A New Industrialisation is the Strategy for Africa's Social Economic Dynamism?

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Introduction

A new industrialisation is the strategy for Africa's social economic dynamism. Africa needs broad based industrialisation that will restructure its enclave economies. The new industrialisation is being propelled by brand of resilient entrepreneur who are slowly making inroads into extractive, import substituting, informal sector and export processing. These entrepreneurs should be seen as the most logical solution to Africa's social and economic crisis that is hinged upon justice in the management and control of land, minerals, agricultural and other natural resources.

The Africa 'problem' which often comes to the open in violence and conflict may be attributed to many factors but the domination of management and control of natural resources by the political class which co-opts industrialists and experts at its own convenience could be a leading cause. Subsequently, a large majority of Africa's population has been excluded from the economy and express dissatisfaction in many ways (Obi, 2006; Nafziger and Auvinen, 2002; Mhone, 2001; Mhone; 2000). A new broad based industrialisation will address the social and spatial concentrations of wealth and enlarge the latitude of accumulation. However, for this to take place there is need for paradigm shift which will involve recognition of entrepreneurs, rationalisation of technology, trans-cultural education and rationalisation of investment in human capital.

The origins of a socially and spatially concentrated economy

The colonial political class based in Europe initiated a socially and spatially concentrated economy in Africa. Social concentrations of wealth in Africa are in the elite and the political class or across gender while un-even regional development between rural and urban spaces, mining towns, high agricultural potential areas and tourist centres reflect the spatial concentrations of wealth. The economy was based on mining, agriculture and animal ranching with very limited manufacturing. The economy was controlled and managed through laws and regulations that blocked the Africans (referred to as natives) from being active participants in the national economies rather than being suppliers of labour or in the case of Kenya they were allowed to do businesses that constituted native businesses or peasant agriculture. The native businesses and peasant agriculture geared towards the satisfaction of survival instincts. Survival instincts were very basic and meant growing grains, beans, bananas inter-cropped with root crops such as cassava, yams and sweet potatoes.

Periodic markets were akin to Africa and were promoted to serve as the commercial link between the enclave economy and the African economy. Africans would exchange their farm products as they did in the early caravan trade or in the Sofala gold trade in the periodic markets. They would sell traditional foodstuffs to mine workers and other natives who were working in offices and trade houses. Asian immigrants in Eastern Africa and South African and Lebanese in West Africa were mediated between 'native' and settler commerce. They set up shops where soap, sugar, salt, blankets and dress materials were sold to the natives.

Native business and the settler business evolved in distinct spaces supported by different policies¹. The settler businesses were concentrated in geographically distinct spaces such as the Copper Belt in Zambia, highlands of Kenya and the Katanga Mines. Physical and social infrastructure that facilitated the spread of settlers' businesses was concentrated in these areas. The best road, railway, telephone and electricity networks were developed in these centres. This applied to social infrastructure such as schools, hospitals and leisure facilities.

At independence, the challenge was therefore to create national economies by integrating the native economy and the settler economy. Different countries adopted different strategies surprisingly with support from their former colonizers. Colonizers were transformed into benefactors. They supplied financial capital, and knowledge experts who designed and run the new economies. The dynamics involved in this transformation perhaps constitutes the very basis of the African problem. The decision

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¹ For more detailed information on the enclave economy see Mhone (2000, 2001) compare with Talbolt (1990), Maxon (2002).

for government development agencies such the Development financial Corporations, Agricultural Financial Corporations, Industrial Development Corporations to finance industry and setting of parastatals to take over the responsibility of running the economy rather private enterprise could be explained in many ways. On one end there was an indomitable lack of entrepreneurialism and financial capital among the general population hence the government filled this vacuum. Some scholars have argued that government corporations were synonymous with local control of the economy against the imperialist control of foreign firms (Clark, 1987). It could also be viewed as an effort to create a balance between socialist planned economies and capitalist ones which was also largely flavoured with African socialism. Essentially, the governments were acting on behalf of the people who were yet to be initiated into modernity. But post colonial state analysists tend to argue that African elite influenced by Western countries and institutions have stymied the industrialisation and encouraged an exportoriented where inter-African trade is marginalized.

It is plausible to argue that the state corporation and the African elite contributed to the demise of the African economy. But it is important to go beyond the analysis and suggest conciliatory methods of the emerging dynamism in African economies by looking to new patterns of industrialisation that are occurring in the post colonial economy from all levels and are challenging the traditional industrialists. Workers laid off by companies started their own businesses that are now offering stiff competition to their former employers². In the not too distant past Moi Avenue, was the centre for retail clothing shops today the shops are gradually being replaced by exhibitions that are housing small scale dress traders (Kinyanjui, 2005) while Campbell (2006) reports a form of economic globalization taking place from below by transnational refugee trade network.

The state of industry

The four dominant types of industrialisation in Africa: import substitution, extractive first stage processing, export processing and the informal sector³.industry does contribute a significant proportion to African countries GDP as shown by Table1. Although, in some cases industry includes mining like in the case of Botswana where industry accounts for nearly half of its GDP (51.1%), industry does account for relatively high proportions of GDP in the following countries: Nigeria (53.3%), Mauritius (25%), South Africa (27%), Egypt (41%) and Algeria (61%). But the proportions are comparatively low compared to those of other sectors. Striking a balance in the sources of GDP is perhaps the issue. The over reliance on agriculture on one end or services on the other could be the main source of problems of Africa's social economic crisis.

Table Industries Contribution to GDP of	Table Industries Contribution to GDP of selected African Countries						
Country	GDP (\$ 2007)						
Algeria	125.9 billion						
	Agriculture 8.1%						
	Industry 61%						
	Services 30.9%						
Egypt	127.9 billion						
	Agriculture 13.8%						
	Industry 41.1%						
	Services 45.1%						
Kenya	29.5 billion						

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² See the story of weighing scale makers in Kariobangi light industries in McCormick, Mitullah and Kinyanjui, 2005). It would also be interesting to find out the origins of the workers and entrepreneurs running the so called successful indigenous banks, insurance, transport and construction companies which have put established companies on their toes.

³ Informal sector is usually not shown in government statistics

	T
	Agriculture 13.8%
	Industry 16.7%
	Services 59.5%
Tanzania	14.11 billion
	Agriculture 23.8%
	Industry 18.4%
	Services 38.7%
Uganda	11.14 billion
	Agriculture 30.2%
	Industry 24.7%
	Services 45%
Ghana	14.89 billion
	Agriculture 56%
	Industry 15%
	Services 29%
Nigeria	126.7billion
	Agriculture 17.6
	Industry 53.1%
	Services 29.3%
Senegal	11.1 billion
	Agriculture 13.1%
	Industry 20.6%
	Services 66.3%
South Africa	274.5 billion
	Agriculture 2.2%
	Industry 27%
	Services 70.9%
Botswana	11.35 billion
	Agriculture 1.6%
	Industry 51.5%
	Services 46.9%
	22.1200
Mozambique	8.13 billion
	Agriculture 23.1%
	Industry 30%
	Services 46%
	56111665 1070
Mauritius	7.03 billion
1. AMORITHMO	Agriculture 4.8%
	Industry 25 %
	Services 70.2%
	DCI VICCS 70.270
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Source: CIA World Factbook

At the moment both the extractive and service sector rely on external world for their survival (Table. 2). Nearly all the countries import more than they export. The only possibility of addressing the trade imbalance is through industrialisation. Some of the products contained in the import baskets of these countries such as foodstuffs, textiles, beverages, chemicals and consumer products can actually be produced locally.

Table 2. Import and export p	atterns of selected countries in	Africa.(2007)
Country	Imports US\$	Exports US\$
Algeria	26.08 billions (capital	63.3 billion (petroleum,
	goods, foodstuff)	gas, oil,
Egypt	27.42 billions (metal	` '
	products, chemicals	textiles
	foodstuff)	
Kenya	7.60 billions (tea,	3.60billons (machinery,
	horticulture coffee, nuts)	transport equipment, iron,
		plastics)
Tanzania	4.59 billions (gold, coffee,	2.11billions (machinery,
	cashew nut	transport equipment, iron,
**	2.72	plastics)
Uganda	2.72 billions(cotton,	1.45 billions (medical
	flowers, coffee, fish, tea)	supplies, cereals, capital
CI	0.071.31.	equipment)
Ghana	8.07 billions	4.19 billions
Nigeria	30.35 billions (minerals,	61.81 billions (machinery,
Canagal	tuna	food) 1.72 billions (food
Senegal	3.67 billions (fish, ground nuts)	
South Africa	76.59 billions (Minerals)	,beverages) 71.52 billions (machinery,
South Africa	70.39 difficilis (Wifferals)	chemicals)
Botswana	2.76 billions (diamonds,	4.79 billions (foodstuff,
Dotswana	meat)	machinery
Mozambique	3.02 billion (aluminium,	2.73 billion (foodstuff,
	prawns)	machinery)
Mauritius	3.6 billion (clothing, sugar,	2.47 billion (machinery,
	flowers)	equipment, fuel)

Source: CIA World Factbook 2007

The issue of African industrialisation and trade has been debated over and over and resolutions made. Equally a large body of literature on effect of emerging global powers- China and India on export oriented manufacturing in Africa and new international trade patterns is on the increase (Kaplinsky and Morris, 2008; Kaplinsky and Morris, 2006; Gibbon, 2003). There are also works that are providing hope that globalisation will work for the global society (Stiglitz, 2006). However, a plausible question is: does Africa still want to continue being imaged and visioned in the global economic and social arena in the same way? In my view, the answer to this question is no but whatever options Africa takes for changing the scenario a new industrialisation should be part of the package.

How can Africa industrialise?

Empirical studies on industrialisation in Africa have documented fundamental problems experienced with industry in Africa and its poor performance (see Riddel, 1990; Bennell, 1998; Bigsten 1995; Kanyenze 1994; Young 1992; Warr 1989, Kapunda, 2005). The fragile nature of industries in Africa was also revealed by the marked de-industrialisation that took place during the sstructural adjustment period in the 1990s. As a result, job losses in the manufacturing sector were reported in several African countries (Mutibwa 1992; Mkenda 2005; UNCTAD 2002;). The fragility of the industry is further explained by indomitable presence of fragmented business systems (Pedersen and McCormick 1999) and weak institutions affects industrialisation (Kimuyu 2000; Fafchamps 1999).

However, New industrialisation should be the rallying call for the next decade in the new millennium. She can industrialise by enhancing and deepening her mix of four models of industrialisation. These are: (i) extractive final stage processing, (ii) import substitution, (iii) export processing, and (iv) informal production systems popularly referred to as the informal sector. These models of industrialisation are not new. They were initiated during the colonial period when Africa was integrated into international capitalism. International trade was the main form of interaction between Africa and the mother countries. Trade evolved around an artificially created division of labour where Africa supposedly specialised in natural resources while the mother countries specialised in the production of manufactured goods. Under this arrangement, Africa traded in natural raw materials while mother countries exported manufactured products to Africa. Very limited manufacturing took place in the continent while this international division of labour existed.

After the Second World War, this unfair balance of trade started to change. The need to start local manufacturing of previously imported products was felt. This process of industrialisation was known as import substitution. Globalisation, the integration and interlocking of the world economy opened up another avenue for Africa's industrialisation in the 1990s. This form of manufacturing involved the setting up of export processing zones and free trade zones whereby factories manufactured goods for export. As policy-induced industrialisation took root, micro and small businesses that combined indigenous and western methods of production emerged. These are referred to as informal production systems.

Extractive first-stage processing

Extractive first-stage processing is the oldest form of industrialisation in Africa. Extractive industry processing was based on the comparative advantage principle that the continent is rich in resources but lacks technology and capital. Thus, it should fund enterprises that use low level of technology to process natural products before exports. The extractive industries were founded during the colonial days. They include palm oil, cocoa, tea, coffee, and mineral processing industries. The oil industry is the latest addition to this category of industries.

Primary exports from Africa to developed countries run into billions of shillings. These commodities are exported in raw state, or after first-stage processing and are subject to price fluctuations. It is often argued that demand for primary commodities is price inelastic; meaning that production and export expansion will depress world prices and hence reduce export revenues. However, not all exports have low elasticity of demand (Leighton, 1980).

Extractive processing of primary commodities, like most raw materials such as cocoa, is not taxed on entry to G-8 countries unless it is processed into the next ingredient stage, e.g. butter, powder or cocoa beans. In this sense the traditional call for 'value addition' at source has not been realized on any

scale⁴. Cocoa, a strictly tropical crop, is not grown in the European Union or the USA, so there is no direct subsidized competition. However, chocolate and, by default, cocoa are sensitive to sugar and milk trade policies. These latter ingredients far outweigh the cocoa content in a typical chocolate product and are affected by labelling regulations, i.e. when cocoa butter may be substituted for other subsidized and cheaper fats.

Import substitution industries

Import substitution industries consist of local manufacturing of previously imported products. These include metal, beverages, foods, clothing and textiles, electronic and software development, vehicle and cement production. Production is mainly for domestic markets. Import substitution was initiated because consumption of imported commodities had increased and there was need to conserve foreign exchange. Kenya, Nigeria, Ivory Coast and Zimbabwe had the largest import substituting industrialisation (Bruton, 1998).

The difficulties experienced in acquisition of commodities during the Second World War prompted the need for change in strategy. Import substitution is a policy-induced industrialisation. Investors were allowed to import materials duty free and repatriate profits. They were also protected from competition from imported commodities.

Critics of import substitution observe that production takes place under high tariff barriers and saddle countries with high cost industries. The industries are also uncompetitive because they are heavily protected. Further, it is argued that countries that adopt the import substitution strategy cannot export because their commodities are similar to those produced elsewhere. The import substituting industries experience reduced competition due to protection and are characterised by inefficient production and capacity under utilisation. The industries use capital-intensive production methods as opposed to being labour intensive. There are also possibilities of these industries saturating local markets and have little incentives to reduce costs which perpetuates inefficiency (Zarenda 1975; Coughlin and Ikiara 1988; Riddle 1990)

Consequently, there is need to reconsider import substitution and protection of infant industries; of course lessons have to be learnt from past mistakes and experimentation with the first regime of import substitution. It is argued elsewhere that import substitution did not fail. It was never tried (Bruton, 1998).

Export Processing in Africa

Export processing production takes place in export processing zones and free trade zones. Their promotion was hinged on the fact that they would attract manufacturing, which will involve local production of commodities for export and generate jobs. Companies import materials duty free and use local labour. All products are exported to chains in developed countries. Nothing is consumed locally. The most common export processing zones are involved in the manufacture of garments.

These zones were developed around the same models of those from Asia and Latin America. Asian countries developed free trade zones where production costs were minimized to make so that the commodities competitive in the world markets⁵. Due to the success of these export processing zones, it was proposed that they be adopted in Africa.

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⁴ The Ghana example is different in that Kaapa Kokoo controls its own collection chain and still goes through the Government Export Board which maintains quality and negotiates on its behalf.

⁵ For information on export manufacturing see Gibbon, 2003; Kaplisnky and Morris, 2008)

The idea was an offshoot of American outsourcing policies where low technology and labour intensive manufacturing production is located in countries where labour is cheap. It is based on the economic theory that labour is immobile, while capital can freely flow to any region of the world. This mode of production has also been enhanced by e-commerce whereby firms trade through computer mediated networks. Foreign firms were encouraged to locate activities in areas where production costs were low. Africa was therefore targeted for this form of production.

In the 1990s, several African countries made massive investments in export processing and free trade zones. Mauritius, Madagascar, Kenya, Lesotho, Namibia, Nigeria and Swaziland are some of the countries that adopted the idea. Mauritius export processing zones have been particularly successful. The zones were created through Acts of Parliament and were largely financed by external capital.

Foreign investors were to spearhead the investments in export processing zones. They were to provide capital and technology, which were perceived as lacking in African countries. In return they were to be offered incentives such as corporate tax holiday, exemption from import duties, free repatriation of profits, factory facilities and protection from labour unionisation and strikes.

The expansion of export processing in Africa was reinvigorated by the African Growth and Opportunity Act (AGOA), which was initiated by the Clinton Administration. AGOA is a window of opportunity that allowed garments and other selected commodities duty free into America. However, this arrangement was affected by the removal of the multi fibre agreement, which eliminated garment quota exports to America.

Informal production systems

Informal production systems popularly referred to as the informal sector have also become dominant in Africa. They carve out niche markets, use extensive networks and have achieved significant levels of technology (Kinyanjui, 2006, Kinyanjui, 2007; McCormick and Kinyanjui, 2004; Macharia, 2003). They are characterised by budding entrepreneur's ingenious methods of production and are waiting for a shot in the arm to boost their role in industrialisation.

Informal production systems comprise multitudes of micro and small enterprises engaged in production for household consumption. The dominant sectors are metal work, furniture and garment making. Although they are perceived as largely working outside the scope of government regulations, these systems play a critical role in the economy. They contribute a significant proportion to GDP. In Kenya for example, they contributed to the GDP in 1999 18%, they generate jobs and provide goods and services for the household sector, agriculture, construction and transport. Success stories of informal production include, the Kamukunji metal works and Uhuru market garment clusters in Kenya, Suame cluster in Kumasi, Ghana, Domiatt furniture cluster in Egypt, Mwenge craft and Keko furniture clusters in Tanzania (see case studies in Oyelaran-Oyenyinka and McCormick ,2007).

Opportunities for Africa's industrialisation

The fact that Africa can industrialise is not a far-fetched goal. There are structures and conditions in place for furthering Africa's industrialisation in this millennium that it needs to tap. The structures comprise economic and non-economic factors. The economic factors include the existence of large population, which can constitute a market for manufactured products, exists and a large reserve army, of labour, which can serve as workers in manufacturing factories. The increasing import bills of manufactured goods in Africa are reflective of the need to strengthen import substitution.

Rejuvenation of regional organisations such as the ECOWAS, COMESA, SADC and EAC will enlarge markets in Africa for manufactured commodities. They will contribute to increased interregional trade. Manufacturing firms will have broader market areas to trade in. Regional industrial policies could also be initiated. Such joint efforts will go along way in enhancing industrialisation in the continent.

Africa is also realising the need to taking control of its affairs through NEPAD⁶. NEPAP initiative is instilling a collective responsibility for propelling the African renaissance. It is converting into reality abstract institutions, which were viewed, as the proverbial dogs that bark and do not bite into ones that will bite. It is going to serve as a platform of action for charting the African course and offer an ideology and planning mechanism for articulating the needs and demands of Africa. The NEPAD initiative through its peer review mechanism is also assessing African governments' efforts to deal with endemic corruption that arguably stymied economic progress in Africa.

Fair trade initiatives directed towards international markets could also offer a window of opportunity for Africa's industrialisation. There is an urgent need for re-conceptualisation of Africa in trade theory as a source of cheap goods to a conceptual framework that considers its industrialisation. This will involve developed countries opening up their markets for manufactured goods from Africa. There is increased evidence, for example, that the African Growth and Opportunity Act increased Africa's manufactured garments exports. Thus, if developed economies opened up their markets further to Africa's manufactured goods industrialisation would definitely take place.

New Industrialisation

The Africa's new industrialisation in the new millennium will evolve within the context of globalisation, whereby African countries are closely linked to the rest of world through international trade. It will also take place at time when communication has become extremely advanced as information is flowing easily. The Internet and cable television networks have broadened the circulation of information worldwide. Africa will therefore have no excuse of lack of information regarding production technology. These new modes of communication will definitely facilitate technology transfer advancement and learning. The traditional division of labour between developed and developing countries in information and scientific knowledge in this era of globalisation is becoming blurred.

The nature and form of industries that are going to emerge should be oriented towards the direction of international trade. Two forms of industries are likely to emerge. These will include industries serving the needs of the domestic market while the other category will meet the demand of export markets.

Industries serving the domestic market will involve deepening and extending of import substitution for domestic production Table 4. African governments should provide incentives for the move towards production of capital and intermediate goods as well as electronics. This can be realised through the transformation of informal production systems into import substitution industries. Informal production systems could be upgraded into import substitution status by being offered relief on import duties on raw materials, tax concessions for jobs created, improved infrastructure and factory premises. These incentives will facilitate industrial growth and expansion. They could also be facilitated in technology purchasing and licensing as well as provision of government guaranteed financing and large-scale

⁶ Ogbinaka, (2006) however, observes that NEPAD has considerable flaws which may deter it from being an efficient tool for realising Africa's development. First it is an up- down organisation with no effective representation of the African elite, civil society and people during its formulation. Second it proposes to rely on western aid in order to implement its program.

finance. There is also need to foster and initiate informal production learning links with local universities and technical institutes.

Table 4: Industries serving the need of the domestic market

Type of industry	Market					
Pharmaceuticals	Health sector/HIV drugs and other killer					
	diseases such as malaria and TB					
Metal engineering	Construction sector					
Cement, glass, steel and metal bars, tools	Intermediate industries					
cables, wires, lighting materials, upholstery	Households					
and home décor						
Furniture and Embroidery	Households, government					
Vehicle and spare parts	Transport					
Vehicle assembly, batteries and glass						
Food	Households					
Household hygiene	House holds					
Detergents and cleaning materials						
Clothing and textiles	Households					
Household utilities utensil	Households					
High tech and electronics	Banks, industries, educational institutions,					
	households					

Manufacturing for exports.

Manufacturing for export could take place in two forms. One would involve transformation of informal production clusters serving local markets into exporting clusters. This will involve turning informal production clusters such as Otigba, Suame, Kamukunji, Keko and Uhuru into export processing clusters. In order for the clusters to be transformed from domestic production to export production the following requirements should be met. This will involve provision of infrastructure that will involve electric power, factory premises, communication facilities and access to trade information and knowledge though Internet and trade journals. The firms should also be facilitated to meet international standards and product quality. Involvement of local chambers of commerce in trade lobbies and market petitioning is also required.

Indeed, these clusters could be transformed into export processing zones or free trade zones easily. They have an added advantage of being hubs of indigenous entrepreneurship and do not require repatriating profits. This means that whatever earnings are made will be locally retained and hopefully reinvested. The clusters are also pools of skilled labour and have well established networks of knowledge and technology platforms.

Cluster production geared towards exports can be directed towards production for household consumption and small companies that buy in batches. Kamukunji cluster for example could provide barbeque grills to stores like Home Depot. It could also export cooking stoves and household tools to China and India. Uhuru garment cluster can export ladies garments to stores like Burlington and Dress Ban in the U.S. These stores order garments in small batches and are different from Chains like Walmart, and JC Penny that buy in volumes. The Otigba cluster could also export computer accessories to small stores while Keko and Domiatt clusters could be involved in furniture exports⁷.

⁷ International trade is most often than not viewed as large volume activity. But there are small traders play an important role in moving goods and services all over the world. And I think this is an issue that warrants investigation.

Paradigm shift

Industrialisation comes with costs- financial, environmental and social. But we might also have to calculate the costs we have paid for not having it. The Clothing and Footwear in African Industrialisation Research Network coordinated from the Institute for Development Studies, University of Nairobi has clearly shown that indeed this can happen⁸.. There is also a growing body literature that actually shows how the small enterprise (forma/informal is actually expanding the frontiers of Africa' economies (Kinyanjui, 2006; Macharia, 2003). So actually what we need is a paradigm shift where we shall consider the motivations of entrepreneurs, rationalisation of technologies, and investment in education as well as trans-cultural education that will lead to a better imaging and re-visioning of Africa.

Motivation of entrepreneurs

These developments in education are likely to have a bearing on levels of technological advancements for driving industrialisation. An entrepreneurial class of local entrepreneurs with high levels of education is also emerging and founding enterprises as is happening in the Otigba cluster in Nigeria (Oyelaran-Oyeyinka, 2007) and rural central Kenya (Kinyanjui, 2006) where university graduates are establishing businesses. Macharia (2003) has also shown that there are individuals in the informal sector who have initiated formidable dynamism. These entrepreneurs/individuals should be motivated through provision of awards for excellence for innovative production and this would go along way in boosting production. Tax rebates for jobs created and the mere change of attitude of the bureaucracy in handling transactions with entrepreneurs might have a great effects.

Rationalisation of technology

The challenge facing Africa is how to advance technologically and bring about industrialization, beginning with the agriculture sector. Several fora have deliberated on what should be done for Africa to catch up with the economies of the developed world. Some of the proposed solutions have been that Africa should first address the problems of extreme poverty, environment and governance related issues. Efforts have been made to address these issues in the past decades while some are on going like the democratization process. However, the critical question remains: What needs to be done to make Africa world class manufacturing country to be able to produce goods and services that will win world acclaim?

For Africa to become competitive in the global economy, it must accelerate its pace of technological advancement in all sectors of economy. Basically this means, shifting from rudimentary manual technologies to more sophisticated ones. That is, moving towards the introduction of power driven, hydraulic or automated technologies. For example, it is no more competitive to rely on hoes as the main agricultural implements for cultivation or hand presses in the informal sector and small-scale enterprises as the main tools of production. There is also the issue of our universities training science graduates as "managers of the industry" rather than hands on innovators.

Trans-cultural education on Africa

The imaging and visioning of Africa in development literature has perpetuated myths and half-truths about the continent that would make any rational entrepreneur think twice. If World Bank has put in so

⁸ Prof. Dorothy McCormick has been the lead coordinator of the African Clothing and Foot Wear Research Network. The network was funded by grant from the Dutch Government. The project entailed research on the clothing and footwear industry in Kenya, Tanzania, Ethiopia Tanzani. It has also been extended to include Mauritius and Madagscar. The newtwork has already published one book and the next one is in the presss.

many millions of dollars in Africa to finance physical infrastructure and social infrastructure, yet most of the publications and reports figuratively describe the extent to which Africa is becoming poorer and poorer, then why should any independent investor sink capital in this continent? For example, in the magazine⁹ a feature article supported by pictures outlined the likely effects of food miles on poor small scale farmers in Kenya. My own work on small scale farmers¹⁰ and international trade is that with or without horticulture the plight of the individuals in the picture would be the same except for the government officer. There is no need of making the European consumer to feel guilty of being insensitive to the plight of poor farmers in Kenya by campaigning against food miles or not eating Kenyan beans. The plight of these small scale horticulture farmers is deeply entrenched in the political economy of value chains and the institutions that sustain in.

Financial, social, economic and political institutions in and out of Africa perpetuate myths and half-truths on Africa's position in the international economic order. We may not go a long way restructuring the international economic order during this era of globalisation but we can provide a trans-cultural education that will educate consumers, investors. A trans-cultural education on Africa will lead to a rethinking of its people's ideologies and socio-economic reality. Perhaps, we might want to consider in what grade are lessons about Africa offered in Europe, North America, Latin America and Asia and what is taught in the classroom? In Africa, when are learners introduced to other continents and what do they learn about them? Trans-cultural education should shift the imaging of Africa from sheer fantasy and philanthropization of its social economic reality which most often than not mars objective assessment of reality.

Rationalising investment in human capital

More often than not, human capital development through education contradicts communities' aspirations and the very basis upon which the economy is hinged especially in agriculture. For example, education in most African countries prepares the graduates for work in industry and services rather than agriculture while rural parents are more to likely invest in education for different reasons the most obvious one is that the lives of their children should be different from the ones they themselves led. Schools impart mental pictures of work on their learners. Most often than not the mental picture of a learner is of an urban job rather a job rural one in agriculture. The situation is compounded by the fact small scale agriculture relatively remains of low technology and returns to investment is comparatively small because most of the products are marketed with minimal value addition.

In an attempt to address the issue of youth unemployment and gender equity, Kenya has established a youth and women fund and encouraged the teaching of entrepreneurship in schools and colleges. But unless supported by a comprehensive industrialisation programme, it could be a temporary relieve to youth unemployment and gender equity. The industrialisation programme should be well integrated to local extractive activities such as agriculture and mining as well as be able to meet the demand of the service sector.

The issue here is to rationalise human capital development efforts within the context of understanding when education a basic right and when is it a luxury to the state. Colonial authorities had a clear stipulation of what education was good for the natives and which individuals were to receive elite education that would make the assimilados in the case of the French and the Portuguese. It is no

⁹ See Developments, Issue 41, 2008.

¹⁰ Trade Justice: The case of small scale farmers in Kenya, Uganda, Malawi, Tanzania and Uganda. Unpublished research report submitted to Trocaire, 2005)

wonder that liberation struggles aimed at dismantling this kind of education and aimed at providing equal education opportunity by eliminating racial segregation. African countries have adopted different strategies to meet this goal and are signatory to UN conventions on education. What however is not clear is how the liberation struggle on education waned to the extent that one the UN MDGs is on of Africa's literacy levels.

Not withstanding the lack of data, there has been considerable expansion of basic and higher education in Africa. Africa's population is more literate than it was in the 1960s. Enrolments in general secondary education has been on the increase Table1. Between 1999 and 2001 the enrolments in general secondary education increased by 32% in Ethiopia, 28% in Mozambique, 27% in Guinea and 20% in Mali. Between 2001 and 2005, the enrolment increased by 38% in Burkina Faso, 41% in Cameroon, 50% in Chad.

Table 1 secondary school education enrolment

								% Change 1999-	% Change 2001-
Country	1,999	2,000	2,001	2,002	2,003	2,004	2,005	2001	2005
Angola	-	-	-	-	-	-	-	-	-
Benin	52,484	58,304	76,362		70,665	83,610	2,706	31	26
Botswana	39,130	38,418	38,218	39,669	40,469	40,592	39,552	(2)	3
Burkina Faso	48,318	52,665	52,637	59,937	67,237	75,870	84,878	8	38
Burundi				32,068	33,749	43,120	48,905	-	100
Cameroon		77,401	95,510		142,779	155,485	163,059		41
Cape Verde				12,591	12,870	12,944	14,401	_	
Central African								-	-
Chad	28,914	32,137	33,253	49,862	59,840	64,581	67,103	13	50
Comoros				7,878	8,573	9,643	9,740	-	
Congo				48,163	47,526	54,178	55,963	100	12
Cote d' Ivoire		108,98 2	123,596	135,95 6	136,943			17	-
Demo.rep.Con go				378,78 5	388,651				
Equatorial Guinea	6,908		7,039					2	-
Eritrea	35,802	41,106	2,553	42,069	46,017	50,511	53,473	16	20
Ethiopia	466,22 2	575,59 6	686,860	802,89 7	921,293	1,017,3 42	1,114,47 9	32	38
Gabon		12,978			-			-	-

	1		T		T		T	1	
	10.504	314,47		20.051	20.052	22.051		1.5	
Gambia	12,624		15,290	20,371	20,072	23,071		17	
	295,05		200 777	322,27	222 500	245 455	200 502		22
Ghana	6	58,443	298,777	1	323,690	346,455	380,793	1	22
Guinea	49 314	58,443	67 841	65,779	71 673	93,604	99,750	27	32
Guinea	12,311	50,115	07,011	05,775	71,075	75,001	77,750		
Bissau	8,693	8,650	8,906					2	_
	1 '	665,09		686,61					
Kenya	5	8	680,093	· ·	756,517	816,417	869,137	7	22
							·		
Lesotho	22,280	22,361	24,737	26,233	25,953	27,656	29,562	10	16
T 11		17.007			112 646				
Liberia		17,327		107.45	112,646			-	-
Madagaaaa	00.707	06 126	107 206	127,45		152 200	172 904	1.5	20
Madagascar	90,707	96,136	107,206	4		152,290	172,894	15	38
	162.68	168,60		190,35					
Malawi	3	5	180,682			177 835	181,852	10	1
TVIAIA VVI	3	5	100,002	,		177,033	101,032	10	1
Mali	61,881	69,722	77,066	86,694	98,816	120,139	128,674	20	40
Mauritius	15,522	15,752	17,300	17,677	17,951	18,321	17,986	10	4
Mozambique	35,741	43,088	49,732	64,282		88,788	117,370	28	58
Namibia	41,495	44,428	45,504	45,681	47,812	48,949	49,692	9	8
Niger	29,829	30,259	30,278	39,522	46,687	43,092	69,000	1	56
					12 01 6 0	1 020 5	1 21 6 0 6		
Nicomio					12,916,0		1,316,06		
Nigeria					06	07	0	<u>-</u>	
Rwanda	26,778							_	_
Sao Tome &									
P				2,400	2,413	2,756	3,152	-	
Senegal	50,544	55,494	59,610	67,013	73,375	87,038	95,411	15	38
Seychelles	1,596	1,596	1,564	1,647	1,654	1,555	1,652	(2)	5
Sierra Leone			29,947					100	
Somali									

Source: UNESCO Statistical Yearbook.

Albeit, the absence of data there has been some considerable increase in the number of graduates in African universities, every year, African universities have been on the increase (Table 2). The number of university graduates in Africa has also been on the increase Table 2. Countries with large number of university graduates include Nigeria South Africa, Ethiopia and Kenya. Perhaps the question should be: does the number of university graduates impact on social economic development

Table 2: Graduate in tertiary education

Country 1991 1999 2000 2001 2002 2003 2004 20	2005	15
---	------	----

Angola	279			172			
Benin	1000						
Botswana	1366						
Burkina Faso	1000						
Burundi			762		1371	1731	
Cameroon			7.02		1071	1,01	
Cape Verde							
Central African							
Chad		715					
Comoros	246	76					
Congo		136					
Cote d' Ivoire							
Demo.rep.Congo							
Equatorial Guinea							
Eritrea	823		905	1084	1120	154	
Ethiopia	8555	11627	17969	18375	28691	41364	29581
Gabon	2499						
Gambia		1011				470	
Ghana		11573	14463				
Guinea							
Guinea Bissau							
Kenya		27767	38683				
Lesotho	1190	822	1095	837	1319		
Liberia		7034					
Madagascar	5981	5966	6853	6652			10766
Malawi							
Mali							
Mauritius			2191	2181	2844	4151	6364
Mozambique							
Namibia			3248		1981		
Niger							
Nigeria	58455					174602	
Rwanda						3595	
Sao Tome & P							
Senegal							
Seychelles							
Sierra Leone		6236					
Somali							
South Africa		103203	98379	101688	109658	116443	120385
Swaziland		999	1078	1077		1026	1035
Togo	4463	5787					
Uganda	10420	14520	25173			21164	
Tanzania	3932					4028	
Zambia							
Zimbabwe							

Source UNESCO statistical yearbook

Graduates in engineering manufacturing have also been growing albeit slowly. Table 3 Mauritius (743) and South Africa (9003) have registered the largest number of graduates in manufacturing engineering. Other countries with large number of graduates in engineering are Ethiopia (2,396) Madagascar (748).

Table 3: Graduates in engineering, Manufacturing and Construction

1991		2000	2001		2003	2004	2005
				15			
	54		38				
			34			148	
			159	65	185	82	
	661	704		1259	2197	2511	2396
		373					
		2124					
		4975					
		638					
			306	298			748
			387	329	294	734	743
						105	162
			10		38		
		40					
		5360		7079	7364	8358	9003
		3		8		5	36
	1991	1991 1999 16 140 54	1991 1999 2000 16 140 54	1991 1999 2000 2001 16 140 38 54 38 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 34 37 373 37 373 37 373 37 373 37 373 37 373 37 373 37 373 38 306 387 387 387 387 388 306 389 387 389 387 380 387 380 387 380 387 38	1991 1999 2000 2001 2002 140	1991 1999 2000 2001 2002 2003 140 38	16 140 54 38 34 148 10 148 10 148 10 148 10 148 10 148 10 148 10 148 148 148 148 148 148 148 148 148 148 148 148 148 148 148 148 148 159 65 185 82 1259 2197 2511 373 1259 2197 2511 4975 1259 197 2511 4975 159 159 159 159 10 38 159 159 159 159 151 10 387 329 294 734 105 159 159 159 159 159 159 159 159 159 159 159 159 159 159

Togo		164			
Uganda	519	1077		1354	
Tanzania	957			727	
Zambia					
Zimbabwe					

Source: UNESCO Statistical YearBook

The issue should not be about the absence or presence of human capital but how to make the existing graduates contribute to industrialisation. That is, facilitating their efforts of becoming thinkers and innovators in meeting the demands of industrialisation. There is already evidence that university graduates are shifting from employment in public and private sectors to become drivers of industrialisation. This has happened in Otigba cluster (Oyelaran-oyeyinka, 2007) while the phenomenon of graduates founding enterprises in rural Central Province, Kenya are both indicators of a new form industrialisation dynamic (Kinyanjui, 2006). The new entrepreneurship emerging in rural Central Province could also serve as a basis for a new economy that will address the issue of spatially and socially concentrated economies in Africa. It is self driven and coming from different quarters.

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