Sustainable Development in Sub-Saharan Africa: Issues of Knowledge Development and Agenda Setting

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Abstract: Against the backdrop of debilitating economic and social conditions in Sub-Saharan Africa (SSA), sustainable development discourses have often elicited emotive reactions. This is largely due to different and confusing prisms from which the subject is treated. Although, remarkable progress has been made to enrich our knowledge of the subject, however, much of the orthodox knowledge reflects axioms that are inextricably linked to the idiosyncrasies of the developed world. Consequently, many African countries have remained bystanders in the discourse yet they bear the brunt of the disruptive ecosphere. To reverse this, the concept of sustainable development should be considered from a more broadened perspective, taking more account of Africa's contextual subjectivities than is presently the case. Thus, for Africa, the discourse should be sufficiently sensitive and respectful of the complex trajectories characterising the region's development (or lack of it). It is through this knowledge base that a useful sustainable development agenda for the region might emerge.

Keywords: Sustainable development, Knowledge, Agenda setting, Sub-Saharan Africa

1   Introduction

To a significant extent, concerns about sustainable development (SD) are deeply embedded in the broader question about how the state of nature (the world we live in) is shaping up and the implications for humankind. Ever since the beginning of modern science, from Galileo's time onwards, knowledge has been sought about 'the nature of nature', how nature manifests itself and how mankind impact, and is in turn impacted upon, by nature. Although remarkable advances have been made to enrich our knowledge of SD, the literature is replete with different and often conflicting notions of the concept (Hull, 2008; Pawlowski, 2008; Bhalla, 2002; Bartelmus, 2000). These have tended to confound many of the world's fragile states in terms of their consciousness and readiness to scale-up SD initiatives in their national development priorities. In the particular case of Africa, many countries have taken recourse to the "art of graceful exit" from the discourse (Dalton, 2005). This, in part, is because much of the prescriptions for making progress on SD are soundly rooted in western subjectivities; framed in opinions, languages and meanings that are poorly communicated to and understood by the people. With limited context-bound knowledge production of SD, African realities are insufficiently appreciated especially in the development of a solid conceptual foundation for producing clearly defined policies (Ikeme, 2000. See also Lele, 1991, for a critique of the mainstream view of SD).

Global pressures to respond to the challenges of SD have evidently heightened based on the myriad of initiatives driven at governmental, inter-governmental and non-governmental levels. Whilst a measure of global consensus is emerging (e.g. the Bali Roadmap of 2007), there is little recognition by sustainability scientists that local opinions (indigenous to people from developing countries) matter and do vary about costs and value of development, and the dangers posed by ecological degradation. Paradoxically, major assessments of the state of the world since the 1992 Earth Summit point to a lack of sustainable progress on nearly all the major indicators as they relate to many developing countries (Gardner, 2002; Global Monitoring Report, 2008).

SD is fundamentally a contested concept. As more efforts are made to understand the process to generate and manage SD knowledge (Laszlo and Laszlo, 2002; Kottak, 2004), increasingly, nature applies its subtleties to remind us of the lacunae that exist in our knowledge base – a pointer to probable dysfunction-

alisms in the conventional modes of knowledge generation and dissemination. Essentially, nature is relativistic. Its problems have tended to defy deterministic solutions, thus warranting pluralistic, complementary or locale-specific modes of knowledge production. SD, in all its eclectic ramifications, is too complex an issue to fall under a mono-prism mode of knowledge production and dissemination. Consequently, the intellectual agenda for making sense of this multi-pronged, dynamic phenomenon – especially within the context of Sub-Saharan Africa (SSA) - cannot be set within a particular single-vision knowledge boundary. A useful way to break the intellectual gridlock surrounding the idea of SD is to think of it as an unending process and its programmes treated as flexible and interactive systems in which success is determined by the ability of "both the program and the local community to innovate, learn and adapt" (Mog, 2004 p.2140; see also Kemp, Parto and Gibson, 2005).

For SD to make sense to SSA, the discourse should be clearly aligned with the realities on the ground (Nwankwo, 1996; World Bank 2001) – not with prescriptions but education. Accordingly, this paper reviews some of the contentious issues embedding the conventional knowledge of SD, brings the SSA situation into the discourse and points to some of the factors to be addressed in order to improve the institutional framework for an inclusive SD agenda for SSA.

2 Foundation of Knowledge for SD

SD ideals resonate with the aspirations of people everywhere, regardless of the scale of economic development, geographical location or ideological persuasions. However, while the notion of 'sustainability' is generally appealing, its precise content has remained elusive (Schmidhneiny, 1992; Goldin and Winters, 1995; Morris, 2002; World Development Report, 2003; Mog, 2004). As a result, discussions of SD to date have become substantially rhetorical rather than providing clear action guidelines. These, in turn, are instigating a great deal of scepticism about the whole concept. Consequently, much of the debates on the topic have largely transformed into polemics - arising from the diverse rationality of different stakeholders. Each stakeholder brings to the arena a set of idiosyncratic rules that are, by and large, mutually exclusive, reinforcing the myopic prism through which they view SD. Unfortunately, because of this, opinions have been polarised among different constituencies of interest; society is divided (e.g. urban versus rural, western-educated versus local-traditionalists, north versus south, developed versus developing) and sectional interests dominate.

At issue, therefore, is not so much the intensity or currency of debates about SD but the inherent limitations arising from the process of knowledge production and the assumptions that underpins most of the debates. From the field of cognitive science, Nelson and Nelson (2002) reminds us that human beings draw from their repertoire of knowledge to deal with problems that confront them as a society - either through *procedural knowledge, declarative knowledge* or both. Fergus and Rowney (2005) notes that the fundamental problem in the conceptualisation of SD as an 'objective perspective' instead of one of process is explainable by the separation between different philosophical worldviews. Thus, worldview differentiation and consequent meaning change within the complex understanding of SD has not simply resulted to a change in semantics but also a change in the cognitive underpinnings of the context in which the meaning is formed. By and large, the 'change in meaning is determined by the dominant paradigm of knowledge generation' (Fergus and Rowney, 2005, p.23). In Boulding's (1972) cognitive framework, a link was made between an individual's knowledge, worldview, beliefs, and the culture in which it develops – i.e. knowledge locates a person in time, space, personal relationships, the world of nature and the world of subtle intimations and emotions. Based on Boulding's work, Byrch et al (2007) concludes that knowledge of the meaning of SD is a precipitate of culture and experience filtered by worldview. Therefore, from cognitive science, each society has a cognitive map of what SD means to them. Systemically, this implies that there is a link between the *process of knowing* and how a society tackles its problems. This linkage also means that understanding how people and societies acquire and use knowledge (and why they sometimes fail to do so) is necessary to guide the formulation of strategies for improving peoples' lives – the thrust of SD. About

a decade ago, the World Development Report (1998/99) explored this complex interrelationship between knowledge on the one hand and economic and social development on the other. It concluded argued that strong economies are built not merely through the accumulation of physical capital and human skill but through a solid foundation of knowledge.

It is this wider foundation of knowledge that provides the basis for making the choices that determine the direction of development taken by societies. However, the trajectories of development pursued by many societies have not always led to positive outcomes – a pointer to the contradictions embodying the concept of SD. A long time ago, the British economist, Alfred Marshall, said that "while nature ... shows a tendency to diminishing return, man … shows a tendency to increasing return … Knowledge is our most powerful engine of production; it enables us to subdue nature and … to satisfy our want" (Marshall, 1890). Thus, striving to subdue nature, craving to satisfy (sometimes insatiable) wants, and advances in science and technology that could potentially destroy human existence, albeit unintended, are to be considered integral in the ontological assumptions of development. Nevertheless, the righteous indignation of humans often instigates them to seek corrective actions, hence the currency of SD.

Today, much faith is put on 'science' and 'technology' to guide strategic actions for dealing with the problems of development, especially of the environment. Undoubtedly, science and technology, as systems of knowledge, have stimulated greater sensitivity to SD and have proved to be a salutary canvass around which revolves various societal hopes and anxieties. Somewhat ingenuously, however, both humankind (in their conscious or subconscious machinations) and nature have combined to challenge the potency of scientific knowledge to deal comprehensively with the problems of development. Essentially, in dealing with our world as we know best (through our production and consumption decisions), we humans have tended to create problems at a much faster rate than we are able to cope with in spite of our breath-taking advances in modern science and technology. A number of questions consequently arise. Is it the case that nature is increasingly unknowable? Do we need to rethink our taken-for-granted assumptions and, consequently, the process of generating knowledge about nature? For countries in Africa that have continued to back-slide in many facets of 'modern development' (Nwankwo and Richards, 2004), what system of producing and managing knowledge is more likely to help generate and communicate a comprehensive understanding of SD and, very importantly, in ways to which they can relate? While the causative relationship between 'knowledge' and 'development' is no longer in doubt, there will always be some concerns about the stability of such a relationship unless the mode of knowledge production is fully examined, problems and prospects identified with regard to contexts, relevance and impact.

3   Sustainable Development: Demystifying the SD Debate

The body of literature on SD, in all its eclecticisms, is huge and continues to grow. As noted, the diverse notion of SD is determined by the divergent construction of meanings, ranging from neo-classical economic to instrumental rational frameworks (Byrch et al, 2007). Dominant discourses; meanings, definitions and knowledge constructions are tinted and framed by western hues and sometimes seen to be encumbered with ideological, ethnocentric and ahistoric biases (Nwankwo, 2002). As re-articulated by Fergus and Rowney (2005, p.22-23), definitions are intended to clarify things, "but what we have seen in our society is that a definition can just as easily become a means of control". Thus, the debate on how to take forward the Bruntland's conception has embedded itself in 'a quagmire of dogmatic technocracy and political power struggles'. This is an intriguing angle which we further illustrate using some of the prisms through which SD is viewed (Byrch et al, 2007; Chaharbaghi and Willis, 1999). By doing so (i.e. illustrations based on the perspectives of environmentalists, economists, technologists and politicians), we demonstrate the diverse frames through which SD is treated as well as SSA's disconnection from the 'dominant paradigm of knowledge generation'. Disconnection and isolationism, projecting from Habermas (1987), could lead to crisis of legitimacy in terms of colonization of SSA's lifeworld and system.

Environmentalists: Environmental concerns have largely dominated SD discourses. For environmentalists, the future of humankind looks bleak with society facing an impending ecological catastrophe. This catastrophe waiting to happen is the product of society's unsustainable consumption and production decisions. Pearce, Barbie and Markandya, (1990) suggests that an inverse relationship exists between economic growth and environmental quality. That is, as economic growth or man-made capital rises, environmental quality or environmental capital falls, and vice versa. If a way to reverse the trend is not found soon enough, then a global disaster could ensue which would threaten the very existence of life on earth.

Intriguingly, the conduct of SD debates from the broader environmental perspective seems to be extending towards romanticism; with all sorts of peripheral agendas (animal rights, wildlife conservation, etc) tagged on to the goals of environmental sustainability. In reality, the gulf between developed and developing countries has widened due, in part, to divergent stances on the preservation of the natural environment. For example, Prowse and Peskett (2008) argue that policies to mitigate climate change may have 'double-whammy' effects on SSA. As table 1 illustrates, measures intended to help improve the quality of the environment may inadvertently have adverse effects on the fledgling economies of some African countries. The consequences are that the countries will become even more vulnerable to the effects of climate change and lag further behind on progress towards MDG1 (poverty reduction).

Essentially, SSA that has contributed least to greenhouse emission but may suffer the most from its impact and also pay the high price of tackling the problem. In contrast, leading developed nations are accused of shirking their responsibility in confronting the 'climate agenda' (Dunn and Flavin, 2002) despite the fact that overwhelming proportion of human-generated disruptions of the physical environment originate from developed nations (accounting for over 80% of known sources of environmental abuse). Hence, when a country like the USA dithered over ratifying the Kyoto protocol, observers from developing nations were quick to input some other hidden agendas on the part of developed nations in the SD debate.

Economists: From a different conceptual prism, some economists consider SD as a basic Pigouvian issue of internalising externalities. Although there are different shades of opinion among economists (Goldin

Table 1   Climate change policy impact on poverty in SSA

Environmental factor	Policy area	Economic and social consequences
Tracking and labelling for eco-friendliness	Carbon print and food mile labelling for emission control	Over 1m rural Africans rely on fresh fruits and vegetable exports to the UK which may be hurt by food mile tracking (not air-freighting fresh produce from Africa can only reduce UK emission by less than 0.1%). Also, concerns about carbon footprint could jeopardise tourism which is the mainstay of economies such as those of The Gambia, Kenya and Namibia.
Eco-friendly production	Biofuel production	May lead to possible increases in cost of factors of production and food prices – the very poor spend over 80% of household budget on staple food.
Green-growth paths	Carbon emission control	Policies on environmental standards and regulation may hurt labour-intensive sectors and thereby economic growth because of low capacity to invest to promote energy efficiency. E.g. Stringent automobile emission control will take out at least 70% of mass transit vehicles in SSA.
Forest protection: reduced emission from deforestation	Preservation of tropical forests.	Negative impacts arising from threat to livelihood (many rural communities depend on the forest/natural resources for subsistence)

and Winters, 1995), earlier emphasis focused policies that promoted economic growth, while environmental policies were seen as those that restricted it. An economy enjoys SD and economic growth through movements in its productive base - institutions and capital assets and inclusive wealth (Daspupta, 2007). It would seem that the judgement of the economists is based on the definition of cost, which excludes the environment because it is free good. This means that an activity can be 'economic' although it harms the environment (this is why China's wealth creation has been far more muted than the expansion of GDP) and a competing activity that protects and covers the environment at a cost is, by definition, 'uneconomic'. Arguing from an African perspective, Bhalla (2002, p.45) demonstrates that economic growth may be achieved by undermining human capital or by ignoring people-centred development. The study by Dasgupta (2007, p.10) conclude that in the past three decades, SSA (home to over 750m people), has become poorer if judged in terms of its productive base per capita. To achieve SD, SSA would need to create better institutions which will enable more consumption and investment (these are still rare attributes in SSA).

According to Fergus and Rowney (2005), failure to garner broad-based commitment to the Rio Earth Summit over a decade ago could be traced to the 'disparity of cognitive knowledge creation'; where "instrumental rationality and the cognitive framework of neo-classical economics dominated the validity and creation of new knowledge. In the materially developed world, the 'science' of economics has such a stronghold in the cognition of knowledge creation that it is almost impossible to view any idea without the economic optic affecting understanding" (p.22). In general, the real economics of SD revolves around the economic costs of implementing SD policies and the implications for global market competitiveness. Implicitly, the discursive strategy, couched in the language of scientific-economic paradigm and in which success was measured by the ethic of finance, inadvertently disengaged SSA from effective participation. More so, with large corporations, none of which is indigenous to Africa, now driving policies for growth and poverty reduction in Africa (under the auspices of network organisations such as Business Action for Africa), SD and Millennium Development Goals (MDGs) are intricately linked to economic growth. Unsurprisingly, therefore, one of the expected outcomes of the 2008 Doha Round is how to "harness trade more effectively to contribute to strong and inclusive growth" (Global Monitoring Report, 2008). Thus, business-led initiative, something akin to 'running with the hare and hunting with the hounds', raise some epistemological concerns regarding what SD is evolving into and the scope for inclusive engagement with poor countries such as those in SSA.

Technologists: Technological arguments underpinning SD are well rehashed in Chaharbaghi and Willis (1999). Granted that technology could accelerate the course of development, many countries in SSA are so technologically backward such that their irrelevance on this count is not in any doubt. Technology embodies superior skills and superior resources (sources of sustainable competitive advantage) that have allowed developed nations to stay ahead of the game in global competition. Those who have studied technology spill-over effects of foreign direct investments in SSA, for example, have failed to establish clear evidence of 'technology transfers' that have accelerated progress towards the MDGs and the broader gaol of SD. Therefore, technology-driven arguments for SD (i.e. scaling-up technological capacity as the basis for development) are often seen as a smokescreen for sustaining the competitive advantage of technologically advanced nations.

Politicians: Politicians, especially in developed countries, are a key group in the SD debate as they seek to latch on to issues that could strike a chord with the voting populace. As scare stories about the environment multiply, and as the electoral base become ever more environmentally aware, politicians have, rhetorically at least, taken on board many of the SD concerns - so long as national economic interests and political positions are not compromised. In the face of the apparent fuzziness as to the real meaning and requisite measures of SD, and because hard economic realities always persist, politicians by and large are only prepared to pay lip service to SD, environmentalism in particular. The fact is; business and politics

go hand-in-hand. As is evident from the 2002 Johannesburg summit, Western politicians (with all their entrenched economic and commercial interests) are still dictating the tunes – with those from Africa, for example, acting merely as onlookers.

4   Systemic Consideration: The Need for Diversity and Balance

If SD debate is to promote inclusive engagement, two main issues (anchored within economic and environment paradigms) may need to be considered. The first relates to the consumer society that we are all part of (albeit to varying degrees) and the second is about the trade-offs that we are prepared to make. Both of these, in turn, present a set of dramatic ironies for SSA.

First, the consumer decisions that every individual makes daily are the most important economic and political acts. Essentially, the choices that individuals make drive the global economy. Only by incorporating principles that support SD in consumption-related choices can society ensure that sustainability becomes purposeful. In this way, producers and policy makers will respond appropriately to new expectations by directing their policy, organisation and technology towards SD. The first irony is that the real consumer power that directs the global economy is more effective in developed countries (collectively accounting for less than 20 percent of the world population). This implies that those in SSA lack the power to influence the global economy in ways that should reflect their values and aspirations on SD.

The second dimension requires that the environment is considered as a form of capital. It is the capital that provides the ability to generate human well-being. This capital comprise not only machines, factories and roads but importantly also the environment. Hence, if society calls for the next generation to be as well off as today's - ideally better off - then it must have at least as much capital as there is available today. However, this requires some unavoidable trade-offs. The irony, of course, is that many developing countries, especially those in Africa, are in such dire economic straits that any question of trade-offs may not arise. Consequently, the debate seems to have broken down into a dichotomous polarity - the polluters and the polluted (costs and benefits) - indicating the opposing stances of developed and less-developed nations.

The polluters are perceivably the developed countries whose factories, companies, growth strategies and consumption practices are causing most of the destruction of the natural ecosystems. For example, in order to maintain volume in furniture sales, a small group of European and American logging companies were recently reported to have severely threatened the world's second-largest rainforest in the Democratic Republic of Congo Guardian (2007; 2008). The apparent exploitation of the local community leaders to secure rights to the forests at appallingly low rates is a hammer-blow to people in the region in terms of loss of indigenous livelihood. The polluters are also accused of using their superior skills and resources to keep the *polluted nations* at the margin of the global economy, thus causing all sorts of hardship that are manifesting themselves in increased poverty levels, debt-burdens, aid-dependency, poor economic performance, and institutional decay. Essentially, the polluter nations are seen to have a different set of SD agenda which may be self-serving. Key aspects of their agenda include free trade, the expansion of global commerce, deepening corporate and national competitive advantages, population control, limitation of immigration and biodiversity. Paradoxically, a raft of knowledge production sites in 'polluter nations' have actively generated multitudinous SD semantics to justify or legitimise whatever goals they are intended to serve (e.g. carbon trading, planting of trees as weighted compensation for emissions). So, what choices and opportunities do the polluted nations have?

The *polluted nations* are mainly the third-world countries, with SSA at the core. Countries in this category lack the capacity to participate effectively in the global economy. For example, African countries are constantly reminded that the only panacea for them to move from the margin to the mainstream global economy is to compete effectively - produce goods (be they agricultural) that can compete in the global marketplace. But, the use of visible and invisible barriers to keep goods from poor countries out of the world's richest markets is not only grotesquely hypocritical but also deeply damaging for SD in these countries. For example, agricultural subsidies in industrial countries are worth about $1bn a day – six times what the West gives to developing nations in aid.

It would seem that 'modern' connotations of SD confuses and, therefore, makes little sense to SSA. The reality is that SSA today faces a dilemma: how to sustain present existence in the face of abject poverty, famine, poorly developed human capital, deteriorating social conditions, etc and, concomitantly, taking the liberty to speculate on what the future holds. Available evidence suggests that the region has not got the capacity to sustain basic welfare needs of its populace. Within the prevailing condition, the Darwinian maxim of *survival of the fittest* (Darwin, 1977) - more aptly, surviving for today - becomes a philosophical aphorism to which most SSA nations subscribe. This means that their views on SD are likely to be at odds with some of the western orthodoxies. Essentially, because of its precarious conditions, SSA is a bystander in the global SD debate. In this regard, it makes sense to start any meaningful dialogue on SD from an inside-out perspective rather than the prevailing outside-in model - not with prescriptions but education. Therefore, a clear need exists to focus the systems of knowledge production and dissemination on SD – in a way that is accommodative of the contextual paradoxes and trajectories of SD in SSA.

5   Context of SD: Rearticulating the Agenda

A 'new learning' about SD is advocated in order to rearticulate the agenda. The agenda should be a large one, requiring substantial shifts in policy and priorities. It should also be seen to be indigenous in order to embed 'shared ownership'. This implies that the quest for new knowledge is directed by the social utility function of SSA and not imposed by those of others from oiutside without, of course, undermining the prospects for productive interactions and interdependences between nations. The fact is; SD is multifaceted and each society or nation has to decide what the ideal means to them and how best to respond. In the contemporary setting, the nature of SD is, in important regards, more complex than was perceived during Britain's industrial revolution. For example, vast continents are no longer open to be ravaged in the process of capital accumulation and development of markets. Of course, in some respects, striving for a more resilient world is a joined-up endeavour and far more global and integrated (Bhalla, 2002). Certain costs that were externalised previously have now to be internalised – this does not detract from contextual peculiarities that are glaringly evident especially when SSA contexts are focused.

In most nations of SSA, it is worth pointing out that the 'practical knowledge/practice' of SD is solidly rooted in indigenous values that secured their overall development through the ages (Nwankwo and Richards, 2004). In traditional African societies, knowledge about preserving the natural ecosystems is deeply ingrained culture, religion, and socialisation processes. For example, aspects of the physical environment (e.g. forests, streams and rivers) are revered, treated sacredly and accordingly protected (without external prodding). Some cultures believe the spirit of their ancestors to reside in some of those places and therefore inviolable. Aided by the economic ideology of developed economies and the pervasive forces of globalisation, the evolving orthodox focus and retooling of SD by "modern society" seems to ignore the building blocks that sustained the development of traditional societies, thereby sacrificing SD's locale-specific, socio-cultural, political and economic relevance. Without a locale-specific explanation, one will necessarily ask the questions: What does development mean? Is SD merely a survival game? There are no easy answers, hence the need to study each situation to find out what works (or may not work) for each society.

For SSA, a new approach to telling the SD story could emerge through a broad-based and collaborative evaluation and integration of local systems and practices. This can be made possible through processes of knowledge generation and dissemination that are contextually relevant, socially distributed and accountable. From this platform, it will be much easier to make progress on the overarching agenda – its challenges must be addressed in a manner that is supportive of SSA's growth and development. According to the Global Monitoring Report (2008), one of the major reason why SSA have lagged behind in meeting the MDGs is because progress in many cases is undermined by weak institutional capacities for enforcement. Therefore, strengthening the institutions would require improvement of key policies for strong and inclusive growth (e.g. good governance, promoting local entrepreneurship, human capital development), including:

- Systematising development objectives: Africa's development, or absence thereof, has lessons for everybody. Lack of progress is bad enough but slipping back is worse. Perhaps the starting point should be an appreciation of what exists contemporaneously, their features and dynamics and how they relate to any overt policy objectives or covert policy rationale. Development initiatives falter when they are not conceived within a framework of sustainability. A set of questions consequently arise: What does the concept of development mean in African contexts – in a world of poverty? What should be the principal thrusts of development? The notion of development is relevant insofar as it is related to a context. Without contextual definitions, SD policies will mean nothing more than mere theorisations, to be talked about but never implemented. As a process, this represents the very antithesis of what SD should be about. Therefore, an essential feature of SD should be indigenous and contextual. This does not contradict but complements the UN Millennium Declaration (UN, 2002) but caution is necessarily required in giving operational substance to such programmes.
- Plugging human capital deficits: The bases for sustainable growth are essentially found in skills and knowledge rather than natural resources. The evidence on this is overwhelming, it has always been so and if we do not appreciate this then we have entirely missed the essential feature of development. Development has inherently progressed from a resource-exploitative model to one that is knowledge-based and technology-driven (Ikeme, 2000). In the final analysis, development has always been about the development of people, with human capital at the heart of the process. Resources may play a very important role in kick-starting the process, providing for 'great leaps forward' and for exchange sustainability but has never been the end game for development. That is, a few of the most natural resource-poor countries (e.g. Japan) are relatively developed, while some of the most resource-rich (e.g. Sierra Leone) are among the very poorest. Hitherto, the dominant perception of SSA in relation to SD discourse mainly revolves around natural resources whereas attention should be directed to the inherent capacities needed to carry the seeds of future economic and social development in the form of human capital, tacit knowledge and intellectual capital. Channelling knowledge flows from traditional into new and dynamically evolving arenas is a key task for any useful system of knowledge production for SD. In fact, there can be no exit from poverty and underdevelopment until there is a better-educated population, with flexible life skills to operate in a dynamically evolving global economy. The human capital dilemma of lack of sufficient capacity is the major blockage to sustainable progress in SSA.
- Implanting good governance: Poor governance can profoundly damage the prospects for sustainable growth and, indeed, the development process. A country that is ruled by a corrupt, venal oligarchy, where democratic principles and institutions are brazenly abused (as the case with many African countries such as Mugabe's Zimbabwe) can only impoverish its people. Economic progress goes hand in hand with political progress (Nwankwo, 1997). Indeed, political progress may even be seen as the important binding constraint on social and economic progress, since it provides the framework of laws and regulations within which the process has to take place. Moreover, given the mobility of finance and the various forms of capital, restrictions and constraints will encourage the movement of valuable human and financial capital to more conducive environs. However, responsive governance need not be solely measured on the Westminster or Capitol Hill model. Many societies in Africa have indigenous political systems (where tradition and culture embed political administration) which might usefully apply to promote SD.
- Promoting the local economy: Identifying and supporting new sources of competitive advantage within the local/regional economy and projecting these outward – both at national and international levels. To move from a traditional production culture to an industrial/post-industrial one requires the structural transformation of substantial elements of the national economy. Each nation's transformation is related to precedents and linked to existent productive relations in others

but there is no prescriptive roadmap to follow. The route to structural transformation requires, uniquely, the ingenuity of solutions developed to meet existent conditions. Post hoc analyses may rationalise such transformations by giving them an air of concreteness that are rarely warranted. For example, we may look back to Japan's late 20th century transformation and trace the essential policy elements that forced the process but this has not made the industrial transformation road any easier to travel for the Asian Tigers. This is because the essential elements necessary to their progress were substantially different, as is always the case. Such structural transformations bring about substantial shift in power relations and these only take place when that power is won by the emerging economic nations - and it is never won easily.

6   Conclusions

Essentially, because of its precarious conditions, SSA is a bystander in the global SD debate. In this regard, any genuine effort at kick-starting meaningful development will have to start from within - not with prescriptions but education. What is important is the utilisation of knowledge for the development of human and social capital as part of a purposeful strategy for creating a better future. On the part of African countries, they African must connect themselves to the emergent reality of the knowledge economy. The wealth of the continent is no longer dependent on the ability to produce raw materials but on the abilities and intellect of its citizens. SD is fundamentally characterised by local variability, dynamic uncertainty and unpredictability and the most useful way to conceptualise it is as a process of social change that tackles underlying structural problems and is rooted in learning and the creation of new knowledge (Mog, 2004).

For SD to be meaningful, the debate surrounding it should adopt the same guiding principles observed in nature. As Charles Darwin long ago observed, one of the main guiding principles of the natural world is that sustainability and regeneration come about due to the great diversity inherent in the system. It may well be that locale-specific modes of knowledge production ought to embed the diversity requisite for charting 'new ways forward' for SSA towards SD.

Therefore, for SSA, how 'new intelligence' on SD is generated and disseminated will prove a critical determinant of success with regard to SD programme development and implementation. From a practical standpoint, SD may be framed as a political ethic – in a way analogous to a political struggle to which SSA are used. This would communicate that in addition to resistance against different forms of domination and exploitation, it also entails combat with different forms of discursive power (Moisander and Pesonen, 2002). If it is acknowledged that power and discourse constitute our subjectivity, then an important aspect of this combat is to "refuse what we are" but rather "invent, not discover, who we are" (Foucault, 1980) - by inventing, developing, and promoting new forms of subjectivity that can be sources of effective resistance to culturally syncretic power of discourse (Bernauer and Mahon, 1994). Thus, the notion of SD as "politics of ourselves" and the ethico-critical reflection it involves (Falzon, 1998; Moisander and Pesonen, 2002) constitutes a mode of self-information - a moral action that will enable SSA to engage in radical questioning and re-questioning of the broader conditions that made the region what it has become. The real challenge, therefore, is to evolve a conceptualisation, meaning, an understanding, acceptance and ownership of SD knowledge that is sufficiently robust to guide this critical and reflective evaluation. This could, in turn, help to develop the region's collective ability to question the conditions that account for its present subjectivity and to start imagining and building new kinds of subjectivities.

References

Abaza, H. & Baranzini, A. eds. (2002). 'Implementing Sustainable Development', Cheltenham: Edward Elgar Publishing Ltd.

Bartelmus, P. (2000). 'Sustainable development: paradigm or paranoia?', *International Journal of Sustainable Development* Vol. 3 No. 4, pp. 358-369.

Bernauer, J. & Mahon, M. (1994). 'The Ethics of Michael Foucault', In: Gutting, G. (ed), *The Cambridge Companion to Foucault*: Cambridge University Press.

Bhalla, A. (202). 'Globalisation and sustainable development: a Southern African perspective', *International Journal of Technology Management and Sustainable Development* Vol. 1, No. 1, pp. 40-57.

Boulding, K. (1972). 'The image', In: Spradley, J. (ed.), *Culture and Cognition: rule, maps, and plans,* London: Chandler Publishing, pp. 41-51.

Byrch, C., Kearins, K., Milne, M. & Morgan, R. (2007). 'Sustainable "what"? A cognitive approach to understanding sustainable development', *Qualitative Research in Accounting & Management* Vol. 4, No. 1, pp. 26-52.

Chaharbaghi, K. & Willis, R. (1999). 'The study and practice of sustainable development', *Engineering Management Journal* Vol. 9, No. 1, pp. 41-48

Dalton, C. (2005). 'Art of graceful exit', *Business Horizons*, Vol. 48, No. 2, pp. 91-93.

Darwin, C. (1977). 'The Origin of Species', Penguin Books – reprint.

Dasgupta, P. (2007). 'Measuring Sustainable Development: Theory and Application', *Asian Development Review* Vol. 24, No 1, pp. 1-10.

Dunn, S. & Flavin, C. (2002). 'The Climate Change Agenda: From Rio to Jo "burg and Beyond"', *International Journal of Technology Management & Sustainable Development* Vol. 1 No. 2, pp. 87-110.

Falzon, C. (1998). 'Foucault and Social Dialogue: Beyond Fragmentation', London: Routledge.

Fergus, A. & Rowney, J. (2005). 'Sustainable development: lost meaning and opportunity?', *Journal of Business Ethics* Vol. 60, pp. 17-27.

Foucault, M. (1980). 'Power/Knowledge: Selected Interviews and Other Writings', 1972-1977. New York, NY.: pantheon Book.

Gardner, G. (2002). 'Rio + 10: Sustainable development revisited', *International Journal of Technology Management and Sustainable Development* Vol. 1, No. 2, pp. 66-86.

Global Monitoring Report (2008). 'The International Bank for Reconstruction and Development/The World Bank', Washington DC.

Goldin, I. & Winters, L., eds. (1995). 'The Economics of Sustainable Development', Cambridge: Cambridge University Press.

Guardian (2007). 'Selling off the rainforest - a modern scandal', April 11.

Guardian (2008). 'Eco soundings', Jan 23.

Habermas, J. (1987). 'Lifeworld and system, a critical functionalist reason', (The theory of communications action, Vol. 2). Boston, MA: Beacon Press.

Hull, Z. (2008). 'Sustainable development: premises, understanding and prospects', *Sustainable Development* Vol. 16, No 2. pp. 73.

Ikeme, J. (2000). 'Sustainable Development, Globalisation and Africa: Plugging the Holes', *Africa Economic Analysis*, http://www.afbis.com/analysis/Jekwu.html

Kemp, R., Parto, S. & Gibson, R. (2005). 'Governance for sustainable development: moving from theory to practice', *International Journal of Sustainable Development* Vol. 8, No. 12, pp. 12-30.

Kottak, C. (2004). 'An anthropological take on sustainable development: a comparative study of change', *Human Organisation* Vol. 63, No. 4, pp. 501-510.

Laszlo, K and Laszlo, A. (2002). 'Evolving knowledge for development: the role of knowledge management in a changing world', *Journal of Knowledge Management* Vol. 6, No. 4, pp. 400-412.

Lele, S. (1991). 'Sustainable development: a critical review', *World development* Vol. 19, No. 6, pp. 607-621.

Marshall, A. (1890). 'Principles of Economics', Cambridge: Cambridge University Press. Reprinted London, Macmillan, 1961.

Mog, J. (2004). 'Struggling with sustainability – a comparative framework for evaluating sustainable development programmes', *World Development* Vol. 32, No. 12, pp. 2139-2160.

Moisander, J. & Pesonen, S. (2002). 'Narratives of Sustainable Ways of Living: Constructing the Self and the other as a Green Consumer', *Management Decision* Vol. 40, No. 4, pp. 329-342.

Morris, J. (2002). 'What is sustainable development?' *Review – Institute of Public Affairs* Vol. 54, No. 3, pp. 14-16.

Nelson, K. & Nelson, R (2002). 'On the Nature and Evolution of Human Know-how', *Research Policy* Vol. 31, pp. 719-733.

Nwankwo, S. (1996). 'From Crisis to Sustainable Development in Africa: Managing the Transition to a Market Economy', Conference of the International Association of Schools and Institutes of Administration, Durban, South Africa, 3-5 July.

Nwankwo, S. (1997). 'State and market Partnership for Development: a Review of Development Strategy for Sub-Sahara Africa', *The Review of Policy Issues* Vol. 3, No. 4, pp. 3-23.

Nwankwo, S. (2002). 'Multidisciplinary research and sustainable development', Inaugural monograph, Ekwueme Centre for Multidisciplinary Research, Nnamdi Azikiwe University, Awka, Nigeria,

Nwankwo, S. & Richards, D. (2004). 'Institutional paradigm and the management of transitions: a sub-Sahara African perspective', *International journal of Social Economics* Vol. 31, No. 1/2, pp. 111-130.

Pawlowski, A. (2008). 'How many dimensions does sustainable development have?', *Sustainable Development*, Vol. 16, No 2, pp. 81

Pearce, D, Barbie, E. & Markandya, (1990). 'Sustainable Development', Aldershot: Edward Elgar.

Pezzey, J. (1989). 'Economic Analysis of Sustainable and Sustainable Development', Working Paper No.15, Washington DC: World Bank.

Prowse, M. & Peskett, L. (2008). 'Mitigating climate change: what impact on the poor?', Overseas Development Institute, Opinion, April.

Schmidheiny, S. (1992). 'The Business of Sustainable Development', *Finance and Development* December, pp. 24-27.

United Nations (2002). 'Implementation of the United Nations Millennium Declaration', Report of the Secretary General, UN General Assembly, July 23. http://www.un.org.

World Bank (2001). 'Can Sub-Saharan African Reach the International Targets for Human Development?', An assessment of progress towards the targets of the 1998 Second Tokyo International Conference on African Development (TICAD II). Africa Region Human Development Working Paper Series, Washington D.C: The World Bank.

World Development Report (1998/99). 'Knowledge for Development', Washington D.C: The World Bank.

World Development Report (2003). 'Sustainable Development in a Dynamic World: Transforming Institutions, Growth, and Quality of Life', Washington, D.C.: The World Bank.