Modeling Institutional Reengineering for Inclusive Development (IRID) in Africa

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Abstract

Inclusive development is a newly emerging notion that is gaining substantial attention, especially in international civil societies. The aim of this study, therefore, is to discuss the drivers of inclusive development in Africa, paying special attention to the political economy and structural change variables. Ordinary Least Squares regression is run in STATA 14 to test if there are statistically significant correlations between the five-year average scores of inclusive development index (IDI) as an endogenous variable and (proxies of) the five-year trend in economic growth, technology, structural change, trade, and political economy as exogenous variables. The panel data are pooled from 21 African countries among which 9 countries are landlocked. The regression is run in two scenarios. As an alternative scenario, IDI is pooled from the World Economic Forum (WEF) 2017 report and used as a dependent variable. In the other scenario, IDI is computed by incorporating variables relevant to the African context then used as a dependent variable. In the IRID customized version, the five-year trends of GDP, health facility, the institutional and structural change variables viz. democracy and employment opportunity in the industry sector are statistically significant determinants of inclusive development. Accordingly, an inference is drawn claiming that inter alia a nation is as prosperous, inclusive and resilient as the quality of its governance institutions and enforcement capability. This is in line with the conventional thought in African studies which claim that a natural resource endowment per se is not the sole determinant of development. Finally, to anchor IDI with a pragmatic paradigm, a three-stage institutional reengineering model is proposed which could be applied in different development governance endeavors.

Keywords: *Institutional Reform, Sustainable Development, Extractive Institutions, Inclusive Development, Africa*

Introduction

Research Background

Since a decade ago, international civil society organizations and policymakers are interested in inclusive growth and development concepts (World Bank, 2009). However, since the end of the Second World War, there has been a global 'common sense' on the need for inclusion. At least, the following inclusiveness issues have been popping up since then. For instance, 'development approach' *per se* emerged as a Marshal Plan in the 1940s and 1950s (Wilson, 1977), 'top-down and bottom-up development approach' (Bower, 1974), 'participatory development' and 'broad-

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based development approach' (Keough, 1998), 'holistic development approach' (DeRobertis, 2008), 'sustainable development approach' (United Nations, 1987), 'inclusive…universal education, basic health, water,…approaches' (Ferguson, 2008), 'gender equality in development approach' (Reeves & Baden, 2000), 'entitlement in development' (Sen, 1999) and 'ethical development approach' *etc*. (Goulet, 1996). Even if the cited works look recent, they have also historical foundations. For instance, the emergence of the American feminism school in the 1960s and 1970s was part of the movement in pursuit of inclusive development (Coontz, 2011). Demands for slave trade abolition, decolonization of Africa, 'land for the tiller' and 'ethnic inclusion' were only a few among the earlier foundations of the inquiry for inclusion and a claim against exclusion.

The foundational concept of MDGs and SDGs was addressing institutionally inclusive development. By inclusive development approach, it is aimed at 'leaving no one behind' (United Nations, 2016) and 'reaching the furthest behind first' (UNDP, 2018). Accordingly, the achievement, especially in poverty reduction, literacy, health, *etc*., is remarkable. However, the intricacy behind inclusiveness is not only a lack of implementation capability but also the paucity of theoretical framework (United Nations, 2018; WEF, 2017). This is the inspiration behind this study.

In the inclusive development approach, albeit the primary target is to address the needs of the marginal people (Acemoglu & Robinson, 2016). One of the fundamental principles of ILO states that 'poverty anywhere constitutes a danger to prosperity everywhere' (See Declaration of Philadelphia in 1944). WEF also claims that development will be sustainable only if it is inclusive (WEF, 2017). In this sense, inclusive development is the necessary condition for sustainable development which has pertinent theoretic and policy implications.

According to the World Bank, inclusive growth is about the pace and pattern of growth (World Bank, 2009). Most importantly, for economic growth to be sustainable in the long run, it should be broad-based across sectors and inclusive intra- and inter-generationally (ADB, 2010). This demands structural transformation, sectoral diversification and creative destruction (reengineering) of the political economy (Klasen, 2010; Lopez *et al*., 2007; McKinley, 2010).

Contrary to inclusiveness, the economic growth process can be extractive if it irresponsibly exploits human and natural resources (Acemoglu & Robinson, 2016). Accordingly, inclusive economic growth includes those who are left behind not only in consumption but in the production process through employment, human capital development, innovation and responsible use of natural resources (United Nations, 2016). Inclusiveness does not exacerbate income and wealth inequality; rather, it is conceptualized as a corrective mechanism from the very outset (United Nations, 2016, p. 138).

In inclusive growth, expansion of human capability is not only the means but also the end. Accordingly, in this study, the following working definition and concept of inclusive development are drawn and summarized from eclectic sources for the fact that conventional definition appears to be virtually absent or insufficient in development literature. Inclusive development is a broad-based, holistic, pro-poor and ethical development approach in which human capability and welfare of all human beings are brought at the center of development endeavor and conservation of nature as an instrumental to include the needs of all generations in the current development process to make the inclusion sustainable. The foremost purposes of inclusive development, therefore, are to recognize diversity, empower 'those who are left behind first', ensure sustainable economic growth and equitable distribution.

Inclusive development approach encourages distinct local, national and international institutions primarily designed to stimulate development especially for the benefit of poor people by involving them in the production, consumption and innovation value chains. The efforts are to be steered by development programs, policies, administrations, and governance systems. Inclusive development adopts both positive and normative development approaches, and its strategy is mainly checking against the feebleness of global development order by using its opulence. The development issues like inequality in wealth, extractive economic growth, poverty, social exclusion, alienation from self-reliance, modern-day slavery, failure to address concerns of minorities, unequal participation in political, civic and cultural life, unequal opportunity in the labor market, barriers to social inclusion, prejudice and discrimination due to a particular identity, social and economic status, migration, xenophobia, ethnocentrism, exaggerated patriotism, religious fundamentalism, *etc*. are some of the specific aspects to be resolved in inclusive development discourse (Stiglitz, 2012; United Nations, 2016; United Nations, 2018; UNDP, 2018).

Although inclusive growth and development reinforce each other, all dimensions of development cannot be reduced to only the economic growth concept. Even in economically advanced countries where economic growth is a policy priority, inclusive development issues should also come to vanguard. This is for the fact that countless citizens are left behind (Stiglitz, 2012). For instance, 'we are 99% slogan'[1] is a shred of upright evidence. In sum, the sustainability concept brings forward the conservation of nature to the center (United Nations, 1987) and inclusiveness brings about human empowerment at the core (United Nations, 2018). In fact, they are almost different sides of the same coin. Finally, given the improved poverty reduction, literacy, health and infrastructure, the overall achievement in inclusive development is globally 'remained as an aspiration' (WEF, 2017). As stated above, it is also claimed that the low achievement in the area of inclusive development is not only due to lack of capability, but 'lack of analytical framework' (*Ibid*.). In this regard, this article is supposed to add a spoonful of spice to the conventional inclusive development discourse.

Statement of the Problem

There are historical and contemporary hurdles in the development governance of Africa, which need a pragmatic institutional reform. According to Acemoglu and Robinson (2012), Heywood (2009) and Bertocchi (2015, p. 1), slave trade which existed from 15th to 19thc, followed by the industrial revolution in Europe which led to the colonial aggression that occurred from 19th to 20thc, destabilized indigenous institutions in the continent and the outcome has prevailed till now. The post-colonial extractive trade orders and diplomatic pressures have been witnessed since the liberation of African states. This, in turn, has led more than three-fourth of African states to have a negative current account in 2019.

A brain drain costs Africa about $4 billion every year. A research conducted by 13 organizations (Sharples *et al*., 2014, 2017) about *capital inflow* to and *outflow* from Africa reveals that 'Africa

[1] On 17 November, 2011, protesters with '99%' T-shirts occupied Wall Street near the New York City Hall. Since then metaphor '99%' is seen as a political slogan that shows most citizens in USA are left behind development. The nation's wealthiest 1% is reversely corresponds to the 99%. The phrase directly refers to the concentration of wealth and political influence among the top earning 1% and the rest 99% is left behind. https://www.economist.com/united-states/2012/01/21/who-exactly-are-the-1

is losing far more each year than it is receiving.' The research contains astounding facts and figures. For instance, on average a total of about $134 billion flows into the continent every year, mainly in the form of loans, foreign investment, and aid; however, on average $192 billion is taken out annually, predominantly in the form of profits made by foreign companies, tax evasion and the costs of adapting to climate change. This shows that the continent loses a net amount of $58 billion a year. That means, Africa is a net donor of capital to the rest of the world yet illicitly. According to the report, about $1.8 trillion capital left Africa only between 1970 and 2009. The institutional failures locally and internationally are primarily responsible for the malfunctions. For instance, the failure of laissez-faire capitalism in the form of structural adjustment program (SAP) induced by the IMF and World Bank resulted in 'the lost decade in Africa'[2] (IMF, 2007). In places where there are natural resources, there are also conflicts. Some of the giant corporations participate in financing the conflicts. Unfortunately, several African conflicts and civil wars have been caused and funded by the diamond industry. Diamonds that come from these regions are known as 'conflict diamonds' or 'blood diamonds'.[3]

Local and international institution failures cause the overthrow of regimes through civil war, violence, subsequent partition, invasion, illicit finance which destructively contributed to the modern-day failure in forming a stable and resilient nation-state, inclusive development institutions (Bertocchi, 2015, p. 1; Heywood, 2009). This narrative is in line with the international dependency theory of development pioneered by Sir Hans Wolfgang Singer and Raúl Prebisch written in 1949. All these center-periphery relations bore tribal politics and (post)-Marxist patriotism which are still hegemonic in the contemporary political economy of Africa. 'Identity is the key driver of social exclusion: individuals and groups are excluded or included based on their identity. Some of the identities resulting in exclusion are *inter alia* gender, race, caste, ethnicity, religion, age, occupational status, location, and disability status.'[4]

Moreover, citizenship, geographical origin, economic and political status, belief, marital status, color, and posture are also aspects of identities vulnerable to exclusion. A nation guided by such

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[2] Due to failure in SAP in 1990s, researchers now refer to this period as 'Africa's Lost Decade', due to the erosion of economic gains made during the post-colonial years. 'The biggest tragedy of the lost decade was that there was no leadership in Africa' https://www.globalblackhistory.com/2017/10/lost-decade-africa-1980s.html

[3] https://www.nationalgeographic.org/encyclopedia/africa-resources/

[4] 'Social inclusion is the process of improving the terms for individuals and groups to take part in society' (World Bank 2013a) https://www.worldbank.org/en/region/afr/brief/social-inclusion-in-africa

mainstream institutions is most often trapped in a 'traditional society' stage of development (Rostow, 1959; World Bank, 1992). Inclusive institutions are often over-generalized and their roles are undermined, economic growth is often hardly regressed to the underprivileged people. Thus, capitalism excessively outweighs egalitarianism, so a pragmatic rethinking of the nexus between inclusive development and governance institutions needs urgent attention to ensure an egalitarian society and this is the mainstay of this research.

Objectives of the Study

The objectives of the study are: i) to explain and estimate the major determinants of inclusive development in Africa; ii) to analyze the interface of inclusive development and institutional variables; iii) to find the foremost theoretical foundations of inclusive development; and, iv) to develop a pragmatic institutional reengineering (reform) model for inclusive development based on the existing literature.

Research Questions

The following research questions are going to be addressed as per the literature gap analysis stated above. These are: i) what are the major determinants of inclusive development in Africa and how do institutional variables interact with IDI? ii) What are the foremost theoretical foundations of inclusive development? iii) How can the inclusive development approach be both process-oriented and performance metrics?

Significance

The available literature in the area of inclusive development is dominated by reports produced by international development organizations. It is quite rare to find scientific research in the area. This article, therefore, is part of the endeavor in filling the gap, especially in the context of Africa. Hence, apart from its importance to policymaking, the article is supposed to inspire further academic discourses.

Scope and Limitations

This article is predominantly meant for the African context, but only 21 African countries are included in the empirical analysis. Likewise, as institutions are complex and diverse across contexts, the inferences might have limitations. Besides, the concept of inclusive development has diverse dimensions. Yet, this study throws only a glimpse of rumination just to provoke discourse. Finally, a detailed assessment of the concepts, prevailing challenges and achievements are beyond the scope of the study, nor is the article meant for.

Literature Review: Conceptual and Theoretical Framework

Inclusive Development Approaches

The fundamental intent of inclusive development can be captured by the following predominant theoretical upbringings. These are: i) entitlement (welfare and empowerment) approach in development; ii) sustainability approach in development; and iii) development ethics approach.

Entitlement Approach in Development (EAD) (Amartya Sen's Approach)[5]: According to the Oxford English Dictionary, entitlement is defined as 'an official right to have or to do something and the belief that one is inherently deserving of privileges or special treatment.' Accordingly, the Nobel Prize winner Amartya Sen argues that every person is naturally privileged and has the right to choose and enjoy his/her entitlements; every person deserves privileges and special treatment. According to this approach, any form of deprivation and exclusion is due to the failure to exchange one's natural privilege. Sen also believes that famines are due to the inability of a person to exchange his/her entitlements rather than food unavailability (Sen, 1981, 1999). He also explains why only some section of society is affected by famine and starvation while others enjoy affluence. Hence, inclusive development is enlarging human capability and people's freedom of choice through their entitlement. Entitlement per se encompasses concepts like human security, better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom, and a richer cultural life (World Bank, 1991). Universal entitlements of human beings are shared standards of dignity, justice, and safety that all people should expect from states and societies. "A person's capability to live a good life is a natural entitlement defined in terms of the set of valuable 'beings and doings' like being in good health or having a loving relationship with others to which they have real access" (*Ibid*.).

Sustainability Approach in Development (SAD) (Gro Harlem Brundtland's Approach): This is about meeting the economic and social needs of *all* the present generation without compromising the capability of *all* future generations by keeping human-ecosystem equilibrium (homeostasis).

[5] EAD is defined by its choice of focus upon the moral significance of individuals' capability of achieving the kind of lives they have reason to value. https://www.iep.utm.edu/sen-cap/

In order to make the development long-lasting and non-violent, the inclusion of not only the present but also the next generation is of higher significance. The UN's Report entitled 'Our Common Future' which is also known as the 'Brundtland Report' addresses 'inclusion' as 'a world in which poverty and inequity are endemic, will always be prone to ecological and other crises' (United Nations, 1987). The report goes on stating that 'sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life' (*Ibid*.).

Development Ethics Approach (DEA) (Denis Goulet's Approach)[6]: This approach brings normativity, ethical principles and moral philosophy into the theories of development. According to Goulet, 'development ethics has a dual mission: providing more human development for all and checking inequality'. In contrary to economic positivism, DEA criticizes an economic growth based upon a narrow sense of material expansion of wellbeing. The qualitative enrichment of human beings in all relevant aspects of human life, therefore, is appreciated (Astroulakis, 2013). According to Goulet (1971a), 'sustenance, self-esteem, and freedom are the three basic values of development… moral values of ethics are important in development'. He also argues that 'a chronic poverty is a cruel kind of hell, and one cannot understand how cruel that hell is merely by gazing upon poverty as an object' (Goulet, 1996).

One can go even further in history, philosophy and eclectic scientific disciplines to justify the importance of inclusion in development endeavors. However, the above three areas of research per se are specifically supposed to anchor development theories to explain the complex real-life inclusive development paradoxes.

Institutions Explain the Difference in Wealth of Nations

Nations are as inclusive, prosperous and resilient as the quality of their development governance institutions and enforcement capability. This argument is a summary of recent literature on (inclusive) development and the new institutional economics (NIE) (Acemoglu & Robinson, 2012, 2016; Bissessar, 2008; Crawford & Ostrom, 1995; Draper *et al*., 2018; Lopez *et al*., 2007; North, 1991). The absence of quality governance institutions and enforcement capacity underpins the underdevelopment trap (*Ibid*.). This statement is portrayed in the causal-effect

[6] Denis Goulet (1931-2006) was the leading scholar of development ethics. He is among the pioneers of human development theory and the main founder of work on 'development ethics' (Goulet, 1971a).

vicious diagrams (See figure 1 and figure 2). Even if the detailed analysis is beyond the scope of this article, a precise reflection on the classical questions 'where the wealth of a nation comes from?' and 'why countries remain poor?' are bottom lines to start with.

Adam Smith, for instance, argues that 'it is not that other countries work harder or have better resources what makes the difference is free trade.' He also claims 'some will become super-rich, and the rest will stay poor…, but this is a logical price to pay for a thriving economic system. For economic freedom to prevail, and for the majority to pursue their happiness and goals, the system must allow for some measures of inequality' (Smith, reprinted in 2006). Karl Marx on his side argued that 'increase of wealth…depends upon the quantity of surplus-value due to living labor which the materialized labor sets in motion.'[7]

The standard exogenous and endogenous neo-classical development models on their side affirm that the sources of wealth are capital and technology (Romer, 1990). It is also important not to undermine that wealth comes from land. Land in economics refers to beyond farmland such as natural resources on the earth, climate and even solar system itself. From the above arguments, it can be inferred that wealth comes from all factors of production. However, institutions are systems that trap or set in motion all other factors of production (See Figure 1).

Besides, regarding where wealth comes from and how the distribution should be treated, the philosopher John Locke has superb thought. He claims that the earth (land) is the property of people in common. However, each people own their body and when they apply it as labor to nature; then, they are entitled property and wealth. He takes a simple example: 'when I pick an apple, I own the apple, but when everybody wants to pick the apple, there is a need of rule of the game' *i.e.* institution. Rules of the game do not only cause wealth, but also distribution. In summary, wealth is something institutionally produced and entitled. Otherwise, nobody carries, for instance, land or building with himself/herself. People carry only the property right.

The quality of the institution behind property governance is what really makes the difference. Such narratives need clear understanding of institutions. The most cited definitions in Crawford & Ostrom (1995), Hodgson (2006), Kapp (1976), Knight (1992), Menard & Shirley (2008),

[7] Adapted from edition by Karl Kautsky of the Karl Marx's preliminary manuscript for the projected Fourth Volume of The Capital, 1951.

North (1991) and Ostom (1990) describe that institutions are humanly constituted, stable 'equilibria' of incentives and constraints that structure political, economic and social exchange. In a higher scope, governance institutions also shape a governance behavior like the way a government is brought to power, stay in legitimacy, and the government priorities and strategies. North epitomizes informal institutions like sanctions, taboos, customs, traditions, and codes of conduct and formal institutions like rules, constitutions, ratified property rights, shared policies and strategies, or other political, economic and social contracts. Some other institutionalists incorporate organizations as institutions (Greenwood *et al*., 2014; Scott, 1995). There are studies that consider money as one of the institutions (Desan, 2015). Some others consider language as an institution (Heller, 1995). This makes the scope of the institution open for further exploration. Taking the studies into account, institutions are comprehended in this article as follows.

Institutions are complex networks of the formal and informal rule of games which are soft factors that enable or disable all other factors of production for productivity; thereby, augment production, consumption, and distribution, and malfunctioning rules of the games are termed as 'extractive institutions' (Acemoglu & Robinson, 2016). They include *inter alia* unfair taxation structure, improper property rights, political instability, corruption, unequal distribution of income, malfunctioning formal and informal markets and dictatorship.

Dozens of Nobel Prize winners in economics and famous scientists endorsed the book written by Acemoglu and Robinson, which claims that institutions explain the difference in the wealth of nations (Acemoglu & Robinson, 2012). Adapting from the book, the perspectives of the scientists could be summarized as follows:

i) Kenneth J. Arrow's view that 'the openness of a society, its willingness to permit creative destruction, and the rule of law appear to be decisive for economic development';
ii) Gary S. Becker's idea that 'countries escape poverty only when they have appropriate economic institutions, especially private property and competition…countries are more likely to develop the right institutions when they have an open pluralistic political system with competition for political office';
iii) Peter Diamond's assertion that 'inclusive political institutions in support of inclusive economic institutions are keys to sustained prosperity';

iv) Niall Ferguson's claim that 'it is manmade institutions, not the lay of the land or the faith of our forefathers that determine whether a country is rich or poor';

v) Francis Fukuyama's observation that 'it is not geography, disease, or culture that explains why some nations are rich and some poor, but rather a matter of institutions and politics'.

vi) Simon Johnson's view that 'a convincing theory of almost everything to do with economic development is countries['] rise when they put in place the right pro-growth political institutions and they fail – often spectacularly – when those institutions ossify or fail to adapt'; and

vii) The British historian Ian Morris' claim that 'it is freedom that makes the world rich. Let tyrants everywhere tremble!'

Why Do Development Institutions Often Fail to Deliver their Ends in Africa?

As the needs and challenges in human behavior advance, institutions are also supposed to evolve accordingly. Existence of institutions, however, by itself may not always promise a shaped economic behavior and a decent life for all. For instance, most of the states in Africa have democratic constitutions. However, democratic constitutions have not yet guaranteed matured democracy. This is in line with the classical *de jure* and *de facto* nexus discourse (Lewkowicz & Szaniawska, 2016).

What happens to the sports match if the rule of the game does not work? If institutions fail, an instinct of human behavior prevails (Thomas Hobbes calls it 'The Natural State'). When institutions fail, the natural state is the only rule that manifests, *i.e.*, the rule of nature (perhaps the Darwinian survival of the fittest state). In this situation, authoritarianism, unfair competition, intimidation, exploitation, injustice, alienation, chauvinism, prejudice, insecurity, violence, and unfair social interaction are some of the consequences (Acemoglu & Robinson, 2012; Brinkerhoff, 2005; Halder, 2018; Hobbes, 1651; Rondinelli & Montgomery, 2005).

Impairment of institutions arises for a multitude of reasons but most importantly: i) the genesis of the institutions, ii) the absence of institutional dynamism, iii) lack of replicability, iv) lack of legitimacy of institutions and submitting governed, v) lack of enforcement capability of the governor, vi) rent-seeking behavior, and vii) weakened self-protection of the institutions. As vicious poverty reinforces itself, extractive institutions reinforce themselves unless dynamically reengineered by enlightenment (Bissessar, 2008; Lopez *et al*., 2007; Newig *et al*., 2019). Therefore, in order to be effective, institutions are supposed to reproduce and guard themselves (Barnett & Duvall, 2005). To do so, institutions need resilient and sustainable natural and legal persons *viz*. agencies. Supplementary to addressing the causes of their impairment, institutions should meet certain criteria to check themselves. They must be efficient, legitimate in their lifespan, ensure predictable behavior, assure security for all and be adaptable.

The Nexus of Inclusive and Extractive Institutions with Development

Inclusive Economic Institutions are those institutions that *inter alia* secure property rights, create incentives for human entitlements, sustainability, investment, trade facilitation, finance, innovation, production, consumption, distribution, economic choice, other economic sectors, transaction cost minimization and information asymmetry, decent work, especially those who are left behind, and global citizens. More specifically, inclusive institutions address issues like food insecurity, poverty, inequality and unemployment (Acemoglu & Robinson, 2012). On the other hand, institutions that channel wealth towards some group of society at the expense of others, exclude the rest from using their entitlements (Hodgson, 2006; Sen, 1999). Such kinds of institutions are called extractive economic institutions (Acemoglu & Robinson, 2012).

Inclusive social institutions, on the other hand, are those institutions that enhance, among others, the physical and mental capability, cultural diversity, safeguard from derogatory, stereotypical, discriminative, racist, exploitative, modern-day slavery, bigotry, domination, illiteracy and sexist social conducts. Alternatively, inclusive political institutions are empowering, encouraging participation, pledging democratic values and practices, appreciating human choices, empowering civil society and overcoming challenges of extractive political institutions, *etc*. According to the World Bank (2013), social inclusion is the process of improving the terms for individuals and groups to take part in society by enhancing their ability, opportunity, and dignity. Economic, social and political institutions cofunction and reinforce one another.

The "Have and Have not" Paradox and Rationale of Institutional Reengineering in Africa

Demographically, Africa has a population size of about 1.2 billion which is the second in the world. The continent has 19% of the global youth. It has 60% of the world's uncultivated arable land together with 12 months of sunshine. Two-third of the population is engaged in agriculture.

Apart from several rivers and underground water, it has open water surrounding *viz.* the Mediterranean Sea, the Red Sea, the Indian Ocean, and the Atlantic Ocean. Moreover, Africa holds 60% of the world's precious metals and oil, specifically, 65% of its cobalt, 40% of its gold, 95% of platinum, 42% of diamonds, 8% of natural gas, plus vast deposits of oil and uranium (Natural Resources Canada, 2016). Every year, $134 billion capital flows into Africa in the form of FDI, loans, and aid (Sharples *et al.*, 2014, 2017). It is also being tried to innovate and replicate technologies.

The above statistical figures show that Africans 'have' remarkable blesses of almost all factors of production, specifically, land and precious natural resources, labor, and at least access to capital and technology. Therefore, why is poverty endemic to Africa? Why 'has economics chronically failed in Africa?' Why 'have not' Africans at least enough nutrition for their citizens which is basic for inclusive development? This means what 'have and have not paradox'. The major reason is due to extractive institutions within and outside African economic systems which are manifested by illicit financial and human capital outflow, bad governance, a disincentive for technology, investment, trade and property right (Acemoglu & Robinson, 2012, 2016; Sharples *et al.*, 2014, 2017). Therefore, the governing institutions need reengineering as it is done by recently developed countries.

Methodology

The Model: Institutional Reengineering for Inclusive Development (IRID)

The Canons of IRID Model

The following principles are the foundations of the IRID model, which are eclectically anchored. These are:

Principle 1: The Principle of Common State of Nature[8]*:* nature is for all. Accordingly, anyone without the permission of any 'body' can own private property in harmony with others; however, nature 'the Mother of all' should not be exploited or polluted by anyone at the expense of others. The genesis of this idea is found in John Locke's Theory of Property. According to his tabula rasa notion, he meant that individuals are born without built-in mental content; therefore, all knowledge comes from experience. His property theory has a deep reflection on the classical

[8] According to John Locke: 'The Liberty of Man in Society, is to be under no other Legislative Power, but that established by consent, in the Common-wealth' (§22); 'When any number of Men have so consented to make one Community or Government, they are presently incorporated, and make one Body Politick, wherein the Majority have a Right to act and conclude the rest' (§95).

question in economics, *i.e.*, 'how the wealth of nations comes' and 'how a property right should be protected and distributed'. This principle has implication to the entitlement and the 'core values of development *viz.* self-sustenance, self-esteem and decent life' as Sen and Goulet explained (Goulet, 1996; Sen, 1999). 'Man has a right to his preservation' John Locke. As Brubaker (2012) stated 'Every Man has a Property in his own Person… Man had starved, notwithstanding the Plenty God had given him.' John Locke and Thomas Aquinas also had a similar conclusion that 'whatever is a means of preserving human life belongs to the natural law, and whatever impedes it is contrary to it' (*Ibid.*). The implication of this principle for inclusive and sustainable development approaches is that one can own a private property without affecting the entitlement and production potential of others (Sen, 1981). During their wealth generation, however, others might be affected. Therefore, the effect must be internalized. For instance, if pollution is inevitable, it must be lessened and internalized to have unchaotic human-human and human-nature nexus. This concept in turn contributes to inclusion and institutional reform.

Principle 2: Principle of Creative Destruction of Social Order: the 'creative destruction' concept coined by Joseph Schumpeter refers to 'the ceaseless product and process innovation mechanism by which new production units replace outdated ones' (Schumpeter, 1942). The concept can and could be applied to revitalize and reengineer social orders *viz.* institutions (Hammer & Champy, 1993). The social order concept, however, is adopted from the social contract theory and its philosophical foundation is found in the 'Leviathan' of Thomas Hobbes. According to him, the behavior of individuals under the natural state is 'solitary, poor, nasty, brutish and short'. In view of that, to live together in harmony, individuals should submit a parcel of their egos and sovereignty to collective institutions given their natural rights. Otherwise, if individuals are violent, institutions cannot bear order, property rights and prosperity for all (Smith, 1909; also reprinted in 1929, 1943, 1947, 1952, 1958, 1962, 1965).

Principle 3: The Principle of Code of Ethics in Development: the integration of ethics in all dimensions of development is vivacious. As cited above under DEA, Goulet contributed profound arguments as to why ethics should be introduced into development endeavors (Goulet, 1996). However, integration of the core ethical principles is supposed to add spices in development theories even if enough attention has not yet paid to the concept. The ethical values are nonmaleficence (do not harm), beneficence (do good), autonomy (control by the individual), and justice (fairness). The values should be considered in inclusive development making (Astroulakis, 2013; Madhok, 2019). Otherwise, center-periphery relation orders and extractive institutions may stand for the interests of exploitative few (Stiglitz, 2012). Put it differently, the theories and institutions should be re-engineered more humanly and morally (Lopez *et al*., 2007).

Principle 4: The principle of Leave No One Behind: compared with the above canons, principle 4 is a newly emerging notion. It is also clearly anchored with the values behind sustainable development goals (SDGs) introduced by the United Nations (United Nations, 2016, 2018; UNDP, 2018).

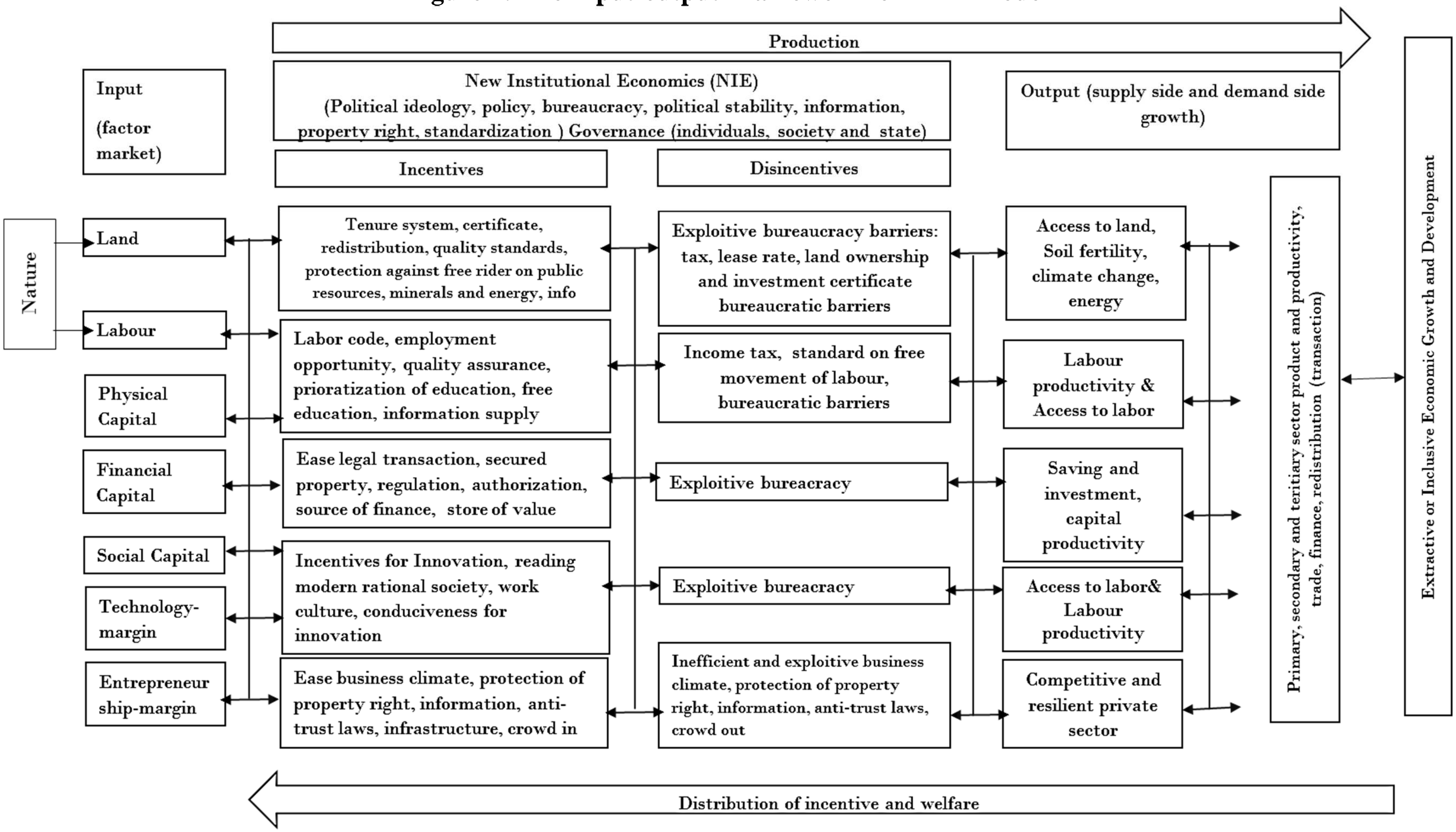
Principle 5: The Principle of Global Citizenship: according to global citizenship and equity education**,** every enlightened global person is supposed to be conscious of global development issues. A global citizen has rights and civic responsibilities that instigate from being a member of the global society without bounding themselves to a particular jurisdiction (Braskamp, 2008; Carabain, 2012; Wintersteiner *et al.*, 2015). Ancient Greeks divided the populace into three groups: *i) idiots, ii) tribals and iii) citizens.* The word 'Idiots' does not mean mental deficiency. It means the very private people who have self-centered virtue and philosophy. They work for their 'personal pleasure and treasure'. The Greeks also claimed, 'if idiots are in power, they do not work for the common interest of the public but for their self-interest.' 'Tribals', on the other hand, limit their virtue to a small segment of society. They conspire, intimidate, encourage violence; threaten the unity, peace, and rule of law against other people. They label people outside of their class as 'enemies'. For them, diversity is a peril, not a beauty. The 'citizen', in this context, does not refer to the legal or political status of a person. It rather describes the ideal or perfect class of people who advocate for global values like unity, peace, democracy, and rule of law. Citizens distinguish people by their virtue, not by their tribes or nationalities.

Principle 6: The Principle of Endogenizing Institutions and Institutional Changes: utmost scientific works in mainstream (neoclassical) economics consider institutions as exogenous factors; however, they can and should be customized and modified endogenously (Acemoglu & Robinson, 2012; Aoki, 2006; Hammer & Champy, 1993; Lopez *et al*., 2007; Tabellini, 2010).

The Input-Output Framework for IRID Model

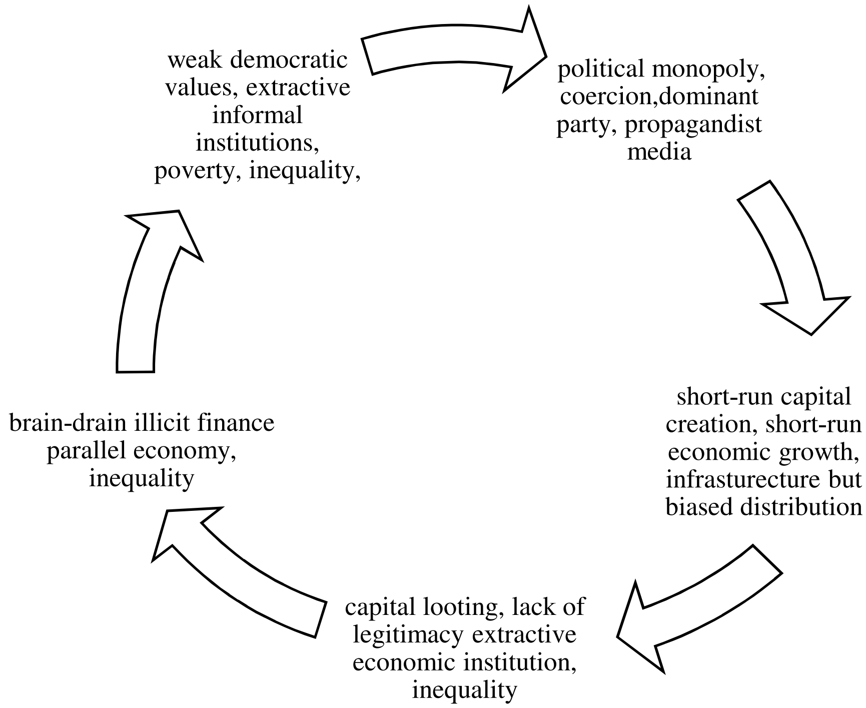
As explained above, inclusive institutions incentivize and set in motion other factors of production. Otherwise, they can also trap the whole development endeavour in sub-optimal level (Acemoglu & Robinson, 2016).

Figure 1: The Input-output Framework for IRID Model



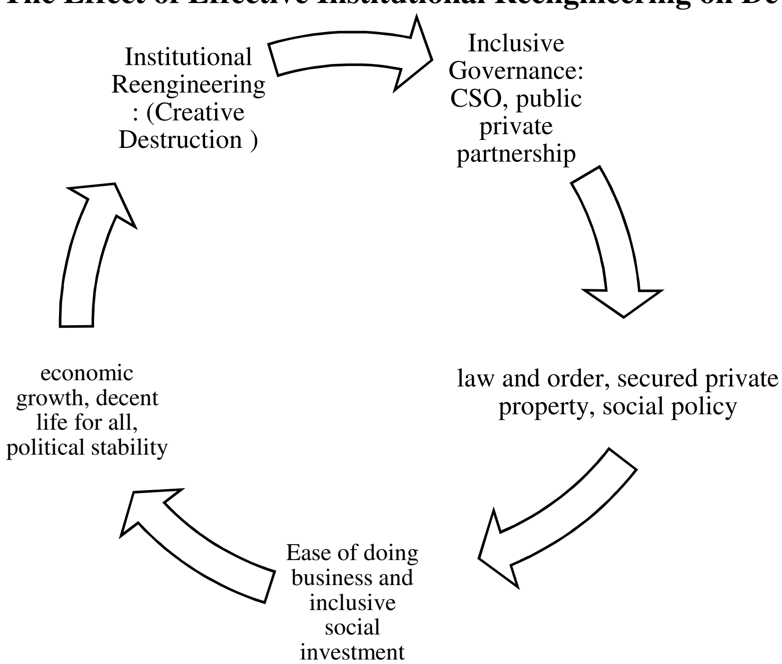
Source: Sketched by the author based on Benhabib & Spiegel (2000), Garibaldi & Mauro (2002), Robert & Lucas (1988), Schumpeter (1942) and Soto (2002).

Figure 2: Causes and Effects of Sub-optimal Political Economic Institutions in Pursuit of Inclusive Development



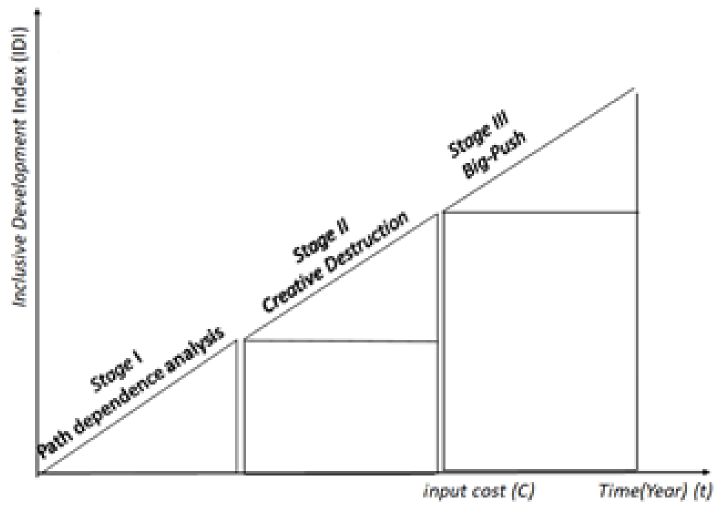
Source: Sketched by the author based on Acemoglu & Robinson (2016), Halder (2018), North (1991) and World Bank (1992)

Figure 3: The Effect of Effective Institutional Reengineering on Development



Source: Sketched by the author based on Acemoglu & Robinson (2012), Lopez *et al.* (2007) and North (1991).

Figure 4: Three-Stage IRID Model and Steps of Reengineering Process



Stage I: Steps for Path-Dependence Analysis

1. Ensure leadership consensus
2. Identify institutional engineers within the system
3. Ensure stakeholder and beneficiary inclusion
4. Acquaint with basics of IRID model
5. Identify contextual institutional blockages
6. Create shared propensity for institutional reform

Stage II: Steps for Creative Destruction

1. Set milestones of the reengineering
2. Analyse contextual Institutions
3. Revitalize the intended institutional changes (focus on major formal and informal enablers and disablers)
4. Plan in detail about indoctrination
5. Customize IRID index

Stage III: Big-Push

1. Endorse the reform
2. Create and empower mandated agency
3. Action research and digital record
4. Evaluate based on the index
5. Policy brief, lobby and feedback

Source: Sketched by the author based on Acemoglu & Robinson (2012), Lopez *et al*. (2007), North (1991), Rostow (1959), Schumpeter (1942) and Stan & Margolis (1995)

Applicability of IRID Model

The model can be applied at any development endeavor, but the following table may help comprehend the typology of the institution by level, function, and concept.

Table 1: Application Level of IRID

Level	Activity	IRID Applicability
Meta	Politics	Governance
Macro	Policy	Policy
Meso	Program	Administration
Micro	Project	Management

Source: Adopted from Goran *et al*., 2003.

Empirical Framework

As inclusive development (United Nations, 2016, 2018; World Bank, 2009) and inclusive institutions (Acemoglu & Robinson, 2016) are recently emerging concepts, it is not as easy to find empirical works in the area. However, the earlier versions of inclusiveness were associated with inclusion in social sectors like the inclusion of migrants, races, impaired people, in education, health, social security, sport, culture, *etc*. Recently, inclusion in trade, technology, environmental protection, and finance are emerging areas. Nonetheless, more recent empirical literature considers inclusion in a broader scope like in growth and development. For instance, an inclusive development model introduced by WEF contains an inclusive development index and a graphical portrait that shows the nexus of variables (WEF, 2017).

Taking WEF (2017) IDI as a benchmark, Draper *et al*. (2018) analyzed the nexus of trade, inclusive development, and global order. In the article, economic growth, technology, structural change, trade, and political economy are found to be important determinants of inclusive development in G20 and non-G20 countries (Draper *et al.*, 2018). According to Asongu & Boeteng (2018), there is also literature on the negative association of foreign debt and inclusive development in Africa. They underlined that policy reforms introduced for MDGs and SDGs improved inclusion in Africa. They also claim that the liberalization of ICT in Africa transformed inclusive development.

Materials and Methods

Data Source

This study fully relied on secondary sources of data. Apart from theoretical and empirical literature found in digital form, statistical data were pooled from different data providers like World Bank, IMF, WEF, Freedom House, *etc*.

Research Methods

As inclusive development is a new approach, this article combines germane notions already available in the literature. Besides, to answer the first research question, five-year (2013-2017) time-series data is pooled from 21 African countries; then, OLS Multiple Regression is employed. The analytical framework is adapted from WEF 2017 IDI and a simplified model specification is adapted from (Draper *et al.*, 2018). To address the second research question, three theoretical foundations of inclusive development are sorted out in development literature. To address the third question, an institutional reengineering model is sketched based on eclectic concepts.

Description of Regression Variables and Hypotheses

Inclusive Development Index (IDI) of WEF: is a dependent scale variable and its scores are based on a 1-7 scale: 1is worst and 7 is best. The five years' trend of IDI is used as the percentage change of the variable for the years between 2013 and 2017. Finally, only 21 Sub-Saharan African countries are included in the analysis because WEF did not simulate IDI for the rest countries. As an extension of WEF IDI, IRID-IDI is simulated in this research. It contains more indicators, especially relevant to the African context.

GDP per capita is an important indicator of inclusive development, but by no means per capita income alone can explain inclusive development (Todaro & Smith, 2015; WEF, 2017). There are also ongoing movements claiming that unchecked economic growth cannot ensure development for all. Likewise, there are emerging concepts, such as 'degrowth, buenvivir' and 'solidarity economy'. In countries where rent-seeking behaviors undermine the rule of law, economic growth may be registered together with perpetuation looting (DFID, 2008; Petersen & Schoof, 2015), but it cannot be sustainable.

Hypothesis 1: Economic growth affects inclusive development positively.

Labor Productivity: It is the quantity of GDP produced by an hour of labor. It gives information on how efficient a nation is using its workers (OECD, 2001).

Hypothesis 2: Increase in labor productivity improves inclusive development.

Healthy Life Expectancy: Life expectancy is one of the determinants of development. Improvements in health foster human capital accumulation (Cervellati, 2009). The 21 African countries are near to tropical area where people are prone to tropical diseases.

Hypothesis 3: Healthy life expectancy positively contributes to inclusive development.

Structural Change: Structural change within agriculture, change towards industry and openness in trade and investment are drivers of inclusive development (Draper *et al*., 2018; Lewis, 1954;

Maitah, 2015; McMillan, 2016). Employment in the industrial sector is used as a proxy for the shift from agriculture to the industry sector.

> *Hypothesis 4: Employment rate in the industry and augmenting export are supposed to have a positive correlation with IDI.*

Political Economy: (often synonymous to institutions) a driver of inclusive development (Acemoglu & Robinson, 2016; Draper *et al*., 2018; Hodgson, 2006; North, 1991).

> *Hypotheses 5-9: technology, democracy, safety, foreign direct investment and presence of seaport correlate with inclusive development positively* (Acemoglu & Robinson, 2012; Faye *et al*., 2007).

Model Specification

The regression model is specified as follows based on Draper *et al*. (2018) and WEF (2017), and IRID concept. $IDI = \alpha + \beta 1 Av.rGDPpercapita + \beta 2 Av.rlaborprodu + \beta 3 Av.rhealthylif + \beta 4 Av.remp.Ind + \beta 5 Av.rphonesub + \beta 6 Av.r.demoindx + B7 Exp\%GDP + \beta 8 Av.FDI\%GDP + \beta 9 Av.Safety + \varepsilon i$

Findings, Conclusions and Recommendations

The following findings, conclusions and recommendations are drawn based on the major findings from the literature review and the regression result (See the regression table from annex-scenario 1 for it satisfies OLS assumptions).

Findings and Conclusions

- IDI= -3.8 + 0.35Av.rGDPpercapita + 0.04Av.rlaborprodu + 0.65Av.rhealthylif + 0.81Av.remp.Ind + 0.15Av.rphonesub + 0.36Av.r.demoindx + 0.11Exp%GDP + 0.08Av.FDI%GDP -0.33Av.Safety + εi
- The theoretical foundation of inclusive development is *inter alia* found within the concepts like entitlement (empowerment and welfare), sustainability and ethics in development approaches. Moreover, it is found relevant that the institutional reform and inclusive development are governed based on the enlisted principles.
- The five-year average of GDP per capita is statistically significant (α=10%) determinant of inclusive development. If the five-year average real GDP per capita increases by one $ (USD), the inclusive development index increases by 0.35%.

- Improvement in the health (proxied by life expectancy) is also a statistically significant (α=1%) determinant of inclusive development. If the five-year average life expectancy increases by one-year, inclusive development index increases by 0. 65%.

- A structural change (proxied by the rate of employment in the industry sector) is also a statistically significant (α=1%) enabler of inclusive development. If the five-year average of the employment rate in the industry sector increases by 1%, inclusive development increases by 0.81%.

- Democracy is also a statistically significant (α=10%) institutional variable in the regression. If the five-year average of democracy index increases by 1%, inclusive development improves by 0.35%.

- Labor productivity and export correlate with inclusive development positively, but they are not statistically significant. It may be because their effect is already absorbed by GDP per capita.

- Technology has also contributed positively, but it is not statistically significant in the model. It may be due to its low access and less diversification.

- Against the hypothesis, safety and rule of law index are negatively correlated with inclusive development. One potential reason, however, is that in the countries that are in the democratic transition, inclusive development was improving but safety and rule of law were deteriorated at the same time. This might be a short-term phenomenon. Accordingly, even if inclusive development has been slightly improved (4%), safety and rule of law index were deteriorated by 1.3%. This is consistent with the political crisis in Africa that has prevailed since the year 2010 as already explained in the earlier section.

- There is a statistically significant difference in the mean value of inclusive development between landlocked countries and those countries that have seaport/s. The seaports have a positive correlation with inclusive development but are not statistically significant.

Recommendations

- Improvement in real per capita income, human capital, structural change in industry and democracy are the major determinants of inclusive development, which need immediate attention.
- Broadly put, inclusive development is highly dependent on the quality of institutions, enforcement capability (of the agency) and structural change in socio-economic sectors. Therefore, institutional reengineering is the foremost step in development transformation towards inclusion.
- The reengineering model recommended in the article could be benchmarked and customized in any development endeavor.
- Rather than merely sticking to the values of laissez-faire capitalism, an endeavor towards egalitarian society should also be encouraged through inclusive development principles and institutional measures.

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Illustrations, Figures, Graphs, and Tables

Annex 1: Descriptive Statistics

```
. summarize
```

Variable	Obs	Mean	Std. Dev.	Min	Max
wefidiscore	21	3.142857	.338484	2.8	4.2
idichecked	21	3.533333	.5615455	2.6	4.7
yrstrendidi	21	3.847619	1.834017	1	7
irididi	21	3.804762	1.696607	1	7
gdppercapita	21	1957.667	2008.902	218	7504
laborprodu~y	21	13623.29	13743.91	1451	44197
healthylif~s	21	54.64762	5.851633	44.4	67.6
employment	21	63.12381	16.55346	38.9	84.6
netincomeg~i	21	39.5	7.563333	30.3	57.7
povertyrate	21	57.40952	27.92128	3.9	91.1
wealthgini	21	71.2619	10.02898	55.2	91.7
medianinc	21	3.147619	1.88749	1.1	7.7
adjnetsav	21	1.050476	11.02846	-15.3	24.8
carbonintk~p	21	76.4	68.73392	3.2	215.6
publicdebt~p	21	51.43333	21.47998	18.6	99.6
depratio	21	79.62857	15.75827	46.4	101.5
dummylandl~k	21	.4285714	.5070926	0	1

Annex 2: Regression Results

Scenario: Drivers of Inclusive Development Index: A Regression Using IRID IDI as a Dependent Variable

```
. reg irididi avrgdp avlabpro avlifeexp avempindu mobphn demoinx expgdp fdigdp safetynruleoflaw
```

Source	SS	df	MS
Model	52.389978	9	5.82110867
Residual	5.17954271	11	.470867519
Total	57.5695207	20	2.87847604

Number of obs	=	21
F(9, 11)	=	12.36
Prob > F	=	0.0001
R-squared	=	0.9100
Adj R-squared	=	0.8364
Root MSE	=	.6862

irididi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
avrgdp	.3479788	.1917575	1.81	0.097	-.0740766	.7700342
avlabpro	.0388512	.1310995	0.30	0.772	-.2496968	.3273993
avlifeexp	.650391	.1783702	3.65	0.004	.2578009	1.042981
avempindu	.8140732	.1661486	4.90	0.000	.4483826	1.179764
mobphn	.1484421	.146772	1.01	0.334	-.1746008	.4714851
demoinx	.357042	.1815623	1.97	0.075	-.042574	.7566581
expgdp	.119893	.1177749	1.02	0.331	-.1393278	.3791137
fdigdp	.0801989	.1078031	0.74	0.473	-.1570741	.3174719
safetynruleoflaw	-.3309066	.2448602	-1.35	0.204	-.8698402	.208027
_cons	-3.933489	1.456445	-2.70	0.021	-7.139104	-.7278742

Annex 3: Drivers of Inclusive Development Index-Regression based using World Economic Forum (WEF) IDI as a Dependent Variable

```
. regress yrstrendidi avrgdp avlabpro avlifeexp avempindu mobphn demoinx expgdp fdigdp safetynruleoflaw

      Source |       SS           df       MS      Number of obs   =        21
-------------+----------------------------------   F(9, 11)        =      2.21
       Model |  43.3266762         9  4.81407513   Prob > F        =    0.1076
    Residual |  23.9457042        11   2.1768822   R-squared       =    0.6440
-------------+----------------------------------   Adj R-squared   =    0.3528
       Total |  67.2723804        20  3.36361902   Root MSE        =    1.4754

----------------------------------------------------------------------------------
     yrstrendidi |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+----------------------------------------------------------------
          avrgdp |   .8291059   .4123067     2.01   0.069    -.0783751    1.736587
        avlabpro |  -.6581893   .2818832    -2.33   0.040     -1.27861   -.0377686
       avlifeexp |   .7471045   .3835221     1.95   0.077    -.0970218    1.591231
       avempindu |  -.1639731   .3572439    -0.46   0.655    -.9502616    .6223155
          mobphn |   .3179689   .3155813     1.01   0.335    -.3766208    1.012559
         demoinx |   .3224265   .3903857     0.83   0.426    -.5368065     1.18166
          expgdp |   .5279325   .2532333     2.08   0.061    -.0294302    1.085295
          fdigdp |   .0417949   .2317925     0.18   0.860    -.4683769    .5519668
safetynruleoflaw |  -.1347682   .5264853    -0.26   0.803    -1.293554    1.024018
           _cons |  -5.061528   3.131571    -1.62   0.134    -11.95407    1.831014
----------------------------------------------------------------------------------
```

Annex 4: Comparison of WEF and IRID IDI Indices

Countries	WEF IDI Score	WEF IDI Checked	WEF 5YrsTrend IDI	IRID IDI Score
Algeria	4.2	4.0	4.1	4.3
Burundi	3.3	3.5	2.6	1.0
Cameroon	3.3	3.3	1.0	2.5
Chad	3.0	3.6	5.0	1.1
Egypt*	2.8	4.6	1.0	5.3
Ghana*	3.3	4.7	6.2	6.2
Madagascar	3.0	3.3	3.2	2.4
Malawi*	2.8	3.9	4.4	2.4
Mali	3.1	3.1	1.8	3.8
Mauritania	3.0	2.6	4.8	4.2
Namibia*	3.3	3.7	2.6	5.6
Nigeria	3.1	3.2	3.0	3.0
Rwanda	3.2	3.4	4.0	4.3
Senegal	3.1	2.9	1.5	4.7
Sierra Leone	3.0	3.4	6.2	2.4
South Africa*	2.9	3.5	2.9	6.7
Tanzania	2.8	4.6	5.7	3.3
Tunisia*	3.8	2.9	6.8	7.0
Uganda	3.2	3.2	3.2	3.1
Zambia	3.0	3.3	3.8	4.2
Zimbabwe*	2.8	3.5	7.0	2.4

*represents land-locked countries

Annex 5: IRID Index Explained

Weight	Inclusive Dev. Sub-indices	Proxy	Potential Source of Data
Economic Inclusion Index (EII)			
1/13	Per capita Income	Real per capita income	IMF World Economic Outlook
1/13	Food Poverty	Global Hunger Index	IFPRI and Welthungerhilfe.
1/13	Poverty Rate	Population below poverty line (%)	CIA World Factbook
1/13	Income equality	GINI Coefficient	World Bank/UNDP
1/13	Access to potable water	People using safely managed drinking water services (% of population)	World Bank
1/13	Price Stability	CPI	World Bank
1/13	Access to road	Roads and bridges infrastructure industry value, real growth	FitchSplutions
1/13	Access to electricity	Access to electricity (% of population)	Word Bank
1/13	Quality of Property Right	Property right index	The Heritage Foundation, TheGlobalEconomy.com
1/13	Dependency Ratio	Age dependency ratio (% of working-age population)	World Bank
1/13	Labor productivity	real economic output per labor hour	World Bank
1/13	Financial Inclusion	Adults with an account (%)	World Bank
1/13	Entrepreneurial Inclusion	The Global Entrepreneurship Index	The Global Entrepreneurship and Development Institute
Technological Inclusion Index (TII)			
1/3	Adoption	Digital Adoption Index	World Bank
1/3	Access to Telecom	Mobile cellular subscriptions (per 100 people)	World Bank
1/3	Innovation	Innovation index	WIPO - World Intellectual Property Org.
Social Inclusion Index (SII)			
1/6	Health Inclusion	Life expectancy at birth (years)	UNDP
1/6	Educational Inclusion	Literacy rate, adult total (% of people ages 15 and above)	World Bank
1/6	Disability (Impairment) Inclusion	Total Literacy rate impaired persons	UN Statistics division
1/6	Gender inclusion	Gender Inequality Index	UNDP
1/6	Children inclusion	Kids Rights Index	http://www.kidsrightsindex.org/
1/6	Diversity Inclusion Index	Inclusive education index	NA for many countries
Political and Administration Inclusion Index (PAII)			
¼	Democracy	Democracy Index	The Economist Intelligence Unit
¼	Corruption perception	Corruption Perception Index	Transparency International
¼	Civil society participation	Civil liberties Index	Fitch Solutions
¼	Trust in Government	Trust in Government Index	World Bank
International Inclusion Index (III)			
¼	Carbon concentration	CO2 emissions (kg per PPP $ of GDP)	World Bank
¼	National Security	National Cyber Security Index	NCSI
¼	FDI Inclusion	FDI Inflow % of GDP	World Bank
¼	Trade Inclusion	Net export, % of GDP	World Bank
Future Generation Inclusion (FGII)			
½	Environmental Sustainability	CPIA policy and institutions for environmental sustainability rating	World Bank
½	Public Debt	Total government debt, %GDP	Fitch Solutions

IDI=(EII+SII+PAII+III+FGII)/6 IRID.