there are essentially three ways in which extractive companies can support the creation of linkages with and for local farmers, namely:

- Supporting programmes to encourage value chain activities and proxy business in existing farming activities or encouraging the development of new, integrated activities from farm to fork.
- Pursuing a breadbasket approach when industries operate in regions that have high agricultural potential by virtue of their relatively good climate or soil endowments. They can support linkages between small farmers and the larger, market-oriented farming operations, encouraging small farmers to grow staple foods and helping them to sell surpluses on local/national/regional markets.
- Developing spatial agricultural activities along infrastructure corridors, which first and foremost serve the needs of the extractive sector. This includes support to storage, warehousing and processing facilities around existing major infrastructure and support to the development of clusters of activities or regional agricultural value chains, in and across countries that these corridors service.

Table 8 (below and overleaf) reflects on some experiences of oil-rich countries during their individual quests for sustainable development from oil resources. Zimbabwe can gain much from these.

Table 8: Experiences from oil-rich countries

| Country | Experiences and outcomes |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ghana | <ol style="list-style-type: none"> 1. Established the Ghana Petroleum Sovereign Fund (GPSF) following the depletion of the petroleum reserve. 2. Revenue flows are complex, involving many stages and institutions before they finally reach the government’s account, which giving an opportunity for fund leakages. 3. The fiscal regime is constrained by the high degree of recurrent expenditure, particularly the sizeable expenditure on wages and interest. 4. Ghana’s political business cycle features high risk of the political capture of mineral rents. The government has taken to exceptionally high degrees of fiscal spending in pre-election years in order to please swing voters. 5. However, there is a strong civil society and judiciary that is, to a large extent, independent and free from political influence. 6. Unfortunately, Parliament lacks a vibrant committee system and is not capable of exercising its management role over the Executive. This weakness is due to the fact that parliamentarians are beneficiaries of presidential patronage, which ‘limits’ the exercising of its management role over the Executive. |

Extractivism and Sustainable Alternative Models of Economic Development

| | |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Indonesia | <ol style="list-style-type: none"> 1. Indonesia has not established a natural resource fund. Instead it has adopted a ‘big-push’ spending model by treating resource revenues as fiscal revenue that all directly goes to finance public expenditure through the annual budget process. 2. The government implemented a revenue-sharing approach to transfer some of the resource revenues to sub-national level. 3. The country was able to minimise the risks of Dutch disease by keeping its agriculture and manufacture sectors globally competitive, investing in agricultural technology and diversifying its manufacturing industry. It has managed to increase its agricultural and manufacturing exports since 1970. |
| Azerbaijan | <ol style="list-style-type: none"> 4. Established the State Oil Fund of Azerbaijan (SOFAR) to accumulate oil revenues and fund extra-budgetary funds, also established the Long-Term Oil Revenue Management Strategy (LTORMS) in 2004. 5. Natural Resource Fund plays an important role in oil resource management, especially during boom years. 6. Having a clear principle of resource management is essential to ensure that the resource fund is managed in a way that maximises the benefits of the whole economy. 7. Having sound budget management and strong institutions for effective and efficient public expenditure execution. |
| Nigeria | <p>Despite recent improvements in oil revenue management, by adopting the revenue-benchmarking model the country still faces a number of challenges.</p> <ol style="list-style-type: none"> 1. Revenue flows have to pass through many stages and institutions before reaching government accounts, giving an opportunities for fund leakage and misuse. 2. The Excess Crude Account (ECA) was poorly shielded and thus vulnerable to abuses and political pressures. 3. The economy is highly distortionary and characterised by high-cost fuel subsidies, making the economy uncompetitive and unsustainable. 4. The greater role of government in the economy risks undermining private sector participation. 5. High dependency on the oil sector undermines the role of non-oil revenue, especially on taxes. <p>The country has made improvements to its oil revenue by establishing a sovereign wealth fund – the Nigeria Sovereign Investment Authority (NSIA) – to replace the ECA.</p> |
| Timor Leste | <ol style="list-style-type: none"> 1. Institution-building remains a major challenge for Timor Leste’s governance. 2. The lack of skilled personnel is a key constraint to public financial management. 3. The transfer of the Petroleum Fund (PF) to the state budget is based on Estimated ‘Sustainable’ Income (ESI), which is subject to large uncertainty due to volatile oil prices and imprecise oil reserves. 4. Since the PF is based on Norway’s saving Norwegian Petroleum Fund, there is concern that Timor Leste has saved too much of its oil reserves rather than using the extra revenue it would generate for social projects for poverty reduction. |
| Vietnam | <ol style="list-style-type: none"> 1. Oil revenue is not the only dominant source of state revenue in Vietnam. It is treated as any other typical industry where revenue flows into the central budget. However, there is some ambiguity about the types of fees and charges and the management of certain of these, as well as the petroleum clearance fund. 2. The oil sector is dominated by State-owned enterprises (SOEs), which have been partly linked to resource misallocation and also charged with damaging the vibrancy and competitiveness of the private sector. At the same time, macroeconomic instability, characterised by high inflation, large budget and trade deficits and unreliable local currency are the unavoidable consequences of the problems related to resource misallocation, weak competitiveness, heavy dependence on external and natural resources and government ineffectiveness. |

CONCLUSION

The analysis above clearly indicates that the economic benefits from extractive sectors (mainly agriculture and mining) cannot be undervalued in terms of their contribution to GDP, export revenue, and employment, especially in the agriculture sector and investment (both FDI and local). Whilst the economic and monetary contributions of extractives to the overall economy are clear, it is the social, environmental and political contributions and objectives that continue to lag behind. The main question is how to transform the extractive sectors to contribute to the economy in a holistic manner that is economically, socially, environmentally and politically sustainable. In other words, how can extractivism contribute to sustainable development in Zimbabwe?

It is also clear that, over time, the issue of resource extraction and the associated revenues have had mixed results in Zimbabwe. On one hand, the country celebrates the positive contribution to the fiscus, but on the other, there are negatives associated with environmental degradation, social exclusion, militarisation and politicisation. Worse still, workers in these extractive industries continued to earn wages that fall short of the PDL and FDL and are victims of decent work deficits despite the immense contribution that their sectors make to the overall economy.

For communities living around areas where extractive companies operate, said companies should contribute to sustainable local development by moving beyond traditional CSR towards corporate economic responsibility activities. Extractive industries need to be more economically responsible.

Regrettably, whilst Zimbabwe struggles with corruption and mismanagement of the extractive resources and the resource revenues, as evidenced by the missing US\$15 billion, some countries have managed resource extraction effectively to bring about broad-based economic growth and development for its citizens. Zimbabwe can learn much from such countries.

Lessons from oil-rich countries can be explored further and good practices tailor-made to suit the Zimbabwean context. It is clear that Zimbabwe needs to change its current approach to extractivism in order to leverage its natural resources for sustainable economic development. As evidenced in the analysis, the principles of the post extractivism model have been hailed and should replace conventional and neo-extractive models that have seen the country become further entrenched in the resource curse pit. A post-extractivism model, coupled with the many other strategies proposed in this paper, will transform Zimbabwe's natural resources dilemma.

Notes

1. According to UNRISD (2012), this economic phenomenon was first experienced in The Netherlands during the 1960s, following the discovery of natural gas in the North Sea. This discovery saw the government shift its focus to the exploitation, transport and sale of natural gas while the rest of the country withered and the currency strengthened significantly.

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2. LAND, AGRICULTURE AND EXTRACTIVES IN ZIMBABWE – AN OVERVIEW

Walter Chambati, Freedom Mazwi and Steven Mberi*

INTRODUCTION*

This paper explores the linkages between the extractive industries in Zimbabwe and the land and agricultural sectors in Zimbabwe, both of which play a critical role in employment, the generation of foreign exchange, infrastructural development and providing linkages to the manufacturing sector. Within the extractive sector, the paper focuses on mining and observes that it is given priority over agriculture when it comes to land use, thereby threatening the livelihoods of the peasantry. It analyses the external and internal factors underpinning the development of mining and agriculture, for example, politics, the legal frameworks encompassing land, agriculture and mining and global dynamics. The paper concludes by calling for the speedy beneficiation of the platinum group of metals (PGM), diamonds, tobacco and sugar in order to curb illicit financial flows and improving linkages between the mining, agriculture and manufacturing.

1. THE EVOLUTION OF MINING AND AGRICULTURE IN ZIMBABWE

Mining and agriculture have been linked since the British South Africa Company (BSAC) first came to Rhodesia in 1890 and quickly became the major contributors to exports and national income. During the settler-colonial period, gold and asbestos generated the highest revenues and tobacco was the main agricultural export crop.

BSAC's overestimation of mineral deposits in Southern Rhodesia resulted in major losses for the company, as it was hoping to find gold reserves similar to those of the Witwatersrand, South Africa (Arrighi, 1973). This development forced the company to embark on a campaign to lure agrarian capital to Southern Rhodesia. By 1911, 23,000 Europeans had settled in Southern Rhodesia and were engaged in a variety of economic activities ranging from small- to medium-scale mineral extraction and the production of maize and tobacco. However, the emergent economic structure that was dominated by mining and agrarian capital (plantation estates and large-scale commercial farms) operating alongside the African peasantry laid a foundation for exploitative labour relations and iniquitous land ownership patterns. The initial linkages between the agricultural and extractive sectors came in the form of the commercial agricultural sector supplying the growing mining sector with produce. The need to eliminate any form of competition from the peasantry by sections of white capital resulted in pieces of legislation such as the Land Apportionment Act of 1932 being passed. This alienated the black population and saw them lose fertile pieces of land. It also cemented their status as a source of waged labour (Chambati, 2013). Protectionist measures such as the amended Maize Control Act of 1934 and the imposition of different levy and control acts for black farmers were also implemented to protect white mining and agrarian capital.

1.1 Labour Relations in Mining and Agriculture

Waged labour on mines, plantation estates and large-scale commercial farms was unattractive to the local population during the early years of colonial rule. This resulted in labour being outsourced from countries such as Malawi, Mozambique and Zambia (Sachikonye, 1989). Following the imposition of hut taxes in 1894 owing to diminished agricultural production, the African peasantry found itself more or less compelled to work on the mines, plantation estates and the nascent manufacturing industry.

1.2 Mining and Agriculture Linkages

At a broader level, the extractive and agricultural sectors were interlinked under colonialism, as reflected during the 1930–1938 global depression. Revenues from gold mining contributed £600,000 to the agricultural sector to shore it up. Hence, during this period, mineral exports – gold in particular – became the engine of economic growth, having an export value of 79.3%, whereas agricultural exports accounted only 14.7% (the remaining 6% was from other minerals) (Phimister, 1988). As the agricultural sector continued to experience shocks, most farmers abandoned farming in favour of small-scale gold-mining.

From the early days of Rhodesia, the agricultural sector subsidised the extractive and manufacturing sectors through the provision of cheap labour and the income derived from the extractive sector by migrant workers was repatriated to support their families and purchase agricultural inputs. This polarised the African peasantry – some became richer while the majority of black farmers remained poor. However, such social contradictions arising from their participation in the extractive sector were not peculiar to Rhodesia, as ‘worker-peasants’ working on the mines in Botswana, Mozambique and Lesotho accumulated more assets than those who did not (Morapedi, 1999).

The interests of mining capital under white Rhodesia and then black Zimbabwe have always had an upper hand over agriculture exercised through the Minerals Act. It is also clear that the Rhodesian economy was overly reliant on mineral exports (gold, coal, asbestos and chrome) and agrarian exports (tobacco and maize) as the nation’s lack of economic diversification exposed it to external shocks during the Second World War (Phimister, 1988).

2. THE ROLE OF LAND, AGRICULTURE AND THE EXTRACTIVE SECTORS IN THE NATIONAL ECONOMY

The extractive and agriculture sectors remain critical to Zimbabwe’s economic development, with recent studies showing that the extractive sector achieved autonomous growth from 2005 (Figure 1, Tables 1 and 2, right), when the country was in the throes of an economic crisis (McMahon et al., 2012). Another recovery was witnessed in tobacco and cotton production during the same period (Binswanger-Mkhize and Moyo, 2012). However, this growth depended on favourable global commodity prices, for it floundered in 2015 after a slump in mineral prices (World Bank, 2016).

Autonomous growth in both sectors is thus an outcome of favourable global prices, for these trigger a supply side response among the various commodities. Of the more than 40 minerals that are extracted in Zimbabwe, five contribute significantly to the country’s export income, namely diamonds, PGMs, nickel, asbestos and gold. Tobacco, cotton, sugar and horticulture remain the major agricultural export crops after the fast-track land reform programme (FTLRP) (Binswanger-Mkhize and Moyo, 2012).

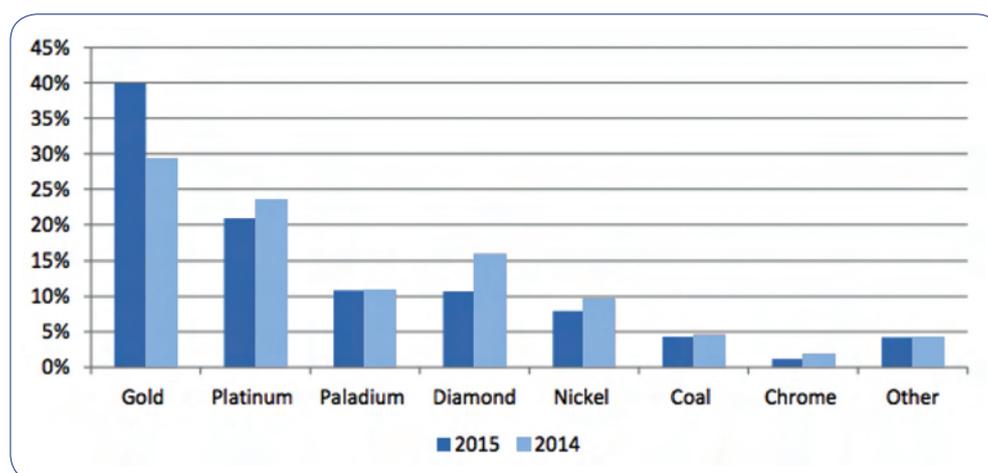


Figure 1: Share of total value by category of mineral (2014 and 2015)

Source: Chamber of Mines; RBZ

| | Weight per sector | 2004-14 | 2009-14 | 2014 | 2015 |
|---------------------------------------|-------------------|---------|---------|------|-------|
| Of which selected cash crops include: | | | | | |
| Tobacco | 25.5 | 12.1 | 29.8 | 29.7 | -7.4 |
| Cotton | 12.5 | -8.0 | -7.4 | 0.6 | -16.6 |
| Selected subsistence crops: | | | | | |
| Wheat | 3.6 | -7.0 | 4.1 | 49.7 | -2.6 |
| Maize | 14.0 | 4.4 | 3.3 | 82.3 | -49.0 |
| Groundnuts | 3.2 | 4.7 | -9.0 | 55.6 | -34.2 |

Table 1: Growth in the agricultural sector

Source: World Bank, 2016

| Commodity | % share of agriculture (GDP) | | % value of agricultural exports | | Industry value (US\$ millions) | |
|---------------|------------------------------|-------|---------------------------------|--------|--------------------------------|-------|
| | 2009 | 2012* | 2009 | 2012** | 2000*** | 2010 |
| Tobacco | 25.5 | 24.9 | 61 | 73.3 | 362.7 | 285 |
| Maize | 14.0 | 9.3 | - | - | 237.6 | 270 |
| Cotton (lint) | 12.5 | 12.8 | 22 | 14 | 182.3 | 291.2 |
| Beef | 10.2 | 10.2 | <1 | 0.3 | | |
| Sugar | 6.8 | 9.3 | 11 | 11.6 | 138.8 | 153.9 |
| Horticulture | 6.5 | 7.4 | 3 | 9.9 | 23 | 14.58 |
| Poultry | 4.8 | 5.2 | <1 | 1.5 | 44.7 | 84.9 |
| Soya beans | 1.9 | 1.6 | <1 | - | 38.6 | 32 |

Table 2: Contributions of agricultural commodities to agricultural exports

Sources: Figures compiled from PWC (2010); *Ministry of Finance (2012) projections, **World Bank Data projections; ***FAOSTAT (2011)

Following the recovery of the mineral sector, resource nationalism and calls for mineral beneficiation have been increasing, as these are seen as a way of deriving maximum export value for the country and local communities. In the diamond sector, the government has moved to consolidate the diamond companies, although other companies – Anjin Investments, Mbada Diamonds, Jinan, Gye Nyame and Kusena – who had their licences cancelled are still legally contesting the development. In 2016, as a step towards diamond beneficiation, the government sent a group of technicians to China to undertake studies in diamond-cutting and polishing (Mhembe, 2016). Three PGM mining firms (Unki, Mimosa and Zimplats, owned by South African-based multinationals) have been engaged in negotiations with the government over platinum beneficiation and are currently building a plant to serve that purpose. As a result, the proposed 15% export tax for un-beneficiated platinum has been postponed to January 2017 (GoZ, 2016).

Zimbabwe's share of the world production of key minerals is fairly high: 9% of all diamond production (by volume) and around 6% of all platinum (International Monetary Fund, 2013: Kimberley Process Certification Scheme, 2013). Zimbabwe's mineral consumption patterns are, however, low due to limited industrialisation, minimal beneficiation and value addition prior to export (Zimbabwe Investment Authority, 2015). To this end, Zimbabwe is a net exporter of minerals such as diamonds, gold, platinum, thus rendering the extractive industry crucial in the Zimbabwean economy as it constitutes the largest export category (of more than 50%) (ZIA, 2015). For example, in 2012 the country earned \$1.86 billion from gold and platinum exports. Income from the minerals sector therefore dominates the domestic economy and government revenues.

For governments with transparent and strong accountability mechanisms, foreign exchange derived from mineral exports is useful in mitigating against external vulnerability. It can also be utilised for further investments in physical infrastructure whilst also contributing to domestic savings (World Bank, 2012). However, through the 2015 National Budget, government announced that it will be resuscitating the Zimbabwe Mining Revenue Transparency Initiative (ZMRTI) of 2011 in order to improve accountability and transparency. The Mines and Minerals Amendment, which is yet to be passed by Parliament, will operationalise the ZMRTI, as well as fixing the various taxes and fees to be paid by the mining sector.

Improving physical infrastructure investments will have positive spill-over effects on areas in the agriculture and manufacturing sectors, as they are likely to attract investments. Directing resources towards improving critical infrastructure such as roads, electricity and water supplies could, if coupled with attractive economic, industrial and investment policies, bolster the agricultural sector, since agrarian capital favours environments with suitable infrastructure. To this end, Western countries such as Norway have invested in Sovereign Wealth Funds (SWF) for use by future generations (Hawkins, 2009). SWF are investment funds derived from a country's reserves that are set aside for investment purposes to benefit its economy and citizens. These funds come from the central bank reserves that accumulate from budget and trade surpluses, and from revenue from exports of natural resources. The Government of Zimbabwe likewise indicated, through the National Budget Statement of 2015, its intention to execute the legal framework of the Sovereign Wealth Fund and allocated \$500,000 to it. Further funding will be generated by investing 25% of all royalties from the export sale of minerals, which include diamonds, gas and granite, through the Zimbabwe Mining Development Corporation (African Development Bank, 2014).

Since 1980, export trends in Zimbabwe have reflected the dominance of the mining and

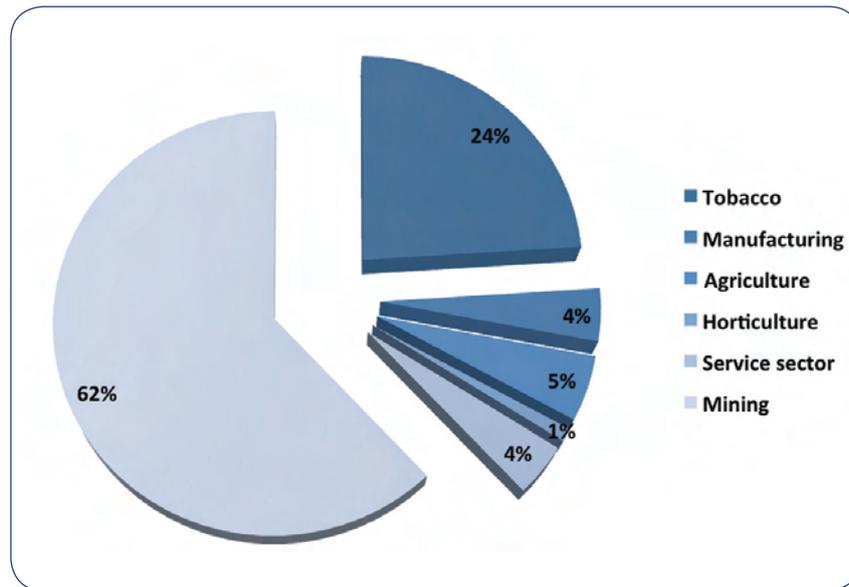


Figure 2: Sectoral contribution of exports (shipment)

Source: RBZ - Chamber of Mines Policy Clarification, 2016

| | Coal | Gold | Diamonds | Ferrochrome | Nickel | Platinum |
|----------------------------------|-------|------|----------|-------------|--------|----------|
| Fiscal payments to total revenue | 16.7% | 9.7% | 15% | 36% | 8.8% | 13% |
| Fiscal payments to total costs | 6.7% | 13% | 25% | 32% | 7.6% | 16% |

Table 3: Share of tax payments to mining revenue

Source: Chamber of Mines Policy Clarification, 2015

agricultural sectors, where a decline in either has negatively impacted the national fiscus. Such trends demonstrate a lack of diversification in the national economy. In 2015, the mining sector’s contribution to the GDP was lower (15%) compared to that of agriculture (19%). With dollarisation in 2009 came an increase in the extractive sector’s contribution to gross domestic product. Mineral export revenue contributions to the national fiscus increased from US\$57.8 million in 2009 to US\$445 million in 2012 (Mhemberere, 2016). The increase is attributable to the discovery of alluvial diamonds deposits in Marange, major investments in PGM mines by Zimplats and Anglo-America and the surge in global prices.

The dominance of the mining industries contribution to exports and as a major source of foreign exchange continued in 2015 (Figure 2, Table 3), contributing to 62% of export shipments, followed by tobacco at 24% . The extractive sector thus has the potential to finance agricultural production at macro and micro-level. At macro level, this can be achieved through revenue contributions to the national fiscus, which, if directed to the agricultural sector are capable of resolving the funding crisis the sector is currently facing. That more than 80% of the annual budget is allocated to civil service wages is regrettable, as it severely limits financing for agriculture and infrastructural development (GoZ, 2015).

Placing the agricultural sector on the priority list and adhering to the Maputo Declaration that requires budget allocations for the agriculture sector to reach 10% should be pursued in order

to improve agricultural productivity. The government has been found wanting in this regard, as allocations have never exceeded 6.5% since 1980. The average budgetary percentage share for agriculture post-FTLRP stands at 4.6%, a situation which calls for further resource mobilisation (Moyo et al., 2013).

At micro-level, the extractive sector provides formal employment to roughly 48,000 workers, a figure that is far smaller than for the agriculture sector, which accounts for more than 60% of the working population (Zimstat, 2015). Gold-mining, however, is emerging as a potential large-scale employer, as more than 20,000 people have registered formal claims and there are 350,000 artisanal miners (World Bank, 2012). Given the semi-proletarian¹ nature of the population and the preponderance of extended family kinship relations, the mining sector can help finance rural households' procurement of agricultural inputs. However, although it does cushion the plight of the poor, income obtained from remittances has been seen to fuel inflation (Bracking and Sachikonye, 2006). A plethora of literature highlights the fact that an abundance of mineral resources can lead to a 'resource curse', where resource-endowed countries experience negative economic and development outcomes, including corruption, poor governance and violence, in comparison to countries with fewer resources (Hawkins, 2009; Toto Same, 2008).

2.1 Reducing an Increasing Dependence on Mining

For resource curse theorists, resource-endowed regions under-perform due to a failure to diversify their economies, which often leads to poor living standards. In addition, rent-seeking by governments may lead to growth-restricting interventions. Investing foreign exchange obtained from mineral exports in physical and human capital, as has been the case in Botswana, Indonesia and Malaysia, can go a long way towards building sustainable economies (Hawkins, 2009). The Zimbabwean case, as with those of the Democratic Republic of Congo and Zambia, has been unable to translate inflows of mineral export revenues to significant socioeconomic development, despite boasting of 9% of the world's diamond deposits and being one of the biggest platinum producers. The country thus remains itself in a situation where basic health, education and transport infrastructure services are collapsing as a result of the lack of any meaningful investment being channelled into these areas.

As has been shown in the case of Zimbabwe, the dependence on the export of primary agricultural and mineral resources exposes the economy to global price shocks, which negatively impact economic development. Henceforth, the country should work to diversify its export markets and concurrently maximise value addition on exports in order to safeguard itself against price changes. For example, the implementation of the Preferential Procurement Policy, which was promulgated in December 2011 in South Africa and was intended to give South African firms first priority in procurement, could negatively affect Zimbabwe's export market. Specific policies should thus be implemented to ensure that a beneficiation of minerals occurs in Zimbabwe to trigger spill-over effects into manufacturing and agriculture. A well-developed mining sector that is supported by sound domestic policies creates forward, backward and horizontal linkages. Enhancing manufacturing through forward and horizontal linkages with the mining sector will also positively impact the agricultural sector by developing of home markets and increasing worker remittances.

3. POLICIES AND LEGISLATION GOVERNING LAND USE IN MINING AND AGRICULTURE

Mining and agrarian capital has always been in competition when it comes to the allocation and use of land.

3.1 Mining and Agricultural Conflict

Mining and agrarian capital has always been in competition when it comes to the allocation and use of land, thus generating rivalry within the realms of policy and the fiscus (Phimister, 1988). Mining activities have continued to take precedence over agricultural activities through the Mines and Mineral Act [Chapter 21:05] of 1961. This was initially motivated by the white-settler interest in gold and other mineral resources, a situation that the successor black government has adopted. The discovery of alluvial diamonds in Marange, for example, resulted in the displacement of approximately 4,700 peasant households, an instance where mining took precedence over agricultural activities (Madebwe et al., 2011). These displacements contradicted the policy objectives of the FTLRP – to provide wider access to land among the black population – and showed that, despite its radicalisation, the programme neither fully ousted capital nor constituted a truly socialist revolutionary project.

Also facilitating the removal of peasants from their means of production – land – is the prevailing land policy that allows government to convert its use from agricultural to non-agricultural activities (Moyo and Maguranyanga, 2014). Such conversions do, however, require the approval of an inter-ministerial committee composed of the Ministry of Local Government, Public Works and National Housing, the Ministry of Lands and Rural Resettlement and the Ministry of Agriculture, Mechanisation and Infrastructural Development.

Prior to land reform, communities' and people's access to natural resources on large-scale commercial farms tended to be constrained by freehold title, which gave the land owner the sole rights to natural resources. With its state-based land tenure relations, the FTLRP opened up these natural resources to both a widened peasantry base and to artisanal miners. The scale of agricultural land currently under artisanal mineral extraction has yet to be fully studied. While providing livelihoods to thousands of households, the presence of artisanal miners on resettled and communal areas has led to conflict (Mkodzongi, 2016).

3.2 Land Tenure and the Security of Investment

Persisting challenges pertaining to land and the agriculture and extractive sectors relate to tenure and the security of investments. The latter must be attended by all parties, including government, investors and commercial banks if maximum production is to be realised in both sectors. Private commercial banks have been reluctant to provide loans to the newly resettled farmers, citing the politics of tenure. Discussions involving the government and the Bankers Association of Zimbabwe are ongoing, with a view of ensuring the bankability of 99-year lease agreement. Current contestations between capital and the state over land tenure documents emanate from the dismantling of freehold titles after the land reform programme was deemed complete (Moyo and Nyoni, 2013).

In the extractive sector, the upsurge of resource nationalism rhetoric since 2009 and the adoption of the Indigenisation and Economic Empowerment Act, in 2007, which requires international mining firms to cede a 51% stake to the indigenous population, stalled the re-capitalisation process and discouraged new investments (McMahon et al., 2012). Although, the government insisted that the mining sector would not be exempted from any indigenisation policy measures,

a policy framework that guarantees ‘security’ on investments is critical if the two sectors are to realise their maximum productive potential (Hawkins, 2009).

3.3 The Small-Scale Mining Boom

As a result of fiscal constraints, the government has sought to legalise the operations of over 350,000 small-scale miners in an attempt to boost its revenue. This provides scope for economic development as incomes can thus be channelled towards agricultural production by small-scale miners who are also involved in agricultural production. The shift towards small-scale mining is viewed as retrogressive by some agrarian scholars, who argue that it deepens the exodus from agriculture to non-farming activities, thereby undermining agrarian development. Critics of the FTLRP who failed to see a link between non-farming activities and agricultural production have consistently argued that subsequent declines in output in the 15 major crop commodities was occasioned by a lack of formal agricultural training among resettled households and their alleged focus on resource extraction activities (Hammar et al., 2003). This is misleading, as it ignores aspects such as the absence of the agricultural credit schemes that propelled agricultural development in Zimbabwe soon after independence (Moyo, 1995).

4. PERSPECTIVES ON SUSTAINABLE LINKAGES BETWEEN AGRICULTURE AND MINING

If there are sound policies backing the manufacturing, agriculture and mining sectors, the capacity of the latter to provide backward, forward and horizontal linkages to the national economy should not be underestimated (McMahon et al., 2012). Backward linkages in the extractive sector entail surveying, which is sourced internally. Mining equipment and installations of plants are forms of backward linkages that are sourced externally. As it stands, Zimbabwe’s mining sector provides no backward linkages to agriculture and local manufacturing, as mining firms source their machinery requirements externally (Figure 3) (World Bank, 2012).

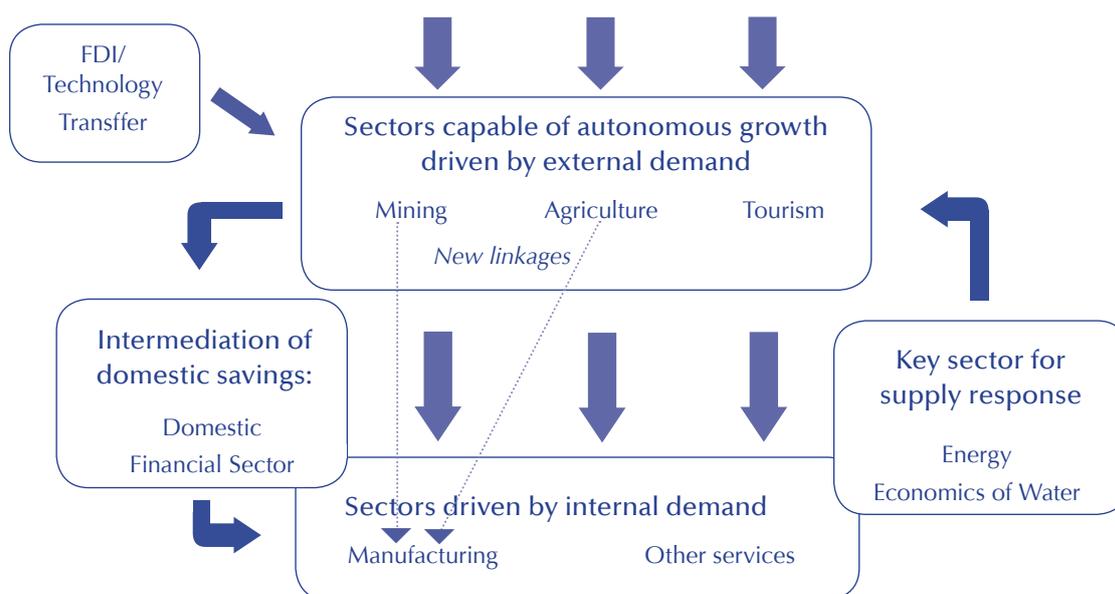


Figure 3: Schematic illustration of linkages in the post-crisis Zimbabwean economy

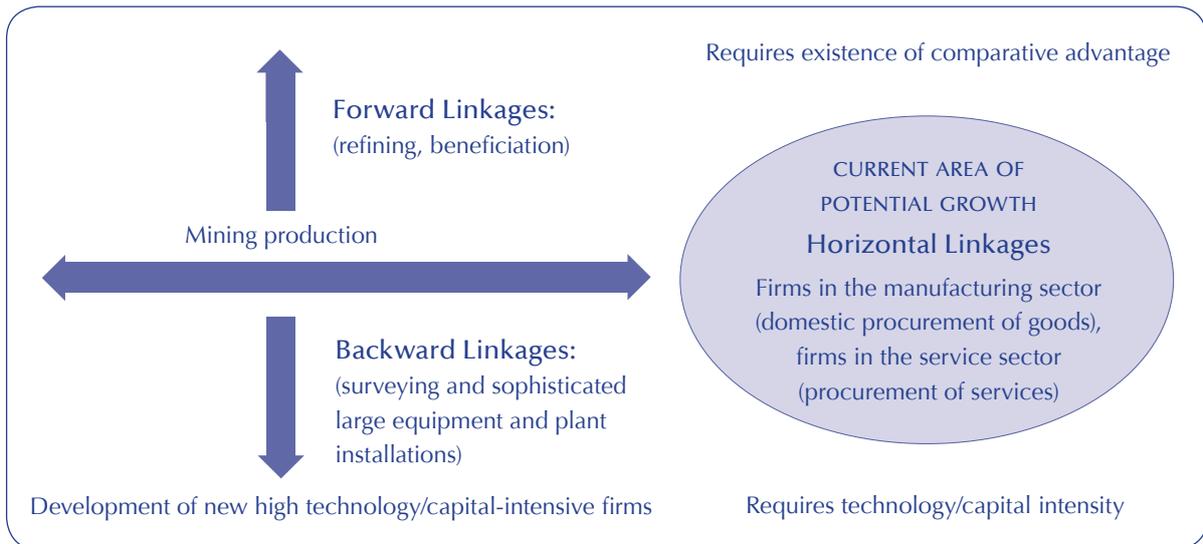


Figure 4: Development of downstream mining sector operations/Highly capital-intensive

The current capacity of local industry to supply machinery and spare parts to the mining sector is still constrained by the de-industrialisation that took place in the 1990s under the economic structural adjustment programmes as well as the country's ongoing economic woes. The extractive sector does provide forward linkages to industries engaged in mineral refining, beneficiation and those that utilise aluminium, steel and nickel in the production of their end products. However, these linkages in Zimbabwe have also floundered, for the processing of diamonds, platinum and gold and some other precious metals is increasingly undertaken outside Zimbabwe.

Whilst the linkages between the mining and agricultural sectors are limited, and the manufacturing sector in Zimbabwe has been in decline, mining continues to provide forward linkages to companies such as Zimplow, which is involved in manufacturing farm implements. There are also some forward linkages to the informal sector for the manufacture of other agricultural implements such as hoes, scotch-carts (Mujeyi, 2015). If the manufacturing sector is revived, mining can provide additional forward linkages for the benefit of the wider local economy.

As shown earlier, incomes generated by mineral extraction can be a source of finance of agricultural activities, namely through remittances to rural households by people formally or informally employed in the extractive sector. According to a survey conducted by the African Institute for Agrarian Studies, less than 10% of the surveyed households interviewed in a baseline survey were engaged in natural resource extraction on their plots, although key informant interviews suggested that such households could be higher (Moyo et al., 2009). Such findings are confirmed by Mkodzongi's (2013) study on Mhondoro-Ngezi, which showed that workers formally employed at Zimplats were using their wages to finance agricultural operations.

With the right policies in place, Zimbabwe's manufacturing and agricultural sectors stand a chance of benefitting from horizontal linkages, where mining firms procure the goods and services needed for their day-to-day operations (Figure 4). Such linkages are capable of generating more employment opportunities than direct employment created in the extractive sector, for example, service sectors (security, staff transport and camp construction), while the agricultural sector benefits from the greater demand for foodstuffs.

CONCLUSION

The extractive and agriculture sectors remain important to the Zimbabwean economy and play a critical role in national development by creating direct and indirect employment, generating foreign exchange, providing revenue to the national fiscus and contributing to infrastructural development. Through direct tax contributions, the extractive sector indirectly funds the agricultural sector, thus creating some links between the two. These synergies could be improved if the government were to properly implement the Maputo Declaration, which requires 10% of the annual budget to be channelled to the agriculture sector. As shown in the 2009 FTLRP baseline survey (Moyo et al., 2009), there are some linkages between the two sectors, for example, resettled farmers choosing to engage in resource extraction activities to generate income that is sometimes used to finance agricultural production. Burgeoning informal small-scale mining also provides an opportunity for some of the income obtained from the extractive sector to be channelled to agricultural production. Given the ongoing decline of the manufacturing industry and the lack of mineral beneficiation, forward linkages from the mineral sector that would benefit the agriculture sector remain limited. Efforts should be made to harmonise mining and land laws to ensure the peasantry is not disenfranchised from their rights to land should mineral resources be discovered. Moreover, under extreme conditions, peasant farmers should be adequately compensated for any expropriated land. Further capitalisation of existing mining firms would require the Indigenisation and Economic Empowerment Act to be relaxed as fears of expropriation continue to limit new investment.

Notes

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3. HORIZONS OF EXTRACTIVES – DECOUPLING WATER BALANCE IN THE CURRENT AND FUTURE ECONOMY OF ZIMBABWE

Prosper B. Matondi

INTRODUCTION

Globally, water resources are under enormous strain, particularly in southern Africa. Next to deteriorating economic growth and food insecurity, water is deemed the most contested resource for the immediate future. Decentralisation as a political phenomenon is affecting the nature of local participation and the technical and social management features of domestic water supplies. Key issues are how these changes are being manifested in the behaviour of households in seeking representation of their interests, the accountability of institutional actors and changes to the rules concerning access to water. The extraction of water for agriculture, industrial development and increasing consumer consumption patterns are also of concern. All these issues reflect the global debates on climate change, and are likewise a component of climate change negotiations.

This paper considers local and global issues that have a bearing on the impact of water extraction for economic development in Zimbabwe, and how it relates to global precedents. The links between agriculture, food security and water are straightforward, and need no deeper analysis. Freshwater resources are critical for human survival and are key to the production of all food commodities (except fish) that require, directly or indirectly, both land and water. Globally, around 86% of the human appropriation of freshwater is used to sustain agricultural production (Molden de Fraiture, 2010). About 19% of the world's agricultural landscape is irrigated and sustains 40% of global food production. However, as land is irrigated, the associated appropriation of freshwater resources can reduce the availability of irrigation water in the surrounding and downstream farmland areas, with the potential effect of causing water stress, poor water quality, and social unrest. Freshwater withdrawals are steadily increasing, thereby contributing to an escalating competition for water resources (Gleick, 2000).

Key objectives of this chapter are to discuss water within the context of extractivism in different economic sectors and its social and political implications. The chapter refers to both urban and rural water supplies, and the agriculture, industrial and mining sectors, as they are key to water demands. Zimbabwe's water extractivism cannot be separated from regional and global patterns, as water exports via products have grown phenomenally. In Zimbabwe, the export sector that has high water usage is mining, which has a great effect on the water table. Agriculture is always one of the largest users, but water export is minimal given that such exports are currently depressed. The chapter introduces urban water issues that involve a different form of extractivism, where water supply has become a cash-generating activity for the national parastatal controlling bulk water delivery, with local authorities charging subsidised rates and fighting to control water use via smart meters. Rights to water are no longer automatically guaranteed. These issues are discussed in this chapter as a step towards broader engagement on water rights in the context of Zimbabwe's political economy.

1. WATER, SOCIETY AND THREATS FROM EXTRACTION

Climate change has induced a new paradigm on the meaning of progress and development, and the role that water plays in the international political discourse. Frequent droughts are transforming the regulatory environment that results from the new relationship between water (as food) and societal development reflected through use of water for industry and for domestic consumption. I have categorised water as food because the potential socio-environmental impacts of the expanding industry that now converts agricultural or natural products for fuelling the transport sector and the food regimes cannot be overstated. The water 'food and fuel' nexus has set in motion feedback loops that raise the spectra of hastening human-induced climate change, destabilising agricultural systems – both biophysically and economically – and thus ultimately threatening food supply systems in a cyclical manner.

The world's climate as a physical system and as a social construct is changing rapidly. Developed countries are looking to invest in production away from home through large-scale land investments. Recurrent droughts in different parts of the globe provide the link between weather and price disturbances to global grain markets, which experiences large shortfalls. Developing countries are keener on rapid industrial development (that requires water) at the expense of retaining and conserving water for their own agricultural development and food security. In fact, they have allowed developed countries to export water through fuel and other primary and secondary agricultural goods on the premise that such development is 'good for Africa' and that 'Africa is Rising'.¹ In fact, the current wave of Africa's industrial development is premised on better roads and railways, to make it more efficient to move goods and minerals off the continent rather than investing on improving people's livelihoods.

The global agricultural market, the climatic system and the global scramble for land reveal the current aggressiveness and competition over resources, including water (Matondi et al., 2010). Although industry has fallen away in Zimbabwe, on other parts of the continent there is competition for it through the agricultural lens. What has emerged is the violent dispossession of land and therefore water from indigenous populations by international investors in many parts of the world (Ibid.). The international commercialisation of land always goes hand in hand with water extraction and takes different forms: unsustainable water-consuming farming through the privatisation and management of water utilities (stealing this vital resource from those who are unable to pay for it), the contamination of aquifers caused by unregulated mining, changes to river courses and waterways through the construction of dams (and the resulting eviction of communities formerly living nearby), the militarisation of access to water points, the dispossession of river sites for fishing communities and access to secure livelihoods through sand-mining.

In a similar fashion, the political economic power behind global agricultural markets privileges industrial and transportation energy demands over global food needs. This means that in the process of agriculture development water resources are extracted at a faster pace than in areas that are under subsistence agriculture. Direct results of the low mechanisation of most smallholder agriculture in Africa are that communities conserve not only forests, but also surface and underground water. However, subsistence farming is threatened by the increasing commercialisation of agriculture as it extracts much more water. Water extraction and its harsh exposure of smallholder to commercial markets via products are a threat. In often cases, smallholders are not prepared to participate in different value chains, where water is used. This factor must also be interrogated in terms of it being a threat to the development and security of indigenous communities. Zimbabwe is not immune to this potential danger.

Water in Zimbabwe is a crucial issue for businesses and for the state, as investments that use land are a top priority. Present trends raise pressing issues and inform the reputation and operational and regulatory behaviour of the state. They further question whether the state in its current architecture can defend the interests of the majority when it comes to their water rights. One of the key challenges for decision-makers in terms of policy and business will be decoupling water demand for consumption against potential economic growth, especially when dealing with its internal political problems and international relations. Achieving this goal will benefit the environment and society and ensure long-term economic growth. In light of these factors, this paper presents the horizons for water extractives with a view to informing how best they can be managed to meet the needs of the population and be used sustainably.

2. WATER IN THE EXTRACTIVE SECTOR IN ZIMBABWE

Zimbabwe's water environment is variable, both spatially (rainfall varies considerably from the central highland spine of the country down to lowland areas) and temporally (by season and by year). However, the recent context of vulnerability to drought has seen variability become a critical factor in testing new institutional set-ups and new land-use patterns. The capacity to manage access to and for the poor will be a major challenge to both, whether the focus is on biodiversity, energy, agriculture or social needs. Payment for water will be critical in the future, but will be highly contested as government will have to balance ease of access with the affordability of water for the poor. As indicated earlier, the bulk supply of water through tanks of 5,000m³ or more reflects these trends, with water metering showing signs that privatisation may be too tempting for government even though this will lead to resistance.

Government is central in the administration of water resources (Water Act, 1998). Yet, water supply is contested by a variety of users from farmers, miners, to managers such as local authorities and government. This means that the motives of water management clearly needs interrogation in terms of objectives, approaches, strategies and how management systems function. To help to demystify the levels at which the state works – from central government down to local authorities – political ecology, which has its roots in agrarian studies, has recently begun to pay more attention to issues on urban water and rights. Urban political ecology focuses on relations within cities and, in this context, they connect to rural areas through water sources, as many reservoirs straddles urban–rural spaces. Harare, for example, has banned private entrepreneurs from extracting water from the city's boundary sphere, and in so doing it has tacitly encouraged private sector companies into coalitions with rural local authorities. In some cases, deals are made to extract and transport water into the city.

In terms of population, towns and cities are growing in Zimbabwe due to high levels of migration from rural areas. This adds considerable pressure on existing infrastructure and resources. Most urban areas in Zimbabwe are already struggling to provide water to residents, while rural communities are mostly depend on unsafe sources. Groundwater accounts for a large proportion of rural communities' water as extracted through boreholes and wells. Over the last decade Zimbabwe witnessed a sharp rise in the proportion of the urban population relying on groundwater after municipalities failed to provide portable and consistent water. The United Nations International Children's Fund (UNICEF) has attempted rural and small city water, sanitation and hygiene (WASH) programmes. International NGOs such as CARE, Oxfam, Plan International and others have also concentrated on dam development to capture water in arid and semi-arid areas.

In the early 1990s, Zimbabwe suffered a vicious drought, with Matebeleland South being very hard hit. However, this had the effect of energising the country into developing more reservoirs to mitigate against water shortages. Programmes such as 'A dam a district' and the 'Give-a-dam' campaign were launched. Further efforts towards medium and small dam construction in the rural areas through the government's 'Medium-sized dam' programme and the 'Rural Development Fund' were set up in 2002 (Senzanje and Chimbari, 2002). The objectives were to provide sources of water for domestic use, to create new irrigated areas and recharge groundwater. However, the programme was affected by challenges after NGOs turned to focus on food provision than long-term dam development. Many of the dams are silted because communities were not provided with skills for management or shown how best to use them for income-generation as economic drivers. This means that the latter will most likely increase water consumption. Water management is imperative, given that it is an enabler of life and most economic activities. Its quantity, its quality, and affordability are critical matters in governance.

2.1 Water Resources

Zimbabwe, like other African countries, has been increasingly experiencing water scarcity as a result of the variations in rainfall occurrence aggravated by climate variability. The country has 20 million mega-litres of total annual renewable available freshwater (Ministry of Environment, Water and Climate (MoEWC), 2015). The water is largely replenished through rainfall, runoff into rivers, streams, lakes and reservoirs, aquifers and freshwater aquatic systems such as wetlands. The total mean annual rainfall ranges from around 300mm in the south west to over 1,000mm in the northeast and modest downward trends in the total and mean summer rainfall have been observed. Intra-seasonal rainfall characteristics such as onset, duration, dry spell frequencies and rainfall intensity have worsened. There are more hot days, hot nights, and hottest days.

In general, Zimbabwe's average annual rainfall is 650mm, but has been as little as 400mm. Mountainous areas usually receive the highest rainfall, recording an average of over 2,000 mm. The country receives most of its rainfall from November to March and is dry for most other months of the year. In a normal rainfall year, Zimbabwe receives a total of 253km³ of water, of which 91% is released back into the atmosphere through evaporation and evapo-transpiration. Only 7.9% feeds rivers to become the major source of agricultural, industrial, mining and urban water supply. An estimated 1.5% percolates into the ground to form groundwater, a part of which later feeds into rivers (Ibid.).

2.1.1 Surface water resources

Zimbabwe is one of the most well-dammed countries in Africa. Surface water contributes 90% of the country's water supply and groundwater the rest. However, agriculture is largely dependent on rainfall, even though this is the single most important source of risk and uncertainty due to drought. Reallocations of water resources through in-field conservation, dam construction, or groundwater abstraction are all core strategies for reducing risk. Surface water is the most readily available water resource and Zimbabwe has constructed over 8,000 dams (ZINWA, 2016). Whilst the country's readily available surface water is 4.7km³, it is not utilised to its full capacity. Water is lost upstream, before it gets to the users, and during normal rainfall years there is excess water. In a normal year, actual utilisation is pegged at 3.5km³, which is 74.5% of the available water. However, in the recent years, the use of surface water has been as little as 2.8km³ (59.6%) (Nilsson and Hammar, 1996). With regards to rivers, water use is much more complex because these water courses do not adhere to political boundaries. The Zambezi is 'shared' with Zambia

| Catchment | Total no. major dams | Net capacity (106 m ³) | Present capacity (106 m ³) | Full (%) | % Change since | |
|---------------|----------------------|------------------------------------|----------------------------------------|-------------|----------------|--------------|
| | | | | | 04/07/16 | 29/04/16 |
| Gwayi | 16 | 119.819 | 75.439 | 63.0 | -0.6 | -7.6 |
| Manyame | 11 | 1281.43 | 1049.611 | 81.9 | -0.4 | -4.6 |
| Mazowe | 24 | 248.586 | 188.1 | 75.7 | -0.2 | -4.3 |
| Mzingwane | 30 | 1078.37 | 678.029 | 62.9 | -0.6 | -6.0 |
| Runde | 30 | 2247.263 | 551.214 | 24.5 | -0.3 | -2.8 |
| Sanyati | 19 | 440.482 | 262.027 | 59.5 | -0.8 | -8.2 |
| Save | 18 | 796.142 | 378.057 | 47.5 | -0.5 | -3.9 |
| TOTALS | 148 | 6212.092 | 3182.477 | 51.2 | -0.44 | -4.41 |

Table 1: Water catchment summary in Zimbabwe for large dams

Source: ZINWA (2016)

**Kariba (hydroelectricity) is not included in the catchment analysis*

and the Limpopo with South Africa. When the Zambezi enters Zimbabwe it has about 37km³ of water; the Limpopo is pegged at 2km³. However, due to factors such as losses from evaporation upstream and downstream factors (other countries), Zimbabwe can only extract an estimated average of 2km³ from its rivers combined.

Of the estimated 8,000 dams in Zimbabwe, only about 3,000 are currently registered (ZINWA, 2016). Zimbabwe National Water Authority (ZINWA) has been continuously assessing the country's major dams. Managing water resources is complex because water resources seldom adhere to administrative/political boundaries. As a result, hence Zimbabwe was divided into seven manageable catchment areas by the Government of Zimbabwe. Table 1 shows that Runde and Mzingwane catchment areas have the greatest number of dams, and Runde the greatest net capacity. Although Manyame catchment has the least number of dams, at 81.9% full, its dams are the highest. Sanyati catchment had the greatest loss at -8.2%, whilst Runde catchment area retained more water than all the others.

2.1.2 Underground water resources

Underground water has become a site of international struggle, because of the dominant fears that water needs to be secured now due to fear of climate change and the potential for more increasing water deficits. Some countries have opted to bar usage of their own water resources, preferring to invest billions of dollars in large-scale farmers who will contribute to the buying and importation of water via agricultural products. For example, Anil Ananthaswamy (2011) noted that oil-rich countries in the Middle East outsourced in two ways:

Take Saudi Arabia, for instance. Between 2004 and 2009, it leased 376,000 hectares of land in Sudan to grow wheat and rice. At the same time the country cut back on wheat production on home soil, which is irrigated with water from aquifers that are no longer replenished – a finite resource.

This is a key matter, given the spectra of large-scale foreign acquisitions by rich nations. Although Zimbabwe is of little interest in terms of current land investments, it may be in the future, if political risk factors disappear. The historical patterns of large-scale agricultural development, where irrigation development was accelerating at pace in the 1990s, could be repeated, which means that even though over-dammed, the amount of surface water would need supplementing

from underground water sources. This would have a negative effect on a finite resource and compete with people's interests. As such, water will remain a security issue.

The estimated groundwater resources available for exploitation in Zimbabwe total eight million mega litres. There is little information on groundwater potential, but it is known that large aquifers exist in the Save Valley and in northern Matabeleland. The sedimentary geological formation in the north of the country yields some groundwater, but granite, which is the country's most extensive geological unit, only gives around 800 gallons per hour. In Nyamandhovu, northeast of Bulawayo, one aquifer in a sedimentary basin of the Karoo system has an average yield of 0.01 cumec (1/3 cusec) of water (Makadho and Rukuni, 1994), whereas Kariba Dam has the potential to irrigate over one million hectares of land. Unfortunately, this water can only be used in the Zambezi Valley (Mushumbi Pools), which has a large block of good alluvial soils. The Zambezi is a riparian resource shared among nine states, which requires adherence to international agreements on shared waters.

Zimbabwe's underground water resources gained prominence in the 1990s, as a precursor to the water reforms that saw the revisions to the Water Act. A key matter that arose at that time were the serious water deficits in Matabeleland, especially Bulawayo, then the industrial hub. Government sought short and long-term solutions, for example, dam development and piping water to Bulawayo for Mzingwane dam, developing and abstracting water from Nyamandhovu aquifer and piping water from the Zambezi to Bulawayo. A programme for the first two solutions was implemented and provides water to Bulawayo, but the third remains a dream.

2.2 Water in the Cities: Extraction for a Growing Population

Growing cities have a high water demand, and often the pace of population change in Africa is faster than the capacity and state of preparedness of the authorities to match it with necessary infrastructure investments. Zimbabwe has been a casualty of this process, meaning that the rise in urban population has not seen adequate provision of additional water. In this context, cities and high-populated areas become extractive, especially where no matching investments are in place for water conservation.

2.2.1 Domestic water demand and consumption

Uniquely in Zimbabwe, urban population growth has seen more housing demand and development than industrialisation, which requires less water and less energy due to under-performance. While this would have been beneficial, it has created tension with respect to the availability of water resources.

Although water as food is a natural right, in relation to human settlement and economic activity, it often must be redirected to where it is needed. This has cost implications, and governments try to subsidise its provision. Most rural communities either use public infrastructure (boreholes) or access it via self-constructed wells, rivers and so on. In urban areas, piped water was once the norm, but this has changed. With many towns unable to meet demand, some municipalities have turned to paid water metering. It is currently used by the Zimbabwe National Water Authority (ZINWA) for commercial purposes and nominal charges for abstraction in a context where there is equity in access for all. Yet, the introduction of water metering seems to imply privatisation, punishing those who cannot afford it. Local authorities argue that it is the only way they can make water available to fulfil their constitutional and legal mandate of ensuring that water at least reaches the consumers. It is then up to the consumer to extract the water by 'paying the machine' to release a specific volume. This is highly contested, because there are circumstances where

consumers of various classes may not be able to pay for the water, or even be able to borrow water from neighbours. Electricity is metered because it is still regarded as a 'luxury'.

A key matter that has yet to be answered is whether local authorities are investing in metering to extract cash. One participant at a seminar pointed out that the water problem in Harare was one of management rather than its availability at source. The participant accused the city authorities of corruption and abusing resources, meaning that despite many years of loans from China and ratepayers paying, they have failed to provide adequate water. This is regarded as rent-seeking, i.e. extracting money from water consumers on the basis of agreeing to supply but without actually being able to do so because the money is used for other purposes, or the tenders for supplies and infrastructure development are seldom undertaken.

2.2.2 The extraction of water for industrial purposes

Currently, industry and other institutional sectors use about 15% of the country's available water resources (MoEWC). At its peak, Zimbabwe's industry was a net consumer of water for a range of production processes and products. Value-addition and manufacturing meant that Bulawayo, Harare and Gweru were guilty of water-related pollution. This contributed to the reviewing of the Water Act in 1998, from the 'first come, first serve' principle to that of 'the polluter pays'. The high levels of pollution of Harare's main rivers, especially the Mukuvisi, significantly that affected the capacity of the City of Harare to process water for domestic consumption.

Industry was hard hit by electricity and water shortages at the time of dollarisation and the phenomena increases to the cost of doing business. Water for industry is key, and is a cost build-up to the final product. It is in this way that consumer products carry water and are part of trade, business and profit-making. However, the collapse of the manufacturing sector resulted in low capacity utilisation and therefore lower water extraction. As a result, Zimbabwe has become a net importer of water from other countries. In some ways, this is positive for water conservation, but it has created inequalities as a large percentage of the population cannot afford imported food.

A key industry that uses large water quantities is baking. It operates 24 hours per day and uses approximately 120,000 litre/day, at a cost of US\$3/1,000 litres. This is a high cost factor, considering that they also import flour and have high electricity tariffs. One strategy the industry has put in place is to buy bulk water from bowsers, which was originally necessary due to inconsistent municipal supplies. Moreover, piped water has a pH of 9, but bread requires it to be between 3 and 5 if it is to have any shelf life.² Municipal water had become unsuitable for bread-making. It is in this light that water extraction is a risk to business and needs attention. This evidence is extra-critical because, according to World Health Organisation (WHO) guidelines, people should only consume water with a pH value under 7. Water quality needs to be far more closely monitored, especially if it is to be drunk and used in the direct production of foodstuffs and edible products. This goes beyond extraction and sets a course for debate on how guidelines can be enforced without punishing those industries operating with high water costs.

2.3 Agriculture as the Largest Sector for Water Resources Extraction

Agriculture uses most of Zimbabwe's water – 81% of all that is taken up goes on irrigation, fish farming and livestock watering (MoEWC). Few smallholder farmers are net extractors of water as they use limited technology and the bulk of their production are rain-fed crops. Most rural communal areas have fewer boreholes per unit of land, or use manual (or solar) water pumps. As a result, and depending on the underlying geological system, some areas have considerable

| Category | Before 2000 | | After 2000 | |
|-----------------------------------------------------|-------------|------------|------------|------------|
| | Area (ha) | % of total | Area (ha) | % of total |
| A1 | - | - | 7,620 | 6.3 |
| A2 | - | - | 12,450 | 10.3 |
| Communal and resettlement | 10,000 | 6 | 11,860 | 9.8 |
| Indigenous large-scale commercial (or informal) | 20,000 | 11 | 9,250 | 7.7 |
| Traditional large-scale commercial (white-owned) | 139,500 | 73 | 8,140 | 6.8 |
| ARDA | 13,500 | 8 | 7,620 | 6.3 |
| Estates | | | 63,470 | 52.3 |
| Settler | 3,600 | 2 | | |
| TOTAL | 186,600 | 100 | 120,410 | 100 |

Table 2: Distribution of irrigated areas before and after 2000

Source: DAE (2002)

amounts of underground water. Water used by rural households is drawn from wells with a maximum depth of 15m. This implies that there is more underground water in subsistence farming communities, where the preference is to use surface water. Such finite water resources will have increasing importance given climate change, as droughts are now more frequent.

Communal areas with high population densities and deforestation with antecedent soil erosion are another major area of concern as it causes disturbances to the natural water cycle, creating situations of lesser rainfall in some parts of the country. Microclimates are critical to aiding rainfall, and as land degradation increases and natural ecosystems are destroyed, the knock-on effect on the water cycle is dramatic. Rural demographics are a major contributor – there are an estimated 6.7 million people living on about 16.4 million hectares (Matondi, 2012). This means 2.3 persons per ha, which is heavily congested, and results in overuse of the land and degraded forests.

2.3.1 Commercial agriculture and water extraction

The less water a crop uses, the better it is for the environment. Water is a limited resource in Zimbabwe, with most rivers being badly damaged from alluvial mining and other unsustainable practices. This is particularly important in places that are more arid, such as the lowveld, where water use requires greater monitoring and its distribution more equality. In the context of land expansion for feedstock, it means increased demand for water supply through damming of rivers. This helps retain water that can be used for multi-purposes, as long as water pollution is under control.³ For instance, the dams could be used to irrigate other food and industrial crops, while fishing and other aquatic life could be attracted. Holding water in dams should have a positive effect on ecosystems given that it provides a basis for regenerating catchment vegetation resources, which has a cyclical benefit on the natural environment.

It is critical that a fundamental change in the irrigation sector after 2000 be highlighted. Based on data from the Department of Agricultural Engineering (DAE), after the land reform programme there was a significant drop in areas under irrigation (Table 2). Though water was available for

irrigation purposes, new farmers found the systems difficult to use. In general, the dramatic drop in fully irrigated winter wheat from over 400,000t/year to less than 20,000t/year (over 100,000 ha to less than 20,000 ha in 2016) reflected the new farmers' lack of technical capacity and government's concentration on dry-land crop support.

While there were many problems with extracting value from land and water, such as the centralised market control policy of all grains, poor pricing structures and the inability of the Grain Marketing Board to pay farmers, it is also clear that the new farmers were also culpable. Government, to its credit, concentrated on major dam development, and the private sector in the lowveld in particular, contributed to helping it. However, the overall picture was that irrigation development suffered, and simply from neglect. It is only in the current (2016) farming season that general emphasis on irrigation development can be seen, though the attitude is lukewarm, as the country is struggling to pay civil servants and the capacity of the private sector is at its lowest (less than 20% of capacity utilisation). This means that as government struggles to restore its balance of payment support, the commercial use of water, especially irrigation, will remain a high priority but low investment area.

2.4 Liquid Fuel Energy's Demand for Water in a Context of Climate Change

In areas such as energy production for methane-based coal, large amounts of water are required to run the turbines. Hwange coal mine is a case in point. While water is a key issue in Matebeleland North, the proposed Matebeleland Zambezi Water pipeline of many decades would offer a respite for maximisation of coal and electricity beneficial to Zimbabwe. However, it is the production of energy from crops that has caused much of the contestation because of the displacement of smallholder farmers. In many cases, the planning systems have been changed, with the master plan showing that much of the area under smallholders could potentially be allocated for the production of sugarcane. This has the potential to negatively affect smallholders who are dependent on the Save River.

Shifting agricultural practices to incorporate more biofuel crops will affect water quality as well as water quantity. Opening up more land for agriculture purposes may exacerbate the problems associated with fertiliser runoff and soil erosion. One question typically raised is whether previously uncultivated land used to grow agro-fuels will minimise competition between food and fuel. Answering this question requires the consideration of several crucial issues, chief of which are water availability, pollution of water sources and the impact on those who depend on the marginal lands for their livelihoods.

Whether or not biofuel crops will require more or less water will depend on what crop is being substituted and where it is being grown. High-yielding biofuel feedstock requires water, and marginal lands may not meet the yield requirements necessitating land expansion. This contributes to the agriculture energy versus water conflict, as they will also take over some prime land intended for non-energy based agriculture. The impact of biofuel production on water resources does not stop when the crop is harvested, as significant amounts of water are then needed to turn it into fuel.

Biofuel production plants can also cause problems for local water resources, even in areas where rainfall is sufficient to grow crops without irrigation. Biofuels are believed to be carbon neutral in that they absorb the carbon that they emit during growth. However, as it has been noted that the machinery used for their production may run on fossil fuels, emissions must be closely monitored. System failure during production is one threat to the environment, as it can result in effluent discharge that could pollute neighbouring rivers, thereby increasing water

acidity and turbidity and decreasing oxygen levels, which can lead to the death of livestock and fish.

3.4.1 Water extraction for fuel

Zimbabwe is a net importer of fossil fuel energy and its current requirements are 1.2 million litres of petrol and 2.3 million litres of diesel per day. The use of bio-fuels could reduce the country's dependence on imported petroleum products, stabilise fuel prices, ensure energy security, promote rural development and investment, reduce poverty and create employment. A mandatory 5% blending of bio-ethanol was introduced in 2013 and raised to 10% in 2014; the final target is 20%, which will be imposed when sufficient ethanol is produced. The government

Sugarcane – Tongaat Hullett

In the last 20 years, Tongaat Hullett, with an annual capacity of 40 million litres from molasses, has produced 20 to 25 million litres of ethanol at its plant in Triangle, for blending with petrol and supplying the local solvent industry and for export. This arrangement has since changed, only Green Fuel has the exclusive license to supply ethanol for blending. However, Triangle recently provided some ethanol for blending with petrol after it had run short. Tongaat Hullett's main thrust at this stage is now producing sugar – at a capacity of 640,000 tons per year. Therefore, the ethanol plant works towards a balance between food security and fuel. The average yield had been 100 tons per hectare, but this has recently decreased to 74 tons. Climate change, limited irrigation water, high cost of inputs and financial constraints have been cited as possible reasons. Of the 44,952 hectares of sugarcane sourced by Tongaat Hullett, 16,309 hectares were grown by smallholder outgrowers. The company and its outgrowers employ a total of about 26,000 people.

Ethanol – Green Fuel

Green Fuel is the only company licensed to produce ethanol to meet the 20% mandatory blending with petrol. It has 9,500 hectares under sugarcane, inclusive of 660 hectares belonging to outgrower farmers and settlers, which supplies an ethanol plant with an annual production capacity of 120 million litre. 74 million litres have been produced so far, with 54 million being produced in 2014. Green Fuels can potentially achieve yields of 130 tons per hectare. However, due to unpredictable and unnecessary cuts in water and electricity supply, an average yield of 120 tons of sugarcane per hectare and 70 litres of ethanol from one ton of sugarcane have been adopted. Water and electricity are very expensive for the project and non-conducive to an investment environment.

has established biodiesel processing plants with capacities of 10,000 litres per day in Mutoko and 60,000 litres per day at Mount Hampden and recently partnered with Green Fuel, a private company, to produce sugarcane-based bio-ethanol for the transport sector.

Tongaat Hullett is the first case study and the second case study is water extraction from Save River by Green Fuel with its subsidiary companies Ratings and Macdom Investments. The Save River is a shared river inundated by conflicts between stakeholders in the upper and lower parts of the stream. The stakeholders range from smallholder farmers who, other than a few irrigation

schemes, have no technologies for commercial use of the water. They however, have their cattle submerged in the large canals that are open. There are also diamond-mining firms also using the water for processing, and discharging effluent into the river. Green Fuel is also accused of the same, setting the scene of accusations and counter accusations, with the state unable to resolve the conflicts because it also has interests in the firms through its partnerships. The big commercial entities accuse each other of water pollution, and the Environmental Management Agency confirmed pollutant traces in different parts of the river disposed by the commercial firms. However, their economic muscle seems to overshadow environmental interests, which could be damaging in the long term.

The two were chosen because of their contrasting experiences: Tongaat Hullet is lauded because it produces sugar as food and uses waste for ethanol production and other products. Though it took land from indigenous communities in the 1950s, it does not attract much criticism because it has a longer history and displacements at that time have been 'forgiven and forgotten'. Green Fuel and its companies in Chisumbanje have been accused not only of land displacement, but also of water pollution, refusing to pay for water and non-compliance with environmental regulations. These issues are contested, and interviews with the parties concerned undertaken by the author revealed an impasse. Although Green Fuel is leasing land from the Agricultural and Rural Development Authority (ARDA), it has failed to communicate its ownership of the land to the broader public, and thus leaving Green Fuel a lessor. Though the leasing could have been above board. ARDA was uncharacteristically quiet when villagers in Chisumbanje rightly felt that some of their land was being taken over by the company and not ARDA per se.

A visit by the author to the area in December 2015 indicated massive land underutilisation in the Middle Sabi area by new and old resettled farmers. This was despite the fact ZINWA ensured that water was available. Only Green Fuel and two resettled farmers were making full use the water that was flowing through canals in the middle of the fields. Hence, when it comes to value extraction, Green Fuel and its companies are justified in having access to land, if only because most local new farmers are unable to use it for a variety of reasons. The interest of the state, in terms of economic development is to use as much water for economic activities. If unused and undammed, it is wasted commodity, and one extracted at high cost. Usage thus should take precedence because the land is suitable for sugarcane production. Means and ways of ensuring equity sharing for investment do need to be facilitated and negotiated with local farmers. They should receive value from the land and Green Fuel value from the product, and the monopoly it has over the market given the current blending arrangements. This approach would offset conflict with local communities who currently feel excluded; they would also benefit from the employment opportunities resulting from one of the only notable largest investment in agriculture since 2000.

2.5 The Extraction of Water and Mineral Extractives

The minerals industry uses 2% of Zimbabwe's water resources, which is a more significant amount than it initially sounds (MoEWC, 2015). According to the local population, the chemical extraction of diamonds has polluted the Save River, which is the lifeline of small- and large-scale farmers in Chipinge. They depend on sugarcane for biofuels, which are largely used in Zimbabwe's transportation industry. The issue of water is thus critical when it comes to mining and extraction.

A key component that also warrants further examination is that of 'positive' and 'negative' water balance. At their peak, a number of mines had a negative water balance, i.e., lacking

sufficient water to operate, and at others a positive one, when there was too much and needed expensive electricity round the clock to facilitate water abstraction to allow for mining activities.

In the diamond sector, mining has also seen environmentally adverse effects. Studies describe pollution of water sources from mercury and cyanide, resulting in a myriad of pollution-related ailments for communities and their livestock, as well as forceful evictions from ancestral lands without adequate compensation. Diamond mining is also the largest culprit when it comes to 'water export'. Communities in the Marange/Odzi regions of Manicaland (Chimanimani, Marange, Buhera and Chipinge) rely on the Odzi and Save Rivers for potable water, domestic chores, bathing, fishing and other products such as reeds used for in basket making industry. Irrigation schemes that draw water from the Odzi and Save Rivers in the Nyanyadzi, Tonhorai and Birchenough areas have been key to sustaining the livelihoods of local communities. However, since the start of diamond mining, the services that were derived from these rivers have slowly diminished as a result of the decline in water quality. Many communities can no longer use the water for drinking, whilst even coming into direct contact with water and mud causes skin irritation. The use of ferro-silicon (an alloy containing silica, iron, chromium, nickel, aluminium and calcium) is thought to be linked to the prevailing environmental problems. Downstream, the water has become red-ochre in colour, negatively affecting the health of the river system and its ecosystem.

The mining of black granite in Mutoko has a long history. The stone – of which 95% is exported – fetches millions of dollars for the country. However, the profits are concentrated in the hands of the few and have no multiplier effects; local communities still live in conditions of immense poverty. Operations do not adhere to environmental regulations and have caused considerable damage in the form of air, land and water pollution, land degradation, deforestation and lowering water tables.

Not surprisingly, in this context, the need for effective reuse and recycling technology is of ever-increasing importance. Besides water supplies, mining companies need to observe all regulations, which will necessitate them to invest in water efficiency and supply measures and/or production cuts. Particularly critical to mining investments is attaining water rights, i.e., a licence to use water. This process should not be exclusionary and should involve stakeholders that have interests in the same water resources. However, it is one thing having the water and quite another to get water in a country with high electricity tariffs, with electricity sometimes being inaccessible due to load-shedding.

Many mines have closed because the government's inability to mobilise adequate electricity for water extraction, despite the fact that they are a top economic priority because they generate considerable revenue for the state, but only if the sector is managed well. Huge financial losses have occurred in the sub-sectors of gold and diamonds, which have high water requirements, much of which comes from precious underground water resources.

3. WATER ECONOMY AND THE POLITICS OF USE AND ACCESS IN ZIMBABWE

3.1 The Political Economy of Water

Zimbabwe gained considerable international attention with its controversial but politically necessary land reforms in 2000. The fact land holds all other resources, including water, shifted the power and terrain of smallholders, who were the major beneficiaries of the programme. A critical matter that informed the psyche at that time was that they were to enjoy this wealth.

However, after 16 years, it is clear that it takes more than politics and power to make the land greenery. There is no doubt that a key aspect of political power has shifted to the rural poor, namely that of the land reform programme (Matondi, 2012). However, most are unable to exercise it, for it lies in the actual use of the land, with water being a major defining commodity. In reality, little has changed as the new tenants lack the skills to access and use water storage and then have a commodity with which they could negotiate. In sum, political backing alone does not necessarily afford real power when it comes to resources. The greatest power is derived from their efficient use – in this case, water – and the investments individuals are able to make.

The water reforms that had started two years before the onset of the land reform programme were a process crafted to ensure equity in access to water resources, largely for farming. They also came at a time of declining government capacity to fund water development. In this context, there was a shift to a complex strategy of stakeholder participation, user pay and assumed increasing access to water. The reform strategy was premised on the continued vibrancy of commercial farming, with the expectation that new black commercial farmers would be entering the sector. This did not prove to be the case: surface water is unused, dams have silted and catchments have degraded, making it a challenge to extract water for sustainable irrigation. There is a need to address the incentives on water use, to be incorporated into policy such as tax breaks for new farmers, especially the commercial sector, as government now seeks to recover money from new under-performing land-owners to pay compensation to the evicted white farmers. Under pressure from multilateral institutions, new farmers have to add to their costs the purchase of land by government among a plethora of government rent-seeking to pay for the populist policies that were implemented, without foresight as to the implications. With water no longer being a free commodity, and some new farmers lacking the financial capacity invest in water extraction, the ability of government to manage the food basket will be negatively impacted.

3.2 Water Commodification, Extraction and National Interest

Trading water is a contested paradigm, as in many cases it is not seen in the direct movement of the water itself but via crops for export. However, the process of products at sources for export and re-export implies that in Africa, where there is much investment in large-scale land irrigation, water is effectively bought twice. This reflects the hidden ways in which water is extracted and exported via products, and how it damages water sources and affects Africa's net economy. In general:

The net effect is that populations in nations that import water can grow without restraint since they are not limited by water scarcity at home. A rise in the virtual water trade make societies less resilient to drought by exploiting unused supplies. Although this could be seen as a good thing, it will lead to greater exploitation of the world's fresh water. The unused supplies in some areas that are crucial in case of major droughts in other areas will dry up. (Ananthaswamy, 2011).

As a result of pollution, failing infrastructure and lowering water tables, water sales are now big business in Zimbabwe. The trade in drinking water, which remains attached to extraction, is complex, given that there are imports of bottled water from South Africa and repackaging of water traded in Zimbabwe.

For government, attempting to assess the quality of bottled water on the market has been a losing battle. All manner of strategies, including trying to name and shame by listing 'trusted' water brands that meet WHO standards, have been ignored by both sellers and consumers.

3.4 Institutional Responses to Manage Water Extraction

Box 1: Bottled water is the 'new gold' in drought-hit Harare

The joke in Harare these days is that more people per square metre are drinking bottled water in the drought-hit capital of Zimbabwe than in wealthy Manhattan. An estimated 300,000 litres change hands daily in this city that has a population of just over 1.6 million, Zimbabwe's Minister of Finance, Patrick Chinamasa, has said that that imports have reached 'crazy' proportions. Buyers include poor families as well as rich, and such is the upswing of demand that bottled water now outsells alcohol and soft drinks in some desperately thirsty neighbourhoods.

The reason for the boom is simple: what comes out of the tap in many homes and businesses is increasingly undrinkable. 'Municipal water is smelly. Often we see visible dirty particles floating' said Precious Shumba, chair of the Harare Residents' Trust, the biggest civic pressure group in the city, in an interview with the Thomson Reuters Foundation. As water quality declines, some families who drink or bathe in municipal water develop health problems ranging from rashes to typhoid, health authorities say.

The capital has grappled with the problem of providing clean water for the greater part of a decade, but an extended drought, crippling power cuts, a cash-short municipal government and an exodus of qualified water engineers means the city now produces only about 40% of the water needed (Shumba). About half of the city's water is lost through leaking pipes, and illegal connections are also a problem. In many homes, municipal water is only used for bathing, gardening, doing laundry, or watering animals.

The surge in demand for bottled water has led to new business opportunities. Sheila Dezha, 40, a widow, collects empty plastic bottles from bins and sidewalks, scrubs them clean and refills them with well water. After refrigerating the bottles overnight, she sells them to passers-by near malls and restaurants or to motorists stopped at traffic lights. 'Dirty municipal drinking water means big profits for me,' she said in an interview. Her home-bottled water sells for \$1.50, bringing in a healthy profit:

'On a good day I can sell 100 bottles of water ... At first my neighbours jeered my business as shameful and deceitful ... [but now] I can afford to put my two children through secondary school. Now neighbours borrow money from me. On weekends I go around the community teaching women how to clean dirty bottles and sell fresh water.'

A secondary school teacher said:

'I sell to thirsty students for \$1.10 a tube. It's a marvellous secret profit... Water is the new gold in Harare.'

However, not all of the water for sale on Harare's streets is safe. Arnold Gokwe, a director for Still Waters Packaging, one of the city's water-bottling companies, said touts refilling bottles with unclean water is hurting the image of companies like his. 'Fly-by-night sellers fill bottles with rainwater and stick our brand across their bottles. This spoils our reputation'. One doctor noted that 'Often I am treating over ten patients with vomiting, abdominal pains and dysentery. Some of it is related to water issues, especially patients from the poorest suburbs like Mbare, east of the city'.

The Water Policy and Water Act (1998) radically changed the management of water resources and brought a semblance of equity as it eliminated the colonial first-come, first-serve principle that favoured large-scale commercial farmers and the mining sector. However, 20 years on, it is clear that there has in fact been a degree of continuity, as water use was categorised as either commercial or primary. Primary water is defined as water used for domestic needs in or about the area of residential premises, animal life, making bricks for private use and dip tanks (Section

32,1). Commercial water covers usages such as those pertaining to agriculture, mining, large-scale livestock and the generation of hydroelectric power. Access to water for commercial purposes – including urban waterworks – also legally requires the user to apply for and be granted a permit. ZINWA is also supposed to self-authorise and account for the water that it uses.

The Act requires that water resource management be consistent with environmental approaches that prescribe (a) the protection, conservation and sustenance of the environment; and (b) the right of access by members of the public to places of leisure or natural beauty related to water or water bodies. Biofuel companies are required to secure permits for discharge or disposal of waste into water. All companies are expected to specify the quantity and quality of the discharge or disposal concerned. ZINWA levies fees for discharge/disposal to enable the cleaning up of any water pollution and to alleviate any environmental damage and to facilitate research related to water pollution and its control.

CONCLUSION

The future of Zimbabwe's economy in the short term lies in agriculture, and certainly surface water is required in adequate quantities for this sector to develop. This means that efforts at conservation and catchment rehabilitation are needed, balanced with correct measures on the scope and extent of its commercialisation. The latter term also includes revenue derived from accessing water for domestic use (where local councils have a penchant for extractive rent-seeking through high water surcharges). It is also necessary to recognise the indivisibility of the rights to water with the rights to food. Zimbabwe has an obligation to its people to defend water rights through fully implementing all existing laws and regulations rather than allowing only marginal adherence.

That there is disproportionate distribution of water in Zimbabwe in relation to agro-ecological zones and critical water demand centres (urban versus rural), the crisis is not due to actual quantities of available water but rather to the wasteful and unsustainable manner that water is being used and managed. The amount of water lost in Harare, for example, is high, largely because of failing infrastructure. Today, there is hardly any major investment in water equipment and/or infrastructure under construction. In the agriculture sector, water is lost through transpiration rather than over-use because irrigation is at its lowest. The impact of new farmers' incapacity to use available water proves that there is a strong relationship between food insecurity, poverty and access to productive water and land. The living standards of poor smallholder farmers can be drastically improved if they are provided with the skills and tools for managing the water throughout cropping seasons, even under rain-fed agriculture. In this way crop failures would be minimised and crop yields increased, with the attendant benefits of improved incomes and livelihoods.

In the urban and industrial sphere, citizens accept water meters if it means they can access water at an affordable cost. (Pre-paid meters have worked well in the electricity sector, although challenges remain in terms of pricing.) It is vital to ensure water social safety nets in contexts where meters are introduced, i.e., no technological change should leave the poor without water and having to resort to free but unsafe water sources. This is due to the inability to improve waste infrastructure, which has the potential for water pollution, contamination and possibilities of fatalities from typhoid and cholera, as was proven in 2008 when over 4,000 people succumbed to these treatable diseases.

The protection of water rights means also their realisation, especially for vulnerable and marginalised groups, women and youth. Government and local councils must systematically

apply a rights-based approach by adopting coherent policies, including development that also benefits and empowers communities rather than merely meeting economic and geopolitical interests. This means adopting constitutional and legislative regulatory frameworks that guarantee everyone the availability and accessibility of water. In this context, collective customary rights regulating the access, security and governance of water should be guaranteed, given that 70% of Zimbabwe's population lives in rural areas many of which are deficient. In other words, whenever the state grants rights for commercialising land and facilitating access to water for mining, it must consider and respect the interests of the poor, who cannot be protected by 'violent' markets and the commoditisation of water when they have little competitive edge due to negligible or non-existent sources of income.

Notes

- 1 'Africa is Rising' is a recent new political phenomenon, ascribed by African leaders, donor organisations, multi-lateral and bi-lateral agencies with an interest on Africa. The glowing praises, have focused on the Gross Domestic Product (GDP) measurements that have become such an important instrument of both economic and political persuasion to 'skeptics' of the meaning of that progress. Yet, poverty data shows no change to worsening poverty in parts of Africa as currencies depreciate, incomes remain depressed and the economic development has two extremes of high, large-scale development of infrastructure, and equally very poor indigenous populations whose land (and water on it) is affected by large-scale development with an external outlook and interest.
- 2 See www.newsdezimbabwe.co.uk/2016/04/bakers-now-buying-bulk-water.html.
- 3 The EMA has a statutory regulation on the discharge of effluent water: Effluent license in terms of section 60 of the Environmental Management Act (CAP 20:27) of 2002: Completed application forms (ESWD1); Laboratory analysis report of effluent within one (1) calendar year with submission of quarterly reports.

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4. EXTRACTIVISM, SOCIAL EXCLUSION AND CONFLICT IN ZIMBABWE – THE CASE OF MINING

Farai Maguwu

INTRODUCTION

Extractivism, generally known as an economic model centred on the large-scale removal of natural resources for the purposes of exporting raw materials, has been embraced as one of Zimbabwe's main economic drivers since the mid-2000s. The nation's mining sector has had an annual growth rate of 30% since 2009, and between 2009 and 2011, mineral exports rose by approximately 230%, accounting for 47% of the total exports and contributing 16.9% to the gross domestic product, overtaking agriculture.¹

The Short-Term Economic Recovery Programme (2009) identified mining, alongside agriculture, tourism and manufacturing, as key drivers of the economy. Zimbabwe Agenda for Sustainable Socio Economic Transformation (ZimAsset) (2014) confirms that 'the mining sector continues to be a major foreign currency earner and has potential to become the pillar for economic growth through value-addition and beneficiation. At continental level, the Africa Mining Vision, the Africa Mining Indaba and the Kimberly Process Certification Scheme are contributing to the mineral rush. In Zimbabwe, this is characterised by a rise in artisanal and small-scale mining precipitated by rapid de-industrialisation, high unemployment levels, highly competitive gold prices, a decline in agricultural activity due to droughts and the land reform programme. It is estimated that artisanal and small-scale mining (ASM) now provides a direct livelihood for more than one million people (PACT and Zimbabwe Chamber of Mines, 2015).

However, a closer examination of the extractive sector in Zimbabwe reveals that the abundance of mineral riches seldom translates into new wealth for the local (host) communities; their wellbeing generally deteriorates if minerals are discovered in the area. In fact, the majority experience additional or new poverty as a result of losing their land, water, cultural heritage and the right to live in a clean environment, which has the knock-on effect of reducing average life expectancy and causes conflict with various stakeholders in the sector. New poverty is described by Pandey (1998) as dispossession leading to a condition where 'poor people do become even poorer'.

This has triggered growing calls among mining communities for transparency and social accountability in the mining sector, including prioritising locals when recruiting labour. Communities in Mutoko, Hwange, Bikita, Penhalonga, Marange and many other mining communities are beginning to come together to demand sustainable models for the utilisation of natural resources and for a share of the profits. Scores of community based organisations, such as Chiadzwa Community Development Trust, the Youth Initiative for Community Development – Mutoko, Save Odzi Development Trust, have emerged in recent years to pressure mining companies to plough profits back into communities. Unfortunately, failure on the part of civil society and communities to develop a sustainable and different narrative to mining has resulted

in a crisis of expectations, where government and mining companies continue to make promises that are never fulfilled simply to buy time and pacify restive communities.

1. ON EXTRACTIVISM IN ZIMBABWE

Three broad narratives have emerged from Zimbabwe's extractive industries. Government has pinned its hopes of economic recovery on the mining sector, arguing that the sector attracts much-needed foreign direct investment. The argument that 'we shall mine ourselves out of poverty' also appears to be the key principle to ZimAsset (2014), which states that 'the mining sector ... has potential to become the pillar for economic growth through value addition and beneficiation'.

President Mugabe's 2013 inauguration speech also emphasised the importance of the extractive sector to Zimbabwe's economic recovery plan:

And nature has been generous, prodigious in fact, granting us oversized portions of almost all minerals that matter on earth. It has been a generous serve. The government contends that, time has come for the country to extend dominion to all those resources which the Almighty has been so generous enough to give.

That is the next revolution whose first step is this administration, this new Government. Foremost, we must always believe in ourselves by turning to our own resources. Luckily they exist in fair abundance. The mining sector will be the centrepiece of our economic recovery and growth. It should generate growth spurts across sectors, reignite that economic miracle which must now happen.

The mining industry concurs with the government's narrative, stating that it is providing employment to citizens and revenue to central government at a time of nationwide socioeconomic turbulence. It further boasts that it has overtaken agriculture as the biggest foreign currency earner for Zimbabwe, a view that is shared by a section of civil society that believe mining provides the key to unlocking an economic miracle.

With regard to civil society and its views on mining, two schools of thought have emerged regarding its benefits, or lack thereof. The first school of thought, led by Zimbabwe Environmental Lawyers' Association (ZELA), resonates with the government and mining companies' narrative that mining is a good route to sustainable development in Zimbabwe. The second is led by the Centre for Natural Resource Governance (CNRG), which takes the opposite stance. CNRG argues that mining is actually undermining development by diverting government efforts from other more productive sectors of the economy, such as agriculture and manufacturing.

Acknowledging the challenges involved, ZELA argues that mining can be reformed through capacity building and good legislation. It has invested in building the capacity of legislators with the aim of improving the governance of the mining sector. However, closer examination of the governance of the mining sector in Zimbabwe shows that Parliament has no power in decision-making and has at times been denied even the right to exercise its oversight role. Compounding this problem is the fact that there is a high turnover of legislators in Zimbabwe, and hence the newly trained may not return at the next election and if they do they may find themselves in a different portfolio committee. For example, of the 34 legislators in the 2013–2018 Portfolio Committee on Mines and Energy, only four had served in the previous committee (2009–2013). Nor is there any handover of portfolio business from one committee to another, which means that the expertise gained and projects initiated by the previous committee are lost with the closing of Parliament.

This was certainly true for the 2009–2013 Chindori-Chininga-led Parliamentary Portfolio Committee on Mines and Energy. None of the recommendations in its 2013 report on diamonds and chrome have been followed up by the successor committee. The Ministry of Mines has not acted on the recommendations either. Further, Parliament's whip system means that legislators are not allowed to speak objectively, rather they debate on the basis of party positions, which limits their ability to push for the much-needed reforms.

In its pro-mining argument, ZELA cites Mimosa and Zimplats, whose corporate social responsibility (CSR) projects it hails as a model. Mimosa has built houses for almost all of its more than 2,000 employees under the housing development and home ownership scheme for general workers, supervisors and managers, adding that the mine has also constructed and tarred a 12-km stretch of road connecting the Zvishavane–Bulawayo road and the road to the mine, which is also used by surrounding communities. It has also built a clinic for its workers and their dependants (Makore and Zano, 2012).

Even so, most of the 'development' projects cited are attached to mining operations. For instance, the 12-km road only serves to connect the mine to the Harare–Bulawayo road and the clinic is only for employees and their dependents. The 2,000 houses were built to keep workers close to the site – the Mimosa population is mostly comprised mainly of mine-workers and their families. Transferring ownership to workers after ten years is likely meant to retain the labour force.

Zimplats, registered in Guernsey and listed on the Australian Stock Exchange (ASX), produces Platinum Group of Metals (PGM) and is a subsidiary of the South African-based Implats, which contributes about 25% of global platinum output. The company was also hailed by ZELA for its 'Turf Village' housing project that saw thousands of houses being constructed for its employees. The company is also credited for constructing the 75-km Ngezi–Selous road that links the Ngezi Platinum Group mine and the Selous Metallurgical Complex, which are 78km apart. Again, this is not an example of CSR but one of capital expenditure, as the road was primarily constructed to accelerate resource extraction even though the community, by default, benefits from it.

More often than not, CSR projects are used to hide billions and camouflage illicit financial flows. Indeed, the integrity of Zimplats came into doubt in April 2016 when the Panama Papers revealed that the company was operating a secret offshore account from where it paid its senior management (Mataranyika, 2016). Whilst it is unclear as to how much money Zimplats is externalising annually, this phenomenon partly explains why Zimbabwe continues to experience severe financial woes despite the dramatic rise in mining exports in recent years. In effect Zimplats, though carrying out some CSR projects in the community, is defrauding the government of millions of dollars in potential revenue.

According to the CNRG position, mining has no backward and forward linkages that can spur local development. Mining in Zimbabwe is largely an enclave economy whose most visible and lasting features are hazardous open pits, polluted rivers and impoverished communities. With the exception of Zvishavane and Shurugwi, which were developed during the colonial era, no major towns have developed as a result of mining in post-independence Zimbabwe. Instead, communities where mining is taking place are sinking deeper into poverty.

The law of combined and uneven development is at work in Zimbabwe, for profits from mining from rural areas are enriching ruling elites at the expense of the host communities and the fiscus. Mining companies are failing even to maintain existing infrastructure such as roads, clinics and schools. In Mutoko, for example, the Rural District Council actually took companies mining black granite to Court over unpaid revenues (New Zimbabwe, 2015).

CNRG has thus been urging government to slow investment in mining in favour of agriculture,

manufacturing and ICT, all of which are more sustainable and will employ more people on long-term basis. Food security, something that mining has failed to provide, must form the backbone of Zimbabwe's economic recovery. The country boasts good agricultural soils, favourable climatic conditions and great human capital that is capable of producing enough food for both domestic consumption and export.

Its argument of leaving minerals in the soil, at least for now, is sound, given the history of mining in Zimbabwe, where government has always been reluctant to pursue policy, legislative and institutional reforms to ensure that the collection of mineral revenue is maximised. There is not a single mining deal negotiated by the Zimbabwe government that has benefitted the majority of Zimbabweans. Instead, every deal has been negotiated in secret for elite empowerment. The content of the so-called mega deals negotiated by President Mugabe with China and Russia between 2014 and 2015 has remained a closely guarded state secret and the precise terms and conditions may never be disclosed and communities will bear the brunt of the impact. If the deals were entirely for the good of the nation, government would find it convenient to disclose the contracts. Apart from the elite plunder of natural resources there is also the growing trend of exchanging natural resources for arms (Africa Confidential (2014)). This is an additional threat to human security as it undermines government's capacity to attend to national priority issues such as food security, health and education.

Mining, in its current form, is also a major source of illicit financial flows. The Zimbabwe Revenue Authority (ZIMRA) is not physically present on mining sites and thus cannot ensure that Zimbabwe is not being prejudiced by mining companies through mis-invoicing and outright tax avoidance. ZIMRA can only calculate what mining companies declare and lacks the technical competence to detect mis-invoicing, tax avoidance and outright illegal resource exploitation. Further, the politicisation and militarisation of the mining sector coupled with massive corruption in state institutions has seen the development of a renter economy, where the ruling elite charge resource rents to facilitate illicit financial flows. This has made mining arguably the worst governed economic sector in Zimbabwe.

Most communities directly affected by mining in Zimbabwe also feel excluded from important decision-making process in the extractive sector, which increases their vulnerability and deprivation (CNRG, 2015). Communities complain that whilst they bear the social and environmental costs of mining they receive none of its profits. Indeed, it is evident to all that mining communities are among the poorest despite sitting on minerals worth tens of millions of dollars.

These three different narratives indicate the winners and losers in the extractive sector. Government officials and mining companies share the same narrative, as they also benefit the most from extractive industries. These Government officials and mining companies negotiate the deals and unlike the communities these deals affect, they are privileged with the contractual information.

However, government is losing out by failing to collect full revenues as a result of extractive industries pay kickbacks to ruling elites in exchange for protection from the law. The same cannot be said of communities that are left out throughout of the extractive value chain – contract negotiation, exploration, mining, marketing and selling of mineral commodities.

2. GOVERNANCE OF THE MINING SECTOR

Governance of the mining sector in Zimbabwe is highly centralised, complex and unpredictable. Decision-making is concentrated in the office of the Permanent Secretary in the Ministry of Mines

and Mining Development and the Minister. There are provincial offices of the Ministry of Mines throughout the country, but these have little authority. Local authorities in mining districts have no power to make any decisions on mining, although do they charge tax on mining companies.

2.1 Legislation

The Ministry of Mines and Mining Development is the parent ministry responsible for the development of the mining sector in accordance with the 1961 Mines and Minerals Act (Chapter 21:05). However, there are over 30 pieces of legislation and regulations that must be read together with this Act. These include the Mining (General) Regulations, the Gold Trade Act (1977) and the Environmental Management Act (2002), the Companies Act, the Sales Tax Act and Exchange Control Act, among others. These pieces of legislation and regulations are administered by different ministries and government departments.

2.2 Prospecting, Exploration and Mining Titles

According to the Mines and Minerals Act, the dominion in the right of searching and mining for and disposing of all minerals, mineral oils and natural gases is vested in the President. The law further states that any person of 18 years of age or older, who is a permanent resident of Zimbabwe or his agent, may acquire one or more prospecting licences on payment of the appropriate fee. Section 291 of the Mines and Minerals Act empowers the Secretary to issue to any person a special grant to carry out prospecting operations, or 'to carry out mining operations or any other operations for mining purposes ... as may be approved by the Minister and shall be incorporated in such special grant.'

Another important piece of legislation related to mining is the Communal Lands Act (1981). Under Chapter 20:04, all communal land is vested in the President. Section 10(3) (b) states that the Minister of Lands can evict anyone in the communal lands except the holders of titles to mines. It empowers the minister to publish a statutory instrument 'ordering all persons, or such class of persons as the Minister may specify in the notice, who are occupying or using the land concerned, otherwise than by virtue of a right held in terms of the Mines and Minerals Act [Chapter 21:05], to depart permanently with all their property from the land concerned within such reasonable period as the Minister shall specify in the notice.'

2.3 The Role of Parliament

Parliament oversees the administration of the mining sector through the Parliamentary Portfolio Committee on Mines and Energy. This committee produces parliamentary reports on mining, summons ministry officials and any citizen of interest for questioning and visits mining affected communities to gather evidence. However, Parliament does not have a direct role in the administration of mining in Zimbabwe. For example, it has no involvement in the selection of investors and negotiation of contracts, never mind mining contracts.

One of the most recent and prominent indications of deep conflict in the management of natural resources in Zimbabwe was the fall-out between the Legislature and the Executive over the Marange diamonds. According to the Parliamentary Portfolio Committee on Mines and Energy Report, 'there was a contestation of power between the Executive and the Legislature over access to information and entry by the Committee to carry on-site visits in Marange' (PPC, 2013). Twice the committee was denied entry into Marange, which was a violation of the principle of separation of powers as enshrined in the Constitution of Zimbabwe.

Evidence that the community is ranked lowly among extractive industries stakeholders emerged when the portfolio committee 'failed' to conduct a public hearing with the community

living in Chiadzwa and was advised that it was inappropriate due to 'security reasons'. The fact that government did not want the Marange community to be able to express its grievances to the committee was obvious. Further, the condition of having to conduct an environmental impact assessment (EIA) was waived by the Executive prior to the commencement of mining operations in Marange. EIAs were carried out once mining activities had begun, violating the provisions of the Environmental Management Act.

On occasions, officials from the Ministry of Mines and mining companies are summoned to the PPC on Mines and Energy to talk about their operations and give details on mining contracts. Here, they lie under oath with impunity. The silence of the Executive, even the shielding of lying mining officials when giving evidence to Parliament, is evidence of a serious governance crisis in the mining sector that is further undermining the law.

Section 138 of the Mines and Minerals Act stipulates that upon receipt of a mining application and site plan, the Mining Commissioner shall 'publish a notice in the Gazette giving details of the application, including particulars of the mining locations to which the application relates, and inviting the lodging, within a period of thirty days from the date of such publication, of objections thereto'. However, this publication is only intended to give the owners or occupiers of the land a chance to object. Given that the Act does not compel government to ensure that this information is received by the affected community, in most cases the 30 days have lapsed before the concerned stakeholders gain access to the notice.

This flies in the face of Section 62 of the Constitution of Zimbabwe, which makes provision for access to information. Worse, though sub-section 4 of Section 62 compels government to enact a law that enables citizens to enjoy this right, no law has been crafted. Rather, it continues to use the Access to Information and Protection of Privacy Act that ironically curtails access to information.

2.4 Contract Negotiation and Disclosure

There is no law specifying procedures for contract negotiations and disclosure in Zimbabwe. Instead, contract negotiation is done through the Permanent Secretary in the Ministry of Mines, who enjoys wide and discretionary powers on granting or denying mining rights. Then there is the Mining Affairs Board that, according to Section 11 of the Mines and Minerals Act, plays an oversight role in the issuance of mining titles. However, as this board is also chaired by the Permanent Secretary in the Ministry of Mines, it is rendered ineffective as decisions cannot, in fact, be independently evaluated. This concentration of power in an individual as opposed to credible institutions further compromises that contract negotiation process that is already shrouded in secrecy. Similarly government does not disclose the contracts it signs with investors.

3. MINING AND THE VIOLATION OF HUMAN RIGHTS

The mining industry in Zimbabwe led to a significant increase in the number of human rights violations in mineral-rich communities. These range from killings, beatings, torture and rape, to unfair labour practices, child labour and land- and water-grabbing. All have been committed with impunity due to the asymmetrical balance of power between the victims and the perpetrators.

The dominating power of the Mines and Minerals Act has allowed mining corporations to seize land and displace villagers without their consent under the pretext of promoting national economic interests. Government's failure to grant rural Zimbabweans title to land has increased their vulnerability and the degree of mining-related violence. Without mining titles, rural

Zimbabwe are referred to as ‘users and occupiers’ of the land with no ownership rights. If minerals are discovered, they are displaced without compensation. Domestic remedies have largely failed to protect the poor from corporate greed and violence resulting from the politicisation and securitisation of the mining sector.

3.1 Violence against Artisanal Miners

Areas rich in alluvial diamonds and gold deposits have naturally attracted artisanal mining. In fact, artisanal miners are credited for the discovery of diamonds in some parts of Marange; these were subsequently fenced off by the government before being handed over to mining companies. Artisanal miners were also the first to find out that De Beers had been mining diamonds since 2005. It was when De Beers did not renew its Marange Exclusive Prospecting Order in 2006 that the diamond rush began. By October 2008, 35,000 artisanal miners had ‘invaded’ the area.

The acceleration of extractivism and criminalisation of artisanal mining has resulted in a number of human rights abuses and violations against artisanal miners and communities adjacent to extractive industries. Direct violence has been perpetrated against artisanal miners nearly in all mining districts in Zimbabwe.

According to some, artisanal miners proved to be more financially accountable to the nation than the Zimbabwe government. Their period in Marange is nostalgically referred to as *mazuva ebvupfuwe* (‘days of plenty’). Money circulated in Manicaland province as a direct result of these miners’ hard work. In fact, the impact of Marange was felt throughout Zimbabwe, since the miners and diamond dealers came from areas outside Manicaland. This cash flow dried up as soon as government brought in virtually unknown diamond-mining companies. In February 2016, President Mugabe would accuse these same organisations of having looted over \$13 billion of revenue.

At independence in 1980, the numbers of artisanal miners nationwide were insignificant; by 2016 the size of this informal workforce had grown to over half a million. As the formal economy declined, the ensuing job losses turned tens of thousands of Zimbabweans to artisanal mining, including an estimated 120,000 women. In Marange, hundreds of artisanal miners have been killed as a direct result of digging for diamonds. Mining companies have also been brutal against community members. The increase in informal mining has also resulted in violent conflicts between artisanal miners and mine security guards. At a CNRG Biocultural Community Protocol meeting with the Penhalonga community in June 2016, artisanal miner Phillip Dowera listed the names of miners killed by DTZ OZGEO security guards since 2006. DTZ OZGEO is joint venture partnership between the Development Trust of Zimbabwe and the All-Russian Foreign Economic Association on Geological Prospecting (ECONEDRA). The community also accused the police of failing to investigate these deaths and of protecting the perpetrators.

Government itself has carried out often-violent campaigns against artisanal miners, including Operation *Chikorokoza Chapera* (‘Artisanal mining has ended’) that began in 2005 (Moyo 2005) and Operation *Hakudzokwi* of 2008 (‘You shall not return). As the national economy continues to shrink, more and more Zimbabweans will turn to artisanal mining, which will doubtless lead to increasing conflict with police and mining companies.

National mining laws have been seemingly designed to alienate communities from their mineral wealth. According to Section 368 of the Mines and Minerals Act (Chapter 21:05):

no person shall prospect or search for any mineral, mineral oil or natural gas except in the exercise of rights granted under a prospecting licence, exclusive prospecting order or special grant or unless he is the duly authorised representative of the holder of such licence, order or special grant.

It adds that anyone who violates Section 368 is automatically guilty of an offence and liable to a jail term not exceeding six months. Artisanal miners are unable to register their mining claims due to the exorbitant fees charged and bureaucratic procedures they need to overcome.

The Precious Stones Trade Act and the Gold Trade Act prohibit anyone from unlicensed dealing in gold and precious stones, with the amended Finance Act of 2007 stating that anyone found guilty of gold-panning faces a two-year jail term with hard labour without the option of a fine. Government has dragged its feet on formalising artisanal mining amidst allegations that senior government officials benefit from the informalisation of the sector through buying cheap gold from these artisanal miners who, despite their hard work, live hand to mouth as a result of the lack of access to markets.

3.2 Land-Grabbing and Displacements

Two other major sources of conflict are land-grabbing and displacing communities to pave way for mining. The history of mining in Zimbabwe is characterised by corporate bullying, forced removals of communities from their ancestral homelands and the lack of secure land tenure in communal areas. When it comes to compensation for the loss of agricultural land, the Land Acquisition Act (1992) states that the affected persons shall, 'so far as is reasonable and practicable, be given a right to occupy or use alternative land', adding that 'if no alternative land is available and no agreement has been reached as to compensation, Parts V and VIII ...[Chapter 20:10], shall apply, *mutatis mutandis*, in respect of such dispossession or diminution'.

Whilst the law is firm and clear concerning the punishment of those who refuse to vacate communal land when ordered to do so by the Minister, it is vague on where the evictees must go or who is responsible for their resettlement. Apart from asserting the right of the evictee to 'occupy or use alternative land', the law does not outline consequences for the evictors if they fail to avail alternative land.

Further, parts V and VIII of the Land Acquisition Act (1992) referred to in the Communal Lands Act as the ultimate solution to compensation disputes, were designed to deal with 'agricultural land required for resettlement purpose' and not to communal land acquired from indigenous Zimbabweans for mining and developmental purposes. (The Act did indeed make it easier for government to acquire land from white commercial farmers for the purpose of fast track land reform.) In most cases, rural Zimbabweans have neither the resources nor the information with which to approach the compensation committee to claim compensation. Additionally, due to the politics surrounding the land question from colonial times to date, villagers may not be brave enough to mount legal challenges for fear of victimisation. Even if they were, the probability of winning is slim due to the bias and inadequacy of the Communal Lands Act which vests communal land in the President and allows indigenous Zimbabweans only the right to 'occupy and use' the land without owning it. Part 111 of Section 8(1) of the Communal Lands Act states that 'a person may occupy and use Communal Land for agricultural or residential purposes with the consent of the rural district council established for the area concerned.' Consent can be withdrawn if the Minister issues a proclamation regarding the setting aside of the land for other purposes. This leaves rural Zimbabweans extremely vulnerable to mining-induced displacements in the wake of the government's policy to intensify mining.

The most prominent case of mining-induced displacement in Zimbabwe is that of Chiadzwa. Over 1,400 families were forced to move following the military crackdown on Chiadzwa diamond fields to pave way for the mining corporations. There was no consultation with the community or any other stakeholders such as the legislature prior to the forced displacements.

Villagers witnessed their homes being razed to the ground by bulldozers while they were being loaded onto trucks by Zimbabwe's security forces. No valuations were carried out prior to the destruction of their homes to determine the losses they incurred. Government, which held 50% shareholding in the nine diamond-mining firms that took over operations in the area, except Marange Resources, where it had a 100% stake, has yet to publicly state its position regarding compensation. At Arda Transau, where the displaced families were settled, land is limited and it is impossible for young adults to build homes close to their parents, as is the case throughout rural Zimbabwe. These same families also lost their right to water, as they are now being forced to pay Zimbabwe National Water Authority for water services.

In line with government's practice of non-disclosure, the Memorandums of Understanding (MoU) it signed with the mining firms were never made public. (Some clauses were only made public through the state media.) Violations are thus difficult to identify and rumours about transgressions come and go. It is believed that each diamond-mining firm was supposed to build a school and a clinic for the villagers it displaced, but only one secondary and two primary schools and a clinic have been built at Arda Transau (Masekesa, 2014; CNRG (2014). The clinic cannot be registered with the Ministry of Health due to its substandard facilities, making it illegal and unsafe. It has no electricity and patients who need treatment at night are required to bring their own candles.²

As government intensifies its nationwide search for extractable mineral resources, many other communities are at risk of being evicted from their traditional homelands in the near future. The overrated benefits of mining gives the sector precedence over other land-uses, which include agriculture and the preservation of traditions and cultural heritage.

3.3 Structural Violence

In almost all mining communities, the majority are not subjected to direct violence but rather to 'structural' violence which, according to Johan Galtung, 'exists when some groups, classes, genders, nationalities, etc. are assumed to have, and in fact do have, more access to goods, resources, and opportunities than other groups, classes, genders, nationalities ... This unequal advantage is built into the very social, political and economic systems that govern societies, states and the world.'

Direct violence is visible whereas the essence of structural violence is invisible – only its end results are apparent. Structural violence is also defined as the slow death of people due to deprivation of basic needs.

Although communities pay the cost of mining through loss of land and having, in many instances, no option but to work for the mining companies, they have no share in the mining profits. A study by CNRG (2015) revealed that resource-rich communities in Zimbabwe are poorer than those communities that are not endowed with natural resources. This is mainly because once a mining project begins in an area, government transfers all responsibilities for community development to the mining company. However, mining companies argue that they are in the area to mine and that their sole obligation is to pay taxes to government, which is responsible for the development of the country.

As government and companies trade accusations, communities become increasingly vulnerable. In most cases, mining companies are reluctant to pay taxes to Rural District Councils (RDCs) and even if they do, the amounts are paltry and make little difference to the community. At a mining stakeholders conference on 4 December 2015 in Mutoko, RDC Chief Executive Officer Peter Sigauke stated that the mining companies pay a paltry \$1 per ton of black granite

extracted. Consequently, Mutoko RDC is fighting a desperate battle against the ecological and socioeconomic effects of black granite mining, which include the lowering of the water table and architectural subsidence due to blasting and the passage of fully loaded haulage trucks.

Elsewhere throughout Zimbabwe, mining communities are crying foul. The 2009–2013 Parliamentary Portfolio Committee on Mines and Energy conducted two public hearings with the mining communities of Mapanzure in Zvishavane and Horseshoe Block in Guruve to assess the socioeconomic impact of chrome-mining. According to the committee's report, the key issues that came out of the public hearings include ad hoc CSR projects by mining companies, disrespect for traditional leaders, land-grabbing, unfair labour practices and failure to rehabilitate land after mining resulting in death and injury to humans and animals.

This points to a deep structure of conflict that will negatively shape the lives of the people in these communities for generations to come unless there is a structural transformation that ensures the benefits of mining are distributed equitably. At the heart of the exclusion of communities in the enjoyment of their mineral rights is a highly centralised system of governance that places too much power in the hands of a few individuals who are not answerable to the people to be affected by their decisions. However, without the political will to ensure communities benefit from mining, this structural change will have to be triggered from below, beginning with a complete rejection of mining in its current form. Until now, mining communities have not publicly protested against their exclusion in mining decisions – including their sovereign right to decide whether to mine or not. The rejection of mining must manifest itself through community protests against mining and all its maladies: pollution of rivers, land and air, human rights abuses, unfair labour practices, lack of local socioeconomic development and land- and water-grabbing. By openly resisting, communities will increase the socioeconomic cost of mining, which should lead to negotiations that result in government creating new decision-making structures that take communities on board.

3.4 Unfair Labour Practices

Workers are also victims of structural violence in the extractive sector. The minimum wage in the mining sector is \$249.24 but the national poverty datum line is pegged at \$481.00 (Kuwaza, 2016). They are also the first to be affected during times of commodity price volatility, being either dismissed unfairly or continuing to work but without pay. The recent involvement of government and security officials in the mining sector has worsened the conditions of mine workers through the resultant politicisation and militarisation of mining operations. In some instances, workers are reluctant to raise genuine labour-related grievances for fear of being labelled opposition activists or enemies of the state.

In February 2016, thousands of diamond mine-workers in Marange were left out in the cold when government forced the mining companies to shut down after resisting being merged to form Zimbabwe Consolidated Diamond Company (ZCDC). Government, which has taken over the mining operations in Marange, has not made any commitment to pay the axed workers their dues. Prior to closure, some mine-workers had gone more than 12 months without pay, with companies cited viability challenges (*The Herald*, 2016). Thus, whilst government continues to generate revenues from Chiadzwa through ZCDC, the ex-workers have to find alternative means to survive.

Similarly, in May 2016 it emerged that Hwange Colliery had not paid its workers their salaries since January, in addition to a salary backlog dating back to 2014. The Workers Committee Chairperson Themba Tshuma (2016) told a local daily that three workers had passed out from

hunger and three others had died after failing to get money to go to hospital. Tshuma also cited several cases of stress-related illnesses arising from workers battling to feed their families.

The general condition of workers in the mining sector defeats the main argument for mining – employment creation. What has not been challenged is the quality of jobs created – a job that cannot guarantee a decent living is not worth celebrating. Worse still, a job that pays a wage that is 50% below the poverty datum line is exploitative and abusive. Workers in the mining sector are therefore effectively subsidising the cost of mining under the false impression that their jobs will see them safely escape from poverty. The truth is that only shareholders and top management in the mining sector enjoy the benefits that come with mining. The costs are borne by the workers and communities.

In Penhalonga, when DTZ OZGEO operations were suspended by the Environmental Management Agency in 2013 over its failure to rehabilitate the environment, the company passed the burden to its 400 employees by withholding salaries. According to Zimbabwe Congress of Trade Unions, DTZ OZGEO immediately withheld salary remunerations in retaliation soon after its request to resume alluvial mining was turned down by the Parliamentary Portfolio Committee on Environment, Water, Tourism and Hospitality (Chaeruka, 2014). Government has done nothing to force the gold mine to pay its workers their dues. This clear lack of social responsibility demonstrates the true character of extractivism, namely that it is never for the good of the local community or employees.

Despite 12 years of alluvial gold panning along the banks of Mutare River, DTZ OZGEO never constructed a single housing unit for its employees. Some of its staff were and are still living in rented Redwing Mine houses. Were the company to depart permanently, the only evidence of its ‘investment’ in the area will be aggravated the environmental degradation that has also reduced Mutare River to a tunnel with huge soil dumps. Company Director Ishmael Shillaev says they will not rehabilitate the area until they are allowed to reopen, citing viability challenges (Dapera, 2016).

Even though the company has violated Zimbabwe’s environmental laws and refused to comply with EMA directives to rehabilitate mined areas, Zimbabwe’s Vice-President Phelekezela Mphoko has been trying to twist government’s arm to give DTZ OZGEO the nod to reopen its Penhalonga operations (Zhakata, 2016). His actions provide a clue to the source of corporate impunity in Zimbabwe – the government. They also show us that extractive industries, as long as they enjoy the backing of the state, will continue to openly violate environmental and community rights. This leads us to the conclusion that mining in its current state is undermining development and that the fight for alternatives must be fought from below, by the people themselves.

4. TOWARDS A NATIONAL GRASSROOTS MOVEMENT AGAINST EXTRACTIVISM

Given that mining has left both communities and the workers deep in poverty, communities must be engaged on alternatives to mining. A new development narrative that challenges the prevailing pro-mining narrative is needed to rally communities towards organised resistance to destructive mining. However, this grassroots movement must have a strong ideological orientation if it is to go the distance and be able to resist the combined forces of corporate power, state violence and pacification by conformist civil society, namely ‘those civic groups that seek to uphold and reinforce existing norms’ (Scholte, 1999). The latter conditions communities to accept mining as a necessary evil whilst stressing the importance of mining to ‘national development’. When

conformist civil society advocates reform, they pick soft issues that can easily see positive responses from mining companies and use them as the dividends of dialogue rather than confrontation. In reality, this group acts as a public relations department for government and mining companies whilst claiming to be speaking for communities. It silences community voices with their lukewarm 'community empowerment' projects whose main agenda is to control aggrieved communities and become a buffer between the community and the mining company. It prevents communities from taking direct action against mining companies by teaching them to observe the law whilst promising to take their grievances to the mining companies and government. In actual fact, they are simply buying time for the company to continue extracting till they wind up their operations. Conformist civil society is well paid to protect the interest of government and mining companies in communities. It is also deployed into communities with large sums of money to denounce and squeeze out progressive organisations working on alternatives to mining.

If communities are to successfully rise up against mining and conformist civil society, they need to be 'armed' with a convincing case founded on strong arguments as to why an alternative development model that leaves no one behind is needed, and urgently. This narrative must be built around the following self-evident truths:

- a. Mining does not promote socioeconomic development at local and national levels, as is shown by Zimbabwe's current economic crisis despite the upsurge in mining in recent years.
- b. Mine-workers subsidise mining companies by accepting wages below the poverty datum line whilst shareholders and management share the profits.
- c. Mine-workers have no job security and are the first to be sacrificed when operations scale down.
- d. By taking land away from agriculture, mining is undermining food security.
- e. Mining is polluting the environment and thus increasing the vulnerability of poor people.
- f. Mining increases the vulnerability of women by denying them jobs as well as taking away their means of production – land.
- g. Mining is not sustainable, as minerals are non-renewable.

The first step towards case-building is participatory action research where communities themselves carry out research on the impacts of mining on a number of issues. These should include land rights, water rights, cultural rights, environmental rights, sustainable livelihoods, violence and gender.

Rather than accepting top-down approach where civil society 'teaches' communities about how mining is affecting them, communities themselves must define mining through their own lived experiences. Community generated knowledge has a lasting impact on community actions because the community owns the knowledge. Participatory action research should target all stakeholders in the community, including the elderly as they may well have memories of the origins and development of mining in their area. Looking back can be an essential tool of forward visioning.

After participatory action research, stakeholder in mining-affected communities need to be mobilised. It is essential that traditional leadership structures be fully engaged so that they can speak with one voice when demanding an alternative and inclusive development model. If community mobilisation is to succeed, women must actively participate or be involved in each step. As women constitute over 70% of the rural population, they are a significant and strategic component of rural life in Zimbabwe (Essof, 2013). More importantly, women are the biggest victims of extractive industries. According to Dube (2013), 60-70% of subsistence farmers in Zimbabwe are women and live in rural areas, where they work between 16 to 18 hours a day, of

which half is spent on agricultural activities and about 25% on domestic work. Land- and water-grabbing by mining companies and the uncertainty brought about by mining has negatively impacted women's agricultural productivity and food security. Helping women recover their sovereignty over their agricultural land can be a significant mobilisation tool in communities.

Another important pillar is labour. Workers are community members and as such they need to be included into the campaign for alternatives. To this end, they also need to participate in participatory action research, gathering data on what goes on within the mineral value chain from a labour perspective. For example, knowledge of the levels of remuneration, safety, health and environment, recruitment policies, retirement benefits, will help workers extract data that can be used to campaign. Protests against unfair labour practices should be joined to community resistance to extractivism. The mining sector needs to be approached from within and without, and the forces of resistance need to converge.

The next layer of movement-building relates to joining community struggles across the country. Challenges facing mining communities tend to be the same, irrespective of different perpetrators. Mining-affected communities need to exchange notes on their experiences and build networks of solidarity. In addition, they need to connect with regional and international movements such as the Southern Africa People's Solidarity Network. United by a common cause, communities can challenge power and together lead the way in demanding an inclusive model of development.

It is to this end that organisations such as CNRG – which is working with communities in Penhalonga, Marange, Mutoko, Hwange, Bikita and Darwendale – have been introducing the concept of participatory action research. ZELA hold annual Zimbabwe alternative mining indabas (ZAMIs) where government and mining corporations engage with communities. Unfortunately, representation at ZAMIs is problematic, for they are held in Bulawayo where almost a third of the delegates are drawn from government and mining companies. It is not clear how the 'community representatives' are selected, or if they are indeed truly representative. Further the asymmetrical power balance between government and mining companies on one hand and communities on the other hand renders ZAMIs possibly ineffective. The repressive nature of state and politics in Zimbabwe makes such gatherings intimidating to communities, so despite being given the space to speak they may self-censor. For example, as Chiefs are part of ZAMI, communities might not be at liberty to publicly expose traditional leaders who receive bribes from mining companies for fear of reprisals.

The CNRG view is that dialogue will not solve the problems being created by mining because of the vested interests of the state, capital and conformist civil society. This calls for liberated spaces where communities can engage within and among themselves to dismantle corporate power and reclaim their sovereignty over their natural resources. These spaces include the annual Operation *Hakudzokwi* Commemoration, where CNRG, acting in partnership with CBOs in Marange and national CSOs, brings the Marange community together to reflect on the impacts of mining on their community, including the direct and structural violence the community endured as a result of the discovery of diamonds. (Attendees are selected by the community).

CONCLUSION

The mining sector had a solid chance to demonstrate its potential to spearhead development following the post-2008 commodity price boom, but it dismally failed to do so. It failed to establish backward and forward linkages at its peak, resulting in mining communities and workers sinking deeper into poverty. The case for alternatives to extractivism is compelling, and

all the more so following the President's admission that diamond-mining companies in Marange had robbed Zimbabwe of billions of dollars. If illicit financial flows from hundreds of mines dotted across the country are also factored in, Zimbabwe has lost enormous sums of money that could have financed considerable local development. At present, the country does not have the political leadership to make natural resources work for the people. Many other cases of failure by companies to ensure profits trickle down to the communities have given rise to an opportunity for civil society, labour and communities to build a powerful movement advocating for alternatives to mining. The call must be to leave Zimbabwe's mineral wealth in the ground until such a time the country has a shrewd leadership that can use it to generate national wealth.

Notes

- 1 2013, National Budget Statement, Bankers' Association of Zimbabwe.
- 2 CNRG interview with a health official at Arda Transau clinic in 2014.

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5. ALTERNATIVES TO EXTRACTIVISM

Tinashe Gumbo

INTRODUCTION

The paradox as to whether natural resources are a blessing or a curse dominates current literature on the mining sector. In Zimbabwe, the discussion has also attracted the attention of civil society, including community based organisations (CBOs). An ideal situation is such that natural resources provide for social and economic development of the country and local communities. Many scholars argue that resource abundance combined with poor institutions leads to the ‘resource curse’, which means that socioeconomic development does not occur automatically. Research has also shown that there is a disconnect between natural resources wealth and socioeconomic growth in terms of gross domestic product (GDP) and gross national product. Countries with vast natural resources largely rely on the export of primary commodities. As Zimbabwe’s primary resources are exported in primary form there is little value-addition to such exports. The mining sector has suffered a great deal as a result of the lack of an effective value addition framework, and the country is losing out to large global markets. Zimbabwe’s minerals that are sold into the global market fetch less in terms of price compared to when value would have been added to them.

Zimbabwe boasts natural resources that include minerals (gold, diamonds, coal, nickel, platinum, chrome, tin, iron, granite, limestone, phosphate and cobalt), forests, fisheries and wildlife. There are currently 800 to 900 small- to large-scale world class mines in operation. However, people have become increasingly aware of the social and environmental degradation being caused by the current extractivism model, and activism and rights-consciousness in and around mining communities has prompted local communities to critically assess how the mining sector benefits them. This is pertinent, as the majority of the Zimbabweans continue to live in poverty. Zimbabwe falls in the low-income category compared to its neighbours in the Southern African Development Community (SADC) (Zimbabwe Interim Poverty Reduction Strategy Paper, 2016).

‘Extractivism’ generally refers to an economic model centred on the large-scale removal (extraction) of natural resources for the purposes of exporting raw materials. The term usually covers industrial-scale agriculture, forestry, and even fishing, along with more traditional industries such as mining. It also refers to the prioritisation of extractive modes of resources management within the political economy and development strategies of a country and is often associated with colonial and neo-colonial policies of appropriation (Wilson and Stammer, 2015:1). Herein, the focus is on mining in Zimbabwe, where key stakeholders such as local authorities, traditional leaders, individual and collectives are mobilising and challenging the current status quo.

Academic literature suggests that promoting transparency and accountability in revenue management in the mining sector is the starting point to overcoming the resource curse if a country decides to continue with the extraction of minerals. Focus should turn to assessing how

minerals are extracted and how the proceeds are distributed (and redistributed) among citizens. It is also important to assess the potential contribution of other branches of the economy, for example, manufacturing, agriculture and tourism. It may be that a country has remained poor because it prioritises the extraction of mineral wealth for the world market, side-lining other potential forms of value creation (Acosta, 2013: 72).

There has been an increased debate about whether Zimbabwe should continue extracting its mineral resources or cease until it has developed adequate technological, policy, legislative and administrative systems that ensure that the country benefits far more fully. It has been intensified by the government's accelerated and intense extractive model that offers mining concessions to multinationals, which plunder the country's resources without benefiting locals. However, ideas based on alternatives to the extractivism concept have been rejected by sections of society in Zimbabwe who feel that the country cannot abandon the model as the economy will suffer. This topic was only given proper attention in Zimbabwe when the authorities revealed that a substantial proportion of the much-anticipated proceeds from the diamond sector had disappeared. In the first quarter of 2016, Robert Mugabe stated that more than \$15 billion had been lost through illicit activity. In theory, Zimbabwe's fiscal policy relies on the mining sector for success, but in practice this has not been paying the appropriate dividends as a result of the lack of transparency and accountability, a fact about which civil society has long been aware. Civil society networks such as the Zimbabwe Network against Illicit Flows have been working hard to establish the drivers, causes and impact of these illicit outflows.¹

This paper considers possible alternative development structures that Zimbabwe could consider. It highlights the concerns of the people with regards to the extractivism as a development model and questions the real economic benefits of extractivism, given that it systematically off loads its impacts to local communities and local or national government. After acknowledging that total abandonment or total reliance on the current model of extractivism will have social and economic effects, it calls for an improved model that builds on the existing one. The paper also advocates improvements to policy and legislative frameworks in order to guarantee that communities benefit from any mining activities happening in and around the area in which they live.

The central argument is that Zimbabwe has sufficient natural resources to satisfactorily ensure its socioeconomic development once their management has been improved. Alternative development models should therefore focus on domestic resources mobilisation, where all the citizens participate and benefit without total reliance on foreign aid and external markets. The role of the state should be enhanced to protect people's social and economic interests. Accordingly, this paper is conscious of the importance of including the community vices in any development debates.

1. JUSTIFYING ALTERNATIVES

In order to appreciate the need for an alternative development model (or improvement to that existing) for Zimbabwe, it is important to start by outlining the nature of the current one, which is one of accumulation determined by the demands of the metropolitan centres of capitalism. In a capitalist system, the motive for producing goods and services is to sell them for profit, not to satisfy people's needs. Some regions have specialised in the extraction and production of raw materials (primary commodities), while others took on the role of producing manufactured goods. In relation to minerals, Zimbabwe continues to be a net exporter of unprocessed resources,

although a limited beneficiation takes place for some few minerals. In the platinum sector, for instance, much needs to be done in order to add value prior to its export. According to Alberto Acosta (2013: 62), in practice, extractivism is a mechanism of colonial, neo-colonial and multinational plunder and appropriation of the global South, forged in the exploitation of the raw materials essential for the industrial development and prosperity of the global North. In turn, especially in the case of Zimbabwe, the majority of the goods, inputs and specialist services extractive industries need to operate are seldom sourced internally.

According to the Zimbabwe 2017 National Budget Statement presented on 8 December 2016, the country currently has a huge unsustainable public debt. The statement indicates that as at 31 October 2016, it stood at US\$11.2 billion (79% of GDP), of which US\$7.5 billion is external. Of this external debt, US\$5.2 billion is in arrears, which has resulted in the deterioration of relations with major creditors and inhibited access to finance. Domestic debt stood at US\$3.7 billion (26% of GDP). Thus the extractivism model currently prevailing has no fiscal room for the country to settle its legitimate debts without compromising its citizens' social and economic rights. As a result, the request for external financial aid to settle the debt continues, even though domestic resources, if managed well, could actually do the same.

The extractive model overshadows the potential of other sectors that could help it and any other country to stand on its own economic feet. At independence, Zimbabwe inherited an economy that was deeply dependent on raw material exports, simply because this was the role that colonial and imperialist countries designed for it (Fuentes, 2014).

1.1 Extractivism in Zimbabwe: Who is Calling for Alternatives?

The current model of extractivism has exposed and enhanced the weaknesses of Zimbabwe's governance institutions, as it encourages corruption, breaks up societies and local communities, and seriously damages the environment. Furthermore, it does not respect workers' rights. Revenue from the mining sector is concentrated in the hands of a few and multinational companies are able to siphon off much of the proceeds the mining sector generates. Civil society, CBOs, labour, traditional leaders and local authorities have all expressed their concerns with regards to the status quo, and the voices calling for an alternative development model are becoming louder.

1.2 Unfulfilled Local Community Expectations

Mining projects by their nature bring high hopes and expectations at national and local level. It is generically associated with local employment creation, local procurement, enterprise development drive and local skills development. Emma Wilson and Florian Stammer (2015) argue that even before extractive projects start up, the very prospect of mine development can transform the way a local community thinks about the future, often overshadowing alternative options for development. They often abandon their normal ways of survival in the hope that their livelihoods will be supported by the mine. Such expectations have not been fulfilled by the mining companies in Zimbabwe, and in some cases, failed mining developments have led to a deep disappointment that overpowers efforts to seek alternative development options.

In 2011, in answer to this paralysis of rural development, and amidst a rich geological endowment of precious minerals being mined and exported by foreign companies, the government introduced Community Share Ownership Trusts to empower poor Zimbabweans living close to the mines who have been deprived of the right to directly and indirectly benefit from the mineral resources. These trusts were introduced through Chapter 14:33 of the Indigenisation and Economic Empowerment Act of 2007 and Statutory Instrument 21 of 2010 and oblige mining

companies to give back to the communities through this scheme. Although such trusts have been established in Shurugwi, Zvishavane, Chegutu, Bindura, Marange/Zimunya and other areas, some mining companies have failed to honour their pledges of support. The mechanism is weak in that the scheme is poorly monitored by government, which again indicates the need for alternative models that ensure that community benefit schemes are effective.

In contrast to other branches of the economy, the mining industry generates little direct and indirect employment (although the jobs it does create are often well paid), as it is a capital- and import-intensive industry. It hires highly skilled workers and managers, many of whom are foreign. Those locals who are employed have very poor working and living conditions and in most cases their labour rights are violated.

Worse, the current model of extractivism actually allows the host government to protect the interests of mining companies over those of the mine-workers. In the recent case where all the diamond mining companies in Chiadzwa were consolidated into one, it was claimed that:

over 2,000 mine workers were left in the cold after the consolidation, without any accommodation, there was no one to give them any picture about their outstanding salaries, pensions and the way forward regarding their future...The workers' [lives] had not been well, even under the individual diamond mining companies before the consolidation... they were living and working under very bad conditions. (Solomon Sunguro, Zimbabwe Diamond and Aligned Workers Union Chairman, 7 June 2016, Manicaland Alternative Mining Indaba).

Such limited employment opportunities for locals have economic and social impacts and create divisions in communities, leading to fights among community members and within families, and even an increase in crime. Those employed on the mines may defend (sometimes violently) the same corporations their peers are targeting (Horowitz: 2011:1379). This stiff competition for jobs divides otherwise cohesive and peaceful communities.

Over the years, the extractivism model of accumulation in Zimbabwe's primary export economies has shut off opportunities for expanding the domestic market and there is little or no trickle-down effect. Voices from the Mhondongori community in Zvishavane, for example, confirm the fact that the mining companies are failing to adequately support local enterprise development. They continue to procure their consumables and other equipment from outside the host communities or even outside the country. As a result, the 'internal rate of return' of this primary export sector (equivalent to the added value that stays in the country) is dismal. Mining thus encourages benefits and interests that favour transnational companies but impedes the implementation of related national and local development plans.

1.3 Non-Consultation of Local Communities

Extractivism in Zimbabwe has often been criticised for its top-down approach, as multinational companies and central government often fail to involve local authorities, traditional leadership and local mining communities in the claims-granting process. Local authorities, for instance, are supposed to provide services to communities supported by proceeds from that area's natural resources. Traditional leadership is also expected to give direction concerning the actual locations of the mining project in the name of protecting the cultural values of the community. Best practices such as free prior and informed consent are not respected in most cases as communities are not involved at the mining inception level. The constitutional oversight role of Parliament is also diminished by the Mines and Minerals Act of 1961, which gives too much power to the minister in respect of awarding mine contracts thereby further sidelining the civil

society. Contract negotiation is the most important phase of any mining project and the terms of the license conditions– including environmental, cultural, tax and labour issues, needs to be carefully monitored.

1.4 Environmental Degradation

The deterioration of Zimbabwe's natural environment is closely linked to mining companies' various activities. Mining projects are associated with air and water pollution, and hazardous chemicals are used in the extraction process. This has negative impacts on the environment, ranging from physical land degradation associated with open pit mining to the chemical contamination of surface and underground water. In some cases, mines have been abandoned, leaving the responsibility of all environmental 'liability' to government and local communities to assume. The diamond mining companies in Marange, for example, have violated the environmental, economic, social and cultural rights of the local communities through their pollution of the Save and Odzi rivers (Mtisi, 2015:41). In addition, Shamiso Mtisi argues that the companies failed to comply with their own Environmental Impact Assessments (EIAs) and that the documents were unsatisfactory in the eyes of the local communities.

Modern industrial mining involves extracting the largest possible quantity of mineral resources in a very short time. Today, even though deposits with a high concentration of minerals are becoming exhausted, high world market prices mean that mining can remain profitable even in deposits with low mineral content. However, this sometimes necessitates the practise of large-scale industrial mining that not only involves the use of large quantities of highly toxic chemicals (cyanide, mercury, sulphuric acid and others) and vast amounts of water, but also generates enormous quantities of waste. Unfortunately, government is insufficiently economically empowered to challenge mining companies on this issue.

An alternative development model that enhances authority of the state in regulating activities pertaining to mining and the environment is urgently needed, as is a geological survey to ascertain the value of the country's mineral resources that will allow for long-term plans to be drawn up between companies and the government. The government does not know the current extent/ value of its mineral resources, and as extraction has been carried out in an ad hoc manner, mining companies have been able to declare exhaustion before paying any tax, which clearly exposes the environment to abuse.

1.5 The Displacement of Local Communities

The extractive sector is also at the centre of the social conflict arising from displacement and forced relocation. This was confirmed by Malvern Mudiwa of Marange Development Trust, who shared his experiences at the 2016 Manicaland Alternative Mining Indaba held in Mutare:

When diamond[s] [were] discovered in 2006 in Marange, the government allowed the community members to mine as it was not sure of the value of the diamond mineral. Later on, mining giants came and the government was desperate to get money, so we were pushed out. Now we have been displaced from our homes ... but this was not before the locals had been exposed to gross human rights violations perpetrated by the country's security agents. We lost our relatives in this process.

At the same event, Clara Magobeya of the Arda Transau Development Trust had this to say on the issue of displacements:

When we were relocated from Chiadzwa by the Diamond Companies, we were promised compensation, but now we do not have adequate descent accommodation, safe drinking water,

clinics ... we do not even have headmen.... Our cultural values have been lost, as we have to share the same rooms with our in-laws due to inadequacy of accommodation.

The nature of Zimbabwe's mining laws allows communities to be relocated should a mineral resource been discovered. Mining thus supersedes all other social or economic activities according to the current Mines and Minerals Act.

1.6 Dependency Syndrome

For some scholars, extractivism has been – and still is – a mechanism of colonial and neo-colonial plunder and appropriation. Zimbabwe has thus been exporting minerals that, in their unprocessed state, do not realise their true market value. In the case of diamond extraction, for instance, neither cutting nor polishing is carried out prior to export, which dramatically lowers selling prices. Ensuring that diamonds are properly valued is also problematic. Although the country has adopted a beneficiation and value-addition drive, much needs to be done regarding capacity issues.

An extractivism-based economy with a high demand for capital and technology often functions under what is known as 'enclave logic'.² In other words, without a proposal for integrating its primary export activities with the rest of the economy and with society, Zimbabwe loses out, as the productive apparatus remain vulnerable to the dictates of the global market. This dependency syndrome has characterised the country's mining sector since independence. However, true to the argument of Karl Polanyi's theory of 'double movement', communities are now radically challenging this global phenomenon (Block, 2008). Polanyi argues that, if left unchecked, market liberalism will provoke a reaction from the society as the latter tries to protect itself from the effects of the former. There is indeed a countermovement emerging in most of Zimbabwe's mining communities. They are calling on the state to strengthen its regulatory role in the mining sector to ensure that they benefit from mining activities.

1.7 Poor Public Resource Management

Globally, revenues generated by mining have been lost for years, the result of a vast and complex web of illicit financial flows (IFFs), tax evasion and disrespect for the rule of law. The 2015 High Level Panel report on IFFs indicated that Africa loses roughly \$50 billion annually, the greatest proportion of which stems from mispricing and mis-invoicing in the mining sector. Zimbabwe has not been spared. Zimplats, one of its largest platinum mines, is embroiled in the Panama Papers scandal for allegedly using an offshore company – Human Resources Consultancy – to dodge payroll-related taxes by paying its senior management out of Panama, which is a tax haven.

It is not the companies who bear the brunt of such corruption; it is the citizenry, especially local communities who directly suffer its environmental and social impacts. In and around Marange, which is possibly home to one of the world's richest diamond deposits, schools, clinics and paved roads are scarce. This is seemingly at odds with the wealth this mineral has generated. However, on the eve of his 92nd birthday celebrations, President Robert Mugabe publicly stated that an estimated \$15 billion-worth of diamond revenue from Marange diamond operations had been 'lost' through illicit means. He added that the government might have received less than \$2 billion since the onset of formal diamond mining in 2009. The country's public resources management systems need improvements in order to plug out IFFs that have led to the loss of such huge amounts of potential revenue. A Reserve Bank of Zimbabwe (RBZ) report claims that Zimbabwe lost \$3 billion through IFFs between 2009 and 2012 (Choto, 2016). These resources could have been used for social and economic development, and to pay off legitimate external

debts. Ironically, at that point the government controlled at least 50% of the stake in diamond mining.

From the tax justice perspective, mineral extraction in Zimbabwe continues to place the tax burden on the ordinary person. Large mining companies should be paying their tax dues to relieve ordinary people who are struggling to make ends meet. Mining revenue should see a translation into improved service delivery. Civil society has raised this issue of tax injustice as regards benefits to the poor. Thus, this complicates the struggle for economic independence in Zimbabwe, particularly when the government depends on extractivism as a way of economic survival.

1.8 Weak Parliamentary Oversight Role

The current mining legal reform processes present a window of opportunity to make mineral exploration more transparent, accountable and sustainable. The Mines and Minerals (Amendment) Bill has just been taken to the people and the report will soon be tabled in Parliament. However, civil society organisations have noted with concern that the bill fails to ensure mining contract transparency, the disaggregation of revenues by companies and gender equity, and are asking for further amendments. The bill also fails to strengthen Parliament's oversight role. One would have expected a full overhaul of the legislature rather than amendments to the 1961 Act. It can be argued that wide consultations could have been made to incorporate the various changes that have taken place when the bill was initially crafted.

In June 2013, the Parliamentary Portfolio Committee on Mines, which was chaired by the late Hon. Edward Chindori-Chininga, likewise reiterated the significance of adapting transparency and accountability in the country's mining sector through local initiatives. He argues that:

Because of the discrepancies that exist between the amounts that companies pay to government and what government report to have received, companies are encouraged to publish what they pay to government and government is equally encouraged to publish what it received from companies. It is therefore important for government to operationalise a domesticated Zimbabwe Mining Transparency Initiative (CNRG Report).

This shows that the government lacks the political will to implement such noble initiatives. The status quo does not seem to reflect the oversight role of Parliament in resource management as enshrined in the country's Constitution (Chapter 17 Sections 298 and 299).

Mining companies have not been transparent and accountable in their contribution to Zimbabwe's national revenue. Although Mbada Diamonds took a step towards enhancing transparency and accountability via a published statement in 2014, indicating that it had surpassed the one billion dollar threshold in total revenue within four years of operations, there was no clarity as to the exact taxes paid. No government advances were indicated and the statement failed to show production and export volumes.

In 2013, the Minister of Finance complained that no dividends from diamond sales had been remitted into state coffers. Of the seven mining companies active in Zimbabwe –Anjin Investments, Diamond Mining Company, Gye Nyame, Jinan Mining Private Limited Kusena, Marange Resources and Mbada Diamonds – only Mbada Diamonds had published its mining revenues (ZIMCODD, 2015:20). It is unclear as to when various taxes had been paid, who had handled how much and who is accountable to whom. Moreover, successive Ministers of Finance have complained that they did not know how much money has accrued from various collection agents into the Central Revenue Fund. With such poor transparency and accountability, suspicion thus rules supreme.

1.9 Company Obligations and Other Liabilities

In Zimbabwe, the state relies on mining taxes as one of its major sources of revenue. These are paid in terms of the Income Tax Act and the Mines and Minerals Act and include royalties, corporate tax, dividends where the state has shares in the company and other administrative fees paid to various government departments. Tax evasion, IFFs and undeserved tax exemptions are challenges in the mining sector in Zimbabwe. The Mines and Minerals Act affords the Minister of Mines too much power to offer tax holidays and exemptions to mining companies without public or parliamentary scrutiny for their appropriateness. This deprives the flow of revenue into the Treasury. Whilst the Zimbabwe Revenue Authority is legally empowered to collect taxes, it can delegate that duty to other entities, which allows for abuse. Its own capacity to adequately collect the revenue also needs to be strengthened particularly with regards to its investigative ability.

In general, tax incentives confer advantages on the beneficiary and impose costs on the government and the ordinary citizen, who will have to bear the brunt of paying tax and environmental rehabilitation. In the case of mining companies, tax relief for all capital expenditure on exploration, development, and operation incurred wholly and exclusively for mining operations is allowed in full. Nor is there any restriction on carrying over of tax losses. Further, holders of special mining leases are taxed at a special rate of 15%. The tendency has been for companies to declare losses as a way of avoiding paying taxes due to the government. Such a regime is obviously detrimental to the development of the host country.

Local authorities across Zimbabwe from Mutoko, Chimanimani, Gwanda, Shurugwi, Guruve, and Zvishavane, for example, have shared their disappointment regarding the mining sector's failure to contribute to their social and economic development programmes. For instance, in Mutoko, mining companies plunder the black granite without generating any meaningful proceeds for the local authority to fulfil its service delivery projects. According to the Chief Executive Officer for Mutoko, Peter Sigauke speaking during of the Manicaland Alternative Mining Indaba, in Mutare on 8 June 2016, said that for every tonne of black granite, companies pay a mere \$1 to local authorities. Of concern is the fact that once the stone crosses into Mozambique on route to its market areas, its value and weight increases. As there is no weighbridge in Mutoko, the true weight of granite being exported cannot be verified. This situation needs to be rectified as soon as possible. Local authorities in the Great Dyke region, where platinum and other related minerals as well as gold are mined, also have concerns regarding mineral resources failing to facilitate local-level development. Mining companies in this area only declare their platinum-related extraction activities, not those pertaining to rhodium, iridium and palladium, among others.

1.10 Weak Stakeholder Regulatory Framework

The current regime for regulating relationships and activities in international and domestic investment systems in Zimbabwe involves minimal incorporation of host mining and impacted local communities in formal legal arrangements. Different actors are now contesting the benefits derived from, and burdens imposed by, the current laws (Odumosu-Ayanu, 2014:1). There is need for a contract framework that formally incorporates a wider group of actors in investment arrangements. A conceptual framework for a tripartite arrangement that Ibironke Odumosu-Ayanu (2014) calls 'multi-actor investment contracts' is key. This form of contract is signed between companies involved in project development, local communities with close ties to projects and the host government(s) (both central and sub-national). I suggest that the legislative arm of state be added to this list of signatories to strengthen its oversight role.

At present, mining contracts are agreed on and signed between central government and the

investors. Local authorities are not consulted, nor are the host communities and their traditional leadership. In the process, the investors are likely to face some resistance from the host communities, who feel that they have much to lose with regards to environmental degradation and local sociocultural values. Local communities are always on the receiving end because the prevailing Mines and Minerals Act prioritises mining activities at the expense of all other issues. Where there is a potential clash between a miner and a farmer for instance, the law supports the former. This could be resolved more fairly if there were a formal contract framework that involves all key stakeholders. It is a welcome development that the law is in the process of being reformed to address some of these challenges.

Whilst Odumosu-Ayanu is generally critical of the existing arrangements in the extractive industry, the author draws from the analytical opportunities that recent industry–community agreements offer for incorporating local communities as part of formal multi-actor contracts. The author applies insights from contract theory as well as constructivist understandings of an interactional approach to legal analysis that adopts a broader vision of the international community to include states, foreign investors, local communities and other actors, each depending on the other but each having agency and acting in an independent capacity. These diverse groups of actors are interconnected and their diversities and points of agreement may be utilised in the proposed multi-actor framework. There are possibilities of broadening the scope of the actors able to formally participate in investment arrangements depending on the context of the agreement (*Ibid.*).

The legal framework governing responsible investment in the natural resources sector in Zimbabwe consists of various pieces of laws. These include the Zimbabwe Investment Authority Act, the Mines and Minerals Act, Environmental Management Act, Labour Act and the Constitution of Zimbabwe, among others. The Constitution supports the specific laws in provision of social and economic rights of the people affected by a mining project.

At international level, local investment processes are guided by international frameworks: conventions, treaties, agreements and other sources of international law as outlined in Article 38 of the Statute of the International Court of Justice. However, there are also some soft laws that may not be enforceable in the courts of law. One such instrument is the United Nations Human Rights Council document ‘Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework’ (UN, 2011). Zimbabwean communities need to be educated on such frameworks so that they will be able to demand their social and economic rights from the mining companies and government. All this should be visible in the multi-actor framework suggested by Odumosu-Ayanu.

This paper also suggests strengthening policy and legislative frameworks regarding content development issues. As a starting point, there is need to quicken up the process of finalising the minerals policy, as this will then provide guidance on regulating local content matters, including employment, procurement, skills development and transfer.

2. ALTERNATIVES TO EXTRACTIVISM

As enshrined in the country’s Constitution, it is the responsibility of the government to provide social and economic rights to its citizens. However, its claw-back clause, which indicates that the enjoyment of social and economic rights will be progressive and depend on the availability of resources, has always been cited by the government as an excuse for its failure to promote these rights. It can be argued that the country does, in fact, have the sufficient resources, but only

if these are democratically managed. However, institutional and legal frameworks are weak as is the capacity of Parliament to interrogate extractive and public finance-related issues. Limited community participation, civic society and CBOs in mining issues further weaken accountability and transparency. The monitoring role of civil society also needs to be strengthened.

2.1 Some Definitions and Examples

Traditionally, social justice advocates have pointed to economic growth as the road to eliminating poverty, as they rightly reasoned that ‘underdevelopment’ is not a result of developing countries’ lagging behind the global North but rather the result of their wealth being drained as they produced raw materials for rich economies (Fitz, 2014). The focus on extractivism is being challenged because of the damage it causes to indigenous cultures, the environment and the health of current and future generations. However, this latter point is being challenged by those who insist that the governments of Venezuela, Bolivia, Ecuador, Uruguay and Brazil (all considered undeveloped), for example, are improving the quality of life of millions of people by retaining a much greater proportion of their extracted wealth.

Zimbabwe’s mineral resources are in such abundance that, with improvements in how they are extracted, they have the capacity to liberate the country from dependency on aid, which is neither sustainable nor predictable and often comes with stringent conditions. The country needs an extractive model that allows it to domestically mobilise its resources to settle its legitimate debt. It will then be able to implement its social and economic programmes of choice using income derived from the mineral extraction.

2.2 Immediate Remedial Requirements

Models must be developed that guarantee sustainability. The problems and conflicts that arise from extractivism could be minimised if there is proper ‘governance’ over how natural resources are extracted and used. This requires participatory economic policies and increasing civil society monitoring and Parliament’s participation in the oversight of extractive industry projects.

Zimbabwe’s disclosure policies ostensibly promote transparency and public oversight. In reality though, the public and some government agencies know very little about licensing processes and contractual arrangements with mining companies. Contracts are not disclosed and EIAs are costly. ZIMRA does not provide sector-specific revenue data and the Ministry of Mines and Mining Development publishes little or no information on extraction. The RBZ publishes historical data only. Information on mining companies can be accessed on the stock markets, Kimberly process reports and companies’ financial reports to bridge the information gap. Other sources include reports from the Auditor General’s Office and the Chamber of Mines. However, the processes of accessing the data are not user-friendly to the ordinary person or local community activists. Openness ensures that people in public offices act in the interest of the public as their actions will be under public scrutiny.

The role of civil society and CBOs is critical to ensure that the extraction of the country’s minerals benefits the people. Publish What You Pay–Zimbabwe has played an important role in the Zimbabwe Mining Revenue Transparency (ZMRTI), an initiative it helped bring about through campaigning. However, although ZMRTI is somewhat similar to the Extractive Industries Transparency Initiative (EITI), it remains critical that civil society continues to advocate for the country to join EITI.

2.3 Structuring Sustainable Alternative Models

An alternative extractive model should be one that is sustainable and can be maintained over time, without outside assistance and without creating a scarcity of the resource in question. The success of any alternative strategies in ushering in social, economic, cultural and ecological transition will depend on their level of social support. The government, civil society, mining companies and local communities should enter into a social agreement where each one plays its own part to protect the environment, workers and community interest. The legal reforms should address the best practices on mining as enshrined in the Africa Mining Vision.

When clarifying indigenisation policies, the President partly addressed the aspirations of those local communities who had been calling for local content development in the mining sector. He indicated that:

Government attaches great importance to the indigenisation of this sector. Business in this sector deal with the exploitation of the country's natural and depleting resources such as minerals. Government has, therefore, a sacrosanct duty to ensure that such resources are exploited in a manner that safeguards the best interests of the country's current and future generations. As such, in terms of the Policy, Government and/or its designated entities will hold a 51% stake in businesses in the Natural Resources Sector, with the remaining 49%, belonging to the partnering investor(s). The need for investors in this sector to comply with the prescribed indigenisation obligations is therefore non-negotiable.

Where Government does not have 51% ownership, compliance with the policy should be through ensuring that the local content retained in Zimbabwe by such businesses is not less than 75% of gross value of the exploited resources. Local content here refers to the value retained in Zimbabwe in the form of wages, salaries, taxation, community ownership schemes, and other activities such as procurement and linkage programmes.

A mining model that addresses such issues as local employment, local procurement, and business enhancement is one that would be welcomed by local communities.

3. EXTRACTIVISM – BETWEEN A ROCK AND A HARD PLACE

A brief discussion of the conventional and 'progressive' extractivism will help to strengthen the argument for Zimbabwe to change its approach to development. From the foregoing discussion, it is clear that the country has to do more in terms of investing in human development that will always be useful at any development phase of the country, as no one strategy will work effectively all the time.

3.1 Conventional Extractivism

The dominant role under this extractivism approach is played by the private sector with subsidiary role for the state. The latter ensures certain that there are favourable conditions for the mining companies. The conditions include the free flow of capital, the granting of favourable labour, physical space for the projects and concessions for exploitation areas and security in obtaining licence. The government expects the private players to generate economic growth and employment as well as produce some trickle-down effects that will eventually reduce poverty in the host country. In Zimbabwe, this perspective is yet to yield any social and economic benefits for the locals.

Rather, the 'trend' has been one where mining operations are of a huge scale and the value obtained does not include the social and environmental costs, which are externalised. Workers'

rights are always being violated and global market forces determine the pace of extraction, with the Zimbabwe being a secondary player in the value chain.

3.2 Progressive Extractivism

Some governments have adopted a development model termed 'progressive extractivism' or 'progressive neo-extractivism'. Although it does little to redress the massive appropriation of natural resources for export, and still facilitates social and environmental impacts experienced under the conventional extractivism, it does enhance the role of the state through rigorous tax rates or royalties. Eduardo Gudynas (cited in Acosta (2013:71)) summarises it as follows:

the importance of the extractive industries persists as a key cornerstone of development policies under the progressive governments in South America. South America's progressive governments are creating a new type of extractivism, both in terms of some of its components and in the combination of old and new attributes, there are no substantive changes in the current structure of accumulation. Thus, neo-extractivism maintains involvement in the international market in a subordinate position that serves the globalisation of transnational capitalism.

In Zimbabwe, discussions on the nature of the mining sector gained momentum after the vast loss of resources through IFFs. Moreover, the government's response to destructive extractivism is only focused on the diamond sector. In the first quarter of 2016, the government of Zimbabwe effectively nationalised diamond mining by consolidating the various mining companies. This was met with mixed feelings by stakeholders, with some viewing it as the right way to go, taking a cue from Botswana, while others regarded it as another futile process. The latter argue that what is critical is to improve the institutional, policy and legislative framework to stop corruption, IFFs and social and environmental rights violations.

Justifications for neo-extractivism seem to appeal to many people in Zimbabwe, particularly if the proceeds are meant to fulfil some social projects that benefit ordinary people. The role of the state should be that of controlling the revenue by providing efficient and affordable social services and social security provisions, such as health, education, water and electricity.

Zimbabwe could also adopt the Basic Income Scheme that is supported by the mining sector, as this would ensure that the poor and host communities benefit from their local resources. Again, the scheme should be heavily supported by effective polices and legislation to ensure that the mining companies contribute to the scheme.

CONCLUSION AND RECOMMENDATIONS

Extractivism, in Zimbabwe and elsewhere, is a global question that is basically anchored on defining the type of society that a country wants for its people. The current extractivism model in Zimbabwe has been supported by a legal framework and socioeconomic model that is biased towards capital at the expense of the citizens. It has led to exclusion of communities, ecological debt, underdevelopment, inequality, tax injustice, conflict and corruption.

Corruption and lack of transparency and accountability in licensing, contract negotiation and revenue distribution are the main challenges to the government's management of the mining sector. Some of the problems are linked to the old legal and institutional framework regulating the sector, as it does not respect the oversight role of Parliament. The case in point is the 1961 Mines and Minerals Act, which was crafted during the colonial era to promote capitalist interests.

Dependency on unsustainable extractivist economies that are based on the export of primary commodities excessively oriented to the export market and with high levels of poverty and

exclusion should be condemned. The economy should rather facilitate the alleviation of poverty and equal distribution of wealth in a manner that also respects the environment.

Relying on an economy predicated on mineral extraction is dangerous. Zimbabwe should look to manufacturing, agriculture and tourism, as this will enhance the country's capacity to diversify its markets, create quality employment and respect for local communities in general. In light of this, it is recommended that the government consider the following:

- Adopting an alternative mining model that is sensitive to the environment and the social and economic rights of local communities. Where there is environmental degradation, mining companies should be accountable and rehabilitate the affected areas. This should be captured in the mining licences.
- Strengthening the oversight role of Parliament to ensure that all stakeholders are properly consulted before mining commences in a specific community. Parliament should continue to play this role throughout the cycle of the mining project. A multi-actor regulation framework should also be adopted before any mining project commences.
- Guaranteeing community and civil society participation in the mining value chain, particularly in the monitoring of negotiating and awarding of contracts. The capacity of local CBOs should be built in terms of being able to monitor mining projects, to include focusing on the implementation of agreed conditions (EIAs, for example), the respect for labour rights, payments of taxes due to government, local content requirements as stipulated in laws among other issues of interests.
- Reforming legislation to reduce IFFs in the mining sector. New laws should also recognise small-scale miners.
- Scrapping undeserved tax holidays and incentives that are offered to mining companies in the interest of tax justice. Local authorities should also receive adequate support from the taxes gained from their areas for service delivery provision.
- Conducting geological surveys to ascertain the value of the country's mineral resources. This will allow for correct and long-term planning.
- Prioritising value addition as enshrined in the country's economic blueprint, the 'Zimbabwe Agenda for Sustainable Socio-Economic Transformation' (ZimAsset, 2015).
- Focusing on other economic sectors, for example agriculture, manufacturing and tourism.

Notes

1. ZiNAIF is the umbrella organisation for the Zimbabwe Coalition on Debt and Development, AFRODAD, the Zimbabwe Environmental Law Association, Transparency International Zimbabwe and the Centre for Natural Resource Governance.
2. The term 'enclave economy' refers to the development of, for example, a business sector in a localised region that shows profound differences from the surrounding areas and economy. It may also have substantial cultural differences from the surrounding culture.

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ABOUT THE AUTHORS



Naome Chakanya is an economist and senior researcher at the Labour and Economic Development Research Institute of Zimbabwe and has an MA in Economics of Development from the Institute of Social Studies in The Netherlands. She has been engaged in a number of socioeconomic policy analysis and research, policy formulation projects at national, regional and international level and has been actively involved in the development of the Zimbabwe National Employment Policy Framework and the Zimbabwe National Labour Migration Policy. Her areas of focus include the Decent Work Agenda, climate change and green jobs, trade agreements and gender issues.



Walter Chambati is a researcher and the Deputy Executive Director of the Sam Moyo African Institute for Agrarian Studies in Harare. His research interests are in agrarian labour issues and agricultural development in Africa. Over the last ten years, his research has focused on examining the political economy of agrarian labour in Zimbabwe following the fast-track land reform programme.



Freedom Mazwi is a Research Fellow with the Sam Moyo African Institute for Agrarian Studies and a PhD candidate at the University of KwaZulu Natal. He is passionate about analysing the reconfiguration of agrarian markets in Zimbabwe and has also worked on topics such as land tenure, agriculture production, contract farming and land grabs in Africa.



Steven Mberi is a Research Fellow with the Sam Moyo African Institute for Agrarian Studies and a Masters student with the Institute of Development Studies at National University of Science and Technology (NUST). He holds a BSc. (Hons) in Geography and Environmental Studies from Midlands State University, Zimbabwe. His research interests lie in the field of land, natural resources management, climate change, environmental policy and planning.



Prosper B. Matondi is the Executive Director of Ruzivo Trust, a research and development organisation in Zimbabwe. He holds a PhD in rural development from the University of Agricultural Sciences in Uppsala, Sweden. He is one of the contributing founders for Centre for Rural Development at the University of Zimbabwe in Harare between 2005 and 2009. Before then, he was also the co-founder of the African Institute of Agrarian Studies based in Harare,

About the Authors

Zimbabwe. He is a rights-based and international development strategist, planner and development activist on critical national and international Issues. He has been central in negotiating and trying to find a soft landing on land and economic empowerment, while undertaking evidence based engagement on agriculture, integrated water resources management and social development.



Farai Maguwu is the founding Director of the Centre for Natural Resource Governance, a leading organisation working on improved governance of natural resources in Zimbabwe. He has carried out extensive research and documentation on human rights abuses and illicit trade in diamonds in Zimbabwe. In November 2011, Human Rights Watch honoured him with the prestigious Alison Des Forges Award for Extraordinary Activism and was honoured by Rapaport, a clean-diamond campaigner, for protecting artisanal diamond miners in Zimbabwe's Marange region. He is currently a PhD candidate at the School of Developmental Studies, University of KwaZulu Natal and holds an MA in Peace and Conflict Studies from the European University Centre for Peace Studies in Austria and a Master in Peace and Governance from the Africa University.



Tinasho Gumbo is the Policy Research and Advocacy Programme Officer for Zimbabwe Coalition on Debt and Development. His research interests include extractives, foreign policy and public policy. He holds a BA (Hons) in Economic History and a Masters in International Relations, both from the University of Zimbabwe. He is currently studying for a PhD in Development Studies with the University of KwaZulu Natal, focusing on community based activism and local content development in the platinum mining sector in Zimbabwe.

Founded in 1925 in memory of Friedrich Ebert, the Friedrich-Ebert-Stiftung (FES) is a private, non-profit organisation committed to the values of Social Democracy. The goals that guide the political education work of FES is to enable and encourage citizens to participate in civil society, the labour movement and to engage in the political processes. The aim of the international co-operation of the Friedrich-Ebert-Stiftung is to promote freedom, justice and solidarity in a globalised world and to contribute to peace and security.

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