

Transboundaries

African heterodox ideologies for the realisation of sustainable development in the continent

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1. INTRODUCTION

Environmental and social challenges resulting from economic activities such as climate change, biodiversity loss, natural resource depletion, change in hydrological and nitrogen cycles among others have led to calls for development to be sustainable (Polasky *et al.*, 2019). These challenges have been exacerbated by increased consumption and change in consumption patterns due to rising incomes as well as demographic explosion, resulting in increased economic activity and natural resource utilisation to meet the growing demand. These production activities have strained the carrying capacity of a finite earth (Polasky *et al.*, 2019). The challenges are further compounded by within and between country inequality, reflected in the juxtaposition of poverty/destitution and opulence. This has called into question the realisation of the principle of intra-generational equity, especially for those in the Global South. These are the challenges that sustainable development, and its components of economic, social and environmental/ecological sustainability, was envisaged to address.

Sustainable development has been largely accepted at the ideological, philosophical and political level. The continuing challenge has been the practicalities of its implementation to achieve the intended integrated goals of equitable/inclusive economic development that is environmentally sound¹ and socially just/fair/equitable² (IISD, 2019). Several economic models have been developed to achieve efficiency in the allocation of the earth's finite resources for the realisation of these goals of sustainable development – not only to prevent environmental and social harm, but also to maximise the benefits of development for the economy, society and the environment.

According to orthodox neoclassical economics, sustainable growth – a critical aspect of sustainable development – entails the ability of a society to continue maintaining production of economic wellbeing over time in a manner that ensures the same level of wellbeing for the present and future generations (Vivien, 2008). This wellbeing is measured in terms of individual utility in relation to income and consumption, which should not decline, as the flow of wealth keeps the ca-

pital stock stable overtime (Vivien 2008). This neoclassical ideology of sustainable development embraces the substitutability of natural capital (ecological, environmental and natural resources) with human capital (technology/innovation, skill, knowledge and amenities) making up for the decrease in the amount of natural capital to ensure individual wellbeing is maintained overtime (Solow, 1992). This economic process has been labelled as “the internalization of externalities”, as natural resources and pollutants had generally been considered as externalities in economic pricing of resulting goods and services (Vivien, 2008). This weak form of sustainability re-affirms the centrality of economic growth, confidence in technological progress to enable substitution of natural capital with human capital, and effective pricing mechanisms to allocate wellbeing for the present and future generations.

The substitution ideology of neo-classical economics has been challenged by heterodox ecological economics that emphasizes the need for effective precautionary long-term management of natural resources – starting with forestry and fisheries resources – to prevent resource depletion of renewable (allowing re-generation) and non-renewable (allowing replacement) natural resources (Vivien, 2008). Heterodox ecological-economic thinking emphasizes the complementarity of natural with other production resources in the developmental framework, and not its substitution; with a sufficient stock of natural capital being maintained over time for the benefit of future generations. This complementarity finds its application in many of the heterodox ecological and economic models for the realisation of sustainable development that are being developed by African writers on the basis of the collective social, ecological, cultural, religious and communitarian values of harmonious co-existence with nature and other animate and inanimate beings as discussed herein below.

1 Ensuring the viability of earth's life-support systems and enhancing stability of vital natural resources/capital for the equitable wellbeing of current and future generations.

2 Poverty alleviation and improvement in the living standards of all for the current and future generations.

2. HETERODOX ECONOMIC THINKING AND THE SUSTAINABILITY CHALLENGE

Heterodox thinking generally means everything that is not in accordance with established doctrines or opinions – and thus not generally recognised as orthodox (Lawson, 2006). Heterodox economics believes in the reality of a collective society and the existence of its institutions that govern/guide human conduct/behaviour. Individuals are thus socially and culturally embedded, and are reflexive beings interacting on the basis of their collective intentionality (Davis, 2008). This collectivity of reflexive individuals is thus capable of negotiating changing social associations so as to create holistic, coherent and systematic alternative social-institutional frameworks of development that are more sustainable. This is critical for sustainable development due to the general systemic discounting of ecology, the environment and collective societal goals by orthodox neoclassical and neoliberal economic approaches as externalities in the economic process (Boehnert, 2018; Chester & Paton, 2019).

Heterodox economic approaches have recognised the era of the Anthropocene – with its challenges of unsustainable resource extractive and pollutive “economistic”³ modes of development that have led to resource exhaustion/depletion, climate change and biodiversity loss. They have noted this as arising from the orthodox political economy that has systematically prioritised profit-seeking options such as intensive fossil-fuel-based industrialisation over more sustainable developmental options (Boehnert, 2018; Chester & Paton, 2019; Dryzek, 1996).⁴ Orthodox economics’ contribution to the global sustainability challenges has been recognised by Lord Nicholas Stern, a renowned economist, who remarked that climate change was “the gre-

atest and the widest-ranging market failure ever seen” (Boehnert, 2018). Heterodox economics acknowledges the need and urgency of addressing these challenges through re-designing capitalist economic activities for substantive reduction in carbon emissions as well as the re-imagining of future ways of living that are more sustainable through purposeful collective action. This is stated by Heskett, Dilnot and Boztepe (2017) as follows:

Is economics the study of the economy (as economists like to insist, the study of the only possible form the economy can successfully take?) or is economics as a field really only engaged in modeling (and justifying) the fact that this is a capitalist economy? The question is difficult, and particularly from an operational point of view. It has an urgency in the light of the continuing cycle of economic crises and in the view of the need to rethink what the ‘economy’ is, and how it should be conceived in the light of the necessity to create a sustainable global post-carbon economy, an economy that, while it will, by necessity, use markets, cannot, structurally, also be capitalist, at least in the essentially mercantile (and massively exploitative) forms that we are now experiencing.

Boehnert (2018) argues that these sustainability changes could be achieved if social and ecological considerations upstage capitalistic profit-oriented thinking in informing politics, governance, law and economics for the creation of a more just, stable, secure and sustainable world. The stability and sustainability that could be achieved through this transformative thinking -which recognises that the economy is intrinsically embedded in the ecological and social systems – is reflected in the

3 Economism is defined as the ever-increasing expansion of the logic of the market (privileging of profits over all other critical societal values) to all the spheres of life in a manner that corrosively diminishes the social and ecological domains that are critical for human survival and sustenance (Boehnert, 2018).

4 Dryzek (1996) argues that this mode of production is based on predominantly instrumental and strategic orientation on the part of human beings in their interaction with each other and with nature – an orientation that is manipulative and destructive in the interest of human ends (nature/society as consisting of objects to be dominated, manipulated and exploited). This, he argues, translates into human arrogance in dealing with natural systems, leading to the subordination of nature and society to capitalistic economic ends.

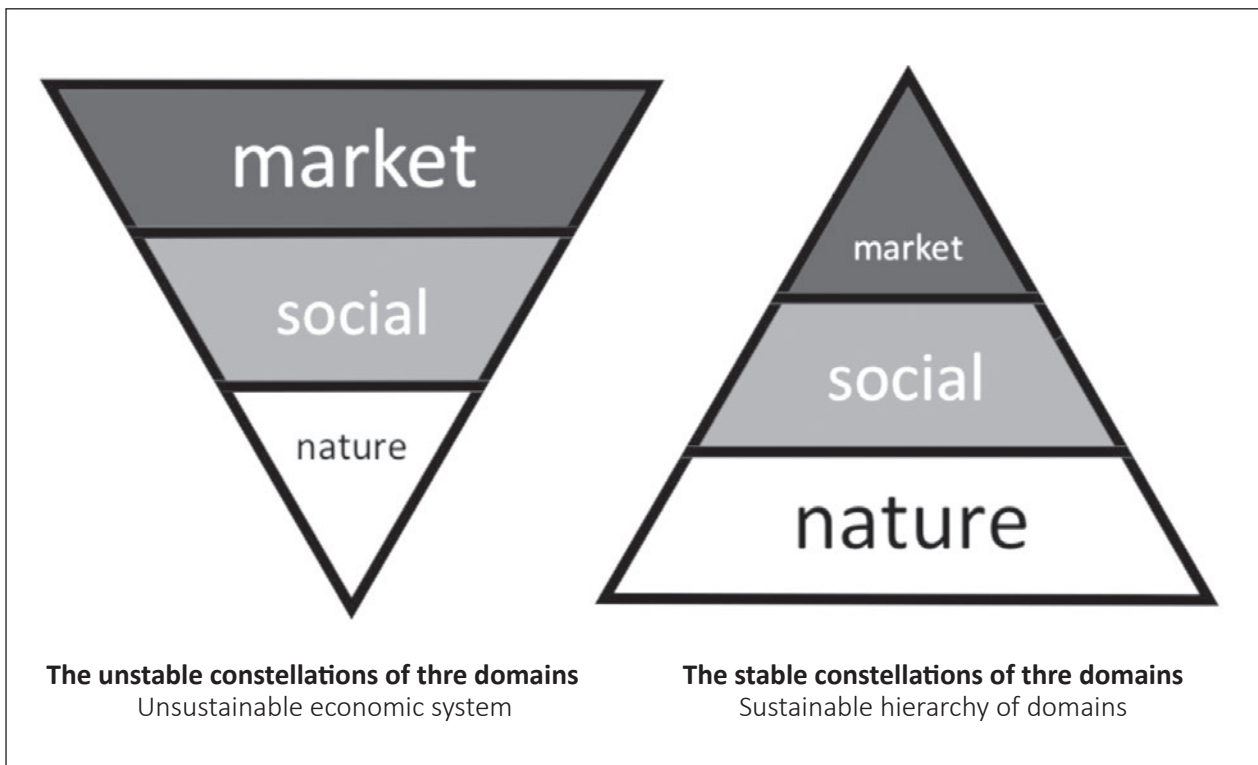


Figure 1

stable-unstable constellation of the three domains model in figure 1 (from Böhnert, 2018):⁵

The figure shows that markets can only function optimally and sustainably if they are effectively embedded in their supporting social and ecological systems. In order to achieve this stable/sustainable nature, society and market balance, heterodox economists thus call for the formulation of holistic developmental policies that address the environmental challenges resulting from extractive capitalism and minimise the polarization from wealth inequality that has generated social justice concerns (Boehnert, 2018). This, they say, can be done through the redesigning of economic processes and structures on the basis of entrenched ecological and social knowledge to create distributed and regenerative economies (Raworth, 2017). Kate Raworth states this as follows:

An economy that is distributive by design is one whose dynamics tend to disperse and circulate value as it is created, rather than concentrating it in ever-fewer hands. An economy that is regenerative by design is

one in which people become full participants in regenerating Earth's life-giving cycles so that we thrive within planetary boundaries (Raworth, 2017).

A design of such a regenerative and distributive economy is reflected in figure 2 (Raworth 2017):

This figure indicates the planetary boundaries that economic activities must be kept within to ensure a just, equitable and ecologically sound society – the safe and just space for humanity. It also indicates the ecological ceiling above which economic activities must not transcend, with dangers of overshooting these planetary boundaries being climate change, natural resource exhaustion/depletion, biodiversity loss, pollution, fresh water access challenges, among others.

These international ecology-society-economy reform efforts have led to the emergence of the degrowth movement, which argues that if economic growth continues to be detrimental to the ecological and social bases upon which it is dependent, then it is no longer desirable (Boehnert, 2018). This movement acknowledges the physical limits of capitalistic economic growth and calls

⁵ According to Herman Daly (2008) and his Steady State Economy concept, this stability/sustainability balance between the three domains can be achieved when society is guided by two principles:

- the economy must not use natural resources faster than they can be replenished by the planet, and
- the economy must not deposit wastes faster than they can be absorbed

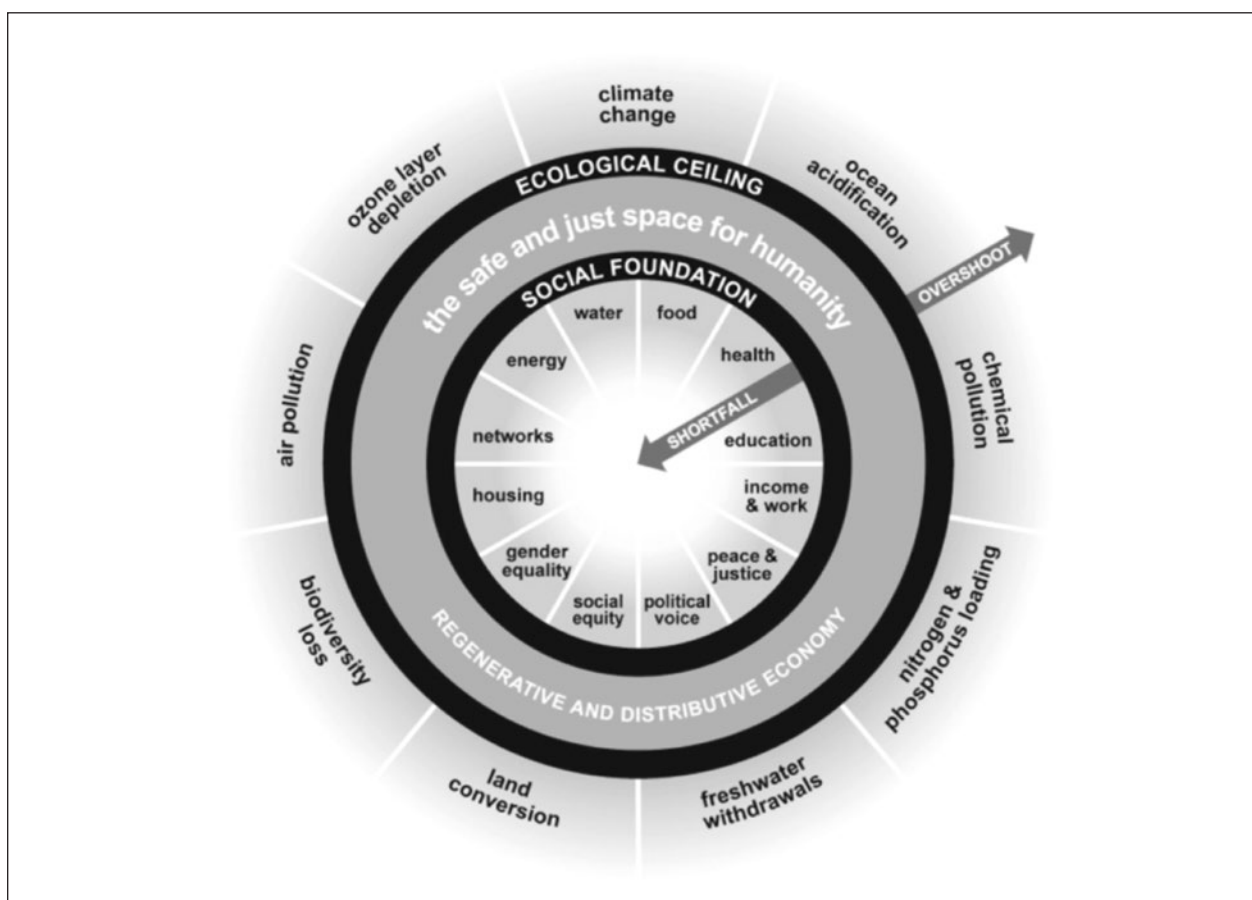


Figure 2

for the capitalist economy to be slowed down by design to enhance socio-ecological sustainability, with this being stated by D’Alisa, Demaria & Kallis as follows:

In economic terms, degrowth refers to a trajectory where the ‘throughput’ (energy, materials, and waste flows) of an economy decreases, while welfare or well-being improves.... Degrowth is when social and environmental conditions improve, and GDP inevitably declines as a result (D’Alisa, Demaria & Kallis, 2015).

The essence of degrowth is the re-conceptualisation of growth through a shift from reductive quantitative metrics to qualitative wellbeing for the planet, the people and the economy (Boehnert, 2018).

Orthodox economic thinking has responded to the De-growth advocacy by proposing the Keynesian-inspired “Green New Deal” that advocates resource-ef-

ficient low-carbon development or “green growth” as it has been termed – which is considered a means of reconciling economic policies and economic behaviour with social and environmental needs (Bina, 2013).⁶ The consensus to transition to green economies arose subsequent to the realisation that only collective economic adjustments to low carbon development on a global scale could mitigate the adverse consequences of climate change and environmental degradation (Chukwu, 2020). UNEP defines a green economy as that which is low carbon, resource-efficient and socially inclusive; and which results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities (UNEP, 2011; Kaggwa *et al*, 2013). It is thus a developmental process that ensures fair use of ecological resources and sinks at re-gene-

6 In her analysis of the discussions and documents generated by the Rio+20 Conference, Bina (2013) observes as follows: ‘[C]ontents analysis of the related documents suggests that the greening phenomenon is about efficient, technologically driven, sustained growth, and paradigm fixing, rather than shifting’, p.1034. This focus on technological and financial sustainability (climate-energy nexus and low-carbon solutions), in essence means that there is still no international consensus for a transformative shift from capitalistic production (the prevailing dominant socio-economic paradigm) to more socially and ecologically embedded paradigms of production for sustainable development.

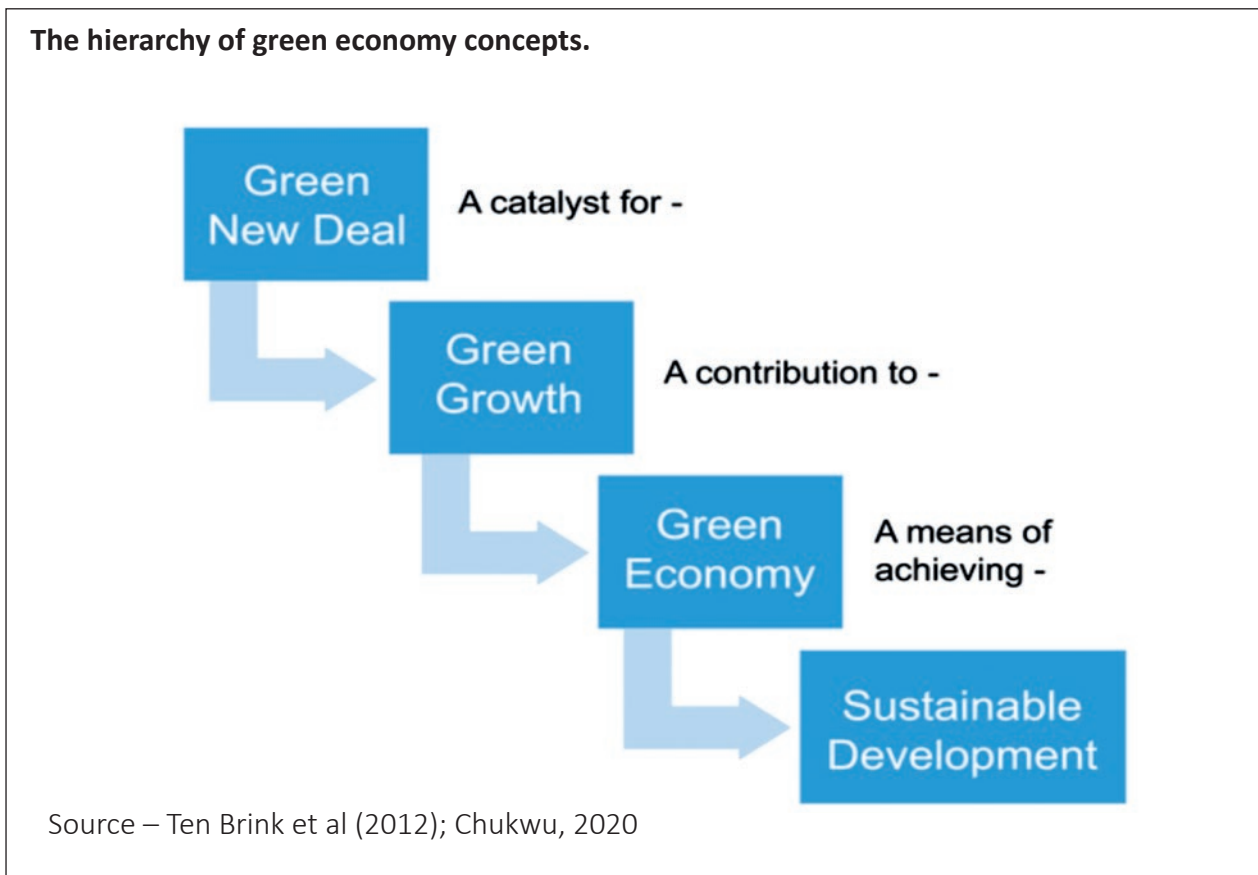


Figure 3

rational and bio-assimilation rates (Wapner, 2011). The Rio+20 Resolution links this “greening” process of the economy to sustainable development as follows:

[W]e consider green economy ... as one of the important tools available for achieving sustainable development ... it should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth’s ecosystems. (UN General Assembly 2012)

Ten Brink *et al* provide a clear conceptual link between the green new deal, green growth, green economy and sustainable development in the figure 3:

Key intervention areas in the transition to green economies thus include: investment in cleaner energy, investment in environmentally-friendly and resource-efficient technologies, sustainable use of natural resources, repair and maintenance of natural ecosystems, and

the adoption of enabling legal and policy frameworks to guide the transition process (Nhamo, 2013; Megwai *et al*, 2016; Chukwu, 2020).⁷ The legal and policy frameworks considered by governments for the transition to a green economy should aim to support poverty reduction, job creation and the enhancement of human wellbeing, efficient use of energy and natural resources, technological innovation to reduce carbon emissions, and enhanced environmental protection (Megwai *et al*, 2016).

Bina, however, argues that though the “greening of economies” may be essential in the short-term, it is not sufficient in confronting and addressing the ecological challenges resulting from extractive capitalistic modes of production in the long term as it does not interrogate the underlying causes of the ecological crisis (Bina, 2013). She also decries the significant economization of the sustainable development discourse resulting from this “greening” ideology due to the oversimplification

⁷ Other critical areas of intervention in the economy to achieve green growth include: low-carbon transport; energy efficient buildings; improved waste management; sustainable agriculture, forestry and fisheries; promotion of earth’s natural resources to avert environmental risks (Megwai *et al*, 2016).

of the definition of, and solution to, the ecological and social challenges arising from the prevailing extractive capitalistic production paradigm (Bina, 2013). These limitations of the “greening process” have led to calls for ‘a new developmental paradigm, ethic and morality that is humanist, communitarian and restores balance between human beings and Mother Earth’ as well as the recognition of the substantive rights of nature in the context of the promotion of sustainable development (Bina, 2013). This is, in essence, a call for transformation from the current *homo economicus* conception of the human-nature relationship to a *homo ecologicus*

conception of this human-nature relationship to enhance the realisation of sustainable development (Dryzek, 1996).

Behind this background, the paper aims to analyse Africa’s current developmental challenges, its adoption of the green economy ideology and its implementational challenges as well as the emerging African heterodox thinking and perspectives on how African countries can overcome the current ecological, social, and developmental challenges and realise sustainable development for shared prosperity.

3. SUSTAINABILITY AND AFRICA'S DEVELOPMENTAL CHALLENGES

Africa is one of the regions of the world facing the greatest challenge in achieving sustainable development due to historical and current challenges of governance, resource use, demographic explosion and limited socio-economic/human development. Some of these challenges include:

- ineffective laws, policies and institutions to govern the development process and ensure the realisation of broad-based equitable development;
- inappropriate production techniques leading to declining productivity in agriculture, resource extraction and industrial production;
- rapid demographic changes leading to population pressure vis-à-vis available resources resulting in overexploitation and rapid natural resource degradation;
- resource outflows from Africa resulting from the high cost of effectively managing trans-national corporations;
- high dependence on primary commodities and the declining commodity prices due to unfair international trade practices;
- the huge external debt burden coupled with poor financial management systems that has led to corruption and pilferage of resources meant to finance development;
- socio-political instability due to competition for scarce resources leading to conflict, displacement and migration;
- negative impact of natural and human-induced disasters due to prevailing vulnerabilities and exposure of people, livelihoods and developmental infrastructure.

These interconnected and interdependent challenges have subsisted despite over six decades of developmental interventions in Africa by a myriad of multilateral developmental institutions that have adopted modernist/conventional developmental models (Tharakan, 2019). This failure to realise sustainable development despite decades of effort calls for a re-think of the development process in Africa and a re-modeling of the developmental strategies if sustainable development is to be realised in Africa. It is thus critical that specific endogenous socio-economic and ecological models are designed to deal with the developmental challenge in Africa so as to guarantee the realisation of sustainable development. In order for such models to be viable and practical in conceptualization, design and implementation, it is important they are designed by persons who have intrinsic knowledge and understanding of the historical, political, social, cultural, ideological and philosophical orientation of the African people and their governments. This paper seeks to find and analyse such ecological and socio-economic models developed by African writers based on the African continent who interact on a day-to-day basis with the unique challenges of Africa's underdevelopment and seek ways through socio-economic modeling on the best approach to ensure sustainable development in Africa.

4. AFRICAN PERSPECTIVES ON SUSTAINABLE DEVELOPMENT OF THE CONTINENT

Due to its prevailing socio-ecological and economic conditions, Africa faces a grave challenge in enhancing the realisation of sustainable development as discussed in section 3 above. This is because of the prevailing high levels of poverty, the situation of continuing underdevelopment and the adverse impacts of climate change that are being experienced in the continent, due to the reliance on the natural resource base for socio-economic advancement. It is thus critical that alternative economic perspectives and models are generated to deal with the prevailing developmental challenges that Africa faces as a continent. This section looks at some of the current orthodox developmental paradigms that guide development thinking in Africa, the challenges of their implementation and the alternative heterodox economic perspectives and models developed by African scholars that aim to address Africa's prevailing developmental challenges for the realisation of sustainable development.

4.1. Green economy/green growth as a new developmental paradigm in the African context

Similar to the global discourse on the sustainability of development, Africa has also adopted the orthodox economics-based green economy as a paradigm for the realisation of sustainable development in the continent.⁸ The African Development Bank leads the way in its recommendation of "green growth" as one way

through which the continent's states could decouple developmental activities from environmental harm so as to achieve sustainable development (AfDB, 2012). It defines green growth as a selection of economic activities that, at best, promote social and environmental development, and at a minimum, do not harm the environment or human welfare (AfDB, 2012). It notes the characteristics of this green growth as entailing adoption of policies, programs and projects for inclusive growth that lead to reduced emissions through investment in sustainable infrastructure, a more efficient use of natural resources to enhance livelihoods and the developmental base,⁹ protection of the ecosystem, increased resilience to disasters due to the potential adverse impacts of climate change, and enhanced food security to feed a rapidly growing population. It recommends that these green growth considerations are integrated into each State's long-term developmental planning in their developmental plans rather than be addressed as stand-alone interventions, so as to enhance the long-term effectiveness and sustainability of their economies. The AfDB has provided support to African countries towards the realisation of green economies, with some of its funded projects including green energy¹⁰ support to Kenya and South Africa to increase production of geothermal, solar and wind power as clean and inexpensive alternatives to fossil-fuel driven energy sources (AfDB, 2012).¹¹ It is also in the process of encouraging change into more sustainable transport solutions through funding for water and rail transport,¹² as well as enhancing better management of

8 Megwai, Njie and Richards argue that the green economy ideology is an extension of the conventional economic approach to encompass, among others, distributional equity and environmental quality objectives (Megwai *et al*, 2016).

9 Some of the tools suggested by AfDB in this context include the Environmental Sustainability Index, biocapacity metrics, and even the use of the traditional environmental and social impact assessments. These should be used expansively as environmental-social-economic cost-benefit tools rather than strictly as risk mitigation tools (AfDB, 2012).

10 Africa has immense untapped potential for renewable energy production which can be undertaken at minimal costs to spur long-term energy security, industrialisation and diversification of local production processes, job creation and economic development (Chukwu, 2020).

11 Kenya's Menengai Geothermal Project was projected to increase energy productivity by 26%, meeting the needs of 500,000 new households, 300,000 small businesses and providing 1,000 Gwh extra energy to industry. South Africa's \$1.3 billion solar energy project by ESKOM was projected to increase the provision of solar power to South Africa and neighbouring countries (AfDB, 2012).

12 Funded projects include the Shire-Zambezi waterway from Mozambique to Malawi, and the Tangiers-Railroad Capacity Increase Project in Morocco (AfDB, 2012).

natural resources such as land and water to ensure sustainable agriculture.¹³ This concept of green growth for the attainment of green economies has been adopted by African countries to varying degrees, with the experience of some (Anglophone) African “green pioneer” countries – South Africa, Kenya, Ethiopia and Rwanda – summarily discussed below.

The green economy strategies in South Africa

In 2013, Godwell Nhamo analysed South Africa’s readiness in its transition to a green economy, as a means of achieving sustainable development and poverty eradication, by assessing key transition parameters such as high-level political commitment and stakeholder buy-in, transformation of legal, policy, institutional and programmatic set up as well as the establishment of funding mechanisms to aid transition (Nhamo, 2013).¹⁴ He notes South Africa’s commitment to a green economy at the highest level of the Presidency, reflected in an undertaking to reduce emissions by 34% by 2020 and 42% by 2025.¹⁵ This political commitment has been matched by stakeholder buy-in in a Green Economy Summit in 2010 where stakeholders identified key focus areas as being: sustainable production, consumption and agriculture; enhanced policy, fiscal and regulatory framework; financing; greening the built environment including cities and towns; sustainable transport and clean energy, including energy efficiency; and natural resource conservation and management, including sustainable water and waste management (Nhamo, 2013). These commitments have been backed by policy-ma-

king,¹⁶ programming¹⁷ and financing for their realisation,¹⁸ with government establishing the Green Fund in 2012 to provide resources for the transition process.

The green economy strategies in Kenya

Kenya has equally embraced a transition to green economy on the basis of a constitutional recognition of the right to a clean and healthy environment and the constitutional imperative to sustainably utilise, exploit, manage and conserve the environment and natural resources (Government of Kenya, 2015).¹⁹ The transition is to address key challenges such as poverty, unemployment, inequality, environmental degradation, climate change, infrastructure gap and food security. The underlying hope is that this transition would yield long-term faster growth, cleaner environment and higher productivity relative to a “business as usual” developmental scenario (Kenya Green Economy Strategy, 2015). Key policies and programmes towards the realisation of the green economy objectives include: investments in renewable energy, promotion of resource-efficient and cleaner production, enhanced resilience to economic and climatic shocks, pollution control and waste management, environmental planning and governance, and restoration of forest ecosystems (Kenya Green Economy Strategy, 2015).

The green economy strategies in Ethiopia

Ethiopia’s embrace of a climate-resilient green economy through its adoption of the Climate Resilient Green Economy Strategy (CRGE) in 2011 whose objective is to decouple economic growth from adverse

13 AfDB hosts the African Water Facility created to implement the Africa Water Vision 2025 aimed at supporting African countries to shift towards a green growth pathway through integrated water resources management (AfDB, 2012).

14 Nhamo notes that the key outcomes of a transition to a green economy include: lower greenhouse gas emissions, economic growth and human development, poverty reduction, enhanced biodiversity and ecosystem services and climate resilience (Nhamo, 2013).

15 According to Kaggwa *et al*, key risks necessitating South Africa’s transition to a green economy include: growing recognition of the environmental unsustainability of past and current growth patterns, increasing effects of climate change, rapidly rising oil prices, and the unsustainable consumption of natural resources (Kaggwa *et al*, 2013).

16 Some policies put in place to enhance the transition include: The New Growth Path, 2010; the Green Economy Accord, 2011; the Integrated Resource Plan, 2011; the National Strategy for Sustainable Development and its Action Plan, 2011; the National Climate Change Response White Paper, 2011; the Green Economy Model, 2012; the National Development Plan, 2012; and, the imposition of carbon tax in 2013 – charged at \$12 per tonne of CO2 equivalent (Nhamo, 2013; Kaggwa *et al*, 2013).

17 Some of the programs include increase in renewable energy to reach a target of 10, 000GWH; reform of the Building Code to require the installation of solar water heaters and energy-efficient lighting in new buildings; the establishment of a Green Economy Training Academy to train over 2, 000 youth annually on different aspects of the green economy (Nhamo, 2013).

18 Some of the key financing undertaking were \$1.2 billion from the Industrial Development Fund, \$2.5 billion from the Development Bank of South Africa, \$10 billion from the private sector, and \$80 million from the National Treasury (Kaggwa *et al*, 2013).

19 Kenya’s understanding of “transition to a green economy” is the “shift towards a development path that promotes resource efficiency and sustainable management of natural resources, social inclusion, resilience, and sustainable infrastructure development” (Kenya Green Economy Strategy, 2015).

environmental outcomes in the development process (Okereke *et al*, 2019). This was adopted to address the potential doubling of CO₂ emissions from 150mt CO₂e in 2010 to over 400mt CO₂e in 2030 if a business-as-usual growth trajectory was followed, with main sectors increasing emissions being agriculture, industry and transport (Okereke *et al*, 2019). The aim of adopting a green economy strategy was thus to achieve middle-income status by 2025 by addressing challenges of food security, low GDP per capita and sustainable utilisation of natural resources (Megwai *et al*, 2016; Okereke *et al*, 2019). Ethiopia's transformational plan to a green economy is based on four pillars: upgrading agricultural production to higher food security and farmer income; protection and restoration of forests for their economic and ecosystem services; increased production and utilisation of renewable energy sources for generating electricity; and, adoption and harnessing of energy-efficient technologies in transport, industry and infrastructure (Megwai *et al*, 2016). Examples of efforts to achieve these goals include the distribution of 9 million energy-efficient cook stoves; afforestation, reforestation and forest rehabilitation; and the Grand Ethiopian Renaissance Dam with an installed electric generation capacity of 6,000 MW (Megwai *et al*, 2016). On the economic side, Ethiopia has sought to increase economic productivity through industrial parks as a route to industrialisation – with the plan that 14 public industrial parks will be built throughout the country to harness domestic and foreign investments (Okereke *et al*, 2019).

The green economy experience in Rwanda

Rwanda has equally adopted a green economy growth pathway through the adoption of its National Strategy for Green Growth and Climate Resilience (GGCRS), which was designed to address environmental challenges while supporting economic growth (UNDP,

2018). Its vision is for Rwanda to be a climate-resilient low-carbon developed economy by 2050 through the harnessing of low carbon energy to build green industries and services (Government of Rwanda, 2011). Some of the action plans towards this transition process include: sustainable intensification of smallholder farming, sustainable land management/use, integrated water resource management, low carbon energy grid, green industry and private sector development, climate compatible mining, resilient transport systems, low carbon urban systems, and, sustainable forestry (GGCRS, 2011). The Country has established a National Fund for Climate and the Environment to harness financing for transition to the green economy²⁰ as well as established the Centre for Climate Knowledge for Development to generate the necessary human and technical capacity to support the transition (UNDESA, 2012). It has also established a Technical Coordinating Committee comprising of the departmental heads from the relevant ministries (Revenue, Natural Resources, Energy, Water and Sanitation, Transport, Private Sector Federation) whose responsibility is to coordinate the transition to a green economy in Rwanda (UNDESA, 2012).

Challenges to the implementation of the green economy ideology in sub-Saharan Africa

The greening of economies in Africa has faced several challenges due to the need for substantial human,²¹ technical, financial, technological, political, organizational²² and informational/statistical²³ investments to achieve the required transition to a low-carbon economic development. One of the main challenges has been technological and financial, with countries relying on external developmental support for the transition to the green economy (UNDESA, 2012). This support has majorly not been forthcoming at the level that would substantively support the transition, with the conse-

20 The Fund employs a wide range of public financing mechanisms such as performance grants, loan guarantees, lines of credit and public venture capital to create an attractive investment environment for low-carbon developmental activities (UNDESA, 2012).

21 Chukwu notes the lack of consensus on what the green economy is and how it can enhance climate change adaptation and sustainable development because of poor awareness of the concept in the African continent. He argues that a knowledge-based transition to a green economy will fast-track not only the appreciation of the need to transition, but also the adoption of green economy initiatives in all sectors of society (Chukwu, 2020).

22 Integrated coordination of all sectors of the economy and society as well as pooling of resources, efforts and strategies towards the transition to the green economy is critical for the transition to be successful (Chukwu, 2020).

23 There is need for statistical data and other critical information to determine the level and costs of environmental degradation and resource depletion resulting from the business-as-usual developmental paradigm; and thus, justify the transition to green economies in African countries. Data and information are also critical for policy design and decision-making in the choice of activities/strategies to be adopted to achieve rapid transition to a green economy (Chukwu, 2020).

quences that most of these countries have continued with the business-as-usual developmental pathways with detrimental impact to the environment and natural resources.

The decoupling green economy strategies provide techno-financial solutions that have perpetuated capitalist and colonialist strategies of continuing economic growth without addressing the root causes of the sustainability crisis, such as ideologies and economies of domination, exploitation and colonialism. They have basically not achieved their objectives of enhancing social justice and reducing environmental degradation for sustainable development in Africa. This is because of their reliance on the orthodox economic thinking and tools, that have in most instances caused the current problems of environmental degradation and social exclusion/inequality. It is thus critical that alternative ideas and economic designs are explored to enhance the realisation of sustainable development in Africa. Heterodox thinking provides such an alternative for policy and practice in Africa for sustainable development, as discussed in the sections below.

4.2. Heterodox thinking on the sustainability question in Africa's development

In a journal editorial, Martin de Wit undertakes an analysis of different orthodox and heterodox approaches in environmental management and policy that have guided sustainability policymaking in South Africa, concluding that deeper, self-critical expositions of moral philosophies and values as well as models of reality are required to better understand society-ecology-economy interactions (De Wit, 2016). He notes that despite the acceptance of green growth policies in South Africa, the crisis in natural resource and environmental management continues through resource collapse and rising environmental degradation (De Wit, 2016). At the basis of this challenge, he asks a pertinent question: Can economic development and the principles of prudent environmental management be honoured simultaneously in a developing country? A further question, in this context, is how the demands of modern economies could be reconciled with biophysical constraints? He argues that these challenges can only be addressed through macro- and sector-level policies that are cost-effective and environmentally sustainable,

that is, being within the biophysical limits of the earth's ecosystem while being sensitive to social and ethical concerns (De Wit, 2016). He argues that the orthodox economics' approach of internalizing environmental and social externalities to "get the price right" is not a sufficient condition for prudent environmental management for sustainability. He states that it is necessary for policy instruments to adhere to ethical norms outside economic efficiency – and that adaptive and flexible policies should be designed to account for changing realities (De Wit, 2016).

In his analysis of South Africa, De Wit asks the following questions – is the economic approach to environmental management still warranted? If yes, under which conditions? If no, what viable alternatives are there in a globally economised world? In answering these questions, he looks at the utilisation of four diverse environment-economy approaches in South Africa – the Environment, Resource and Ecological Economics (EREE), the Ecological-Economic Systems (EES), the Socio-Ecological System (SES), and the Heterodox Economics of the Environment and Sustainability (HEES). The main focus of EREE, according to him, is to rectify the failure of the market to capture the true cost of economic activity on the environment, and to internalize this externality through tax regimes, charges and subsidies as well as by assigning property rights to common/publicly held natural and environmental resources (De Wit, 2016). The policy imports of this approach have been monetary evaluation of individual willingness-to-pay for better environmental quality, enhancement of market-based efficiency to reduce environmental harm and strengthening of property institutions to assign and enforce property rights. He notes the limitation of EREE to achieve sustainability due to the inability of "market solutions" to efficiently price environmental goods and services – with continuing environmental degradation and the inability to guarantee intra- and inter-generational welfare being some of the persistent challenges (De Wit, 2016).

In addressing the EREE's sustainability challenges, he notes the emergence of EES, which acknowledges the biophysical limits of the economy and questions the ability of technology to circumvent these challenges through substitution of natural with man-made capital (De Wit, 2016). He notes at the basis of the laws of thermodynamics, biophysical rules have to be entrenched in environmental policies for the management of renewable and non-renewable resources as well as

pollutants to ensure long term sustainability (De Wit, 2016). He argues for integrative and dynamic modelling methods that include environmental, economic, social and institutional realities to form the basis of policies on sustainable development, as they would better recognise and espouse the complexities of sustainability at disaggregated levels over time. He concludes that the adoption of this integrative ecological-economic system requires the strengthening of the institutional environment for the governance of ecosystems to ensure that ecosystem services are allocated within the boundaries of environmental sustainability (De Wit, 2016).

Socio-ecological systems (SES) approach emphasizes the role of institutions and property rights in the management of commonly-held natural resources, with cultural capital seen as critical in providing human society with the means and adaptations to conserve and modify the natural environment (De Wit, 2016). This acknowledges human beings as being a part of the natural environment, with the natural feedback mechanisms and cross-learning processes informing and shaping policy designs on environmental management. The learning and feedback mechanisms based on traditional knowledge and local expertise enable resource users to collectively self-organise to maintain common resources in a bottom-up process to achieve a sustainable use of the resource (De Wit, 2016). The overriding basis of this approach is the need for transformation of human values, ethics and morality suited for societies that are ecologically sustainable (De Wit, 2016).

Lastly, De Wit looks at Heterodox Economics of the Environment and Sustainability (HEES), which refutes the possibility of substitution of natural capital and man-made capital, and calls for an acknowledgement of the limits of the continuing supply of natural resources in all developmental models (De Wit, 2016). It calls for the acknowledgment of the embeddedness of the economic in the social and environmental systems and calls for policy solutions to recognise that social, economic, and environmental problems are related and must be dealt with in an integrated manner (De Wit, 2016). On the basis of the many approaches that have been used to guide environmental policy for sustainability in South Africa and their prevailing inadequacies in preventing environmental/resource degradation; De Wit argues for a collaborative, multi-disciplinary empirical

research to determine and design the best approaches for sustainability, so that deeper questions of value, morality, ontology and epistemology are taken into account (De Wit, 2016).

The value and cost-effectiveness of Ecosystem-Based Adaptation (EBA) approaches to sustainability in the context of climate change adaptation in South Africa is discussed by David Black, Jane Turpie and Nalini Rao (Black *et al*, 2016). It is based on the thinking that community livelihoods could be made more resilient to climate change through the restoration, conservation and maintenance of supporting ecosystems, with more cost-effective and beneficial outcomes to communities as compared to other conventional adaptation methods (Black *et al*, 2016). Black *et al* undertake an analysis of the viability and cost-effectiveness of EBA, using a case study of the wetland area of Kamiesberg Uplands in the Northern Cape, South Africa, a semi-arid area of pastoralist communities.²⁴ This wetland is experiencing degradation, resulting from removal of indigenous vegetation, over-burning, cultivation, overgrazing, over-abstraction of water and the introduction of alien tree stands, leading to a loss of ecological integrity and a change in hydrological regimes (Black *et al*, 2016). The question that Blacks *et al* seek to determine is whether EBA is the most cost-effective way to restore this degraded wetland as compared to other alternative conventional methods, such as digging of boreholes and importation of dry supplemental feed to sustain livestock stocking rates. Their study found that in the short-term, conventional methods were more cost-effective than the costs associated with the full restoration of the degraded wetlands (as would be required under EBA) for those directly affected, not taking into account all benefits of a full restoration of the wetlands to the entire society (Black *et al*, 2016). This study shows the danger of orthodox economics and their cost-benefit analysis in determining environmental management policies, without including long term social and environmental considerations. The resulting policy choices are clearly detrimental to long term social and ecological sustainability. This danger has been recognised by the AfDB who details reasons, why environmentally sound choices are not selected (AfDB, 2012):

²⁴ Being a wetland area in a semi-arid region, the Kamiesberg area provides critical ecosystem services such as flood attenuation, aquifer recharges, water and feed/fodder provision, nutrient cycling, pollution and erosion amelioration, among others (Black *et al*, 2016).

- a) a lack of knowledge about the options, or expertise in how to quantify their impacts;
- b) higher upfront capital costs of environmental-friendly choices;
- c) undervaluation of human welfare benefits of natural systems; and
- d) price distortions.

Collaborative and multi-disciplinary empirical studies and their application in sustainability policies, as recommended by De Wit, are thus critical in meeting some of these challenges, by designing policies that effectively balance the economic, social and ecological/environmental considerations in a fair, equitable and integrative manner to achieve the desired long-term sustainability of ecosystems.

4.3. Cultural commons and the philosophy of ubuntu – eco-bio-communitarianism

The humanistic, ethical and communitarian concept of ubuntu (“ubu” – wholeness; “ntu” – oneness) has been touted as one of the critical philosophical underpinnings for the realisation of sustainable development in Africa.²⁵ It connotes community,²⁶ collective solidarity, human dignity and welfare as central to existence and to development efforts (Shumba, 2011; Museka

& Madondo, 2012).²⁷ It revolves around the recognition of the worth of the human person, communal relationship,²⁸ a deep respect for humanitarian values, and a strong reverence for the natural environment and the resources it provides (eco-bio-communitarianism – interdependence and peaceful co-existence between humans, non-human beings and the environment/ecosystem).²⁹ It stresses the connectedness and interdependence of the human community and the natural environment that s/he depends on for survival and wellbeing, with these natural resources having special/sacred, socio-cultural, economic and spiritual significance (Shumba 2011; Kinyanjui, 2019). The concept is relational, revolving around key tenets of positive communal relationships, a deep respect for human values, a deep reverence for nature and its resources as well as the moral/ethical framework of living harmoniously with each other and with nature (Shumba, 2011; Museka & Madondo, 2012). This reverence to and harmonious relationship with nature, together with the non-monetisation of natural resources, meant that a fair balance was maintained between the realisation of human needs on the one hand and the conservation nature and preservation of the ecosystem on the other hand.

The ubuntu concept is critical to contemporary efforts aimed at addressing the challenges of sustainability, as it looks at the root causes of these challenges. It

25 The concept subsists in diverse formulations/iterations in the different African languages, and is termed as “utu” in Swahili and “Unhu” in Shona languages, which both refers to humanness in a communitarian perspective.

26 The African conception of “community” is wholesome, encompassing the un-born, the living, the living-dead and ancestors as well as other animate and inanimate beings around them and the physical/metaphysical universe that they occupy – an understanding that affirms the need for intra- and inter-generational equity as understood in contemporary environmental discourse (Eze, 2017). The living dead are those who died in the current generation and had been seen/interacted with the currently living; the ancestors are those who died long ago, who had not been seen by the current generation. According to many African customs, living dead is a passage process to being an ancestor – see <https://learn.elimu.org/topic/view/?t=170&c=32>.

27 The collective solidarity is internalized and manifested in worldviews, activities and attitudes of love, caring, tolerance, respect, empathy, compassion, unity and compromise (Museka & Madondo, 2012).

28 This relational aspect is captured in the Xhosa/Zulu phrase “*umuntu nugumuntu ngabantu*” which means that a person is a person through other people – collective personhood (Eze, 2017; Museka & Madondo, 2012). This communitarian social order places precedence on the welfare of the community above that of the individual, the individual being reliant on the community through the established social relations – “I am because we are, and since we are, therefore I am” (Akpan & Adie, 2018; Kinyanjui, 2019).

29 Ubuntu’s reverence for nature and other animate and inanimate beings arises from their consideration as sacred, spiritual, mysterious, and possessing vital forces; with the ubuntu framework defining normative standards through taboos and other totemic observances to prohibit wanton damaging/destruction/wastage of these vital natural and ecosystem resources. These normative standards require a member of the community to only take from nature what is adequate to satisfy his/her needs, and no more – a practice contrary to the modernist consumeristic culture that has led to environmental and natural resource degradation, thus threatening the viability of ecosystem services. Ubuntu thus asserts a moral and religious responsibility to each and every member of the community to conserve nature and its ecological/environmental resources (Akpan & Adie, 2018; Museka & Madondo, 2012).

especially focuses on the cultural³⁰ roots of the current ecological, developmental and social challenges that sustainable development is required to address. It asserts that how people behave towards nature depends on how they see themselves in relation to nature, as people's actions are determined by their thoughts, values and belief systems.³¹ Those who are guided by these religious and socio-cultural systems to revere nature are most likely to collectively take action for its preservation/conservation (Museka & Madondo, 2012). Ubuntu thus prioritises collective agency, relevant for behavioral management, and character formation that may contribute to sustainable communal lifestyles that

are critical for the sustainable management of natural resources and other ecosystem services (Shumba, 2011).³² It allows the adoption of an integrated model of the universe that values both human beings and the ecosystem (Museka & Madondo, 2012).

As opposed to the individualistic enclosure of resources, that focuses on the dominance over and exploitation³³ of other people and resources for consumeristic purposes with adverse consequences to socio-ecological sustainability,³⁴ a communitarian and reciprocal thinking envisaged by ubuntu calls for the collective caring of others beings – people, the environment, biodiversity and ecosystems – for the collective

30 It calls for sustainable development to be considered a cultural concept that should permeate everyone's conscience. It notes that culture entails a people's value system and system of rationality; it provides the lenses and the worldview through which a people perceive reality; it offers a standard of evaluation of what is good or evil/beautiful or ugly/legitimate or illegitimate; it conditions a people's motivation to act or refrain from acting in a particular way; and it provides the link between a people and their natural environment. The culture of a people and the value it places on the environment/natural resources will thus determine the people's relationship with their natural environment, the means of its exploitation, utilisation and conservation.

31 The root metaphors encompassed in the individualistic value system that has globalised consumerism with irreversible ecological/environmental damages, such as biodiversity loss and climate change, include:

- mechanism – views organic processes as mechanistic and glorifies technological solutions to ecological problems;
- progressivism – views change as a linear form of progress in opposition to traditions, with traditional values and practices that were considered as encouraging living in harmony with nature being considered as backward and in need of modernist/conventional overhaul;
- anthropocentrism – places humans and their needs/wants at the centre of the universe and considers man as being superior and separate from the natural world – a Judeo-Christian cultural thinking that has led to human-caused mass extinction of non-human species and environmental/ecosystem degradation (Akpan & Adie, 2018);
- individualism – views the individual as the basic social unit, who must strive for autonomy as a consumer through the exploitation of natural resources;
- economism – encompasses the tendency to reduce everything to its monetarised market value (commodification of actions, relationships, products and services), with social and environmental impacts of economic activities considered as externalities;
- evolution – consideration of traditional conservational and ecologically sound cultural practices as primitive/backward and in need of evolutionary transformation into modernity, through westernization.

A communitarian worldview espoused by ubuntu calls for the interrogation of the individualistic worldview to generate an understanding of its limits and transform to a value system that undertakes a holistic and relational view of the earth's ecosystem (a recognition and appreciation of how individuals are nested in cultures, and how cultures are in turn nested in the natural environment – collective ecological intelligence).

32 According to Museka and Madondo, ubuntu entails social learning where the need for environmental conservation is engrained in people's hearts by their socialisation, due to its bases on religio-cultural beliefs, practices and customs (cultural and religious imperative for environmental conservation). This enables people to recognise and revere the special/sacred/spiritual relationship that they have with the physical environment and other non-human species, and thus engender long-term environmental conservation and sustainable use of natural resources and other ecosystem services (Museka & Madondo, 2012).

33 The value of dominance and exploitation of natural resources is based on the Judeo-Christian framework on which the Western conception of ecological stewardship and dominance over nature is crafted – the setting of human beings as a special creation above and over nature, given the responsibility by God to manage nature and its resources. This is stated by Arnold Toynbee as follows:

Man was divorced from his natural environment, which was divested of its former aura of divinity. Man was licensed to exploit an environment that was no longer sacrosanct. The salutary respect and awe with which man had originally regarded his environment was thus dispelled by Judaic monotheism in the versions of its Israelite originators and of Christians and Muslims. (cited in Museka & Madondo, 2012)

It is this framework that creates a relationship between humans and nature that is essentially manipulative and exploitative – an anthropocentric universe that places humans on a privileged pedestal over other forms of life on earth, thus creating a consumerist value complex that has led to environmental degradation, biodiversity loss and threats to the viability of ecosystem services.

34 Individualism stresses independence, self-reliance, and individual pursuit of goals/desires without tolerance for external interference by other people or societal institutions – the individual as the basis of all reality and all society. This individualism leads to the sacrifice of the environment at the altar of material acquisition, with devastating consequences for the environment (Eze, 2017).

good and wellbeing of all (Shumba, 2011; Museka & Madondo, 2012).³⁵ This communitarian thinking is critical for generating understanding of the planet and its ecosystems as a global common, and fashioning collective and cooperative responses that tackle the root causes of the economic and ecological challenges for the common good of all (Shumba, 2011).³⁶

The essence of collective solidarity and collective thinking in addressing the challenges of sustainable development in a coordinated and harmonious manner is stated by Goleman as follows:

The ecological abilities we need in order to survive today must be a collective intelligence, one that we learn and master as a species, and that resides in a distributed fashion among far-flung networks of people. The challenges we face are too varied, too subtle, and too complicated to be understood and overcome by a single person; their recognition and solution require intense efforts by a vastly diverse range of experts, business people, activists, and by all of us. As a group we need to learn what dangers we face, what their causes are, and how to render them harmless, on the one hand and on the other, to see the new opportunities these solutions offer and we need the collective determination to do all this (Goleman, 2009, para. 4).

Collective thinking enables people to understand that the global ecosystem and resource commons belong to all forms of life on the globe, and their utilisation and conservation as a common trust must be a communal and collective responsibility (Shumba, 2011). This thus calls for socio-ecological attentiveness and sensitivity by the entire human race as the fiduciary stewards of the global commons – critical components of the ubuntu's moral and ethical framework, which indicates that sustainability can only be achieved through collective communal education and action, and not through individual efforts (collective agency over individual agency).

4.4. Social networking and associational value for sustainable socio-economic development

In the economic development context, the concept of Ubuntu, especially its communitarian and collective values, underpins associational social networks that have been used to satisfy individual and group needs for survival and welfare (Omobowale *et al.*, 2016). Indigenous social networking to harness social capital for the common good has been employed through cooperative associations, friendship groups/*chamas*, welfare groups or kinship groups for social survival and group development (Omobowale *et al.*, 2016; Kinyanjui, 2019). Within a firm social structure with guiding normative values and expectations, social networking utilises the mutual communal bonds of love, friendship, trust, loyalty and kinship as productive resources for social survival and collective development (Omobowale *et al.*, 2016). On the basis of existing social structure, the associational networks provide their members with entrepreneurial training, start-up capital through informal loans, business opportunities and referrals as well as general welfare support in relation to education, marriage and burial support (Omobowale *et al.*, 2016; Kinyanjui, 2019).

Social networking is a bottom-up approach to development – as opposed to the current neo-liberal top-down national developmental policy – that has the potential to place the common people at the heart of the developmental process, so as to achieve social equity and human development, critical aspects of sustainable development (Omobowale *et al.*, 2016; Kinyanjui, 2019). This approach has been successfully used at the micro-level by informal traders and artisans who operate with very little or no support from the state to support each other and collectively thrive in their businesses (Omobowale *et al.*, 2016; Kinyanjui, 2019). This is a clear indication that it has the potential to be harnessed through a localised bottom-up approach to eradicate poverty, improve human wellbeing and enhance

35 Ubuntu views the environment as “home”, creating a strong axiological framework for the harmonious co-existence with nature and other life forms for ecological sustainability. This relationship is holistic – no one being is superior in importance or prior in necessities, but the actions of one being affects the entire cosmology, like a strand in a spider web (Eze, 2017).

36 This requires societies that espouse the individualistic and consumerism cultural value systems and that have large ecological footprints to undergo transitions towards a more communitarian, relational and humanistic value system. A value system that appreciates human interdependence with other humans as well as with nature, and therefore enables collective action for an economically, environmentally and socially sustainable world. This is the essence of the ubuntu philosophy – a moral and ethical framework of social solidarity that emphasizes cooperation, compassion, community and the concern for the interest of the collective.

the realisation of equitable socio-economic and human development in developing countries. This can be done through the substantive inclusion, integration and participation of these associational networks in the conceptualisation, design, implementation and sustenance of national legal and policy frameworks for sustainable development, so as to garner indigenous knowledge and achieve local support/ownership for the implementation of the resulting developmental projects and programmes for sustainable development (Omobowale *et al.*, 2016).

Two writers have focused on this associational networking in the informal sector – Dr. Mary Kinyanjui in Kenya and Dr. Mofeyisara Omobowale in Nigeria. Dr. Kinyanjui starts from the premise of the importance of positive culture in the political, social and economic life of a community. This is an ingredient lacking in the development of Africa (Kinyanjui, 2019). She affirms the presence of this positive cultural orientation in the collective, supportive and collaborative efforts of indigenous traders and artisans in informal economies. They rely on bonds of humanity, kinship, friendship and trust to enhance socio-economic survival and development for themselves and their communities, through entrepreneurial training, rotating credits and saving associations (Kinyanjui, 2019). Culture thus cultivates a business model that entails resilience, education, hope, solidarity, generosity and reciprocity. Dr. Kinyanjui calls this model the Utu-Ubuntu business model, as it relies on African cultural values of community, solidarity, reciprocity, interdependence and interconnectedness while eschewing Western liberal ideology of individualism and its exaltation of wealth and technology as solutions to human problems (Kinyanjui, 2019).³⁷ The model views all economic transactions as embedded in social relations for the collective development and sustenance of the autonomous and self-regulating communities that the individual traders/artisans belong to.

Omobowale & Omobowale discuss solidarity-in-competition in Nigerian informal market systems that are the epicenter of economic activities for the majority

of poor traders/artisans (Omobowale & Omobowale, 2019). The values of solidarity-in-competition are derived from Yoruba cultural values of *Oju* and *Inu* guided by the *Asuwada* theory of association – a variant of the Ubuntu doctrine in the context of the Yoruba people in Nigeria (Omobowale & Omobowale, 2019).³⁸ In this context, *Oju* is the transactional space (the channel through which traders access livelihoods for survival/wellbeing, so long as they are in line with the collective market solidarity normative values). *Inu* are the in-market relations of associational acceptance and solidarity. This associational acceptance is critical in ensuring market access, socio-economic survival and advancement in the informal market systems. Though *Oju* and *Inu* values have their foundations in traditional culture, Omobowale & Omobowale view them as having transformed into contemporary societal values, as a pragmatic response to address the realities of modern liberal economies, especially for those left behind by the formal economic processes (Omobowale & Omobowale, 2019). Due to the little support provided by the state, social solidarity and associational networking provide critical social capital, expressed through trust, support, brotherliness and unity, as well as collective financing through associational loans and cooperative round-robin financial contributions (Omobowale & Omobowale, 2019; Omobowale *et al.*, 2016). Associational structures are put in place to ensure tranquil business environment design and to enforce rules through fines, suspensions and expulsions, to entrench solidarity and enhance the realisation of the common good despite the normal market competition (Omobowale & Omobowale, 2019).

4.5. Eco-theology and sustainable development in sub-Saharan Africa

Biblical-based eco-theological extrapolations of the interrelationship between humans, economies and ecologies on the basis of the ethics of life have also been

37 This was an aspect of the modernist theory that still persists in Africa, which focuses on entrepreneurial training, foreign investment and the expansion of Western-style education as a solution to Africa's social and economic problems.

38 The *Asuwada* theory situates the existential essence of the individual in the common good, accentuated by the individual's social group. Human relational association and interactional solidarity, according to the theory, is thus the whole essence of human existence and is critical for human survival, progress and development. These are un-achievable by an individual's sole effort, but are possible through collective action. Each individual in a social group must therefore normatively sociate to achieve a wholesome group success in survival and development (unity of purpose and collective action towards socio-economic progress and development).

developed to advocate for sustainable development in Africa.³⁹ This eco-theological extrapolation is based on the *Oikos* metaphor that was developed from a study conducted by the Diakonia Council of Churches in South Africa that resulted in a publication: *The Oikos Journey: A theological reflection on the economic crisis in South Africa*. The term “*Oikos*”⁴⁰ means “home” or “the household of God”⁴¹ – a place of care that makes it possible to holistically understand and combine a concern for the environment with the eradication of poverty in an effort to enhance the realisation of sustainable communities (Warmback, 2006). *Oikos nomos* relates to a concern for the economy, and *Oikos logos* to a concern for ecology & the environment and a recognition that current developmental initiatives have created a divide between these two interdependent and interrelated *Oikoi* (Van Schalkwyk, 2008; Conradie, 2007; Warmback, 2006). The theological concern with development⁴² in South Africa is a disconnect between *Oikos nomos* (concern for the economy) and *Oikos logos* (concern for the ecology/environment), with the market-based capitalist productive system not taking into account the interrelatedness between *Oikos nomos* and *Oikos logos* (Van Schalkwyk, 2008).

In order to ensure sustainable communities, Oikos theologians advocate for a conception of the world as *Oikoumene*, which means the togetherness, interrelatedness and oneness of the whole inhabited world – thus overcoming the false dichotomy between the economy and ecology (Van Schalkwyk, 2008; Conradie, 2007; Warmback, 2006). This interrelatedness of ecology and economy is stated as follows:

From God’s perspective therefore, economy – *oikos-nomos* – is directly related to ecology – *oikos-lo-*

gos. Both concern the earth as our *oikos*, our home. God’s economy concerns how the bounty of the world in terms of earth, water, air, plants, helps human life to flourish. It cannot be separated from ecology, from the intricate web that sustains life on the planet (The Oikos Journey, 2006).

The ecojustice principles that guide the cosmic oneness and interrelatedness of the universe as our home (*Oikos*), a place where all life has a place are detailed by Warmback as follows:

1. The Principle of Intrinsic Worth: *The universe, Earth, and all its components have intrinsic worth/value.*
2. The Principle of Interconnectedness: *Earth is a community of inter-connected living things that are mutually dependent on each other for life and survival.*
3. The Principle of Voice: *Earth is a living entity capable of raising its voice in celebration and against injustice.*
4. The Principle of Purpose: *The universe, Earth and all its components are a part of a dynamic cosmic design within which each piece has a place in the overall of that design.*
5. The Principle of Mutual Custodianship: *Earth is a balanced and diverse domain where responsible custodians can function as partners with, rather than rulers over, Earth to sustain its balance and a diverse Earth community.*
6. The Principle of Resistance: *Earth and its components not only suffer from human injustices but are actively resisting, by denying resources to those who destroying them. (Warmback, 2006).*

39 This has been developed in response to the Judeo-Christian’s stated contribution to the ecological crisis facing the world today due to its construction of a dualism between humans and nature (*humans as the only beings made in the image of God, set apart from all otherkind, and given dominion over nature*), and the supposed God’s commission to human beings to exploit nature for their own proper ends – the historical root causes of today’s current ecological crisis. Warmback states this as follows:

Viewing Scripture solely from the perspective of human beings has also led to the exploitation of the environment through its disregard and the establishment of unjust economic systems that have further exploited it and not allowed all to enjoy its fruits (Warmback, 2006). See also Chemhuru (2018).

40 According to Ernst Conradie, the term *Oikos* integrates three ecumenical themes – the quest for economic justice, ecological sustainability and ecumenical fellowship, which is the unity of humankind and their interlinkage with the earth that is God’s house where all animate and inanimate beings live (Conradie, 2007).

41 A home or household embraces and equally values all the material and non-material components through mutuality of care, as well as the assurance of belonging, sustenance and support – a relationship of interrelatedness and interdependence, and not rivalry, exploitation and oppression. It is about community and reconciliation, wholeness, connectedness, love, sacrifice, generosity, and welcoming the stranger. Since all life shares the same home – Earth, it is critical that each treat the other on the basis of these values of interconnectedness (Warmback, 2006).

42 This *Oikos* eco-theology takes a critical stance on terms such as “development” and “sustainable development” as being undergirded by the unequal global capitalism. Instead it espouses the alternative term of “sustainable communities” (Van Schalkwyk, 2008).

Oikos-theologists argue that sustainable human communities can only be realised when we recognise that the human economy is dependent on the health of the earth's ecosystem – that the economy is dependent on, and is thus secondary to the ecology (Warmback, 2006). In this context, the ecology has to be understood, respected and protected before we can achieve sustainable communities truly capable of overcoming poverty and inequality (Warmback, 2006). This holistic understanding of the economy, ecology and humanity as interconnected should, according to *Oikos* theologians, guide our understanding of –

- the living ecosystems of the earth or the ecology;
- humanity's relationship to the rest of the natural world;
- the church in relation to the earth community or to the „green ecumenacy“;
- the economy and how it relates to/is dependent on the ecology;
- the way in which development practitioners/theorizers understand terms like „development“, „sustainable development“, „community development“, „sustainable communities“ and even „welfare“ (Van Schalkwyk, 2008).

The sobering reminder of *Oikos*-theologists is that we have to look for solutions to current ecological/environmental, economic and social challenges in places other than the prevailing orthodox/mainstream economic approaches. Any solutions must involve renewed respect for and living within the earth's boundaries for more sustainable communities (Van Schalkwyk, 2008).

4.6. Ecofeminism and sustainable development in sub-Saharan Africa

The impact of environmental and ecological degradation as well as social exclusion that are integrated in the capitalist industrial form of production affect women more. Male objectification of women, nature and „the other“ leads to patterns of unjustified domination and exploitation, which is deeply ingrained in Western but also in other patriarchal cultures (Van Schalkwyk, 2008; Warmback, 2006; Chemhuru, 2018). This is stated by Philomena Ojomo as follows:

Eco-feminism as a school of thought in environmental ethics seeks to end all forms of oppression, including the oppression of the environment. It does so by highlighting the interconnections between the domination

of humans by fellow humans on the basis of race, gender and class on the one hand, and human domination of the earth on the other (Ojomo, 2010, as quoted in Chemhuru, 2018).

As sharers of this subjugation, women could thus speak more authoritatively and take up effective political action on behalf of nature, and for its conservation/protection, because the problems facing nature and women are similar and could be addressed using similar frameworks (Warmback, 2006; Buckingham, 2004; Chemhuru, 2018). The argument is that if the origins of human social, political and cultural domination and exploitation is comprehensively understood and addressed, then it would be easier to comprehend and address environmental and ecological problems as well, leading to the realisation of overall sustainability of communities, societies and the universe in general (Chemhuru, 2018). This led to the growth of ecofeminism as an ideology that encompasses the interconnectedness of all life and that is geared towards emancipation of economic productive practices to enhance social and environmental justice and integrity (Terreblanche, 2019). It views materialistic capitalistic appropriation as engendering complex class, ethnic and sex-gendered discrimination that blindsides natural and reproductive cycles upon which capitalism depends (Terreblanche, 2019). It advocates a total reconstruction of relations between humans and nature, as well as men and women through regenerative solidarity economies based on sharing. These economies put complexity before homogeneity, cooperation before competition, commons before property, and, use value before exchange value (Terreblanche, 2019; Gaard, 2015). It thus elucidates the concerns of ecology, feminism, Marxism and a life-centered indigenous ethic, such as Ubuntu, which forms the heterodox foundation for post-development alternatives that seek social equality as a critical aspect of a sustainable way of living (Terreblanche, 2019).

Ecofeminism is especially pertinent to Africa, as ecological degradation and climate change have impacted women more, due to their gender roles as caregivers of the household and traditional subsistence food producers. Women suffer disproportionately higher risks and harm, resulting from environmental destruction, than men (Van Schalkwyk, 2008; Chemhuru, 2018). Women are traditionally perceived as the mothers, the nurturers, the preservers and providers of life, a role that they share with Mother Earth. They could therefore play a critical role in sustainability as the preservers

of nature/Mother Earth (Van Schalkwyk, 2008). This caring role is understood in the wholesomeness of the African cosmology that is understood as follows:

In African traditions, people are like family members of other living beings on earth. The whole earth community is related to the whole human community. All creatures, plants and animals, even stones and mountains are enspirited, and all are part of one harmonic whole in which various supernatural and natural forces keep the whole in balance (Van Schalkwyk, 2008).

It is within this context that women care for the earth as our common home and contribute towards the creation of sustainable communities through their tending of nature in the face of increasing environmental degradation and climatic crises resulting from capitalistic developmental activities and their attendant global warming and natural resource depletion/degradation (Van Schalkwyk, 2008). On this basis, ecofeminism thus views environmental concerns/challenges as a serious feminist issue. A failure to address it could lead to more suffering of women in society (Chemhuru, 2018).

Chemhuru's African philosophical exposition of the ecofeminist argument on the interconnection between the subjugation of women and the subjugation of nature is stated as follows:

Accordingly, African ecofeminist philosophers argue that philosophies of domination, exploitation, separatism, and male chauvinism that are responsible for the suffering, subjugation and exploitation of African philosophy and epistemology, African ethics, African women, African children, the disadvantaged African people, the African poor people, and black African people are also responsible for the exploitation of the environment, and resultant problems like deforestation, desertification, drought, climate change, poverty, biodiversity crisis, wildlife extinction and ill-treatment of animals (Chemhuru, 2018).

She further argues that the oppression and colonialism of African people and their environment was based on patriarchal philosophical traditions of domination, oppression and social division – the same philosophical bases that have justified the anthropocentric conceptualisation of nature and the environment. African ecofe-

minist philosophy, according to her, thus becomes the quest for justice, fairness, and equality between and among human communities and in the way such human communities interact with the surrounding natural environment (Chemhuru, 2018).

Chemhuru further espouses an ecomaternalist approach to nature and environmentalism, which looks at nature as feminine, leading to terminologies such as “Mother Nature” (Chemhuru, 2018). She notes the strong philosophical import of ecomaternalism in the context of Africa, as it intertwines with African communitarian philosophies that accord reverence and respect to mothers due to their procreative and other fundamental roles in human societies (Chemhuru, 2018). She argues that this is the way that nature should be construed, understood, revered and respected – because of its role in sustaining human and non-human life, the sustenance of life on earth in general. She also calls on an ecomaternalist approach due to the vulnerability of nature to exploitation, which is similar to the vulnerability of women to exploitation and domination in a patriarchal society throughout the history of humanity. This would justify the need to protect and conserve nature and the environment, if the entire universe is to prosper and be sustainable. The ecomaternalist approach therefore construes a life-centered, as opposed to an anthropocentric, approach to environmentalism and sustainability (Chemhuru, 2018).

4.7. Law as an ordering tool for the realisation of sustainability

Questions of sustainability are, however, not just scientific or economic; they are also social and political, with normative meanings emerging from public debate and contestation (Chester & Paton, 2019). Law, as a tool of social ordering and priority setting, can thus be a critical tool in response to the sustainability challenge at the global level and in relation to the African continent. Nicholas Orago argues, in the context of food security, that the commodification of food resulting from neo-classical capitalistic policy-making⁴³ has

43 Property rights entrenched in food and food production resources that enables them to be privatized and sold on the basis of market rules is a social construct reflective of the deliberate choices of the political and socio-economic elites on how to manage food production resources. Through deliberate global democratic processes, this adverse system, where food production resources are treated as a commodity, can be changed through commonification to give local communities control over their food production resources. This enables them to utilise these resources sustainably for their own food and livelihood security (Orago, 2020).

led to food insecurity due to corporate monopolization and manipulation of food value chains to the detriment of vulnerable sections of societies despite there being sufficient food production to feed the global population (Orago, 2020).⁴⁴ The for-profit manipulation of global food value chains is acknowledged by the first Special Rapporteur on the Right to Food, Jean Ziegler, as follows: “(T)hose who have money eat, and those without suffer from hunger and the ensuing disabilities, and often die.” (Ziegler, 2000)⁴⁵ The food security situation is especially dire in sub-Saharan Africa, where 1 in 4 people is perennially undernourished, and which is the home of more than a quarter of the world’s chronically undernourished people – a challenge that must be addressed, if sustainability is to be realised (Orago, 2020). Orago notes the other challenges arising from the commodification of food, as being (Orago, 2020):

- the dumping of subsidised food commodities in the liberalised markets of sub-Saharan African countries due to the liberalisation policies and efforts of the international financial institutions and the World Trade Organisation (WTO); smallholder farmers being undercut in these countries through unfair competition, and their poverty and food insecurity being entrenched;
- reliance on fossil-fuel-based production input and mechanization, which means that over 10kcl of fossil fuels is used to produce 1kcl of food, leading to increased food prices. This is further exacerbated by the use of fossil fuels to transport foods over long distances, increasing GHG emissions, leading to global warming and its attendant climate change – with adverse impacts to rain-fed food production practices in sub-Saharan Africa;
- food transported over long distances, leading to food wastage, which results in a loss of nutrients and water that had been utilised for the production of the wasted food – a phenomenon that hinders the development of sustainable food systems;
- modern land grabbing, another phenomenon of commodification, with corporates and (mostly) developed countries acquiring huge tracts of land in sub-Saha-

ran Africa for speculative food production or for the production of crops for biofuels, with a detrimental impact on food production for local populations, and the clearing of forests that reduce emission sinks and increase the loss of biodiversity, among others.

In order to address these challenges, and to enhance the achievement of sustainability through the legal and policy processes, Orago proposes the localised commonification of food production resources through deliberate and democratic societal policy-making and legal designs at the local, national and global level. Polycentric systems for the management of food-producing resources could thereby be created at local levels to enhance the sustainability of local food systems (Orago, 2020). The commonification would entail the categorization of food and food production resources as common-pool resources, similar to resources such as inshore fisheries, forests, water and knowledge – which would require their treatment as critical assets to humankind that should be managed sustainably for the common good of all (Orago, 2020). The viability of commonification in creating sustainable food systems is affirmed by Vivero Poll as follows:

Features of food as a private good are merely social constructs that can be de-constructed and re-constructed in a different way provided there is a common agreement within our societies. The commodification process can be reversed and a re-commonification of food and water is deemed an essential paradigm shift in light of the global fight against hunger and malnutrition (Vivero Poll, 2015).

Commonification entails the re-affirmation of the importance of the localised food systems in the realisation of the right to food and the decentralisation of food production, processing, distribution and consumption systems. The categorisation of food as a common-pool resource is intended to return the control and management of the food resources from the few agri-business corporations which have monopolised food production, processing, distribution and consumption to the local smallholder farmer communities who have better understanding of their local contexts and can ensure sustainable use of the available resources to

44 Data indicates that enough food is produced that can comfortably feed the entire world population, but the richest part of the population consumes 72% of the produced food, while the poorest part of the world population only consumes a paltry 1% of world’s food. World hunger is thus not a result of the lack of food (availability), but lack of access to the available food due to a divergence of challenges, including the affordability of the available food (Orago, 2020).

45 Action Against Hunger also affirms this as follows: many poor people around the world do not get enough to eat because food production is geared to cash payment.

create sustainable food systems. The categorisation of food as a common-pool resource, and the prioritisation of smallholder production of food within democratically governed local food systems, is thus one of the ways

in which local food security can be bolstered and the development of sustainable food systems be achieved (Orago, 2020).

5. CONCLUSION

Unconstrained human developmental activities have adversely impacted the earth and its resources that sustain the survival of all planetary beings, due to anthropogenic climate change. The effects of this phenomenon are divergent, with the poorest nations and societies bearing its brunt due to their weak livelihood bases and minimal adaptation capacities. One such adversely impacted region is sub-Saharan Africa due to its current and historical challenges of governance, resource use, demographics and limited socio-economic/human development. Sustainable development has been adopted generally as the new international developmental framework of addressing the economic, social and ecological/environmental challenges resulting from adverse human impact on the earth and its finite resources.

African governments and scholars have not been left behind in designing and adopting concepts and mechanisms for the realisation of sustainable development that addresses sub-Saharan Africa's unique developmental challenges. This paper has undertaken an analysis of some of these efforts through a heterodox economics

lens, detailing some of the suggestions that have been made to enhance the realisation of sustainable development in sub-Saharan Africa. It has expansively looked at international concepts being implemented by governments, such as the transition to a green economy, as well as more localised social, cultural, religious and feminist ideologies that could play a critical role in the design of laws, policies and programmes for sustainable development in sub-Saharan Africa. It notes the importance of law and policy in creating the framework required to respond to the current climatic and developmental challenges and to re-direct collective human focus and behaviour towards more sustainable ways of living, being and developing. It calls for the transformation of the human-nature relationship from the current destructive *homo economicus* conception to a more sustainable *homo ecologicus* conception of this relationship, if the world is to address climate change and enhance the realisation of sustainable development.

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