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Africa's Development and Post Covid-19 Emerging Opportunities: Towards a Political Economic Model for Strengthening Intra Africa Trade and National/Regional Competitiveness in Response to Global Supply Chain Disruption

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Abstract. In view of the general observation that emerging opportunities exist for developing economies in the aftermath of the COVID-19 global pandemic, despite its many health, safety, economic, social and environmental realities, this paper examines how Africa could translate the challenges of the crisis into positive development opportunities from three interrelated salient angles: first is how to consolidate on innovation for local production and reinforce intra-African trade; the second is strengthening innovation for more resilient policies that address youth employment and skills development for regional and global competitiveness; and third, refocusing the digital and green economies, including the strengths of artificial intelligence, big data, e-commerce and the continuity of related environmental objectives. Using the “systems approach”, it proposes three quaternal models, advocating for policy coherence as optimal for development deliverables. This is not only beneficial for helping Africa out of the crisis, but could also meet some novel and future-oriented objectives of capacity building for managing complexities as purported in current global and regional development Agendas 2030 and 2063, as well as the African Continental Free Trade Area (AfCFTA) proposals.

Keywords. Africa's Development; COVID-19; Global Supply Chain; Economy; Youth Employment, Green Economy; Digital Economy; Agrobusiness; Regional Integration and Trade Agreement

1. Introduction

Apart from the health and safety realities of the COVID-19 pandemic, African countries face other socio-economic challenges linked to disruptions in the global supply chain. While concerns on massive employment loss, rising food and hunger crisis, wealth loss, stunted growth of the agriculture and the green economy sectors, the fear of inaptitude by governments to contain the spiral effects have been widely expressed, recent scholarly and policy literatures also predict a free fall in Africa's average GDP.

While it initially appears that Africa may cope better than any other regions of the world from the health-related fatalities, there exist some economic consequences, particularly those linked to the disruption in the global supply chains – which spurs a need to have forward looking proposals towards post COVID-19 era to counter the economic effects of such disruption and

perhaps leverage for future economic and social progress. This paper argues for three intertwining strategic recommendations in this regard, namely: innovation for local production in the transformative industries and alternative to importations, starting from those products directly related to coping with the health crisis itself as well as the long-term objectives that will intensify intra-African trade; fostering youth employment and skills development; and development of the digital and green economies. Section 1 therefore gives a background, addressing some broad issues on emerging economies and the COVID-19 situation with emphasis on the challenges and opportunities in the Global Supply Chain and particularities for the economies of Africa. Section 2 spells the methodology of systems approach for “Policy Coherence”, adopted in proposing the recommendations. Section 3 focuses on a case-by-case exposé of three quaternal intertwining models, highlighting Challenges, Opportunities and proposed Action Plans for both the immediate necessities and future development planning; while Section 4 provides a synthesis of the Models with an emphasis on building public sector capacity for managing complexities at the regional, national and local levels.

2. Background and Review of Literatures: Emerging Challenges and Opportunities for Emerging Economies from the Covid-19 Pandemic

A most known characteristic of emerging economies is their transitioning from the "developing" to the "developed" phase. Other characteristics are market volatility, growth and investment potential, high rates of economic growth and low-middle income per capita relative to other countries (CFI, n.d.). Many African countries have one or more of these characteristics, which indeed put them at an advantage as potential investment destinations. Most particularly, emerging economies are in the process of building. They therefore exhibit the traits of a “developmental state” in international political-economy, which, according to Chalmers Johnson, connotes a strong focus on economic development and taking necessary policy measures to accomplish that objective (Johnson, 1982). In this regard and for the purpose of this study, we generalize that Africa remains an emerging economy – one group projected to have an upper advantage of reaping some benefits of the ruptures in the global supply chain in the aftermath of the COVID-19 pandemic. An ample amount of studies point to the fact that, despite looming challenges, there are unique opportunities for emerging economies in international trade and that the timing is perfect for developing nations to improve their production bases (Kumar, 2020; Deutsche Welle, n.d.; ITU-D, 2020).

2.1: Impact and Imports for Africa

Of a truth, Africa’s over-reliance on importation and the band wagon effect of early lockdown caused many African country to suffer as early also the negative effects of the halt in the global supply chains and the inherent economic situation. In the advent of the first wave, there were notions that Africa would be pushed to its first recession in over two decades (AfDB, 2020; UNWFP, 2020). However, “as many multinational corporations are reviewing their strong dependence on production in Asia, notably China, and aim to diversify supply chains”(Deutsche Welle, 2020), African countries stand to gain. The predictions that Africa can get out lightly of the health and economic challenges are therefore more or less becoming a reality and the forecasts that the continent could leverage on the crisis to become a new player in the game of globalized production could work if deliberate attempts are made internally to harness the advantages. According to the “Telecommunication Development Sector” (ITU-D), the COVID-19 pandemic “demonstrated the increasing importance of digital technology worldwide to responding effectively to crises and planning for recovery, and therefore also has

the potential to accelerate the continent's digital transformation and to create decent and resilient digital jobs in Africa”(ITU-D, 2020).

Also worthy of note is that companies in Europe are experiencing supply bottlenecks already with shortage slowing down production output. For example, many German firms are in a "process of repositioning themselves" in the globalized markets for upstream products. This could finally lead to a relocation [of production] away from China and India"(Deutsche Welle, n.d). While admitting that Africa have so far played a very small role in the strategies of German machine and equipment manufacturers, the COVID-19 may mark the beginning of a shift from this status-quo (Deutsche Welle, n.d).

The COVID-19 pandemic is indeed causing significant adverse impact on the global economy but overall, the pandemic impact in most African countries are mainly through their linkages with the global economy, particularly in trade. Thus, a drop in world demand and the resultant commodity price drops, affected production and export performance of African countries more than did their own COVID-19 control measures. Let's take the example of the East African region with effects evident on industries such as aviation, tourism agriculture, and manufacturing. In Kenya, the GDP growth in 2020 is now projected at 1% from 5.7% due to the gravity of the pandemic; with a visible decline in tourism activity, export revenues, and a disruption in the supply chain. Ethiopia is expected to grapple with high unemployment and GDP growth has been revised to 3.2% from 6.2% in 2020 (Deloitte, 2020). Similarly, the outlooks in Tanzania and Uganda show a similar trend with GDP growth being revised to 2% and 3.5% respectively. Tanzania is showing waning demand for mineral exports considering global supply chain interruptions. The economy in Uganda is also faced with the disruption of supply chains and weakened global demand for goods (ITU-D, 2020).

The COVID-19 crisis for emerging economies of Africa, in summary, shows:

- The weakness of the economies' strong reliance on importation of finished products which connotes that the disruptions of the global supply chain has been felt by several sectors;
- That these constraints led to loss of foreign exchange, wealth and other socio-economic impacts linked to;
- The inability of African States to provide adequate economic stimulus like the developed countries
- Lastly that reports of chaotic situations which reveal a lack of public confidence in governments for basic provisions to the population during the depicts a lack of public sector capacity to manage complexities. This starts with seeming paralysis of the system in the face of multi-channel development challenges and rendered complicated by exigences of ad-hoc and rapid response in such extreme and intense crisis situation.

These therefore call for urgency in seeking innovation to mitigate some of the grey areas. As such, Africa could do more than bouncing back from the crisis, to becoming a major player in the global supply value chain by leveraging on its strengths in the post COVID-19 dispensation.

2.2: An Opportunity to Consolidate and Rise from the Ashes?

As earlier expressed, the Global Supply Chain disruption put Africa in a strategic position during and Post-COVID-19. The fact that the pandemic has limited health consequences in African countries allows for concentrations on economic repairs and innovation. Secondly, the abundance of raw materials, robust expanse of arid lands for agriculture crude and under explored manpower are inherent opportunities for striving green

economy and digital exploration. Then the consequences of the supply chain disruption led to more people and industries looking to find alternatives in locally-made and substitute products. This induces a positive stimulus for the transformative industries to build their capacities for the production of substitute products which have now gained fresh markets.

Whereas intra-African trade is still low, it is clear that developing countries have very lucrative opportunities in the field of trade in the coming post-COVID-19 world. For instance in 2019, the value of merchandise exports of Sub-Saharan Africa increased by 4.0 percent to reach 342.4 bln US\$ and its imports reached 366.2 bln US\$ which was an increase by 7.4 percent. The merchandise trade balance recorded a deficit of 23.8 bln US\$ in 2019 as compared to a deficit of 11.9 bln US\$ in 2018. Sub-Saharan Africa's intra-regional total trade amounted to 122.6 bln US\$, that is 19.4 percent of total exports and 15.3 percent of total imports. Merchandise main exports destinations were Europe (28.6 percent of total exports), Eastern Asia (20.8 percent), and Southern Asia (10.4 percent). The main origins of imports were in Europe (29.2 percent of total imports), Eastern Asia (23.0 percent), and Western Asia and Northern Africa (10.7 percent) (UN COMTRADE, 2019). Many factors could contribute to the low trade performance, including the economic structure of African countries, which constrains the supply of diversified products, poor institutional policies, poor infrastructure, weak financial and capital markets, political instability, insecurity in several regions and intra-African trade barriers.

Ironically, opportunities for stimulation of the manufacturing sector through the instant development of crafted goods safety masks, gel and bottles for hydroalcoholic solutions have surged due to the constrained access to transformed goods. The crisis therefore opened the way for extensive local markets for textile transformation and food processing as they were instrumental to providing goods that are in short supply due to the halt in importation.

Furthermore, the COVID-19 pandemic came at a time when Africa still struggles to ensure food security for its population and is yet to eradicate malnutrition, hunger and starvation. Africa significantly lags behind other regions in its ability to leverage agri-food trade as a catalyst for economic growth and structural transformation. The COVID-19 pandemic and the ensuing economic disruptions should therefore a fresh beckon to intra-African food trade and market integration to reduce the continent's exposure to shocks due to such crisis in the future. In particular, commitments to harmonizing food trade rules and policies by coordinating policies across Africa's Regional Economic Communities could be a game changer. The recently ratified African Continental Free Trade Agreement (AfCFTA) provides an excellent opportunity if met with targeted action towards intra-Africa and eventually global food market integration.

The fact that Africa as an emerging economy, is in the process of building allows for quick adaptation as there is massive investment already to finance novelties in the digital economy, agriculture and green economy, youth employment and skills development. Countries like, Nigeria, Rwanda, South Africa, Ethiopia, Benin and others, which are already taking the lead in digital transformation, agro-investments and green economy start-ups should be points of reference for a regional level consensus on a way forward. Accelerate digital transformation due to the exigencies of the crisis has allowed almost all African countries, including those which have no massive investment going already, to pilot the digital economy and how it works in products value chain. It cannot be overemphasized that this experience could be employed as a stepping stone to develop local economies, which adopt the strengths of artificial intelligence, big data and e-commerce, while also focusing on how a combination of these could accelerate intra-continental local products' exchange. The succeeding sections focus, respectively, on the methodology and proposed possible combined actions to this end.

3. Methodology – Policy Coherence Over Silos Approach: A Political Economic Model

As emphasized in the introductory sections, this paper attempts to make proposals for the short, medium and long-term strategic options to leverage the opportunities of the COVID-19 situation in given aspects of Africa's economy without neglecting the overwhelming interrelationship between issues and solutions in development management. It also meant to take cognizance of related regional and global development and trade objectives, so as to ensure delivery-as-one. Therefore, the presentation of proposals and recommendations in Section 3 deploys a systems approach with a view to ensuring policy coherent as a political-economic model.

3.1. Traditional Model

According to Dominic Rossi (2013), since the Washington Consensus¹ which espoused liberal economic thinking, most African economies have taken to models with nationalistic tendencies and framed around economic and financial self-sufficiency with four elements: cheap currencies, export-led growth, the accumulation of US dollar reserves and the development of non-US dollar sources of funding, especially via local currency debt markets (Rossi, 2013) This model, common to many emerging economies until recently, for us, contributed to the long battle for regional economic integration and common trade agreement in Africa on one hand.

On the other hand, the traditional silos model in public sector management, spored the lack of coherence between sectors with intertwining issues to solve. Although the silos approach, as in typical organizational setting, help create expertise in different business areas, promote individuality or independence, accountability, and absolute responsibility, and are best used for delivering specific businesses in a larger enterprise, the emergence of omnichannel issues means silos are no longer helping organizations, rather they are hurting them (Maškarić, 2020). To mitigate this hurt, the givens of results-based management and the UN invention of delivery-as-one become vital tools. Solutions to sectoral problems are multichannel. Therefore, the possibility of institutional and individual actors, agencies, including the UN family, duplicating efforts on issues of common interest in different sectors with one not aware of the activities of the other had proved to be waste of time, energy and financial resources. At the same time, non-delivery as one most often hampers end results as ideas useful for the development of many sectors are not adequately shared by those who already have it. In spite of visible remedial actions by the UN and other development agencies since the 1990s, the reality of today's mainstream states agencies' operation, in developing and emerging economies still points to traditional silos approach. This is particularly true for Africa, and this must change.

3.2. "Systems" Approach for Policy Coherence: A Political-Economic Model

The "policy coherence" methodology through the silos approach, as a new political economic model, set the basis for delivery-as-one in the recommendations of this paper.

¹ Washington Consensus is a set of economic policy recommendations for developing countries, and Latin America in particular, that became popular during the 1980s. The term Washington Consensus usually refers to the level of agreement between the International Monetary Fund (IMF), World Bank, and U.S. Department of the Treasury on those policy recommendations. All shared the view, typically labelled neoliberal, that the operation of the free market and the reduction of state involvement were crucial to development in the global South (Stephen R. Hurt, 2007; Encyclopedia Britannica, n.d.).

Contrary to the silos approach, systems approach requires that development problems be viewed within a greater whole, rather than treated in a vacuum. Policy Coherence is self-explanatory. It is similar to the systems approach as an effort to shone the traditional silos by treating issues on their individual strengths but with a strong emphasis on the whole or an assemblage of issues that exert impacts on the society. For example, development goes beyond the GDP to targeting outcomes that matter most to people's lives as a measure of success (Stiglitz et al, 2018). The intertwining nature of challenges as emphasized by the configuration of the SDGs is a long battle that still continues to slow down progress in development effectiveness. The process of policy coherence for development (PCD) – which has evolved in the OECD over the last two decades – has much potential as a global tool for creating the enabling environments and policy processes required by the post-2015 framework.

Policy Coherence is indeed essential for a balanced implementation of SDGs in their interwoven dimensions. It means tackling development challenges in a holistic manner, developing mutually reinforcing policies across all relevant sectors to effectively achieve national sustainable development goals and minimizing the negative impacts that policies in one area can have on policies in another area. Designing coherent and mutually reinforcing policies requires sound institutional arrangements that facilitate policy coordination and integration; quantitative and analytical skills to identify and assess synergies and trade-offs between different policy options; and sound data for evidence-based policies. Most governments face the challenge to develop critical institutional, analytical and statistical capacities for policy coherence(United Nations, n.d.).

To meet the challenge, governments ought to design more effective policies that avoid impacts that adversely affect the development prospects of other countries. At the same time, they need to enhance their capacities to exploit synergies across different policy areas with important cross-border dimensions, such as trade, investment, agriculture, health, education, environment, migration and development co-operation to create environments conducive to development. From this perspective, a coherent policy would be one which enables developing country exports to have greater access to markets, while also helping them boost their export supply capacity. Conversely, an incoherent policy tends to provide official development assistance (ODA) to support a country's agricultural development, while simultaneously blocking their exports and pushing their farmers to compete with subsidize agricultural production. Coherence is precisely a process for integrating the multiple dimensions of development at all stages of policy making, whose main objectives are to: 1) exploit the potential of positive synergies across policies to support development, pursuing win-win situations and mutual benefits; 2) increase governments' capacities to balance divergent policy objectives, and help them to reconcile domestic policy objectives with broader international or global objectives; and 3) avoid or minimize the negative side-effects and impacts of policies on development(OECD, 2015).

Many countries in Africa are still battling with institutional and administrative mechanisms as well as knowledge and human capacities to ensure delivery as one – that is movement from the silos approach to policy coherence. This creates vacuums, resource wastage and lack of effectiveness and results. A consciousness on the need to apply systems approach for policy coherence is an urgency and in essence a *cine qua non* condition for development results - hence our emphasis on its adoption as a methodology for the futuristic proposals of this paper.

4. Strategic Recommendations: Supporting Mechanisms for Improved Government Capacities for Local Production Towards Intra-African Trade And Commodities' Exchange

In the light of the research objectives, the main question of “how” Africa can bounce back stronger in the face of disruptions in the global supply chain, has one common answer across the identified sectors of intervention: support for mechanisms to improve governments capacities for local production towards effective intra-African trade and commodity exchange. The voices that believe Africa can play a role in the global supply chain notwithstanding, we hinge our focus first on the intra-continental capacity, which would serve as the basis for long-term global relevance. This leads to the second “how” of possible scenarios for “innovating to improve local production in the transformative industries and alternative to importations, starting from those products directly related to coping with the health crisis.

It cannot be overemphasized that each country across the region have responded to the pandemic through social and health-related measures and the fiscal and monetary interventions introduced to safeguard the economy were registered across board, but are considered inadequate for both the short, medium and long term remedies. Therefore, in consistence with the research methodology, we propose below three (3) Quaternal Models, to answer the most pertinent question of what else to do differently?

4.1. Quaternal Model 1: Local capacity for small and medium scale agricultural production and transformation value chain (by exploring green {off-grid} energy, the digital economy and youth employment and skills development).

Investment in value chain creation requires thinking about all the inter-related sub-businesses. In this model, we focus on food transformation along agro-investment, small and medium scale farming and packaging of products, which is also related to goods transformation or providing backbone for logistic platforms. Encouraging local investment with the creation of network of business actors as a necessary tool to stimulate further emerging business outlets out of the crisis. Network aims to offer financial support, experience and coaching to support small companies or start-ups take their ideas to the next stage.

Agriculture has always been the mainstay for Africa’s economy. Regardless of the Dutch disease and focus on oil-based economy in most parts, as well as weaknesses of the sector in many countries, the agro-industry still accounts for about 65% of employment and 35% of gross domestic product (GDP). In West Africa for instance, agriculture employs 60% of the labor force. While 80% percent of 10.3 million people in the Republic of Benin, precisely, earn a living from agriculture while three-quarters of Mali’s 15.3 million population rely on agriculture for their food and income (FAO, n.d.). Nigeria, the largest economy in Africa, has around 40% of its total work force in the agriculture sector - which means that upon heavy dependent on oil revenue, agriculture is still the largest employer of labour in the country. These translate to the fact that agriculture employs more than half of the Africa’s labour force (IMF, 2012). Within the rural population, it provides a livelihood for multitudes of small-scale producers. Smallholder farms constitute approximately 80% of all farms in Sub Saharan Africa and employ about 175 million people directly (AGRA, 2014). In many of the countries, women comprise at least half of the labour force (AGRA, 2014).

Starting from the African Union’s Comprehensive Africa Agriculture Development Program (CAADP), adopted in 2003, there has been an array of policy initiatives by governments, regional and international organizations in developing rural agriculture and modernizing the sector for greater effectiveness. Two recent examples are the West Africa

Agricultural Productivity Program (WAAPP)² and the UN Food and Agriculture Organization's Integrated Production and Pest Management (IPPM) in Africa³. These initiatives have promoted cooperation and generated cooperative collaborations that have influenced national policies towards increased and tailored sector actions.

Despite the present focus on the sector and consciousness to develop it sustainably, there are still challenges and weaknesses that threaten sustainability, including:

- In most African countries, majority of agricultural employees are subsistence farmers, growing crops on small family plots in rural areas, where challenges such as poor infrastructure and natural risks, lack of incentives and pride in the practice, which traditionally contributes to rural-urban migration, and decreasing youth engagement in farming due to movement in search of greener pastures in cities, puts the future of small and medium-scale agriculture at risk (FAO, n.d.).
- Secondly, women that are known to grow 80 per cent of food produced in Africa suffer challenges that call for improvement in their conditions, such as the fact that only few are allowed to own the land they work; difficulty in gaining access to information and technology, resources and credit and the general biases of Agricultural extension and formal financial institutions towards a male clientele despite women's importance as producers (UNU, 1983).
- Thirdly, are the challenges associated with agricultural product transformation and processing. One of the reasons why small and medium scale agriculture is less profitable is the inability to preserve products beyond the harvest season. By these products are undersold during high (harvest) season with a lot of them products wasted.
- The fourth challenge is the fact that Africa's young population (over 70% below 30 years) are before recent not fully integrated in the scheme of agro business. In this regard one of the regional challenges, as expressed by the AfDB is to attract young people to the industry. Rural urban migration and the lack of proper motivation and remuneration in the industry all contribute to this situation.
- The fifth and last is the obvious impact of the COVID-19 pandemic on the industry. It has been established that although all sectors of the economy are expected to be adversely affected by the COVID-19 crisis, agricultural workers, in particular, are among the most vulnerable. Before the COVID-19 outbreak, 135 million people, the majority of them in Africa, were already experiencing hunger that threatened their lives and livelihood-and this number is projected to double by the end of 2020 due to the coronavirus pandemic (AfDB, 2020).

From the afore-analysis, it cannot be overstressed that the agricultural industry has the potential of placing African in an advantaged position in global commodity and food market. However, the challenges persist and have been rendered complicated by the COVID-19 situation.

Of recent, in addition to the action of governments and regional organisations, there has been a proliferation of agritech startups that tend to bring impetus to drawing the young population to the industry and at the same time increase the volume of investment, while allowing small and medium scale farmers to have access to digital platform for management.

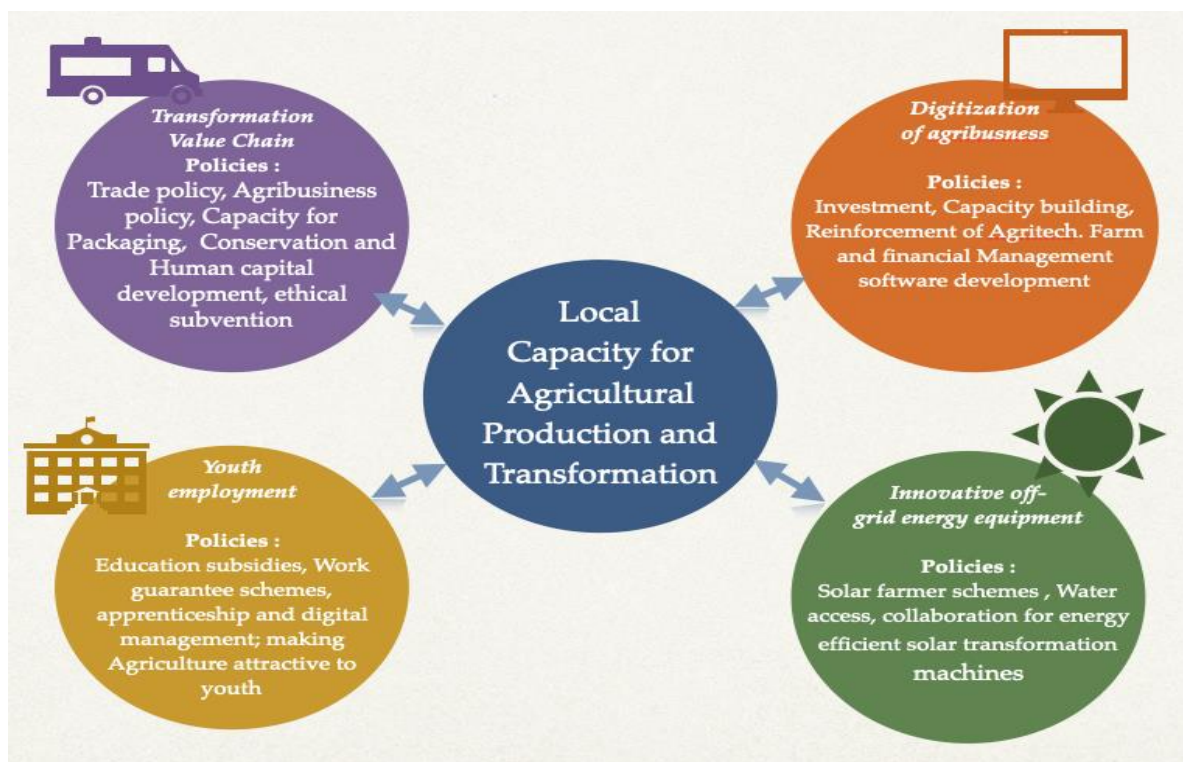
² WAAP is a multi-year programme, aimed at transforming the West African agriculture by boosting productivity and sustainability, reducing hunger and improving nutrition, creating jobs and supporting collaboration across borders. WAAPP works, inter alia, with scientists, researchers, extension workers and farmers to: Innovate, generate, disseminate and adopt improved technologies..

³ The Integrated Production and Pest Management (IPPM) programme in Africa works with small-farming communities to, inter alia, improve productivity and livelihoods through environmentally sustainable practices. <http://www.fao.org/agriculture/ippm/projects/regional/gcp-raf-482-ec/en/>

It is difficult to account for the number of agricultural related digital platform. There are already hundreds of such going regionally (Raithatha, 2020). According to Seedstars (2020), Kenya and Nigeria dominate the agritech market at the moment, with Ghana third. These three countries alone account for more than 60 percent of the active agritech startups in Africa.

While it is important that this forward-looking trend spread to every part of Africa, the FAO suggests that one additional strategy is needed to blur the boundaries between different sectors. “Digitization is not just an agricultural issue, or a technological one. It involves many parts of the economy. Hence, digitization must be situated within a broader development and poverty reduction agenda (FAO, 2019). It suffices to add that a consortium of action and actors working simultaneously to link food transformation to equipment that address environmental problems through the deployment of off-grid energy to power the process is one example. Development of education form enhanced accounting and management for rural smallholder farmers will not only reverse the tendencies of the crisis but are long-term goals that will improve the sector’s effectiveness. Bits and pieces of private initiatives traditionally exists with less regulatory measures that harness the diverse sectors. A most innovative solution must therefore emanate from public sector capacity to manage this complexity as represented in the chart below.

Quaternal Model 1: Local capacity for small and medium scale agricultural production and transformation value chain



4.2. Quaternal Model 2: Local Capacity to Reinforce National Supply Chain (through the Digital Economy, Green Economy, Transformative Industries {manufacturing}, Youth Employment and Skills Development)

From the onset, it should be clear that most of the elements found in Model 1 are repeated here in Model 2. This shows the magnitude of the intertwining or complexity of challenges which also calls for intertwined solution. Here, therefore, we dwell on the cross-

cutting need of how Africa should reinforce and take advantage of the digital and green economy, including the strengths of artificial intelligence, big data, e-commerce with Youth Employment and Skills Development to develop, the supply chain industry locally.

As mentioned above, the fact that Africa has a massive young population calls for massive investment in human capital to transform the situation to great opportunity. In this regard, it is important that the youth are trained for enhanced digital skills, access to markets, networks, finance, information, voice and representation in the development of green economy young as part of governments' initiatives in skills development towards the development of the supply sector. As such, they can benefit from and contribute to their countries' digital transformation to meet the sudden surge in demand for online marketing, e-commerce, delivery, and software development for products' marketing and distribution as well as long-term development in this regard. Ultimately, COVID-19 reinforced the need to create more decent jobs and employment as numerous were lost, particularly in the informal sector.

Training in programming for artificial intelligence and big data is in essence necessary to develop products transformation and treatment of environmental related challenges. The pandemic situation also open vast opportunities in this respect as the flow of products from the global supply chain suddenly which stopped the flow of certain essential materials and commodities, whose capacity to produce and distribute now have to be done locally. As efforts to fill this gap continues, efforts towards solving local supply chain will encompass, investments in youth employment and development of digital skills for the most pressing sectors like agriculture, textile, environmental management and e-commerce and online marketing.

It is therefore recommended that African central banks, like in other parts of the world, must play a role in providing an enabling environment. Policymakers need to rethink their role as they must become catalysts of employment through incentives for investments in innovation and industrialization (Manlan, 2020) through:

- Resilient economic policies that addresses youth employment and skills development: Country could focus on stimulating labour demand with job creation and entrepreneurship opportunities in the digital economy. Boosting labour demand depends upon the presence of an enabling business environment where firms and young entrepreneurs can thrive.
- Labour supply with investments in youth digital skills: A labour force equipped for not only today's but tomorrow's labour market is a win-win for governments, social actors, private sector, industry and the youth itself. Policymakers should focus on developing policies that strengthen the supply of demand-driven skills in the digital and green economies. In addition, there should be improvements in the quality and focus of skills development interventions in terms of curriculum development, teaching and training settings. The design and delivery of digital skills development interventions should also target different youth groups through local partnerships and grassroot collaborations.
- Labour intermediation through preparing public and private employment services for the digital era, addressing the skills mismatches and sharing of information and good practices among countries . A key should be enabling of employment agencies to adapt to and pilot new technologies and digital platforms, so as to understand what the changing needs are for specific skills and identify customized opportunities for enlisted youths (ITU-D, n.d.).

Quaternal Model 2: Local Capacity for National Supply Chain Development



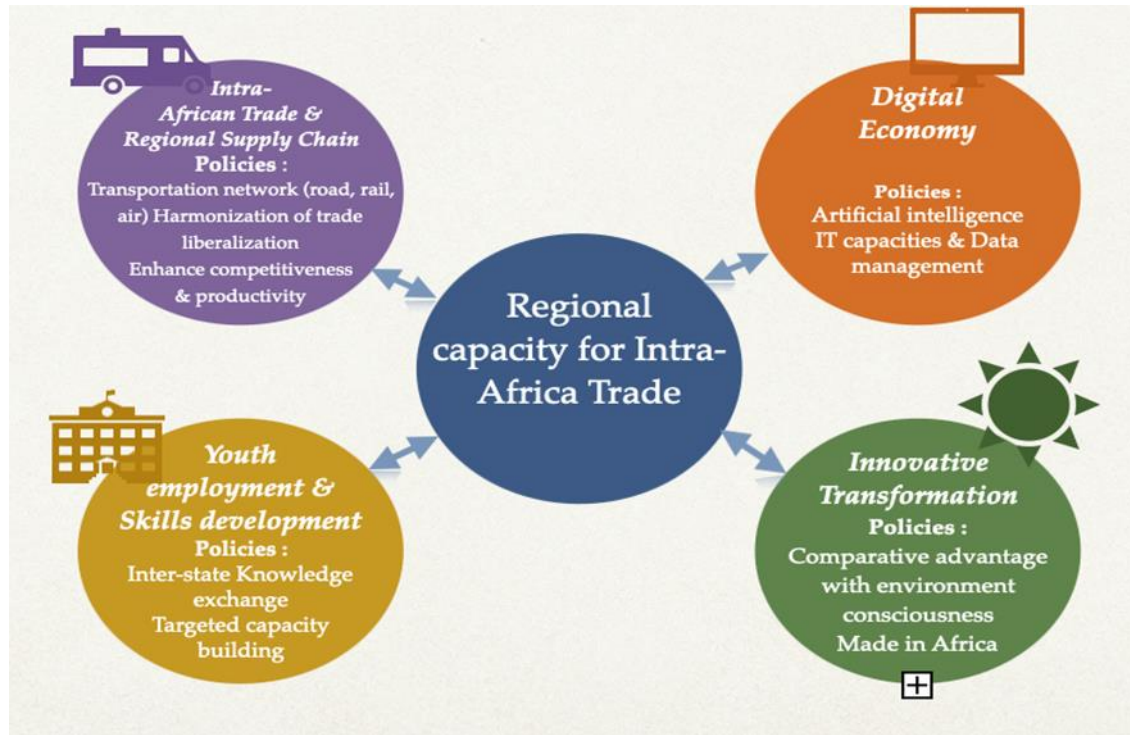
4.3. Quaternal Model 3: Regional Capacity for Enhancing Intra-African Trade and Supply Chain (by reinforcing the Digital Economy, Youth Employment and Skills Development, and the Transformation and Transportation Industries)

The Agreement establishing the African Continental Free Trade Area (AfCFTA) entered into force on 30 May 2019. Trading under the AfCFTA Agreement was due to commence on 1 July 2020, but as a result of the COVID-19 global pandemic, this date has been postponed, but there are indications that the new date for operationalization is 1 January 2021 (TTLC, 2020)

Whilst this is on the way, we submit that the advent of COVID-19 is an impetus for accelerating the effectiveness of the agreement as the crisis and the attending break in the global supply chain causes Africa to look inward.

Given that the main objectives of the AfCFTA are to create a single continental market for goods and services, with free movement of business persons and investments, thus paving the way for accelerating the establishment of the Customs Union; expand intra-African trade through better harmonization and coordination of trade liberalization ; and enhancing competitiveness at the industry and enterprise level through exploitation of opportunities for scale production, continental market access and better reallocation of resources (TTLC, 2020).

Quaternal Model: 3 Regional Capacity for Enhancing Intra-African Trade and Supply Chain



Achieving these objectives requires coherence across business, trade, financial, banking and other sectors. However, we limit the focus in this studies to the four fold sectors of digital economy, youth employment and skills development and the transformation and transportation sectors. Earlier models dealt with the local capacities and in-country capacities, which are believed to be basis for production readiness, when the door is open for the trade area. To achieve the case of readiness for the opportunities provided by the free trade agreement, then following are necessary at the regional level.

- Policies that allow for African production to meet African consumption at minimum. These strategies must be able to meet local demand at first (reason why model 1 and 2 focus on local capacities) while targeting regionally and continental markets a change in the supply chain requires a significant increase in productivity and supplemental capacity to transform locally and produce for 1.3 billion people in Africa (Manlan, 2020). Reinforcing agrobusiness and the transformation industries with good incentives to states will be of good help in this regard.
- The upholding of “comparative advantage cannot be overemphasized when dealing with inter-state exchange. While building the capacities for intra-African trade, regional facilitation of knowledge exchange should be intensified for countries to focus on products where they have comparative advantage
- Alexander Demissie sees Egypt playing a larger role in manufacturing generic drugs and medicines for the African market, with ties to European distributors also expected

to strengthen, while it is clear that other countries will do better in agritech and others in textile and automobile export. Countries like South Africa, Rwanda and Nigeria could take the lead in Africa's automobile industry, as they already either assemble cars for German manufacturers and local markets alike with production sites already well-established (Manlan, 2020). Business leaders across the continent should review strategies, and take a closer look at the opportunities opening up on the continent as "Industrial value chains for "made in Africa" could be a brand-new issue, and developing a fresh dynamic in post-coronavirus times is required (Deutsche Welle, n.d.).

- Lastly, developing African supply chain network would require innovation in transport network and related services, here again, skills development in youth to include artificial intelligence, IT capacities for data management and engineering will be required. Building of roads network also necessitates environmental consciousness and energy efficiency? Although this seems a long term-goal, the reality of COVID-19 has further open our eyes to this possibilities, hence the need to consider investment, from the onset, towards the four-fold sectoral combined efforts.

5. Synthesis: Managing Complexities and Policy Coherence

The three aforementioned models further portray the complexities, intertwining and interrelations of action and process require to achieve the set objectives. Despite having four major sectoral linkages, as well as other related ones that are not mentioned, also flow into each other. Not only this, Model one, two and three, despite serving as prerequisite for achieving the supply chain at the local and regional level, also represent a hierarchy of cross-cutting prerequisites. In other words, the paper proposed three (3) sequential policy actions with a view to achieving:

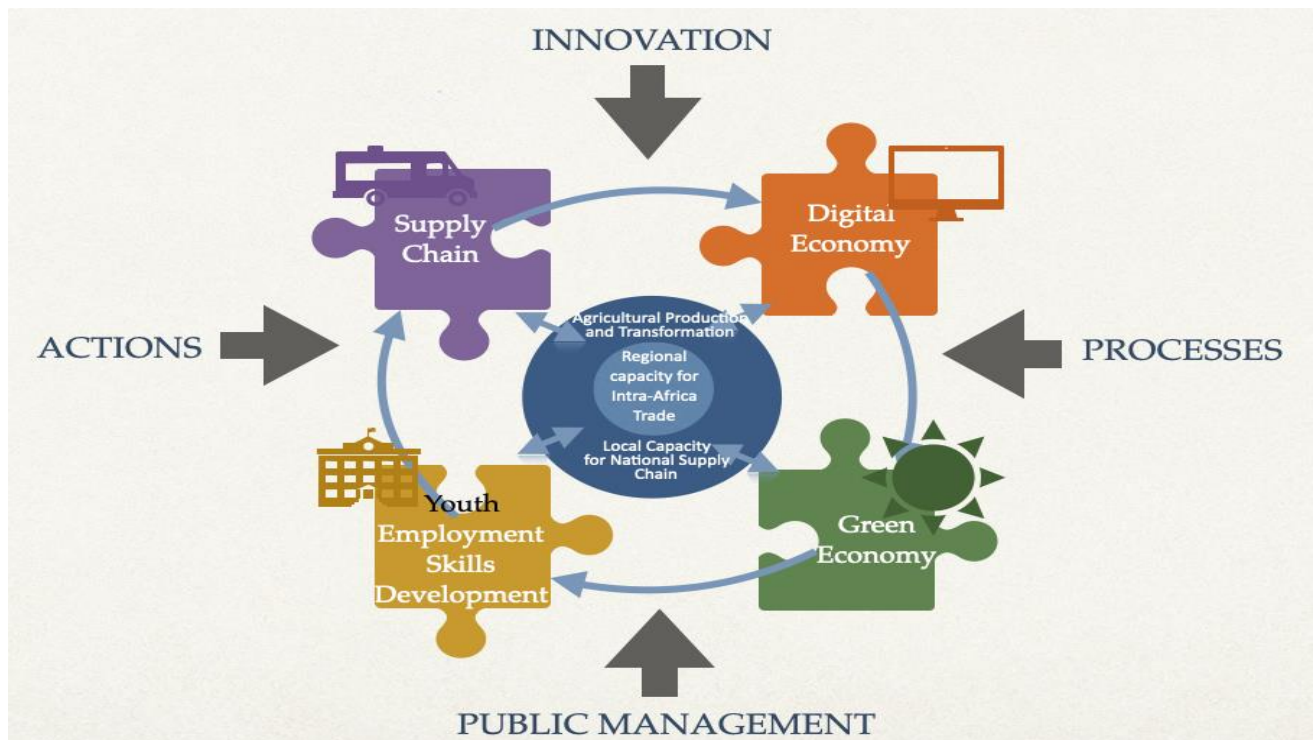
- 1) Local capacities for enhancing small and medium scale agriculture production transformation and distribution.
- 2) Local capacities to reinforce National supply chains in agriculture and transformative industries; and
- 3) Regional capacities for the transformation and transportation to enhance supply chain at the regional level to facilitate effective intra Africa trade with the hope that the AfCTA will serve as a catalyst.

Worthy of note is that:

- 1) Sequential means Models 1 and 2 are necessary to achieve Model 3, while all three models are intertwined and actions must be both simultaneous and mutually reinforcing. This highlights local capacities as prerequisite for regional capacities, while at the same time, action at each levels have a way of solving others as the case may be.
- 2) The sector to focus on and the elements to consider appear in two or more times in all the three Models (emphasising policy coherence).

It must be stressed that individual challenges exist, but in solving them, the "Systems" approach dictates that we consider individual cases still separately while keeping an eye the whole or assemblage of issues to be treated with elements that constitutes solutions appearing several times

A chart representing this situation resembles the following:



Managing such complexities indeed requires innovation and public management awareness of the anticipation and methods that surpass traditional planning and administrative procedures. The tracking of the Agenda 2030 for Sustainable Development and the African Union Agenda 2063 recognize the need for coherence in the results framework as laid down in the proposals. A starting point demands that we :

- Ensure that the interactions among various policies in the economic, social, environmental, legal and political domains support countries on their pathway towards inclusive sustainable growth;
- Put in place institutional mechanisms, processes, and tools to produce effective, efficient, sustainable and coherent policies in all sectors;
- Develop evidence-based analysis, sound data and reliable indicators to inform decision making and help translate political commitments into practice; and
- Foster multi-stakeholder policy dialogue to identify the barriers to, and the catalysts for change

Most importantly, the pandemic situation has revealed a weakness in our use of scenario, planning and design thinking and the way we anticipate the future. These traditional measures emphasize preparedness and a seemingly arrogance that with some anticipated action, we can have the future under control. A pandemic situation as the COVID-19 proved otherwise as seen all over the world. It is therefore necessary to look into alternative and innovative approach, some of which could be found in the novel discipline of futures literacy, scenario building and design thinking in public policy.

5. Conclusion

Despite the economic challenges it portends, the COVID-19 crisis opens a pathway of opportunities for Africa opportunities to rethink its future aspirations for economic independence and emergence. As a composition of emerging economies, the rupture in the global supply chain that is a major consequence of the crisis, is indeed an avenue to foster

innovation for local production and reinforcement of intra-African trade, as well as becoming a major player in global trade in the long run.

For this to happen, a combination of action that address issues in strategic sectors matching some identified openings, such as development of the digital economy, intensification of the agro industry, renewed youth employment and skills, as well as green economy and ingredients necessary to consolidate the global and regional development goals and the Africa Continental Free Trade area are pertinent.

In the past fifty years, more than \$1 trillion in development-related aid and assistance have been transferred from rich countries to Africa. This answer to the question of whether the assistance has improved the lives of Africans is still debatable. However, a way forward underdevelopment predicament switching the power balance given present observations and post COVID-19 predictions.

If innovation for local production are accelerated to meet the commencement of the African Continental Free Trade Area agreement, there is no doubt a significant opportunity for internal demand for goods and services to reduce imports and improve Africa's balance of payments. The surge in domestic resources to fight COVID-19 means that Africans can finance their own transformation. It is hoped that the three quaternal models proposed by work could be a leverage for ensuring effective short and long term development policies, that would not only ease the burden of the health crisis but render Africa a truly competitive economy in the global scheme of affairs.

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