

# Inclusive Innovation: A Panacea to Developmental Challenges for Africa

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## Abstract

Challenges hampering development in Africa abound. Constraints were imposed by the hostile international economic and political order within which Africa's economies operate; there are domestic weaknesses derived from socio-economic and political structures and neo-liberal structural adjustment policies. Many people are still living in extreme poverty, income inequality within and among many countries have been rising; at the same time, unsustainable consumption and production patterns have resulted in huge economic and social costs and may endanger life on the continent. Gender inequality, climate change, environmental destruction, food insecurity, spread of HIV/AIDS, bad governance, poor access to basic services, such as education, health and sanitation among others are some of the critical development challenges rampant in Africa. Surmounting these development challenges will require an inclusive innovation as a panacea to deliver on the legitimate aspiration towards further economic and social progress, requiring growth and employment, and at the same time strengthening environmental protection in Africa. Inclusive innovation as a panacea to development challenges for Africa forms the nucleus of this paper. This paper is predominantly based on information derived from secondary sources. It recommends that the role of the African heads of state and government should be to facilitate, support, incentivize and leverage the strengths of all stakeholders in order to create sustainable inclusive innovative solutions with significant outreach at maximum efficiency with the least possible burden on the public resources.

**Keywords:** inclusive, innovation, inclusive innovation, panacea, development.

## Introduction

Innovation is linked to performance and growth through improvements in efficiency, productivity, quality, competitive positioning and market share. It typically adds value by changing old organizational forms and practices. Organizations that do not innovate effectively may be destroyed by those who do (Ferguson, 2001). However, innovation can be absolutely inclusive, which implies that such innovation is comprehensive, wide-ranging, or all-encompassing in all ramifications. Inclusive innovation breaks from the traditional development values of wealth redistribution instead focusing on wealth creation through creating value both for the populations at the base of the pyramid (BoP), other supply chain actors and final consumers (Lanam, 2008). Rather than trying to redistribute a static, or in many cases, shrinking pie, inclusive innovation seeks to grow the overall value of the product and thus provide incentives and additional wealth which can accrue to the diverse sources of innovation in the supply chain (Schmitz, 2007). Inclusive innovation include the research and development that result in creation of practical designs and artifacts, business models and services, processes or products that can be seen as practical innovative solutions to market or societal problems that create a better future for Africa. These applications will consider the interaction of the human and physical environment throughout each step of the innovation creation value chain, which will sometimes result in unplanned and unforeseen new inventions and capabilities for a better future.

The source of inclusive innovation increasingly flows from individuals who are unconstrained by set cultures or organizations and deeply committed to changing the world around them for the better. The fuel to inclusively innovate is created when these kinds of people, with their vast expertise, life experience, passion and ideas, come together with free reign and in an environment poised to support new possibilities (Edwin, 2009). Inclusive innovation focuses on inclusive solutions that are relevant to building Africa's future by creating an environment that rewards risk taking in an unfettered environment, allowing for radical, unorthodox approaches with the potential to disrupt - a risk that is generally too costly for existing businesses or governments to take (Hicent, 2003). As inclusive innovation can expand poor people's access to basic goods and service, policymakers should develop a strategy to promote inclusive innovation in Africa. Inclusive innovation is any innovation that leads to affordable access to quality goods and services for the poor on a sustainable basis and with extensive outreach.

In simple terms, inclusive innovation is the means by which new goods and services are developed for and/or by those who have been excluded from the development mainstream; particularly the millions living on lowest incomes. New technologies for the base of the pyramid (BoP) - mobile phones, mobile services, television centres, better seed varieties, vaccines, etc - can all be included. In the past few years, the World Bank, Organization for Economic Co-operation and Development (OECD) and other development agencies have all

launched inclusive innovation actions (Damian, 2008). India, Thailand, China, South Africa, Indonesia and other national governments have added inclusive innovation elements into their policies (Randus, 2008) and this can propel development if properly harnessed.

The term “development” in international parlance therefore encompasses the need and the means by which provisions are made to better lives for people in poor countries. It includes not only economic growth, although that is crucial, but also human development - providing for health, nutrition, education, and a clean environment. Development is seen as the process by which a type of (social) change is introduced into a system in order to produce a better production method and improved social arrangement (Cynthia, 2002). It involves a structural transformation of the economy, society, polity and culture of a country. The level and rate of development of any particular society is influenced by so many variables such as the political culture, leadership and corruption (Damian, 2008). Development can also be viewed from the angle of improving quality of life and making sure everyone has the preference in what that life looks like. These choices are widened through the combined effort of local people, international bodies, governments and a variety of civil society organizations such as NGOs, community organizations and religious groups. Development challenges in Africa seem to be numerous.

Development challenges in Africa can be attributed to some critical factors hampering the pace of even development generally in the continent. Development challenges in Africa can be perceived from the constraints imposed by the hostile international economic and political order within which African economies operate, domestic weaknesses deriving from socio-economic and political structures and neo-liberal structural adjustment policies (CODESRA, 2002). From gender inequality and environmental destruction, to ending poverty, stopping the spread of HIV/AIDS, bad governance, building institutional capacity, recovering from disaster among others. Basic food insecurity still affects millions of people and many of them are undernourished in Africa (Gaius, 2012). There is no proper access to basic services, such as education, health and sanitation in this black continent. Sustainable development in Africa is mired by climate change in many regions. Discrimination and exclusion, based on gender, age, disability or ethnicity abound in Africa (Ngumo, 2009).

Africa is the world's second-largest and second-most-populous continent. At about 30.2 million km<sup>2</sup> (11.7 million sq mi) including adjacent islands, it covers six percent of the Earth's total surface area and 20.4 percent of the total land area (Sayre, 1999). With 1.1 billion people as of 2013, it accounts for about 15% of the world's human population (WPDS, 2013). The continent is surrounded by the Mediterranean Sea to the north both the Suez Canal and the Red Sea along the Sinai Peninsula to the northeast, the Indian Ocean to the Southeast, and the Atlantic Ocean to the west. The continent includes Madagascar and various archipelagoes. It has 54 fully recognized sovereign states (countries), nine territories and two *de facto* independent states with limited or no recognition (LSS, 2013).

The objective of this paper is to discuss inclusive innovation as a panacea to development challenges for Africa. The paper also discusses the ladder of inclusive innovation and the development challenges in Africa suggesting how inclusive innovation can serve as a panacea to such challenges.

### **Conceptual Clarification**

For the purpose of conceptual elucidation and to limit the level of vagueness, which as a rule is the hallmark of academic research, it is important to examine some of the concepts and terms that are used in this paper i.e. inclusive, innovation, inclusive innovation, panacea, and development.

### **Inclusive**

The word “inclusive” means that a concept is comprehensive, wide-ranging, all-encompassing, complete, broad or general. Such concept includes many things or everything without any form of exclusion.

### **Innovation**

Innovation is the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society. The term innovation can be defined as something original and, as consequence, new that "breaks into" the market or society.

### **Inclusive innovation**

Inclusive Innovation' refers to the knowledge creation, acquisition, absorption and distribution efforts targeted directly at meeting the needs of the low-income or the base-of-the-pyramid (BoP) population. The focus of Inclusive Innovation is on delivering high performance products and services or high experience at ultra-low cost to the people whose needs are generally not addressed (GRA, 2012). Inclusive Innovation requires a holistic and new way of approaching demand-driven projects and co-creation with partners such as end-users, technology organizations and both the private and public sectors. This includes: success through technical

innovation (products), social innovation (interaction/co-creation), management innovation (business models); and chain innovation (relationships in the value chain) (GRA, 2012).

### **Ladder of Inclusive Innovation**

It seems most helpful to understand the different views as a “ladder of inclusive innovation” a set of steps, with each succeeding step representing a greater notion of inclusivity in relation to innovation. Richard, Mirta, Robert, & Nishant (2013) discussed it in more detail:

- **Level 1/Intention:** an innovation is inclusive if the intention of that innovation is to address the needs or wants or problems of the excluded group. This does not relate to any concrete activity but merely the abstract motivation behind the innovation.
- **Level 2/Consumption:** an innovation is inclusive if it is adopted and used by the excluded group. This requires that innovation be developed into concrete goods or services; that these can be accessed and afforded by the excluded group; and that the group has the motivation and capabilities to absorb the innovation.
- **Level 3/Impact:** an innovation is inclusive if it has a positive impact on the livelihoods of the excluded group. That positive impact may be understood in different ways. More quantitative, economic perspectives would define this in terms of greater productivity and/or greater welfare/utility (e.g. greater ability to consume). Other perspectives would define the impact of innovation in terms of well-being, livelihood assets, capabilities, or many other foundational understandings of what development is.
- **Level 4/Process:** an innovation is inclusive if the excluded group is involved in the development of the innovation. It is highly unlikely that the entire group could be involved so – as noted above – this immediately shrinks down to “members of the excluded group”. This level needs to be broken down according to the sub-processes of innovation: invention, design, development, production, distribution. These would create a set of sub-steps with, for example, an assumption of greater value of inclusion in the upstream elements than the downstream elements.
- **Level 5/Structure:** an innovation is inclusive if it is created within a structure that is itself inclusive. The argument here is that inclusive processes may be temporary or shallow in what they achieve. Deep inclusion requires that the underlying institutions, organizations and relations that make up an innovation system are inclusive. This might require either significant structural reform of existing innovation systems, or the creation of alternative innovation systems.
- **Level 6/Post-Structure:** an innovation is inclusive if it is created within a frame of knowledge and discourse that is itself inclusive. (Some) post-structuralists would argue that the underlying frames of knowledge – even the very language – are the foundations of power which determine societal outcomes. Only if the framings of key actors involved in the innovation allow for inclusion of the excluded; only then can an innovation be truly inclusive.

### **Panacea**

Panacea is a word used to describe hypothetical remedy for all problems, challenges, ills or diseases of mankind. It is a word used to express cure or solution to all the troubles encountered by human beings from all works of life.

### **Development**

Development is the systematic use of scientific and technical knowledge to meet specific objectives or requirements. It is an extension of the theoretical or practical aspects of a concept, design, discovery, or invention. It can be said to be a process of economic and social transformation that is based on complex cultural and environmental factors and their interactions.

### **Development Challenges in Africa**

Challenges confronting Africa’s development come from two main inter-related sources: (a) constraints imposed by the hostile international economic and political order within which Africa’s economies operate; and (b) domestic weaknesses deriving from socio-economic and political structures and neo-liberal structural adjustment policies (CODESRA, 2002). The main elements of the hostile global order include, first, the fact that African economies are integrated into the global economy as exporters of primary commodities and importers of manufactured products, leading to terms of trade losses. Reinforcing this, secondly, have been the policies of liberalization, privatization and deregulation as well as an unsound package of macro-economic policies imposed through structural adjustment conditionality by the World Bank and the IMF. These have now been institutionalized within the World Trade Organization (WTO) through rules, agreements and procedures, which are biased against African countries (CODESRA, 2002). The just mentioned external and internal policies and structures have combined to generate unsustainable and unjustifiable debt burden which has crippled Africa’s

economies and undermined the capacity of Africa's ownership of strategies for development.

The external difficulties have exacerbated the internal structural imbalances of Africa's economies, and, together with neo-liberal structural adjustment policies, inequitable socio-economic and political structures, have led to the disintegration of Africa's economies and increased social and gender inequity (Robinson, 2010). In particular, Africa's manufacturing industries have been destroyed; agricultural production (for food and other domestic needs) is in crisis; public services have been severely weakened; and the capacity of states and governments in Africa to make and implement policies in support of balanced and equitable national development emasculated (Damian, 2008). The costs associated with these have fallen disproportionately on marginalized and subordinated groups of African societies, including workers, peasants, and small producers. The impact has been excessively severe on women and children.

Indeed, the developments noted above have reversed policies and programmes and have dismantled institutions in place since independence to create and expand integrated production across and between Africa's economies in agriculture, industry, commerce, finance, and social services. These were programmes and institutions which have, in spite of their limitations, sought to address the problems of weak internal markets and fragmented production structures as well as economic imbalances and social inequities within and between nations inherited from colonialism, and to redress the inappropriate integration of our economies in the global order (CODESRA, 2002). The associated social and economic gains, generated over this period have been destroyed.

Apart from the aforementioned development challenges, there are some other development issues wrecking Africa today. Discrimination and exclusion, based on religion, gender, age, disability, ethnicity, tribalism or race is escalating in Africa. Africa is faced with the problem of environmental destruction, abject poverty, illiteracy, spread of HIV/AIDS, bad governance, building institutional capacity, recovering from disaster among others (Bamani, 2008). Over fifty years ago, after the demise of colonialism, Africa was expected to grow faster than Asia. Much hope was pinned on the continent. Yet over the past decades there was a witness of economic growth and increasing wealth across Asia, while much of Sub-Saharan Africa has suffered from relative economic stagnation, extensive civil strife, and generally poor development indicators (Antje, 2011). Countries in Sub-Saharan Africa are characterized by their diversity, distinct cultures and historical trajectories. These specificities must be accounted for in tackling past and present challenges. A shared structural feature, however, is youth. In 2005, over 60 per cent of the region's population fell below the age of 25 (Antje, 2011). This demographic transition, which will not stabilize before 2050, implies huge pressures for sustainable job creation in all African countries over the coming decades. Youth unemployment and education are therefore crucial problems for policy-makers to be addressed to shape future development outcomes. Yet the problem is much broader and more complex than that (Benson, 2010). The roles of international organizations, multinational corporations or trade cooperation with other regions in the world are but a few factors in the international political context that matter as well for development results in Africa.

Basic food insecurity still affects over 300 million people in Africa (Gaius, 2012). However, the proportion of people who are undernourished declined from about 20 per cent in 1990-1992 to 15 per cent in 2008-2010. Progress has been uneven across regions and the 2007-2008 food and financial crisis posed additional challenges (Edwin, 2009). Under current conditions, the target of halving the proportion of people suffering from hunger by 2015 will not be met in sub-Saharan Africa, unless some credible inclusive innovative measures are adopted and implemented judiciously.

Climate change poses numerous and stark challenges for sustainable development in Africa and its effects will be felt in all regions of the black continent, although the intensity of exposure will vary. Degree of vulnerability will vary even more, with most of the developing countries and the poor in Africa (Ngumo, 2009). While poverty rates have declined over the last decade in much of Africa, inequities and disparities are still growing nationally, regionally, and with respect to the rest of the world. Income inequality in Africa is now higher than in any other region of the world except Latin America (where income inequality is finally declining) (Morris, 2006). African per capita incomes are a smaller share of the world average than they were at independence and this share has remained stagnant over the last decade (Benson, 2010). Thus even as concerns about the number of people living in absolute poverty are alleviated over time, inequities and disparities will and must remain a major concern to economic policy makers and political leaders alike throughout Africa (Bamani, 2008). Access to basic services, such as education, health and sanitation, has again improved considerably over the last decade. Like reductions in poverty, however, the overall improvement in access masks large and sometimes growing disparities in access based on gender, rural or urban location, and family income level. They deserve much greater attention.

### **Inclusive Innovation as a Panacea to Development Challenges for Africa**

Linking Innovation and Development has long been the mantra of many development programmes aimed at fostering and building the knowledge and information society. The reality check has been that however

close the linkages may seem, the practical implications and tangible outcomes of an Innovation for Development programme are much harder to elucidate and demonstrate to those who truly need the spin offs from an innovative society – the poor and disadvantaged and those surviving in the informal economy, a characteristic that is shared by many developing economies (Albert, 2004). One approach to overcome this paucity of good examples of practical innovation for development is to focus resources and research outputs directed towards communities and main beneficiaries of technology. This is another pillar of achieving economic improvement in that the focus is on technology transfer to communities, and using inclusive innovation to solve the socio economic problems of the poor.

In this manner, a mechanism is introduced, which reduces the disparity that emerges when countries drive an innovation agenda and that is often perceived: “That the access to innovation sometimes often favours the community with resources and it disfavours those who have no resources to procure that innovation” (Punta, 2005). Thus efforts to promote inclusive innovation to bring about equity include making access and affordability the key drivers for investment in innovation, and the main objective is that of introducing affordable access to innovative technologies that can make a significant socio economic impact (Kelvin, 2001). Furthermore an inclusive innovation approach also supports the goal to develop public service innovation & access and delivery of basic services for society at large, thus enhancing the development agenda.

It is pertinent to champion inclusive innovation initiatives as a remedy for Africa’s development challenges in which active and strategic engagement is encouraged amongst the public and private sector, academia and civil society across the black continent. Some of the key initiatives that may be encouraged and supported under the inclusive innovation theme are:

- Providing resources to projects that clearly demonstrate the intent to use existing technology, modify such and engage the end users more strategically in an effort to provide affordable innovative technologies that can be transferred to communities;
- Support of projects that demonstrate the key driver to develop and customize innovative solutions with the poorly resourced end user in mind – this can span across various sectors and may even involve multidisciplinary teams;
- Support of technologies that clearly demonstrate that the ultimate goal is to drive employment creation and sustainable livelihoods, enabling so called grassroots innovation;
- Stimulating partner countries to look at the incentives, policies and drivers they have for investing in innovation activities driven towards enhancing socio economic impact; Supporting innovation value chain networks that drive inclusive innovation in their implementation plans;
- Promoting and supporting more marginalized women in the innovation value chain and supporting the sustainable economic empowerment of women engaged in innovation (SAIS, 2014).
- In relation to the external environment, taking action towards stabilization of commodity prices; reform of the international financial system (to prevent debt, exchange rate instability and capital flow volatility) as well as of the World Bank and the IMF; an end to IMF/World Bank structural adjustment programmes; and fundamental changes to the existing agreements of the WTO regime, as well as stop the attempts to expand the scope to this regime to new areas including investment, competition and government procurement. Most pressing of all, cancel Africa’s debt (Titus, 2010).
- At the local, national and regional levels, developing policies to promote agriculture, industry, services including health and public education, and will be protected and supported through appropriate trade, investment and macro-economic policy measures (Vincent, 2008).

## **Methodology**

This paper is predominantly based on information derived from secondary sources. Hence much of the data were accessed through the review of relevant texts, journals, newspapers, official publications, magazine and the internet which served as a tangible source of insight into inclusive innovation.

## **Implication**

The tempo of development challenges in Africa is really a bad omen. The levels of inequality across Africa are unjustified and profoundly unfair. Extreme disparities in income are slowing the pace of poverty reduction and hampering the development of broad-based economic growth. Disparities in basic life chances - for health, education and participation in society - are preventing millions of Africans from realizing their potential, holding back social and economic development in the process. Further growth in inequities would likely spur social unrest, ranging from possible collapse in fragile countries to increased social tension in more stable countries to large population movements across borders.

If people have skills, if cities function well, and if economies are open to competition, then Africa’s cities will be the loci of job creation. The size of urban markets, rising income of urban residents, and

concentration of economic activity could make cities dynamic centers for higher productivity jobs - offering the prospects of a better life to more than one billion people. On the other hand, if people are illiterate and unskilled, cities dysfunctional, and economies trapped in extractive activities and/or crony capitalism, urban areas would be poor and violent - offering only the desperation of hopelessness to residents.

### Conclusion

Solutions to development challenges in Africa will require policy cohesion and resilience, careful choice of priorities, prudent management of scarce resources, and transparency in public sector operations. They will also require proactive, mutually beneficial engagement with external partners. The African leaders of the future need to prioritize the inclusion of Africa's youth, who are increasingly outside the mainstream of the political, economic and social life of the continent. Discrimination and exclusion, based on gender, age, disability or ethnicity, have to be tackled directly in order that greater inclusiveness and transformative change may be achieved. These challenges are exacerbated in multiple ways by accelerating environmental degradation. The poor are most vulnerable to environmental hazards and, owing to the unequal distribution of assets, will also suffer the most from resource scarcities. Increasing the opportunities for the most vulnerable is the only way to both sustain overall growth and reduce disparities. Jobs may be the vehicle for people to move out of poverty, but disparities in access to quality education, health, and other services must be reduced dramatically for the poor to board this vehicle.

### Recommendations

Public support should focus on the creation of a functioning inclusive innovation infrastructure in Africa. The role of the African heads of state and government should be to facilitate, support, incentivize and leverage the strengths of all stakeholders in order to create sustainable inclusive innovative solutions with significant outreach at maximum efficiency with the least possible burden on the public resources. Contributions from the private sector, the research and academic community, NGOs, and global partnerships – as well as the poor population itself are essential to an effective inclusive innovation system.

Africa has a strong enabling environment for inclusive innovation. But it also needs to expand in scope, coverage, quality, and efficiency to sufficiently serve other disadvantaged groups such as migrant workers. As the key provider of public services, the African heads of state and government could benefit from pursuing a well-articulated inclusive innovation strategy and use inclusive innovation as a powerful tool to significantly reduce the burden on the fiscal budget and improve the supply of affordable quality basic goods and services, thereby making life unproblematic for their citizenry.

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