

# A REFLECTION PAPER ON THE SECTORAL PRIORITIES OF NEPAD

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## Executive Summary

This is a reflection paper on the sectoral priorities proposed in the New Partnership for Africa's Development (NEPAD). By way of introduction, the paper recognizes the importance of reinvesting in African social capital as the basis for accelerated rates of accumulation in human, financial, physical and natural capitals. This would in turn enable Africa to revitalize her own development paradigm that is consistent with African systems of thought and aspirations of ordinary people. The paper then agrees with NEPAD framers in that **pervasive poverty** is the leading development challenge in the 21<sup>st</sup> Century global economy.

Hence, **poverty reduction** should be the **strategic objective** of any credible African development strategy. In this regard, the paper recognizes that correct identification of the underlying causes of pervasive poverty is a *sine qua non* for the formulation of the most appropriate sectoral programs for combating poverty. The paper identifies **colonial legacy; institutional failure; and policy failure as the root causes of Africa's malaise** – pervasive poverty. It then highlights an analytical tool in the form of a policy matrix for a critical assessment of the consistency between the proposed sectoral priorities and stated objectives of poverty reduction; of formulation and adoption of sustainable human development; and of effective participation in the global political economy of the 21<sup>st</sup> Century.

A critical analysis of the proposed sectoral priorities would suggest that this section of NEPAD document is essentially "**under construction!**" In this regard, the paper considers NEPAD not to be the most appropriate African development paradigm that could guide the continent in the global economy of the 21<sup>st</sup> Century. This is a **missed opportunity for the revitalization of African development paradigm with human dignity-enhancing economic activities as its guiding principles**. Hence, the paper assumes that what has been presented as sectoral priorities to be only guiding principles for the identification of strategic sectoral actions for achieving the overarching goal of eradicating "poverty in Africa and place African countries, both individually and collectively, on a path of sustainable growth and development and thus halt the marginalization of Africa in the globalisation process."

Agriculture is then identified as the leading sector as well as the engine of growth that would in turn enable Africa to pursue a development paradigm that centers on the human dignity, liberty, freedom and prosperity of ordinary African peoples. The paper fully agrees with the NEPAD document in that “improvement in agricultural performance is a prerequisite of economic development on the continent. The resulting increase in rural peoples’ purchasing power will also lead to higher effective demand for African industrial goods. The induced dynamics would constitute a significant source of economic growth.” A significant portion of this source of economic growth would come from agriculture. That is, agriculture is still the dominant sector for a majority of African economies and would therefore generate the most needed savings for filling the resource gap if its performance is improved through some of the proposed policies presented in a policy matrix format in the paper.

The paper then provides a brief look at factors influencing the performance of African agriculture. This is important for the reader to appreciate the proposed strategic actions in agriculture for combating poverty. Three categories of factors influencing the performance of African agriculture have been identified as a) factors affecting productivity; b) factors influencing competitiveness; and c) those affecting sustainability. Following this brief look at the underlying factors of the performance of African agriculture, the paper proposed strategic actions, in a policy matrix format, for achieving the three strategic objectives of NEPAD. These strategic actions are grouped into short-, medium-, and long-term measures.

The paper concludes with specific recommendations for systematic monitoring and evaluation of the implementation of NEPAD through process, performance and impact indicators.

## I. Introduction

*In our African traditional society we were individuals within a community. We took care of the community, and the community took care of us.*

Julius Nyerere (1967:166)

The above epigraph is an important point of departure for a critical review of the proposed sectoral programs of the New Partnership for Africa's Development (NEPAD). It articulates, in my view, the foundation of **African development paradigm** embedded in **African social capital**. I would also argue that the epigraph elucidates the **fundamental pillar of African social capital** – the concept of a person within a community, which if effectively utilized, could restore the human dignity and self-respect to the peoples of Africa in the 21<sup>st</sup> Century. Social capital is used in this paper as consisting of networks and norms of communal/civic engagement (Putnam, 1995). Moreover, these networks and norms of communal engagement are facilitated and enhanced through the principle of reciprocity, which is based on feelings of trust and the “willingness of people to help one another with the expectation that they in turn can call for help” (Wallis et al, 1998).

As Africa enters the 21<sup>st</sup> Century, it will have to reinvest in its social capital as the basis for accelerated rates of accumulation in human, financial, physical and natural capitals. It would be recalled that the competitive security politics of the Cold War Era disabled Africa continent from following her own development paradigm that is consistent with African systems of thought and aspirations. Now Africa has the opportunity to revisit and/or redesign her own development paradigm, which centers on **the human dignity of African peoples** and on a **sustained incremental improvement in all aspects of the quality of their lives**. Hence, the central thesis of this paper is that **poverty reduction is the strategic objective of African development paradigm**. This development paradigm is essentially a roadmap for the African peoples in their quest for liberty, freedom and prosperity in the 21<sup>st</sup> Century global economy.

In light of the preceding paragraph, the interrogation of NEPAD is premised on the assumption that it is an **African development paradigm** that would guide the continent in the global economy of the 21<sup>st</sup> Century. The focal point, in my view, of this new paradigm has correctly been identified as **pervasive poverty**, which is the most pressing problem facing Africa in her quest for sustainable human development. The paper recognizes that a review of

the underlying causes of pervasive poverty is a *sine qua non* for the formulation of sectoral programs, which have been identified in the NEPAD document.

The paper would seek, in **section two**, to confirm or reject the underlying causes of Africa's malaise that have been highlighted in the NEPAD document. I would argue that part of Africa's problems relates to our inability to correctly identify the root causes of these problems so that appropriate strategies could be formulated and implemented. My professional conviction would suggest that Africa's development problems are solvable. The basis for this hope and optimism in the paper is based on two counts. The first relates to Africa's natural resource endowments. Most estimates indicate that less than one-fourth of Africa's arable land is being utilized for agricultural production with only 7% of cultivated area under irrigation. It has abundant water resources of which less than 3% is being used. Africa has 17 rivers with catchment areas greater than 100,000 square kilometers, more than 160 lakes larger than 27 square kilometers, vast wetlands and widespread ground water resources<sup>1</sup>.

All the above mentioned resources (land, forests and water) would have positive impact on the global economy, if put to effective and sustainable production systems for the social well being of African people within the overall framework of the African development paradigm. The challenge is for Africa to allocate adequate financial, human and technical resources to the agriculture sector. This is because **agriculture is still the dominant sector** of many African countries south of the Sahara desert and would therefore enable Africa to effectively address **the twin challenges of development – poverty reduction and environmental sustainability**.

It would therefore be argued that African policy makers have the primary responsibility for mobilizing and allocating sufficient resources to the sector on the one hand, and for promoting active participation of the private sector in agricultural development on the other. In fact, agriculture in a number of African countries has responded positively to economic reforms and associated technological innovations during the 1990s (Deng, 1998, 2001). **What is needed, however, is an action-oriented strategy that would simultaneously address policy, institutional and technical constraints facing African development in general, and African agriculture in particular.**

A second count for hope and optimism in the paper is the size of African population, which presently appears to be a problem given limited social services. However, the resurgence of China and India in the world economy points to the potential of African population on the global economy through a multiplier effect of emerging African demand.

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<sup>1</sup> For more data, see World Resources Institute Data Tables at [www.wri.org](http://www.wri.org) or [www.worldbank.org](http://www.worldbank.org), and Peter Veit (1998).

The strategic geographical location of Africa between the Americas and Asia makes it an important market for both imports and exports. It is also nearer to Europe and would easily supply European consumers with organic farm products as well as other natural resource-based products.

Following a brief highlight of the root causes of poverty, the paper then provides, in **section three**, a conceptual framework for a critical review of the proposed programs of action. **The key assumption underpinning the conceptual framework is that appropriate institutions rooted in African values and beliefs are in place for the implementation of NEPAD. The paper would like to stress at this point that African union is neither a necessary condition nor a sufficient one for a sustained partnership for Africa's development.** In this regard, the paper would agree with NEPAD document in stating “colonialism subverted hitherto traditional structures, institutions and values or made them subservient to the economic and political needs of the imperial powers. It also retarded the development of an entrepreneurial class, as well as a middle class with skills and managerial capacity” (NEPAD, 2001:5).

By way of contributing toward the search for the operational measures for the implementation of the proposed strategic sectoral programs in the NEPAD, the paper provides **a policy matrix**, as an important analytical instrument. **This analytical tool would in turn facilitate formulation of strategic actions as well as the construction of critical indicators of process, performance and impact of the NEPAD.** These indicators would then enable African scholars to put in place a robust system for the monitoring and evaluation of Africa's development programs and associated strategies.

Once a clear distinction has been made between the root causes and symptoms of Africa's problem – pervasive poverty – in section two followed by a conceptual framework in section three, the paper then provides in **section four** a critical examination of the proposed sectoral programs/policies, which are considered in this paper as strategic actions for the achievement of the main objectives of NEPAD. The author's reading of NEPAD document suggests that the key objectives of NEPAD are to:

- a. Eradicate poverty;
- b. Adopt sustainable strategies that combine economic growth with effective poverty reduction, African institutional revitalization and enhanced natural resource management; and
- c. Effectively participate in the global economy of the 21<sup>st</sup> Century.

The paper provides concluding remarks and recommendations in **section five**. The elements of a monitoring and evaluation system for the implementation of NEPAD by the major stakeholders (e.g. African scholars) in NEPAD are highlighted as by way of recommendations.

## II. Underlying Causes of Africa's Pressing Problem – Pervasive Poverty

*In Africa, 340 million people, or half the population, live on less than US\$1 per day. The mortality rate of children under 5 years of age is 140 per 1000, and life expectancy at birth is only 54 years. Only 58 per cent of the population have access to safe water. The rate of illiteracy for people over 15 is 41 per cent. There are only 18 mainline telephones per 1000 people in Africa, compared with 146 for the world as a whole and 567 for high-income countries.*

NEPAD document (2001:1).

By contrasting the depressing statistics in the above passage with those estimating the extent of Africa's wealth expressed in terms of land, forests and water, one could not help but to ponder on what has terribly gone wrong in Africa. The root causes of Africa's malaise are, according to NEPAD, "the legacy of colonialism, the Cold War, the workings of the international economic system and the inadequacies of and shortcomings in the policies pursued by many countries in the post-independence era" (NEPAD, 2001:4).

I would agree with NEPAD framers that the legacy of colonialism is one of the root causes of Africa's pervasive poverty. Related to this are institutional failure and public policy failure in the post-colonial era. Stated differently, there are three underlying causes of Africa's pressing problem –pervasive poverty. **These are a) the legacy of colonialism; b) institutional failure as a result of the destruction of African traditional institutions and structures; and c) public policy failure due to weak institutions.** A brief highlight of each of these causes is provided below.

The framers of the NEPAD document have correctly identified, in my view, colonialism as central in the destruction of African social capital. The legacy of colonialism is manifested in a weakened social fabric and subsequently with feelings of trust and bonds of reciprocal helping sufficiently undermined (Wallis et al, 1998). The outcome of a weakened African social capital is further articulated by Africa's inability to solve problems and to remove obstacles on the path to sustainable human development. Moreover, the process of destruction of the African social capital was anchored on the colonial education system. This system stripped "educated" Africans of one of their social responsibilities – of **taking care of their communities**. In agreement with Harold DeRienzo, "the loss of community is the real source of the problems of poverty, anti-social behavior and ultimately, inter-cultural relationships" (1995:10). The loss of a sense of belonging to a community has also led to

“deleterious consequences on the political process and led to sustained patronage and corruption” (NEPAD, 2001:6).

The second root cause of pervasive poverty is **institutional failure**. The destruction of traditional institutions and their replacement with alien and imported institutions undermined what Mamadou Dia calls “a more inclusive institutional formula behind which entire nation can rally” (1996:250). Institution is used here as defined by John R. Commons to be “collective action in restraint, liberation, and expansion of individual action” (1990:73). Commons further elaborates this as follows:

*These individual actions are really trans-actions – that is, actions between individuals – as well as individual behavior. It is this shift from commodities, individuals, and exchanges to transactions and working rules of collective action that marks the transition from classical and hedonic schools to the institutional school of economic thinking. The shift is a change in the ultimate unit of economic investigation, from commodities and individuals to transactions between individuals. (1990:73).*

Vernon Ruttan and Yujiro Hayami (1984) also define institutions as “rules and conventions of society that facilitate coordination among people regarding their behaviour.”<sup>2</sup> Hence, institutional failure would entail the breaking down of the working rules of collective action outlined by Commons or rules and conventions as advanced by Ruttan and Hayami. That is, the “working rules of collective action” are no longer working to obligate Nyerere’s individuals to take care of their community on the one hand, and community taking care of these individuals (i.e. its members) on the other. This would essentially imply social disintegration. As articulated by DeRienzo, “if community is a collection of people united around common goals, then institutions are those vehicles created by the community to achieve shared purposes, be they educational, commercial, industrial, recreational, cultural, or religious” (1995:11).

Moreover, the working rules of collective action would be comprehended if we examine the institutional environment in which they operate as well as institutional arrangement governing them. Following Lance Davis and Douglass North, institutional environment is a “set of fundamental political, social, and legal ground rules that govern economic and political activity (rules governing elections, property rights, and the rights of contract are examples of these ground rules)” (Bromley, 1989:22). In addition, institutional arrangement, according to Davis and North, is “an arrangement between economic units that

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<sup>2</sup> Quoted from Bromley (1989:22). **Economic Interests and Institutions**. (see references).

governs the ways in which these units can cooperate or compete<sup>3</sup>.” I would therefore argue that institutional failure manifests itself in the inability of Africa to effectively participate in the global political economy.

Finally, **policy failure is the third underlying cause, in my view, of pervasive poverty in Africa.** Recent evidence suggests that public policy failure is the main driving force behind the delicate poverty-population-land degradation interaction (Deng, 2000). It is public policy that formulates and implements development strategies. These strategies in turn undermine the “rules and conventions of society that facilitate” a sustained investment in social capital. In this regard, public policy failure has led to the neglect of the most important sector (i.e. agriculture) of African economies, especially at the early stages of development. The majority of land users have been forced to adopt inappropriate patterns of land use as a result of inadequacies in policy environment.

That has been a brief look at the underlying causes of Africa’s malaise, which has been diagnosed as pervasive poverty. Other factors –Cold War, the workings of the international economic system and the inadequacies of and shortcomings in the policies pursued in the post-independence era -- mentioned in the NEPAD are a result (i.e. symptoms) of the three root causes of poverty. The review was necessary, since it would provide a critical entry point to our interrogation of the NEPAD proposed program of actions and sectoral policies. But, I would first propose a conceptual framework for the review of NEPAD suggested sectoral priorities.

### III. A Conceptual Framework for the Review of the Proposed Strategic Programs

*As a student, and early in my career, models and results were exciting, and there could not be enough of it. Today my interest is mostly in policy and policy-oriented research. The difference is subtle: in modeling, the main interest is in the structure and the implications; in policy-oriented research, by contrast, the central issue is to capture a problem, even if one does not write down the whole maximization problem. That is a weakness of the policy approach, and it might even be enough to reject it altogether. I do not think so. On the contrary, there is a broad complementarity between modeling and identifying and “painting” issues.*

Rudiger Dornbusch (1992: ix).

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<sup>3</sup> Ibid (1989:22).

I was comforted by the above passage when I was pondering over the format sent to me by the organizers of the African Scholars' Forum. I was advised to have a "brief section on the paper's theoretical framework and presentation of the scope of the study." This I would do through a more practical approach than the theoretical route. I strongly believe that the role of those scholars who were not involved in the formulation of NEPAD basic document is not to be trapped in theoretical frameworks, but should rather be on the search for operational measures for the realization of stated vision and associated objectives.

In light of the preceding paragraph, our concern as scholars is how do we translate NEPAD proposed programs into practical actions that would in turn give tangible results in the form of effective reduction of the number of Africans living on less than US\$1 a day; enable African countries to effectively take part in the global economy of the 21<sup>st</sup> Century; and restore the human dignity and self-respect to ordinary African people. Stated differently, **how do we address the legacy of colonialism, institutional failure, and policy failure, as being the underlying causes of pervasive poverty in Africa?**

The answer lies in an integrated approach that would synergize institutional, technical and policy instruments in combating poverty. Such an approach would require a robust analytical tool in the form of **a policy matrix** (see table 1 below) that consists of three strategic objectives and corresponding six strategic actions in the form of sectoral priorities identified in the NEPAD document. Each of the sectoral program priorities will have to be further elaborated in the form of sequenced-strategic and implementable measures phased-out over time. In this context, it would be most appropriate to construct a policy matrix for each of the sectoral program of actions. I have also taken liberty to make agriculture the top priority sector for NEPAD. The rationale behind this choice is that making agriculture the sector of focus would make NEPAD the new African development paradigm on the one hand, and enhance a synergetic approach in the implementation of NEPAD sectoral priorities on the other.

*Table 1: A Policy Matrix of Strategic Actions for the Achievement of NEPAD Objectives*

Strategic Actions	Strategic Objectives		
	Eradicate Poverty	Adopt Sustainable Development Strategies	Effectively Participate in the Global Economy
1. Agriculture			
2. Bridging the Infrastructure Gap			
3. Human Resource Development			
4. The Environment Initiative			
5. Culture			
6. Science & Technology			

The usefulness of the matrix as an analytical tool is that it would enable a policy analysts to examine specific actions (or strategies) that need to be taken, for instance, in the agricultural sector to simultaneously address the strategic objectives of poverty eradication, formulation/adoption of sustainable development strategies, and effective participation of Africa in the global economy of the 21<sup>st</sup> Century. Another way of using the matrix is to move vertically (or taking one column at a time). For instance, one could start with the strategic objective of poverty eradication and look at specific measures that have been identified as anti-poverty measures/actions in the six sectoral priorities.

We are now in a position to apply the above conceptualized analytical tool in the analysis of the proposed sectoral priorities in the NEPAD document. This is done in the next section, which is the main section of focus of the paper.

#### IV. Analysis of the Proposed Strategic Programs of NEPAD

*Economists are almost unanimously agreed that the size and nature (deficit or surplus) of a country's international trade balance are not principally determined by its trade policies, or those of other countries, or by the productivity of its industries, but by the relationship between how much a nation saves and how much it wants to invest at home. Yet the major political battles about trade policy in the United States in the 1980s proceeded on the opposite assumption. But it's no use asking intelligent people to accept the counterintuitive view on faith; it is necessary to explain just how the economic system produces such a result. To grasp that explanation fully requires in turn a fairly comprehensive view of how the economy operates.*

Charles L. Schultze (1992:2).

We surely need “a fairly comprehensive view of how the economy operates” in order to provide an informed analysis of the sectoral priorities in the NEPAD document. In this regard, the above epigraph is an articulation of analogous situations with respect to the discourse on the leading issues of African development. The framers of African development strategies often ignore the **centrality of domestic savings** in the process of capital formation that is necessary for a sustained economic growth of any given economy. For instance, it would seem to me that framers of the NEPAD document have not internalized this centrality or what I would call the fundamental reality of economics – that **the rate and nature of growth** of African economies are essentially influenced by the relationship between what

African countries, individually and collectively, save and how much are they willing to invest domestically (i.e. at home).

However, the section of NEPAD dealing with resource mobilization recognizes that to “achieve the estimated 7 per cent annual growth rate needed to meet the IDGs- particularly the goal of reducing by half the proportion of Africans living in poverty by the year 2015 – Africa needs to fill an annual resource gap of 12 per cent of its GDP, or US\$64 billion. This will require increased domestic savings, as well as improvements in the public revenue collection systems” (NEPAD, p35 Para 147). Yet, the document quickly contradicts this recognition by stating that “the bulk of the needed resources will have to be obtained from outside the continent” (NEPAD, p35 Para 147)! And if the NEPAD were to be African-owned and African-led recovery strategy as envisioned by its framers, then the bulk of the resources needed to close the gap would have to be generated through African concerted efforts aimed at significantly increased domestic savings. Needless to say that billions of dollars of African “savings” are in foreign banks in Europe and North America, which could be repatriated in order to fill the resource gap.

A critical examination of the proposed sectoral priorities would suggest that this section of the NEPAD document should have been labeled: “**The Section is Under Construction!**” But, it may not be the case if the framers of NEPAD were students of neo-liberal development paradigm that is premised on “**getting prices right**” and the rest would be coordinated through the market forces of supply and demand! There has been good presentation, to be sure, on some of the sectors, e.g. bridging the infrastructure gap, but little attention has been given to agriculture, which is a potential source of growth needed to address issues of sustainable human development. In this regard, one would conclude that NEPAD is not the most appropriate African development paradigm that could guide the continent in the global economy of the 21<sup>st</sup> Century. This is a **missed opportunity for the revitalization of African development paradigm with human dignity-enhancing economic activities as its guiding principles.**

Hence, I would assume that what has been presented as sectoral priorities to be nothing, but **guiding principles for the identification** of strategic sectoral actions for achieving the overarching goal of eradicating “poverty in Africa and place African countries, both individually and collectively, on a path of sustainable growth and development and thus halt the marginalization of Africa in the globalisation process<sup>4</sup>.”

Since the paper has been limited to not more than ten (10,000) thousand words, I would focus only on the agricultural sector, as the lead sector that would need to be supported if African countries were to achieve the economic growth rate of 7 percent per annum over

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<sup>4</sup> See paragraph 62 on page 13 of the NEPAD document.

the next 15 years or so. This focus would enable the paper to add value to the current discourse. In addition, sector specialists should ideally analyze sectoral priorities. I would then introduce the matrix presented in the preceding section of this paper as by way of identifying the most appropriate strategic actions in the agriculture sector for combating pervasive poverty and for halting the marginalization of the continent in the global political economy of the 21<sup>st</sup> Century.

I would first like to agree with the NEPAD document in that “improvement in agricultural performance is a prerequisite of economic development on the continent. The resulting increase in rural peoples’ purchasing power will also lead to higher effective demand for African industrial goods. The induced dynamics would constitute a significant source of economic growth” (NEPAD, p31 Para 134). A significant portion of this source of economic growth would come from agriculture, which is, in my view, the engine of growth. That is, agriculture is still the dominant sector for a majority of African economies and would therefore generate the most needed savings for filling the resource gap if its performance is improved through some of the proposed policies presented in a policy matrix format (see table 3 in this section of the paper).

But let us first have a brief look at factors influencing the performance of African agriculture. This is important for the reader to appreciate the proposed strategic actions in agriculture for combating poverty. A point of entry into the understanding and appreciation of the performance of African agriculture would be a catalogue of constraints facing African agriculture. A brief highlight of these constraints (see table 2 below) would act as a prelude to the matrix<sup>5</sup>.

*Table 2: Factors Underlying the Performance of African Agriculture*

Productivity	Competitiveness	Sustainability
1. Inadequate inputs	1. Cost	1. Soil degradation
2. Inappropriate mix of inputs	2. Quality	2. Deforestation
3. Low level of skilled labor	3. Service	3. Water degradation
4. High cost of inputs	4. Design	4. Inappropriate patterns of natural resource use
5. Low prices of outputs	5. Trade barriers	5. Global environment (e.g. global warming affecting patterns of rainfall)
6. Weak domestic demand	6. Weak marketing and branding techniques	6. Inadequacies in policy environment for natural resource users
7. Inadequacies in policy environment for land users	7. Lack of vertical integration	
	8. Inadequacies in policy environment for processors, traders and exporters	

<sup>5</sup> Most of this section is based on my early paper on “Making African Agriculture More Productive, Competitive and Sustainable in the 21<sup>st</sup> Century Global Economy,” prepared for the Global Coalition for Africa (GCA) and the World Bank, January 2001.

## Factors affecting productivity

Comparative analysis of the performance of African agriculture has often focused on yield per hectare (or per land unit of production) without a corresponding examination of inputs per hectare. **Such approach assumes other things to be equal, which is not the case.** Stated differently, a meaningful comparison would assume that factors (i.e. inputs/hectare) given in table 1 above are the same (in both quantity and quality) across countries/regions that are being compared. For African agriculture to achieve comparable levels of productivity found in Asia and Latin America, there is an urgent need to refocus comparative policy and technical analyses on both the quantity and quality of inputs per hectare. It would then be possible to identify technical, policy and institutional factors affecting productivity of African agriculture and to tackle them accordingly.

Africa is endowed with natural resources, such as land, forests and water. Yet, Sub-Saharan Africa (SSA) does not have (with the exception of South Africa) a natural resource-based manufacturing sector that could create necessary forward and backward linkages. Complementary inputs (e.g. agricultural research and extension) to natural resources are in short supply and this would partially explain the low levels of yield per hectare relative to other developing regions of the world. This inputs inadequacy appears to be compounded by a host of other factors, such as inappropriate mix of inputs, low level of skilled labor for the emergence of agro-industries, low prices for agricultural products, and inadequacies in policy environment for land users. Inappropriate mix of inputs encourages unsustainable patterns of resource use and consequently land degradation in the form of declining soil fertility, deforestation, water depletion and so forth. As shown in table 2 above, factors affecting the sustainability of agricultural production also affect its productivity, which constitutes a delicate nexus between these constraints.

Unsustainable patterns of resource use, which leads to land degradation, would explain to some extent the current low cereals yield in SSA that averages 1.0 metric ton per hectare (mt/ha). This average compares poorly with 4.8 mt/ha, 2.2 mt/h, 5.7mt/h and 3.0 mt/ha for China, India, USA and the world respectively (World Bank, 2000a). The low productivity of African agriculture is also due to unsustainable management of natural resources on which a large part of economic production depends upon. In the tropical rain forest areas of the continent, for example, deforestation continues at an alarming rate leading to loss of the productivity and irreplaceable gene bank of immense potential global benefits. Increased deforestation, mainly from unsustainable harvesting of fuelwood, has resulted in the lowering of ground water levels particularly in drylands areas.

Similarly poor management of drylands, particularly in areas with high population growth rates, is accelerating desertification due to a combination of a very low degree of

intensification of agriculture, over-grazing and human settlement. In addition, marginal lands are being converted to agriculture production leading to increased runoff, erosion and sedimentation, and ultimate loss of productivity. Soil erosion is particularly acute in areas with dense human settlement and inappropriate cultivation methods/techniques. The productive capacity of the land is falling because of shorter fallow rotations, low erratic rainfall, soil erosion and loss of soil fertility due to soil mining, declining soil organic matter content and overgrazing (World Bank, 2000a). This situation is compounded by the inability of African agricultural research to respond to demand by African farmers for appropriate technologies that would enhance productivity of agriculture sector.

Moreover, weak domestic demand for agricultural goods and services would seem to contribute to low productivity. This is because the weak domestic demand is inherent in the taste and preference structures of a typical African consumer, especially in the urban areas. These tastes and preferences of African consumers are biased against domestic products in favor of imports.

### Factors affecting competitiveness

High risks and transaction costs associated with private investment and trade in Africa top the list of factors constraining competitiveness of African agriculture exports. The long tradition of government intervention in the economy has greatly undermined the essence of markets (Bromley, 1991) – **order, predictability, stability and reliability**. That is, markets allow responses of various economic agents to new opportunities and situations and to capitalize on them with a reasonable level of risks. While transaction costs - related to communications, legal and accounting fees, market assessments, transport negotiations and quality claims - are the most critical constraints to export marketing by indigenous African firms who lack experience in international trade (Jaffee and Morton, 1995).

In light of the above paragraph, constraints on African competitiveness could be grouped into exogenous and endogenous factors. The first group of factors, which are beyond the control of African policy makers, relates to the structure of the global markets in which quality, design and service in the form of port handling and shipping of exports are emerging as among important determinants of a strong comparative advantage in the trade patterns of the 21<sup>st</sup> century world economy (Cramer, 1999; Reinhardt, 2000). The demand for high quality, good design and efficient port handling and shipping services, is compounded by barriers to entry into the world markets, such as high subsidies of agricultural commodities especially those of the Organization of Economic Cooperation and Development (OECD) countries. In fact, African agriculture is the least protected sector in the world economy. The

row (two years ago) between the European Union (EU) and the United States of America (USA) over banana exports is a clear illustration of this point as well as a strong reminder of the centrality of agriculture in the political economy of any nation – developed or developing.

The second group of factors (endogenous) concerns the structure of African economies. As articulated by the Economic Committee of the Global Coalition for Africa (GCA, 1999), the **competitiveness of agricultural products is heavily influenced by the strength and efficiency of the marketing chain, and by the availability and smooth functioning of the whole system of transport, communication, transit, port-handling and shipping.** But, these are factors that are largely **associated with inadequacies in policy environment for processors, traders and exporters of agricultural products.** The lack of relatively large and vertically integrated agro-businesses, which can combine financial enterprises with all the stages of production, transportation and marketing chains, is a critical constraint to the competitiveness of natural resource-based exports from SSA. A vertical integration would create opportunities for domestic linkages – creating on the one hand employment in the rural sector of the economy and thereby generating effective demand for goods and services from other sectors, and on the other generating urban employment through agro-based manufacturing with additional effective demand in the urban sector for agricultural products.

#### Factors affecting sustainability of African agricultural production

Africa has nine agro-ecological zones that face multivariate challenges with respect to sustainable patterns of zone-specific resource utilization. For instance, land degradation is one of the major factors underlying the sustainability as well as productivity of African agriculture. Recent estimates show that about 72 % of cultivated land and 31% of pasturelands in Africa are degraded, but these would vary according to agro-ecological zone (Veit, 1998). These estimates are a clear illustration of the inter-linkages between factors affecting productivity and sustainability of agricultural production in the 21<sup>st</sup> century global economy.

There is now a general consensus within the development policy community that land degradation is reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns (World Bank, 2000a, 2000b, 2001). In this regard, human-induced land degradation is a function of

the interaction between inappropriate patterns of resource use and inadequacies in policy environment for land users (Deng, 2000). Sustainable patterns of resource use presupposes that the primary producers (farmers, herders, and fishermen) have access to appropriate technology and associated support system in the form of a network of roads, extension services, credit, storage facilities and marketing. Access to appropriate farming techniques would depend to a large extent on financial capacities and technical know-how of the primary producers.

It would appear from the preceding highlights of factors affecting the performance of African agriculture that natural resource degradation has, to a large extent, contributed to low productivity of African agriculture, which in turn affects competitiveness of agricultural goods and services. In this regard, there are inter-linkages between the three groups of factors underlying the performance of African agriculture. Moreover, inadequacies in policy environment for natural resource users, processors, traders and exporters are the driving force behind these factors as well as their inter-linkages. Here, inadequacies in policy environment include, among other things, insufficient resources allocated to agriculture, especially funds for physical and social infrastructure development. This is especially true when comparing military expenditure (MacDonald, 1997) with public investments, especially in the agricultural sector. The challenge is, of course, to prioritize competing claims for the national public purse.

I have highlighted in the preceding paragraphs the main factors that are likely to constrain the performance of African agriculture with a view to laying the basis for understanding the proposed strategic actions for combating pervasive poverty. These actions are presented in a policy matrix format below.

*Table 3: A Matrix of Strategic Actions in the Agriculture Sector for the Achievement of NEPAD Objectives*

<b>Strategic Actions required in the Agriculture Sector by Time-frame</b>	<b>Strategic Objectives</b>		
	<b>Eradicate Poverty</b>	<b>Adopt Sustainable Development Strategies</b>	<b>Effectively Participate in the Global Economy</b>
<b>1. Short-term</b>	a. Establish micro-credit institutions targeting the poor (e.g. K-Rep, Grameen bank) and involve the poor in the management of these institutions; b. Strengthen local-level	a. Support traditional community-based natural resource management institutions; b. Legalize traditional systems/institutions of Common property	a. Make use of the US African Growth and Opportunity Act to promote the marketing of African high-value food products; b. Strengthen commercial/trade sections

	<p>governance, so as to ensure <b>equity in access</b> to resources (e.g. land, water, extension services, etc.) by the poor and other vulnerable groups, such as women;</p> <p>c. Promote smallholder (herders, crop growers, etc) associations;</p> <p>d. Support restoration and growth of traditional networks of communal engagement that provide coping mechanisms and social safety nets during crisis.</p>	<p>resource (e.g. land, water, forests, etc.);</p> <p>c. Promote sustainable patterns of resource use;</p> <p>d. Promote indigenous knowledge and protect associated intellectual property rights.</p>	<p>of African embassies in Europe and North America, so as to promote African high-value food products;</p>
<b>2. Medium-term</b>	<p>a. Train women in extension services;</p> <p>b. Promote forward and backward production linkages;</p> <p>c. Develop the skills of the poor through targeted training in management, marketing, storage &amp; packaging, advocacy and awareness raising about basic human rights;</p> <p>d. Promote medium-scale farming, range and dairy management enterprises;</p> <p>e. Promote investment in high-value food production;</p> <p>f. Allocate at least 1% of GNP to agricultural research and farming systems focusing on the eradication of poverty;</p> <p>g. Establish robust legal frameworks to allow African women to have equal access to resource, e.g. land and to have full control of other resources such as cows and savings account in their own names;</p> <p>h. Allow free movements of African agricultural products (e.g. live animals) between African countries and markets;</p> <p>i. 'Africanization' of all the agricultural initiatives;</p> <p>j. Establish an Internet website –e-Farm Africa to enable smallholder farmers to have access to the most appropriate production techniques as well as markets for African farm products.</p>	<p>a. Promote replication of best practices and gender-sensitive production techniques;</p> <p>b. Facilitate establishment of community-based eco-tourism operators, e.g. the opt-cited example of Community Areas Management Program For Indigenous Resources (CAMPFIRE) in Zimbabwe;</p> <p>c. Promote investment in organic farming through appropriate incentive systems;</p> <p>d. Promote private sector development and investment in the key areas of harvesting, processing, storage, marketing, packaging and export of African agriculture products;</p> <p>e. Strengthen national agricultural research systems (NARS) through the improvement of working conditions for African scientists and experts;</p> <p>f. Promote investment in agro-based manufacturing.</p>	<p>a. Elimination of food aid as both relief and development assistance instruments;</p> <p>b. Establishment of a new protocol between African countries and the UN World Food Program (WFP) to purchase its relief supplies from the continent and to put in place a complete ban on food aid from Europe and North America for WFP operations in Africa;</p> <p>c. Establishment of sub-regional food banks/reserves to deal with both human and nature-induced emergencies and famines;</p> <p>d. Create institutional arrangement for collaborative research in farming systems between Africa and its partners in the rest of the world.</p>

<p><b>3. Long-term</b></p>	<p>a. Regional integration and establishment of regional centers of excellence in agriculture research and associated network of extension services with particular mission of eradicating poverty;</p> <p>b. Adopt a coherent regional macroeconomic framework that calls for: i) removal of barriers to trade between member states of a sub-regional organization, ii) free movement of good and services, iii) free movement of people, iv) harmonization of monetary and fiscal policies, v) harmonization of exchange rates policies through free market forces of demand and supply, vi) a unification of tariffs on goods and services entering a sub-regional market from the rest of the world.</p> <p>c. Formulate and coordinate regional poverty reduction strategy based on national Poverty Reduction Strategy Papers (PRSPs);</p> <p>d. Put in place a robust evaluation and monitoring system for a continuous assessment of the implementation of the proposed anti-poverty measures and their impact on the specific objective of reducing by 50% the number of Africans living below the poverty-line by the year 2015.</p>	<p>a. Regional integration and establishment of regional centers of excellence in agriculture research and associated network of extension services;</p> <p>b. Adopt a coherent regional and agriculture-focused macroeconomic framework that calls for: i) removal of barriers to trade between member states of a sub-regional organization, ii) free movement of good and services, iii) free movement of people, iv) harmonization of monetary and fiscal policies, v) harmonization of exchange rates policies through free market forces of demand and supply, vi) a unification of tariffs on goods and services entering a sub-regional market from the rest of the world.</p> <p>c. Allocate adequate resources (say 5% of GNP) for investment in physical infrastructure, especially rural roads, storage facilities, Information Communication Technology (ICT) facilities, and a chain or a value-added ladder between farm-level production and processing industry/manufacturing gate.</p>	<p>a. Regional integration and establishment of regional centers of excellence in agriculture research and associated network of extension services;</p> <p>b. Adopt a coherent regional and agriculture-focused macroeconomic framework that calls for: i) removal of barriers to trade between member states of a sub-regional organization, ii) free movement of good and services, iii) free movement of people, iv) harmonization of monetary and fiscal policies, v) harmonization of exchange rates policies through free market forces of demand and supply, vi) a unification of tariffs on goods and services entering a sub-regional market from the rest of the world.</p> <p>c. Promote global trading partnership.</p>
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By way of illustration, I would highlight two of the proposed strategic actions in the above matrix. These are a) promotion of forward and backward production linkages, as a medium-term strategic policy action; and b) regional integration as a long-term measure.

### Promoting Forward and Backward Production Linkages

This is a policy strategy that could be used to synergize three other policy actions, such as promotion of ICT through establishment of rural Internet Cyber Cafés; investing in storage and processing facilities; and investing in physical and social infrastructure.

Experience from South East Asia demonstrates the critical role of public policy in the development of primary commodity processing industries. That is, the most serious factors affecting the growth of natural resource-based manufacturing sector in Africa are of policy nature than technical and/or economic. The challenge would therefore be to **conceptualize a value-added ladder** between farm-levels production and processing industry/manufacturing gates. Such a value-added ladder would enable the identification of major institutional and technical constraints as well as the design of corresponding policy actions for their removal. In short, it emphasizes the critical role the public sector can play in the provision of public goods, such as an efficient network of roads and extension services that cannot easily be provided by the private sector at the initial stages of economic development.

Improved rural infrastructure (e.g. credit, marketing, storage facilities and roads) is the glue between forward and backward production linkages and to the extent that it is a precondition for a value-added ladder. Hence, adequate resources (say 5% of GNP) must be allocated to the development of rural infrastructure as one of the key components of **making African agriculture more productive and competitive, so as to contribute effectively in the reduction of the number of Africans living in poverty by 50% by the year 2015**. Promoting forward and backward production linkages would also entail investment in agricultural research and extension (R&E). The main objective of investing in R&E is to increase the efficiency of agricultural production. That is, it would raise productivity and growth in the agricultural sector, and subsequently raise the purchasing power of smallholders for non-farm products.

A success story of R&E in improving the livelihoods of the rural poor is a soil fertility re-capitalization and replenishment pilot project in western Kenya, which was jointly implemented by Kenya Agricultural Research Institute (KARI) and International Center for Research on Agro-Forestry (ICRAF). This is an African success story that could be replicated within the overall framework of NEPAD sectoral priorities. The impact assessment of this pilot project shows that (GTZ, 2000):

- Farmers have achieved food security, with some of them producing surplus for markets;
- 60% of farmers have moved above the national poverty line;
- The project has generated rural employment as some farmers hire labor to work on the farms;
- Farmers consumption patterns switched from subsistence to high-value foods, such as vegetables;
- Farmers' income increased from Ksh 1,500 to Ksh 24,000 per annum; and

- There has been very high adoption rate with more than 7,000 farmers taking new production technologies within two years of the pilot project.

The role of the processors is often the backbone of the vertically integrated agro-business groups that constitute a networking of business engagements, such as financial firms, farmer associations, transporters, traders and manufacturers. Operational measures and action-oriented policies must be put in place in support of processors, so as to ensure smooth and timely movement of agricultural goods and services from the farm production level to the consumer markets (domestic and foreign). This movement of agricultural products, which is enhanced by efficient network of roads/transport facilities, credit and market and skilled labor to handle the smooth and timely delivery, would create forward linkages for these products. And through forward linkages, farmers are able to respond in a timely manner to effective demand for their products originating from both domestic and foreign consumer markets.

Similarly, farmers would be able to receive payments for their products on a timely manner with a relatively developed network of rural infrastructure and under active policy intervention that promotes multi-sectoral approaches to agricultural development. Growth in farmers' earnings made possible through forward linkages would in turn create, other things being equal, effective demand for consumer goods and farm inputs from the urban areas (i.e. from other sectors of the economy) and thereby establishing a strong backward linkage between agriculture and industry. These domestic linkages would normally generate employment in both rural and urban sectors. Employment generation resulting from forward and backward linkages would lead to a situation of sustained food security, effective poverty reduction and sustainable patterns of natural resource utilization.

Critical to the smooth movement on the **value-added ladder** is the promotion of investment in ICT, which has been correctly identified in the NEPAD document as an integral part of bridging the infrastructure gap, especially the Internet, human resource development and a viable network of rural roads. Here, the role of the private sector is extremely important for the development of these networks of communications. The Internet has made information sharing about products and dissemination of results easily accessible. In Uganda, for instance, a rural Internet Service Provider (ISP) known as Bush-net is enabling people in the remote rural areas to communicate not only with Kampala and the rest of the country, but also with the rest of the world. The models of e-Commerce, e-Banking, e-Learning and so forth, could be modified and applied in Africa in the form of e-Agriculture or e-Farm Africa<sup>6</sup>.

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<sup>6</sup> Even in the war-torn Southern Sudan, the Internet has enabled ordinary people to have contacts with their relatives in the diaspora, though these Internet facilities are only in two "towns!" This author has been able to access international databases (e.g. World Bank, WRI, UNICEF, FAO, UNEP, ECA, AfDB) in the preparation of this paper from Southern Sudan, even though he does not have electricity in his house.

The development of ICT will enhance the functioning of information systems and means of information diffusion. It will also expand experience sharing and capacity building actions for community-based economic agents, such as local private input/output suppliers, trader, agribusiness and farmer organizations, and networks of village entrepreneurs. It would also reduce transaction costs associated with market search for exchange opportunities and partners; with screening of product information; with terms of trade bargaining; with the transferring of goods, services, titles and cash; with monitoring of the exchange; and with enforcing the stipulated terms on the commodity or service being transacted and exchanged.

### Promoting Regional Integration

African leaders and policy makers have been stressing, since the early 1960s, the importance of regional integration in the development of Africa. A number of sub-regional organizations/institutions have been established as a first step toward an African Common Market (ACM). The nature and level of integration vary among these sub-regional institutions. Common Market for East and Southern Africa (COMESA), Economic Community of West Africa States (ECOWAS), and Southern Africa Development Community (SADC) appear to be moving relatively faster toward a functioning economic integration.

In the context of this paper, the first step in the promotion of regional integration would be the harmonization of macroeconomic policies among the member states of each of the sub-regional organizations, such as COMESA, ECOWAS, IGAD, SADC and so forth. This harmonization requires **a coherent regional macroeconomic framework** that takes agriculture as the lead sector as by way of ensuring the creation of the initial conditions for a sustained economic growth and effective poverty reduction in Africa.

The proposed measures presented in a policy matrix format in table 3 above have been based on a desk study methodology. Needless to say that the war environment of Southern Sudan has not been helpful, especially with respect to access to the latest lessons of experience in African development. Such an environment has, however, reinforced my conviction about the role and mission of the African scholars in the development of Africa – the “mother of all continents!” I would conclude this section of the paper with a passage from a piece of work I have done several moons ago:

*Our mission then, as Africans and intellectuals, is to put science and technology in the service of Africa. The time has come to tell our people the truth of their underdevelopment; yes, nothing but the truth of their misery amidst a world of plenty. Look*

*at Asia, Latin America, and the Middle East; then look at Africa. What do you see? I see nothing wrong with Africa and nothing wrong with us either other than being afraid to tell the truth to our people, to the world around us, and to say no to mediocrity within us. The truth is this: Nobody will bring lasting solutions to Africa's problems through critical thinking and systematic analysis other than ourselves – -we the African scholars and people! What a noble mission.*

(Deng, 1998:266)

## V. Conclusion and Recommendations

The framers of the NEPAD have correctly diagnosed **pervasive poverty** as the major problem facing Africa in the 21<sup>st</sup> Century and that its eradication is one of the developmental challenges of the new millennium. They have also identified political and economic governance as necessary conditions for enabling policy environment to reducing poverty. These two points notwithstanding, I would nevertheless argue that the framers have not articulated sufficient conditions for effective poverty reduction in the form of sectoral priorities. This is a major weakness of the NEPAD document and which greatly undermines NEPAD as a potential African development paradigm in the 21<sup>st</sup> Century.

Improved performance of African agriculture is seen in the paper as providing sufficient conditions for poverty reduction within the overall framework of sustainable human development that combines economic growth with effective poverty reduction, revitalization of African traditional institutional frameworks and environmental protection. The quest for sustainable human development would require the revitalization of African development paradigm that is premised on human dignity, liberty and freedom as well as on African systems of thought and beliefs. In this regard, the paper has suggested operational policy actions within agriculture in a matrix format as by way of achieving the three strategic objectives of NEPAD. The suggested actions are aimed at appropriate mix of policy, institutional and technical instruments to be implemented over short-, medium- and long-term timeframes. Hence, the paper would recommend the following three types of indicators for the systematic monitoring of the implementation process, performance and impact of NEPAD sectoral priorities:

**Process Indicators** – These indicators assess the timely implementation of planned activities. The following five process indicators should be monitored:

1. Number of countries that have established micro-credit institutions for the poor;

2. Number of countries with effective smallholder associations;
3. Number of coherent regional agriculture-focused macroeconomic frameworks;
4. Number of legal frameworks empowering women to own resources (e.g. land);  
and
5. Number of countries allocating 1% of GNP to agricultural research and farming systems.

**Performance Indicators** – These measure the efficient utilization of resources (i.e. inputs). The following three indicators are to be monitored:

1. Enroll all children of school age in primary schools by 2015;
2. Gender equality and empowerment by 2005; and
3. Reverse the loss of environmental resources by 2005.

**Impact Indicators** – These indicators measure the effectiveness of program's outcomes. In the context of NEPAD, the following five key impact indicators are to be monitored and systematically evaluated with a view to facilitating adjustments in the implementation of NEPAD:

1. 7 Percent an annual rate of economic growth during the period 2005 – 2015;
2. Reduce the portion of Africans living in poverty by 50% by the year 2015;
3. Reduce infant and child mortality ratios by two-thirds by the year 2015;
4. Reduce maternal mortality ratios by 75% by the year 2015; and
5. Reduce adult literacy rates from 41% to 15% by the year 2015.

Finally, the paper would recommend that more attention be given to the articulation of sectoral priorities, which are consistent with the main thrust of African social capital. This would normally call for the formulation of sectoral strategies by sector specialists within the overall framework of a coherent macroeconomic framework(s) that are centered on the enhancement of the human dignity of ordinary African peoples.

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