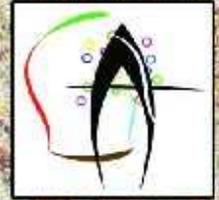




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**Industrial Development in the Era of Globalisation:  
Towards a Strategic Framework for Africa's Industrialisation**

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## **Introduction**

There is a general consensus that industry is important for growth and development. The experiences of those countries which have industrialised clearly show how industrial development has promoted economic growth and made it possible for them to improve the living standards of their populations. Although there now appears to be consensus on the importance and indeed, urgency for Africa to industrialize, evidence shows that despite some improvements in industry performance since the late 1990s, Africa is still largely not an industrialised continent. Except for a few countries such as Mauritius, Morocco, South Africa and Tunisia, the industrial sector is still undeveloped. This is reflected in its relatively lower share of Manufacturing Value Added (MVA) compared to developed countries and other developing regions. It is also evident in the relatively small contribution of the industry sector to GDD, job creation and incomes. The production and export of primary commodities also still dominates the economies of most countries. The continued dependence of the continent on commodities has been a major issue of concern since the days of the Organisation of African Unity (OAU) when it crafted the Lagos Plan of Action.

African states have always realized how such dependence makes them vulnerable to the volatility of the global economy. The recent global economic crisis of 2009-2010 was yet another reminder when producers of minerals like Botswana, South Africa, Namibia, Zimbabwe, Zambia, among others, suffered losses in export volumes and earnings. The textile sector in Lesotho and South Africa, and the auto industry in South Africa for example, were adversely affected by the fall in international demand for their exports. Many workers were retrenched.

Globalisation by itself offers opportunities for growth and development. International trade which opens access to larger markets than the African continent, technology, knowledge and skills transfer and foreign direct investment, all of which can be used to increase growth prospects in Africa.

The challenge however, lies in neo-liberal globalisation. It is the nature and character of neo-liberal globalisation which has adversely affected Africa's efforts to industrialize. Of course, one also recognizes that there are internal weaknesses in terms of governance, institutions and infrastructure for which African states bear responsibility. But neo-liberalization makes it more difficult to industrialize even if those internal factors are dealt with. The new trading and financial architecture which has been ushered in by the World Trade Organisation (WTO) presents serious challenges because the system has reduced the policy space which African states can use to industrialize. Some of the policy tools and instruments which the developed countries themselves and the emerging industrialised nations of East Asia are now prohibited because they are perceived as being contrary to market-driven industrialization; that they inhibit competition and also that they lead to inefficiency. Neo-liberalism calls for a lesser role for the state. It advocates for a greater role by the private sector because markets are perceived as being efficient because of the competition which they promote. The market paradigm advocates for the liberalization of trade. That process means that tariffs and non-tariff barriers have to be removed in order to promote competition. This was the logic behind SAPs. The protection of infant industries as a strategy to nurture emerging industry for example, is therefore inconsistent with free trade. The challenge for African countries therefore is how to build a strong industrial base and increase Manufacturing Value Added (MVA), a strategy which is critical for transforming Africa from being a commodity producer and exporter to one which can manufacture and export high value goods both to domestic, regional and international markets.

The paper reviews the trends in industry development and demonstrates that Africa has not made significant progress in terms of industrialisation. It discusses some of the major obstacles and inhibiting factors. In particular, it shows how the pursuit of neo-liberal policies such as structural adjustment programs (SAPs), have actually contributed to de-industrialisation rather than promote it.

The experiences of a few selected countries from East Asia are reviewed in order to demonstrate how they were able to use industry policy to establish a very strong and diversified industrial base. The state played a very central role in that process. A major lesson from those experiences is that a successful industrialisation strategy critically depends on the

existence of a strong, developmental state which has the capacity to formulate and implement appropriate industry policies and to support the development of industry based on the resource endowments and realities that exist in its own context.

The paper argues that whilst Africa can learn from East Asia, that does not mean that it should “import” that model. Each country is unique and has its own peculiarities. The environment and context in Africa is very different from that which prevailed in East Asia at the time of their industrialisation. However, what is critical is to realise the important role which the state must play in the industrialisation effort and the selective nature and phased approach which those countries adopted in order to industrialise.

The paper also reviews some on-going strategies for example, South Africa’s Industrial Policy Action (IPAP) I and II, the African Union’s Action Plan for the Industrial Development of Africa (AIDA) and the African Productive Capacity Initiative (APCI). Strategies recommended by the United Nations Industrial Development Organisation (UNIDO) and the United Nations Conference on Trade and Development (UNCTAD), are also discussed.

The paper finally makes some recommendations for a strategic framework to enhance industry development in Africa. It recognises that whilst most of these strategies are not new, the problem has been their weak implementation and so, the emphasis for the future should be on actions and implementation strategies at national, regional and continental levels. The paper will argue that key strategies for promoting industrial development in Africa must be based on, among others, a more effective role of the state in promoting industry infrastructure, identifying and facilitating joint ventures for innovation and industry development, in mobilizing resources through the fiscus and trade channels, in promoting fiscal, monetary and trade policies that promote industry development. Africa has to increase investment in technology and skills development in order to enhance capacity for manufacturing. It will be critical to create new comparative advantages that are based on high-value manufacturing activities and departing from traditional comparative advantage models that historically perpetuated deficits and fostered macroeconomic instability and increased indebtedness. The African Productive Capacity Initiative (APCI) under the auspices of the New Partnership for Africa’s Development (NEPAD), is an opportunity which the African Union (AU), should build on and mobilize resources in order to ensure its implementation at national level and by Regional Economic Communities (RECs).

## **1. Theoretical issues**

### ***1.1.1 Why industrialise?***

The industrial sector is, in general, defined as being composed of manufacturing, mining and construction. However, there is a large literature that suggests that the manufacturing sector is the component of industry that presents greater opportunities for sustained growth, employment and poverty reduction in Africa. The United Nations Department of Economic and Social Affairs (DESA) defines manufacturing as the physical or chemical transformation of materials, substances or components into new products. The materials, substances or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying or products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

Lever (1991) presents a number of arguments on the importance of industrializing. Firstly, the share of manufactures increased and became a major component of national output and exports. Secondly, the share of manufacturing employment increased, and this was from rural workers migrating to cities to take up the manufacturing jobs. Lastly, industrial productivity in the leading manufacturing industrial sectors will begin to increase. Other reasons were to alleviate the problem of export price instability of primary goods. Historically, these tended to fluctuate, and therefore incomes would fluctuate accordingly and this had a direct impact on economic growth. The Prebisch-Singer

Hypothesis also pointed towards the deteriorating terms of trade between primary goods and manufactured goods. This was significant for developing countries because with falling incomes from primary goods, they would not be able to import goods in the long term, as the income elasticity of demand, is greater for manufactured goods than for primary goods, thus this has greater growth potential than primary goods. Classical economists such as Adam Smith and Ricardo, saw manufacturing as the engine for growth, as manufactures increases incomes for labourers, and this will increase demand and consumption domestically and fuel growth. Kaldor had three growth laws he stated were pertinent to economic growth of any country. These were that there was a robust relationship between GDP growth and manufacturing growth, a higher rate of growth in the latter will fuel the former. Therefore successful industrialisation would create employment, not only in the manufacturing sector, but also through the multiplier effect, would give birth to jobs in other sectors that would feed into the manufacturing sector. Manufactures can also be the main source of foreign currency earnings, as well as being able to produce goods that can be consumed domestically so less has to be imported, and funds can be used for further investment in industry.

Marti and Ssenkubuge (2009:1) emphasize that industrial production creates job opportunities at higher skill levels, facilitates denser links across the services and agricultural sectors, between rural and urban economies and between consumer, intermediate and capital goods industries. Prices of manufactured exports are less volatile and less susceptible to long-term deterioration than those of primary goods, making it particularly strategic in highly commodity-dependent developing countries. In addition, industrialisation is a critical tool in poverty eradication, employment generation, and regional development policies. Finally, it can spur technological advancement and innovation as well as productivity gain and is hence able to play the development role more suitably than the agricultural sector. Chang, 2002 and Chang, 2005 in Marti and Ssenkubuge (2009), also argue that cognisant of the critical role that manufacturing plays in economic development, virtually all of today's industrialised nations actively supported and protected their industries through specific policies and institutions. In Africa, however, notwithstanding decades of development assistance, preferential trade arrangements and experiments with diverse trade and industrial policies, the developmental contribution of the industrial sector is well below its potential. Presently, the continent is the least industrialised region of the world, while the share of sub-Saharan Africa (SSA) in global manufacturing value added actually declined in most sectors between 1990 and 2000. While other regions have increased their share of non-oil exports over the last two decades, almost two-thirds of Africa's merchandise exports are still accounted for by agricultural, fuel and mining products.

A serious consequence of failing to industrialise is the continued dependence on import of manufactured and even consumer goods from other countries. This is a pattern of trade which, as has been extensively documented, will disadvantage Africa through unequal terms of trade, balance of payments deficits and indebtedness. A third reason why there is concern about the slow pace of industrialization in the continent has to do with the political consequences. At the root of Africa's dependence on Western and bilateral, multilateral and private financial flows lies the mismatch between earnings from primary commodity exports and imports of mostly manufactured goods from the industrialised countries. The imbalance over the years has contributed to balance of payments deficits and indebtedness. It has also contributed to poverty as resources were diverted to debt servicing. In the last five years, external shocks in the form of rising food and energy prices, the global financial and economic crisis, among other factors, once again showed the vulnerability of African economies to external shocks. The growth rate of real output fell from an annual average of 5.2 per cent over the period 2000–2006 to 2.6 per cent in 2009. Similarly, the growth rate of real output per capita fell from 2.7 per cent to 0.3 per cent over the same period. The crises have also eroded recent gains made by African countries in poverty reduction and reduced prospects of achieving the Millennium Development Goals (MDG) by the target date.

These triple crises have refocused attention on Africa's high vulnerability to external shocks and the need for policymakers to take urgent action to diversify their production and export structure to build resilience. Other authors suggest that economic development requires structural change from low to high productivity activities and that the industrial sector is a key engine of growth in the development process. They argue that: "virtually all cases of high, rapid and sustained economic growth in modern economic development have been associated with industrialization, particularly growth in manufacturing production". Lall, 2005; Rodrik, 2007; Hesse, 2008 in Marti and Ssengubuge (2009).

## ***2.2. The concepts of globalisation and neo-liberal globalisation***

As part of an historical process, globalisation is characterised by a worldwide-led policy focusing on liberalisation of finance and trade. As a result, national systems of production, finance and communication are getting integrated. In the industrial sector, the growth of cross-border flows of goods, service and capital needs to be presented against the uneven distribution of the impact in the countries

The paper defines the concept of neoliberal globalization as a process of integration of global economic, production, distribution, political and social systems within the framework of the market. It will review the different definitions from the literature but emphasize its fundamental characteristics as a global phenomenon for capitalist accumulation, wealth creation and distribution. Writing on the sources of neoliberal globalization, Scholte (2005) perceives it as a "multifaceted causation, including conditions in the interrelated realms of governance, production, knowledge and social networks". He characterizes it as a shift from *statist* to *decentred regulation*, a system in which "*deep structures and powerful interests support a continuation of globalization-by-marketization.*" The French economic analyst Pierre Bourdieu (1998), aptly describes it as "*a kind of infernal machine, whose necessity imposes itself even upon the rulers. They want independent central banks. And they preach the subordination of nation-states to the requirements of economic freedom for the masters of the economy, with the suppression of any regulation of any market, beginning with the labour market, the prohibition of deficits and inflation, the general privatization of public services, and the reduction of public and social expenses.*"

Sniegocki (2008) defines neoliberal globalization as a term which is used to describe the worldwide spread of an economic model emphasizing "free markets" and "free trade." Decreased governmental regulation, privatization of government-owned enterprises, reduced government spending, and the lowering of barriers to international trade and investment play central roles in the neoliberal approach. The stated goal of these policies is to maximize economic efficiency and economic growth. While these policies have not been consistently applied (e.g., industrialised nations continue to provide massive subsidies to their own farmers and maintain high barriers to products to least developed countries), neoliberal ideas have nonetheless dominated the rhetoric of global economic policy and much of its practice since the early 1980s. Two of the main embodiments of neoliberal principles have been "structural adjustment" policies and "free trade" agreements

A very simple explanation of liberalism and neo-liberalism is presented by Martinez and Garcia (2000) as presented in Box 1

Box 1: Neo-liberalism

"Neo-liberalism" is a set of economic policies that have become widespread during the last 25 years or so. Although the word is rarely heard in the United States, you can clearly see the effects of neo-liberalism here as the rich grow richer and the poor grow poorer. "Liberalism" can refer to political, economic, or even religious ideas. In the U.S. political liberalism has been a strategy to prevent social conflict. It is presented to poor and working people as progressive compared to conservative or Right-wing. Economic liberalism is different. Conservative politicians who say they hate "liberals" -- meaning the political type -- have no real problem with economic liberalism, including neo-liberalism. "Neo" means we are talking about a new kind of liberalism. So what was the old kind? The liberal school of economics became famous in Europe when Adam Smith, a Scottish economist, published a book in 1776 called *The Wealth of Nations*. He and others advocated the abolition of government intervention in economic matters. No restrictions on manufacturing, no barriers to commerce, no tariffs, he said; free trade was the best way for a nation's economy to develop. Such ideas were "liberal" in the sense of no controls. This application of individualism encouraged "free" enterprise, "free" competition -- which came to mean, free for the capitalists to make huge profits as they wished. Economic liberalism prevailed in the United States through the 1800s and early 1900s. Then the Great Depression of the 1930s led an economist named John Maynard Keynes to a theory that challenged liberalism as the best policy for capitalists. He said, in essence, that full employment is necessary for capitalism to grow and it can be achieved only if governments and central banks intervene to increase employment. These ideas had much influence on President Roosevelt's New Deal -- which did improve life for many people. The belief that government should advance the common good became widely accepted. But the capitalist crisis over the last 25 years, with its shrinking profit rates, inspired the corporate elite to revive economic liberalism. That's what makes it "neo" or new. Now, with the rapid globalization of the capitalist economy, we are seeing neo-liberalism on a global scale.

In essence, neo-liberalism embraces the rule of the market, the notion that the economy should be based on private or free enterprise. That implies greater openness to international trade and investment, free commodity, labour and financial markets in which prices, wages and interest rates are not regulated or controlled by the government but by the free forces of supply and demand. Neo-liberalism advocates a reduction in government regulation. It calls for privatization of state-owned enterprises in order to promote competition and efficiency.

With respect to trade and industry, neo-liberalism is embodied in "free trade" agreements. These include global agreements such as the General Agreement on Tariffs and Trade (which led to the creation of the World Trade Organization [WTO]), regional agreements such as the North American and Central American free trade agreements (NAFTA and CAFTA), and a variety of bilateral agreements. Common features of these treaties include measures to reduce or eliminate tariffs and other "barriers" to trade, deregulation of investments and other capital flows, and increased protection of intellectual property rights such as corporate patents. Supporters claim that these policies will enable every country to specialize in whatever products they can produce most efficiently, leading to broad-based economic growth. Critics, on the other hand, highlight a variety of negative consequences, including:

According to Sachs, the global economy is generally very beneficial. "Economic development," he argues, "can and does work in so many parts of the world." . The key problem, he observes, is that certain countries and peoples, especially in Africa, are excluded from adequate participation in international markets due to "poverty traps" such as lack of capital, unfortunate physical geography, and widespread disease. To overcome these obstacles he proposes a plan that includes, among other policies, debt relief, substantially increased foreign aid, and major investments in the "Big Five" areas of agriculture, infrastructure, health, education, and clean drinking water/sanitation. With these policies, Sachs contends,

the poor will be able to overcome the poverty trap and get a foothold on the "ladder of economic development." Once on the "ladder" these persons will be able to proceed to greater prosperity through the natural working of adequately regulated market mechanisms.

The term "*industrialization*", however, tends to have a broader connotation and embraces a wider spectrum of productive activities linked to and indeed sparked off by the manufacturing sector. Globalisation is also changing production structures and location. Production does not necessarily take place in one location. The segmentation and fragmentation into distinct steps open new avenues for productivity and industrial performance. The possibility to move each segment or step (fragment) to the place where value added could be maximal is becoming the official unwritten rules. The existing trade system experienced the shift from the "*exchange and production of final consumer goods*" to the "*exchange and production of parts and components*". State of industry in Africa

Industry development in Africa is still lower than other developing regions and also that of developed countries. More importantly, it is not meeting the need for manufactured goods within the continent.

Table 1 shows the trends in Manufacturing Value Added (MVA) for the period 2000-2005. Industrialised countries have the largest MVA over the period, followed by East Asia and the Pacific, then Latin America and the Caribbean, the Middle East and North Africa and lastly, Sub-Saharan Africa (SSA). However, in terms of growth, industrialised countries have shown a decline. MVA annual growth fell from 3.7 per cent over the period 1995-2000 to 1.1 per cent over 2000-2005. Developing countries as a group showed an improvement from 6.5 to 7.0 per cent over the same period. SSA also showed a small improvement from 3.0 to 3.1 per cent. However, when South Africa is excluded, SSA showed a decline from 3.7 to 3.5 per cent. The rate of growth in both periods is below the developing country average. East Asia and the Pacific show the largest annual growth rates-even larger than that of industrialised countries. Their MVA grew from 8.6 per cent per annum over 1995-2000 to 9.8 per cent annually from 2000-2005. But this is largely due to the growth of China. When China is excluded, the growth rates are lower, from 6.2 to 6.1 per cent over the two periods. But that is higher than every sub-region except the Middle East and North Africa.

**Table 1 Manufacturing value added, average annual growth rate, by country and region 2000-2005**

<i>Country group</i>	<i>2000</i>	<i>2003</i>	<i>2005</i>	<i>annual growth rate (%) 1995-2000</i>	<i>annual growth rate (%) 2000-2005</i>
<i>World</i>	5774.30	5979.6	6536.60	4.3	2.6
<i>Industrialised countries</i>	4289.80	4257.10	4535.20	3.7	1.1
<i>Developing countries</i>	1404.40	1620.70	1892.50	6.5	7
<i>Sub-Saharan Africa</i>	39.7	41.9	45.8	3	3.1
<i>excluding South Africa</i>	16.7	18	19.7	3.7	3.5
<i>Middle East and North Africa</i>	110.5	127.1	145.9	6.4	6.4
<i>Latin America and Carribean</i>	378.4	374.9	415.2	3.5	1.9
<i>East Asia and the Pacific</i>	770.4	958.9	1146.70	8.6	9.8
<i>excluding China</i>	385.5	430.8	502.3	6.2	6.1

*Notes: MVA is in constant dollar terms*

Table 2 shows that although there is some improvement in terms of industrial performance since the 1970s, Africa is still the least industrialised continent. According to UNIDO (2009), industrialised countries accounted for 74.3 per cent of world Manufacturing Value Added (MVA) in 2000 but dropped to 69.4 per cent in 2005. Developing countries increased their share by almost five per cent, from 24.3 per cent in 2000 to 29 per cent in 2005. The share for Sub-Saharan Africa (SSA), excluding South Africa, remained constant at 0.3 per cent. East Asia and the Pacific had the highest annual growth (9.8) per cent, largely due to MVA growth in China. The next best performing region was South Asia, with an annual growth rate of 7.9 per cent with India alone contributing 80 per cent. Table 2 presents Africa's share of value added in developing country value added for the period 2000-2005 for which data were available.

*Table 2 Manufacturing value added: share within developing country groups of selected countries,2000-2005*

<i>Country Group</i>	<i>2000</i>	<i>2005</i>
<i>Industrialised countries</i>	<i>74.3</i>	<i>69.4</i>
<i>Countries with economies in transition</i>	<i>1.4</i>	<i>1.7</i>
<i>Developing countries</i>	<i>24.3</i>	<i>29</i>
<i>Sub-Saharan Africa</i>	<i>0.7</i>	<i>0.7</i>
<i>excluding South Africa</i>	<i>0.3</i>	<i>0.3</i>
<i>South Asia</i>	<i>1.5</i>	<i>1.8</i>
<i>excluding India</i>	<i>0.3</i>	<i>0.4</i>
<i>Middle East and North Africa</i>	<i>1.9</i>	<i>2.2</i>
<i>excluding Turkey</i>	<i>1.4</i>	<i>1.7</i>
<i>Latin America and the Caribbean</i>	<i>6.6</i>	<i>6.4</i>
<i>excluding Mexico</i>	<i>4.7</i>	<i>4.7</i>
<i>East Asia and the Pacific</i>	<i>13.3</i>	<i>17.5</i>
<i>excludes China</i>	<i>6.7</i>	<i>7.7</i>
<i>Least Developed Countries</i>	<i>0.3</i>	<i>0.3</i>
<i>World</i>	<i>100</i>	<i>100</i>

**Table 3 Manufacturing value added share within developing country groups of selected countries, 2000 and 2005 (percentage)**

	% share of GDP	1970	1980	1990	2000	2005	2008
<i>World</i>	<i>Industry</i>	36.9	38.1	33.3	29.1	28.8	30.1
	<i>Manufacturing</i>	26.7	24.4	21.7	19.2	17.8	18.1
	<i>Mining and Utilities</i>	3.9	7.1	5.2	4.5	5.5	6.2
<i>Developing economies</i>	<i>Industry</i>	27.3	41.1	36.8	36.3	38.9	40.2
	<i>Manufacturing</i>	17.6	20.2	22.4	22.6	23.3	23.7
	<i>Mining and Utilities</i>	5.7	14.7	8.9	8.3	10.1	10.9
<i>African developing economies</i>	<i>Industry</i>	13.1	35.6	35.2	35.5	38.8	40.7
	<i>Manufacturing</i>	6.3	11.9	15.3	12.8	11.6	10.5
	<i>Mining and Utilities</i>	4.8	19.3	15.2	18.4	23	25.8
<i>Eastern Africa</i>	<i>Industry</i>	3.1	7.8	20.6	18.6	20.6	20.3
	<i>Manufacturing</i>	1.7	4.9	13.4	10.4	10.3	9.7
	<i>Mining and Utilities</i>	0.8	1.5	3.3	3.1	3.6	3.7
<i>Middle Africa</i>	<i>Industry</i>	34.2	38.4	34.1	50.4	57.9	59.8
	<i>Manufacturing</i>	10.3	11.8	11.2	8.2	7.3	6.4
	<i>Mining and Utilities</i>	19.1	21.2	18.9	39.3	47.9	50.5
<i>Northern Africa</i>	<i>Industry</i>	34.2	50	37.4	37.8	45	46
	<i>Manufacturing</i>	13.6	9.7	13.4	12.8	11.3	10.7
	<i>Mining and Utilities</i>	15.7	33	17.2	19.5	28.2	29.8
<i>Southern Africa</i>	<i>Industry</i>	38.2	48.2	40.6	32.7	31.7	34.5
	<i>Manufacturing</i>	22	20.9	22.9	18.4	17.9	18.2
	<i>Mining and Utilities</i>	12	24	14.3	11.7	11.2	13.1
<i>Western Africa</i>	<i>Industry</i>	26.7	43.3	34.5	39.8	36.7	37.4
	<i>Manufacturing</i>	13.3	16.8	13.1	7.8	6	5
	<i>Mining and Utilities</i>	7.7	21.3	18.8	29.3	27.7	29.6

Source: UNCTAD *Economic Development in Africa Report 2011*

Table 3 shows the trends in the share of industry as a whole in the GDP across different regions. The share of industry as a whole in Africa has been increasing over the period 1970 to 2008 (from 13.1 per cent in 1970 to 40.7 per cent in 2008). However, the share of manufacturing increased from 6.3 per cent in 1970 to 15.3 per cent in 1990 after which it has steadily declined to 10.5 per cent in 2008. Mining and utilities have been growing over the same period.

The data for the trends in industry for the different regions is also shown. Except for Southern Africa, the share of industry in GDP has been increasing. However, for the manufacturing industry in particular, there are mixed results. The share of manufacturing to GDP increases in East, Northern and Southern Africa, over the period 1970-1990. Thereafter, there is a decline up to 2008. For Middle and Western Africa, there is an increase in the share of manufacturing in GDP but for only the period 1970-1980. Since 1980, there is a marked decline in the share of the sector in GDP.

Clearly, although industry as a whole is growing in terms of its share in GDP, the share of the manufacturing sector has declined since the 1980s and 90s. This confirms the notion that since the 1980s, there has been de-industrialisation in most of Africa. Another important observation is the dominance of resource-based manufacturing (RBM) as compared to Low Technology (LT) and Medium/High Technology (MHT) Manufacturing. RBM includes sub-sectors such as food and beverages, tobacco, wood, paper, refined petroleum, rubber and plastics, glass and other non-metallic and basic metals. The category of LT manufacturing includes, textiles, apparel, leather, publishing and printing, fabricated metal products, furniture and manufacturing. The category of MHT includes chemicals, machinery and equipment, office machinery, electrical machinery, radio, TV and communication equipment, medical, precision and optical instruments, motor vehicles and other equipment.

Table 4 presents the structural trends in MVA in Africa. The data are based on UNCTAD (2011). Although the share of RBM declined from 51.6 per cent in 2000 to 48.8 per cent in 2009, RBM largely characterized African manufacturing. Africa's share in the world for RBM MVA actually fell from 2.0 per cent in 2000 to 1.5 per cent in 2009. In most African countries, the share of RBM in MVA in 2009 was above 70 per cent.

Africa's share of LT MVA fell from 22.9 per cent in 2000 to 19.9 per cent in 2009. It grew at an average of 1.6 (2000-2009). Its share in World MVA has remained constant at 1.5 per cent over the same period. Thus, Africa's share in World MVA for LT products has remained small. A few countries had a LT MVA of between 20 and 60 per cent (for example: Lesotho, 55 per cent. It was mostly apparel and leather; Nigeria, 53 per cent, mostly in furniture and fabricated metal; Mauritius, 48 per cent-mostly apparel and textiles; and Mali, 61 and this was mainly in apparel and furniture)

Table 4 African manufacturing by sector and technological classification, 2000-2009 (%)

Manufacturing sectors	African MVA Structure		African Growth		African share in the World	
	2000 share in total MVA	2009 share of total MVA	Compound annual growth 2009	2000-2009	Share in World MVA 2009	Share in World MVA 2000
15	Food and beverages	20	16.6	1.1	2.4	1.9
16	Tobacco	3	2.6	1.6	3.4	2.5
20	Wood	2.8	1.8	-1.9	1.7	1.5
21	Paper	3.1	3	2.9	1.3	1.5
23	Refined petroleum and coke	5.9	6.1	3.6	2	2.1
25	Rubber and plastics	2.7	2.9	4.1	1	1.1
26	Glass and other non-metallic mineral	6.8	10.1	7.9	2.2	3.3
27	Basic metals	7.3	5.6	0.4	1.7	1
	Subtotal RBM (resource-based manufacturing)	51.6	48.8	2.6	2	1.8
17	Textiles	6.8	4.7	-0.9	3.1	2.3
18	Apparel	4.7	4.3	2.3	3	3.3
19	Leather	1.5	1.2	0.8	2.7	2.3
22	Publishing and printing	2.9	2.7	2.7	0.8	1
28	Fabricated metal products	5.2	5.1	3	1.1	1.3
36	Furniture and manufacturing	1.8	1.8	3.2	0.7	0.7
	Subtotal LTM (low technology manufacturing)	22.9	19.9	1.6	1.5	1.5
24	Chemicals	12.4	19.2	8.4	1.6	2.2
29	Machinery and equipment	3.7	3.6	2.9	0.6	0.6
30	Office machinery	0.3	0.3	3.9	0.1	0.1
31	Electrical machinery	2	2.5	5.9	0.6	0.6
32	Radio, TV and communication equipment	0.9	0.8	2.2	0.1	0
33	Medical, precision and optical	0.3	0.3	3.3	0.1	0.1

	<b>instruments</b>					
34	<b>Motor Vehicles</b>	<b>4.9</b>	<b>3.8</b>	<b>0.4</b>	<b>0.9</b>	<b>0.7</b>
	<b>Other transport</b>					
35	<b>equipment</b>	<b>1</b>	<b>0.9</b>	<b>1.8</b>	<b>0.5</b>	<b>0.4</b>
	<b>Subtotal MHTM</b>					
	<b>(medium/high technology manufacturing)</b>	<b>25.5</b>	<b>31.4</b>	<b>5.7</b>	<b>0.6</b>	<b>0.6</b>
	<b>Total manufacturing</b>	<b>100</b>	<b>100</b>	<b>3.2</b>	<b>1.2</b>	<b>1.1</b>

Source: UNCTAD (2011)

The share of MHT manufacturing in total MVA increased from 25.5 per cent in 2000 to 31.4 per cent in 2009, a significant improvement. This represents a 3.2 per cent in growth per annum. However, Africa's share in World MVA in the MHT category remained small and also declined from 1.2 per cent in 2000 to 1.1 per cent in 2009. Very few African countries had a share of MHT MVA of between 20 to 50 per cent. Examples include Egypt (48 per cent –and this consisted mainly of chemicals and machinery; South Africa, 31 per cent –mainly in chemicals, motor vehicles and machinery; Republic of Tanzania, 26 per cent-mostly in chemicals, radio and TV and equipment; and finally, Morocco, 25 per cent-again mainly in chemicals and machinery).

The message emerging from all the above information is that to a large extent, most of Africa is not industrialised. The continent continues to rely more heavily on RB manufacturing. LT and MHT manufacturing still constitute a relatively smaller share in the structure of African industry.

#### 4. Neo-liberalisation and African industrialisation efforts in Africa

A major consequence of the pattern of industrialization depicted in these tables are as follows:

- Africa is vulnerable to external shocks due to the volatility of commodity prices. The global economic crisis of 2008-2010 had a negative impact on many African countries who are dependent on commodity exports (for example, Botswana, South Africa, Zambia, Namibia, Guinea, among others).
- Continued dependence on imports of manufactured goods (mainly machinery and equipment) So the continent is still losing opportunities to maximize value from its rich resource base.
- Limited capacity to achieve high levels of economic growth, job creation and incomes to address poverty and inequality.
- The marginalization of the continent in global trading and finance decision making structures.
- Neo-liberal globalization poses a major challenge to Africa's efforts to industrialise. Unequal power relations between industrialised countries and developing states have created an international financial architecture and trading rules which are biased in favour of the North. According to UNIDO and UNCTAD (2009:7):

“ bilateral, multilateral and regional trade agreements are shrinking the policy space available for promoting industrial development in African countries. For example, the rules of the World Trade Organization (WTO) prohibit the use of industrial policy instruments such as quotas and local content requirements. The use of export subsidies have also been banned, except for the LDCs. Furthermore, as a result of the Economic Partnership Agreements (EPAs), African countries are under increasing pressure to abandon the use of tariffs as a measure of protection. Consequently, African industrialization is taking place in an environment in which the use of some industrial policy instruments applied by the developed and emerging economies are either banned or regulated”

The observation by UNCTAD is corroborated by Marti and Ssengube (2009:8-9) who argue that the context for the formulation of industrial policies has changed. They explain that the global economy and global industrial production patterns have evolved, and policies will have to adjust to these changes. They also emphasize that the use of certain typical instruments of industrial policy has been forbidden or regulated by international trade agreements (e.g. export subsidies and local content requirements under the World Trade Organisation [WTO]'s agreements). Furthermore, the commonly used measures, such as selective tariff protection, are under increasing pressure as a result of both the WTO Doha Round and the conclusion of Free Trade Agreements (FTAs). These trends practically render industrial policies obsolete. Major differences in positions between developed and developing countries at WTO negotiations for Non-Agricultural Market Access (NAMA) have centred around the assertion by advanced industrial countries that tariffs are no longer useful policy instruments and can or should be eliminated. African, Caribbean and Pacific (ACP) trade negotiators have been pressurized by the European Commission to eliminate export taxes and discriminatory government procurement practices in the context of the Economic Partnership Agreements (EPAs).

The global environment has also become very competitive as more actors have emerged in response to the reduction in tariff and non-tariff barriers to trade in industrial products and the reduction in production costs due to advances in technology. The increasing role of China, India and Brazil in the production of labour-intensive manufactures has also increase the competition and African producers are under pressure to enhance their own competitiveness or else they cannot take advantage of the larger international markets.

Mauritius is an example of a country which has been adversely affected by the increasing openness of the global economy. The manufacturing sector in particular is having to adjust and make a transition from dependence on trade preferences and tariff protection to global competition. The phasing out of the Multi-Fibre Agreement leading to the dismantling of quotas eroded the margin of preference for Mauritius. A

liberalised trading environment through close-to-zero tariff rates has been proposed for industrial products under the WTO Non-Agricultural-Market Access (NAMA) negotiations. Critics also considered the proposal by the EU for "close to zero" tariffs for the Textile and Clothing sector to be a threat for the medium term because the sector then has to compete on a level playing field with lower cost producing countries. The government is in the process of improving supply-side capabilities in order to enhance the competitiveness of local industry.

However, there are also some new opportunities emerging for Mauritius after signing the Economic Partnership Agreement (EPA) Agreement with the EU, as part of the Eastern and Southern Africa (ESA) Group. Mauritius will have to liberalise its imports from the EU within a 15-year period, in line with the principle of reciprocal trade preferences, as required by the WTO. Although, most of the sensitive products for Mauritius have been excluded from the liberalisation process, other products would have to compete on a level playing field with imports from the EU. However, there are opportunities which these agreements are opening up for Mauritius. For example, it will have duty free and quota free access (except for rice and sugar), flexible rules of origin for processed tuna and single transformation rules of origin for clothing, as major trade benefits. The key question is whether or not these benefits shall exceed the costs implied by trade liberalization.

Mauritius used to be an attractive destination for FDI. However, in recent years, FDI into manufacturing has declined mainly due to the erosion of trade preferences, an increase in competition from East Asia and Latin America who are more competitive and the emergence of many low cost producers particularly in Asia and Latin America.

Critics of SAPs argue that it placed Africa on a low-growth path, undermined economic diversification efforts, and led to an erosion of the industrial base in the region. In particular, the focus on liberalization of markets coupled with the phasing out of various forms of interventionist policies supporting manufacturing drove many domestic firms out of business. This resulted in the destruction of what remained of the local industry base despite the potential of technological upgrading in some of the existing domestic firms (Lall, 1995). In Mozambique, for example, the reduction in the strategic role of the State during the SAP period undermined attempts to promote industrial development. There is also evidence that in Ghana, Nigeria and Zambia, trade liberalization under SAP exposed domestic firms to import competition and led to the closure of some manufacturing firms (Lall and Mwangwe, 1998).

UNIDO and UNCTAD also point out that the expectation that SAP would make African firms more competitive, trigger industrial development, and lay the foundation for sustained economic growth has not been realized. As was the case with ISI, the adoption of SAP did not lead to the attainment of the objective of structural transformation and export diversification in Africa. Against this backdrop, in the late 1990s African policymakers began to re-appraise their development strategies with a view to avoiding some of the mistakes made in the ISI and SAP phases (UNIDO/UNCTAD, 2009).

Several United Nations agencies acknowledged that structural adjustments programs focusing merely on macroeconomics aspects were not enough to support the dynamic thrust required for reversing the trend towards increased poverty. Direct support to dynamic sectors, including the informal sector, was often not considered as a priority. Failure to support more seriously the microeconomics components of a structural transformation of African economies is clearly acknowledged today. Besides, most of the structural adjustment reforms were not “*people-centered*”. As a result and instead of experiencing a high economic growth, numerous job creation, etc., ends up in Africa with an increased level of poverty as well as a worldwide inequality in accessing to jobs. (UNIDO/DTI:40)

## **2. A review of the industrialization experience of two East Asian countries**

East Asian countries have been widely acclaimed as successful industrialisers because of the rapid transformation which they achieved from being poor, developing countries to become, ‘first world’ economies. They are also popularly referred to as the ‘Asian Tigers’. These include countries such as the Republic of Korea (RoK), Singapore, Malaysia, Taiwan, Indonesia and Thailand. The success of the Tigers has often been used as an example to show how, with the “right” policies, African countries can also succeed in their industrialisation strategies. Industry policy in East Asia was not static but rather changed over time. In the 1960s through the 1980s, the governments used state interventionist policies to promote industry growth. They were successful in building an industry base which was critical for economic growth, job creation and reduction of social inequality. However, it has also been argued that East Asian governments abandoned the early approaches of heavy state intervention largely because of the inefficiencies which some of the policies created and also the structural imbalances in industry which were reflected in heavy concentration of large firms.

Most East Asian economies used infant industry protection, export subsidies and targets; credit allocation and direction, local content rules and so on, to build their industrial capability. The RoK, Singapore and Taiwan Province of China massively invested in human capital development (with an emphasis on technical skills) and they also build very strong state institutions to support industry development. They also created an environment which attracted Foreign Direct Investment (FDI) as a mechanism for technology transfer. The second wave of Tigers (countries such as Malaysia, Thailand, Indonesia and the Philippines) relied less on building indigenous capabilities but rather, they invested in creating environments which attracted FDI particularly in the manufacture of electronic goods for export. It is also

widely known that those countries relied on the use of low-cost labour intensive manufacturing processes who worked in Export Processing Zones (EPZs).

There are indeed some useful lessons which African states can draw from the experiences of East Asia particularly the important role which a visionary developmental state can play in formulating and implementing policies and strategies to promote industrialisation. However, there are also some aspects which may not be appropriate in the African context. The message is that African countries will have to develop industry policies and strategies which are appropriate in their own context and which also build on their resource base.

The experience of the RoK and Singapore are presented in order to bring out their approaches to industrialisation and to draw lessons for African states as they seek to accelerate industrialisation on the continent.

### **The Republic of Korea**

The ROK is cited as one of the most successful of the East Asian countries in terms of its transformation from a poverty-ridden economy in 1962 to the status of a newly industrialised nation by 1989. In 1959, the ROK was one of the poorest countries in the world. The state played a very central and active role in developing strategies and policies which led to economic growth and poverty reduction. Under a series of Five Year Plans, the government introduced a range of measures which promoted its growth and development agenda. The First Five Year Plan (1962-66), the government took measures to stabilise the economy through fiscal and financial reforms. A favourable international environment in the 1960s and 70s also created conditions for growth. The Plan was successful as evidenced by the sharp improvement in GDP from \$ 2.3 billion in 1962 to \$ 220.7 billion in 1989. Exports increased from \$ 55 million to \$ 61.4 billion over the same period. Notwithstanding the limitations of this measure, per capita GDP rose from \$ 87 to \$ 5,199. Harvie and Lee (2003:1). In social terms, the growth translated into poverty reduction as unemployment fell from 9.8 per cent to 2.6 per cent during the period an indication of the success of the Plan.

The government's industrialisation strategy consisted of the following pillars:

- i. Development of an export-oriented industry. Government adopted the 'export first' principle which aimed to promote production for export.
- ii. Industry support to enable them to market their goods abroad intensively. Initially, the government even had a policy which banned the sale of export goods locally.
- iii. Introduction of the Heavy and Chemical Industries (HCIs) initiative. Under the Park Chung Hee administration, the government adopted the strategy of 'export-first' principle as an industrial development strategy. It was also known as the 'nation-building through export promotion'. Under the scheme, the Ministry of Trade and Industry introduced targets for export firms and also provided a range of incentives (such as preferential credit and loans, administrative support, tax and other benefits).
- iv. Investment in education and skills. Total expenditure (public and private) on education, regularly exceeded 10 per cent of GDP. This was said to be the highest level among all developing countries. By 2000, the percentage of high school graduates advancing to colleges or universities during the 1980s was the second highest in the world after the US.
- v. and it produced more engineers each year than the whole of India. Furthermore, its enrolments in technical subjects at the tertiary level were over twice the ratio in the OECD (Lall, 2004:21)
- vi. Instilling strong values and work ethics among the population. The country's Confucian emphasis on education and discipline was one of the key factors which contributed to a high economic performance of the economy since the five year plans were introduced.

Apart from the direct interventions to support local enterprises, the government provided selective and functional support by building a massive technology infrastructure and creating general and technical skills.

The industry strategy followed by the ROK was based on export expansion, and it focused on the growth of large scale enterprise which could take advantage of economies of scale and technology transfer in order to achieve competitiveness.

Harvie and Lee conclude that the government's strategies were successful to the extent that they led to the transformation of a once backward economy in 1962 to a globally competitive economy with a per capita GDP 66 times; a GDP 110 times and an export level 1860 times higher by 1989 and a domestic savings ratio of 35.4 per cent compared to 0.8 per cent in 1960.

Despite the successes, the strategy had its downside. The state-led interventions were criticized for having created monopolies (the chaebols), that it led to inefficiency and excess capacity. State intervention through targeted industry policies through tax incentives, subsidised credit and loans, and other direct interventions, led to excessive borrowing which increased a high level of indebtedness in the RoK. It also weakened corporate financial structure as debt-equity ratios were very high. Some of the projects which had been financed by the state were not economically viable. The focus on strategic industries had resulted in enormous economic inefficiency. Inflation had risen to over 20 per cent because of excess investment demand over savings growth.

During the period 1980-1987, the ROK made a policy shift when it decided to embark on market reforms through trade liberalisation and to promote domestic competition in order to improve efficiency and to allow Small to Medium Enterprises to enter the manufacturing sector. Direct state intervention was abandoned. There was greater reliance on the private sector for decision-making. The policy of targeted incentives to certain industries was abandoned because of the 'distortions' which such policies had created. Under liberalisation, there was market opening, financial sector liberalisation, introduction of anti-trust legislation, greater opening of Foreign Direct Investment (FDI) and reduction of preferences to specific industries. The number of industries which were classified as strategic was reduced. Indirect incentives were preferred in place of direct tax incentives. For example, government introduced tax free reserves for expansion of technology development in place of direct tax reductions and holidays. Government also promoted private sector investment in Research and Development instead of financing it. All this was designed to curb fiscal imbalances and macro-economic stability.

A major lesson from the experience of the ROK is the important role which the state played in building an industrial base for the country. Its massive investments in infrastructure, provision of a range of incentives, skills development, contributed to the growth of the economy and reduced unemployment. However, the strategy created some problems mainly in the form of industry concentration and inefficiency, an outcome which led to policy reversals during the 1980s. Despite those pitfalls, the ROK had established an industrial base which was to be the pillar of its economy for years to come.

## **Singapore**

Singapore is another success story on industrialization in East Asia. Evidence from the literature suggests that one of the major factors which propelled the country on to an industrial path was that it did neither had natural resources or an industrial base. In 1960, its manufacturing sector was very small, contributing only 11.4 per cent to GDP. The government's policy was to promote industrialization as a way of diversifying from its traditional role as a shipping port.

The industrialization of Singapore was initially based on the Import Substitution Industrialisation (ISI) model which was deemed inadequate due to the smallness of the domestic market. Government policy then shifted towards a more Export-Oriented Industrialisation (EOI) strategy which depended largely on Foreign Direct Investment (FDI). Its policy sought to promote industrialization as a way of diversification of the economy.

Under the guidance of the Economic Development Board (EDB), the government used industry policy extensively to promote industry growth. There were targeted incentives such as provision of financing, capital investments, tariff protection for the new or emerging industries, export incentives to encourage exports. The EDB invested in large industries for the greater part of the period 1960 to late 1970s. It sponsored high productivity projects. In order to attract FDI, a number of incentives such as tax holidays, generous terms for repatriation of profits, provision of infrastructure such as industrial parks, Export Processing Zones (EPZs). Enterprises in these zones tended to use low-cost labour and for some years, they were heavily criticized for exploitation of female labour which the companies employed.

The EDB was successful in building a diversified industry base for the country. By 1988, it is estimated that the country had 3,694 manufacturing establishments which employed 352,000 workers. Industry contributed 29 per cent of the GDP. This was more than double the 1960 performance, a clear indication that the interventionist policies of the state had achieved their goals. Industry was also more diversified, with production of telecommunications and equipment, electronics, computers and disc drives. The country became the world's largest producer of disk drives and disk drive parts.

Key success factors in Singapore's industrialization was the role played by a state that was visionary and dedicated to achieve national development goals. The EDB was a very effective agency in terms of spearheading the country's industrialization plan. State agencies were established in later years to support Small to Medium Enterprises who had hitherto been neglected in the early years. Focus on large enterprises led to monopoly tendencies. In 1986, the government set up the Small Enterprise Bureau to help SMME sector to modernize its plants, technology, product design and to improve skills and management. A Small Industry Technical Assistance Scheme was also established whereby the government provided grant support to enable SMMEs to engage consultants to help with skills development and other technical assistance required. In essence, these were subsidies.

The setting up of a National Productivity Board in 1972 played an important role as well. The Board followed a 'total productivity' approach which emphasized productivity measurement, product quality, a flexible wage system, worker training, among others.

The replicability or applicability of the 'Asian Miracle' to Africa though, has been the subject of controversy. It is argued that the conditions which prevailed in East Asia at the time of their industrialisations are different from the global environment which faces Africa today particularly in the context of new trading and financial rules which now limit the policy space for the continent.

To conclude, the question is whether African states should adopt similar policies in order to develop their industry base. The paper argues that, whereas there are some useful strategies to learn from the East Asian experience, there are pitfalls that African states should also be aware of. Ultimately, the message is that Africa should not 'replicate' the policies which East Asia adopted "willy-nilly" but rather, to adapt them to the realities and needs of the continent. A major learning point is that although East Asian countries liberalised their economies, this was gradual and the region as a whole has retained a significant role for the state.

Liberal economists like Stiglitz (2008) noted,

" China and other East Asian economies have not followed the Washington Consensus. They were slow to remove tariff barriers and China has still not fully liberalized its capital account....Though the countries of East Asia globalized, they used industrial and trade policies to promote export and global technology transfers, against the advice of the international economic institutions.)

The state has to play an important role in promoting industry development in Africa. The East Asian strategy of export-oriented, MNC-dominated industrialisation has not worked for Africa. Instead, it has simply reinforced and perpetuated an unequal pattern of trade and production which was ushered in by the adoption of the neo-liberal Ricardian

Comparative Advantage paradigm. The continent must pursue a different approach to industry development, an approach which seeks to add value and identify new and dynamic comparative advantages.

### 3. Industrialization initiatives in Africa

African states have initiated a number of initiatives to promote industry. However, they have not been very effective largely because of lack of resources to implement the plans and also due to lack of synergy between continental and national industrialisation efforts. More recently, however, it would appear that, under the leadership of the Council of African Ministers of Industry (CAMI), there are renewed efforts to revive national, regional and continental approaches. A brief review of past strategies is presented here, with an analysis of the factors which contributed to their limited success. Recent initiatives such as the African Productive Capacity Initiative (APCI) are reviewed. In addition, some national level initiatives are also discussed so as to assess the extent to which neo-liberalisation is enhancing or retarding their efforts to industrialise.

Over the last thirty years, African states have developed a number of initiatives in order to promote industry growth and development. The Lagos Plan of Action (1980), the Abuja Treaty establishing the African Economic Community (adopted in 1991), and the Alliance for Africa's Industrialization (1996), which also stressed the need for diversification and economic transformation as a critical vehicle for achieving African self-reliance.

The New Partnership for Africa's Development (NEPAD) adopted by African leaders in 2001 identified economic transformation through industrialization as a critical vehicle for growth and poverty reduction in the region.

There have been a number of continental initiatives to promote Africa's industrialisation. Some of the notable ones are summarized below:

#### i. The Lagos Plan of Action

The Industrial Development Decade for Africa (IDDA) came in two phases, IDDA I and IDDA II. This was adopted in 1989 for the period 1993-2002. In the spirit of the LPA, the Decade aimed to reduce the over dependency of African countries on the industrialised world. That goal would be achieved by tapping on the continent's wealth and natural resource base and using that to increase growth and improve self-reliance. IDDA focused on the rehabilitation of existing industries and the improvement of performance of public sector enterprises (mostly through either creating performance benchmarks for public enterprises or through privatisation programmes). It also promoted the expansion of the industrial base towards new sectors (metallurgy, engineering and allied metalworking, chemicals, food processing,<sup>6</sup> forest-based industries,<sup>7</sup> leather products, textiles and construction materials). IDDA was not very successful because the initiative was hampered by an absence of mechanisms for its implementation, coordination and monitoring. It was drafted more as a wish list than as a concrete action-plan. For instance, despite the well recognised importance of external finance to implement the plan, no operational strategy was adopted for raising necessary funds (UNIDO 1997). Marti and Ssengube (2009:11)

#### ii. The Abuja Treaty for African Integration (1991)

The treaty assigned top priority to the development of regional production structures, with appropriate supportive infrastructure, and the coordination and harmonization of economic and social policies within and between the sub-regional communities, e.g. edible oil mills; fruit and meat preservation; fish processing;

milk, sugar, coffee and salt production, manufacture of doors and windows; pulp and paper; plywood, flush doors, multi-ply panels; and fibreboard.

iii. The Cairo Agenda for renewing the impetus of Africa's economic and social development (June 1995) also contained a call to increase the production, competitiveness, and diversification of the domestic private sector, especially in the agro-industrial mining and manufacturing sub-sectors, with potential for exports and employment.

iv. Alliance for Africa's Industrialisation (1996). The Alliance sought to provide a framework under which African countries could formulate competitive national industrial strategies based on private sector-led development, focusing on comparative advantage, and then see these translated into concrete, practical action programmes.

v. NEPAD and the APCI

The African Productive Capacity Initiative (APCI) was adopted by the African Union and NEPAD in 2004 to be the overarching framework for sustainable industrial development in Africa. The APCI was an outcome of various CAMI sub-regional conferences held across the continent in 2002-03 bringing together both state and non-state actors.

While reaffirming that neither development nor trade are sustainable in the absence of a manufacturing base, it contained several conceptual and operational innovations or improvements, particularly:

- A more explicit focus on national and regional comparative advantages;

- A bottom-up approach to mobilise the active participation of the private sector in industrial development, with a view to promoting *business-driven decision making*. This expands the scope for improved private-public sector dialogue, by making the private sector responsible for the achievement of goals identified based on demands. The approach thus takes into account the needs of entrepreneurs throughout the value chain,

*Industrialisation And Industrial Policy In Africa: Is It A Policy Priority?* 7 encouraging the acknowledgement of the contributions of both small and large enterprises in the performance of the sector;- A call for a gradual transfer of leadership in the African productive sector from states to private stakeholders;-

Through its focus on productive capacity, the initiative marked a shift away from the macro-economic perspective on industrial issues towards a more hands-on sectoral approach. Interventions were based on the identification and promotion of selected value chains;- It innovated with a call to mainstream and generalise strong public-private sector partnerships at all levels (national, regional and continental) and sought to involve all stakeholders from planning to implementation.

Last but not least, it contained a financing window, the African Productive Capacity Facility (APCF) and a Trust Fund to finance projects identified under the Initiative.

Marti and Ssebugo (2009:13)

Priority sectors under the APCI are:

(i) food processing;

(ii) textiles and garments;

(iii) leather and leather products;

(iv) mineral and metal products (processing of);

(v) wood and wood products;

- (vi) automobile equipment and assembly;
- (vii) pharmaceuticals; and
- (viii) building materials.

#### Cross-cutting issues

- (i) harmonisation of industrial strategies and policies (including statistical data);
- (ii) improving quality infrastructure, investment promotion and supply chains (trade capacity building);
- (iii) promoting energy supplies and efficiency, especially in rural areas;
- (iv) developing information and communication technologies as a mean to reduce transaction costs;
- (v) focusing on technology diffusion, clean production and productivity;
- (vi) promoting a conducive regulatory and business environment; and,
- (vii) upgrading skills through learning and innovation processes.

APCI calls upon governments to limit their role to be that of a regulator or facilitator. In essence, they should avoid direct intervention. They are called upon to avoid “state interference and direct management of the production system.

#### **vi. AU Plan of Action for Accelerated Industrial Development**

From 31 January to 2 February 2008, African heads of state met in an African Union (AU) Summit devoted to the issue of industrial development in Africa. The dedication of an entire meeting of heads of state to industrialisation attests to the political visibility that the problem has in Africa. During the Summit, a "Plan of Action for the Accelerated Industrial Development of Africa" was adopted. The Plan was completed by a Strategy for Implementation, adopted during the 18th CAMI (October 2008). The consensus which has emerged through successive Conferences is that the priorities to unleash the potential of African industrialisation are:

- value addition and processing of Africa's agricultural and mineral resources is the quickest industrialisation path;
- the development of infrastructure to sustain and promote industrialisation, such as energy, communications, transport and water;
- improving human capital through health, education and training policies;
- increase competitiveness and productivity through the adaptation of technologies and increased research and development (R&D);
- private sector development and the promotion of SMEs;

A major weakness of these modern innovations to promote industry development is the apparent assumption once again that there will be a trickle-down effect which will then benefit the poor. For example, at one of the CAMI meetings, it was pointed out that p41The trend towards the acceptance by private sector industry of its corporate social responsibilities will enable industrial firms to finance and undertake many of the measures aimed at reducing poverty (UNIDO/DTI, 2010)

## South Africa

South Africa is one of few African countries which is relatively more industrialised compared to most other countries on the continent. The manufacturing sector in particular, is a major contributor to the production sector. This was estimated at 54.3 per cent in 2008 (Industrial Policy Action Plan (IPAP) 2010/11-2012/13), otherwise referred to as IPAP 2. Despite its significance in the economy however, the government acknowledges that the manufacturing sector has stagnated in the last few years. A number of factors have contributed to this situation. These include, but are not limited to: failure to cope with growing external competition, difficulty in accessing northern markets because of tariff and non-tariff barriers to trade as the advanced industrialised countries continue to protect their markets, the inefficiency of some industries, the low skills and technology base and the failure to upgrade and refurbish some industries. Other factors are the high cost and limited availability of capital, a weak skills system, and unreliable and expensive port and rail systems and rising energy costs. Another important factor is the low relative profitability of manufacturing in relation to other sectors such as finance.

According to the Department of Trade and Industry (dti), the country's industry and export competitiveness has declined relative to other developing countries such as Brazil, India and Malaysia. The government is also concerned about past policies which have led to the growth of more capital rather than labour-intensive type of industries.

The drive to revitalize and support industrialization also arises from a realization that although the services has been a major employer, its dependence on credit growth is not sustainable. As argued in the IPAP 2,

"The unsustainable dependence of retail and wholesale employment growth on private credit extension rather than income growth in productive sectors has been demonstrated by the large reversals of employment in this sector in the light of the collapse in credit extension as a consequence of the economic crisis. Therefore, long-term increases in employment in all sectors of the economy, need to be underpinned by higher growth in the production sectors of the economy, led by manufacturing."

In response to the challenges facing industry, the Cabinet adopted the National Industrialisation Policy Framework (NIPF) in January 2007. This is the government's roadmap for industrialization. The main objectives of the NIPF include, but are not limited to the following:

- To facilitate diversification of economic activities by promoting increased value-addition products which can compete in international markets as well as imports.
- Intensify the country's industrialization process and movement to a knowledge economy
- To promote the growth of a more labour-absorbing industrialization path which focuses on tradable labour-absorbing goods and services
- To promote an inclusive industrialization path in which historically disadvantaged and marginalized people actively participate in the mainstream industrial economy

The NIPF was to be implemented through an Industrial Policy Action Plan (IPAP). The first IPAP was from 2007/8 and this has already been implemented. Its focus was to strengthen the capacity of the Competition Commission so that it can be effective in ensuring a more competitive environment in industry. The Plan resulted in the development of the Automotive Production and Development Programme for the sector for the period 2013-2020. The target is to increase production of 1.2 million vehicles by 2020. The sector is a leading industry in the country. It also initiated programmes for the upgrading of the textile and clothing sector which has been seriously hurt by the global economic crisis, illegal imports and a weak skills base. IPAP also aimed to lower input costs into manufacturing by removing or lowering a range of import tariffs. The dti has lowered or even removed a number of tariffs on inputs into manufacturing industry. The Industrial Policy Action Plan (IPAP2) 2010/2011-2012/2013 is a comprehensive and innovative industry strategy which the government has developed in order to improve growth in key manufacturing sectors and to create sustainable employment.

The key priorities of IPAP 2 are:

- i. To improve the capacity and performance of existing manufacturing sectors, in particular, to boost their competitiveness in the face of growing international competition. In that regard, a priority sector to receive support is the metal fabrication, capital equipment and transport equipment sectors. These sub-sectors are central to the economy (for instance, infrastructure, construction, general engineering, mining and the automotive sectors depend on products from these sub-sectors). The metals sub-sector also taps on the country's rich mineral resource endowment. It also has a potential for creating jobs and this is consistent with the NIPF which emphasizes promotion of labour-absorbing industries. In 2008, the sectors employed 312,235 (24 per cent) of manufacturing sector employment.

One of the core focus sectors in the 2010/2011 IPAP is the automotive industry. Traditionally, the industry has contributed 7 percent to the country's GDP and 13.5 percent of the country's exports. In 2008, the industry employed 320,000 people. The Automotive Production and Development Programme (APDP) which was developed under IPAP 1 will be implemented and the target is to double production to 1.2 million units by 2020, as well as substantially increase the local content of components in vehicle production. Currently, local content only makes up 35 percent of a vehicle. Dependence on imports for the other components increases manufacturing costs due to import tariffs and time delays. The Plan is expected to have one of the largest impacts on job creation, with more than 150,000 additional jobs to be created in the next 10 years. This is consistent with one of the objectives of the NIPF which put emphasis on promoting an industrialization strategy which has a strong labour-absorbing component.

- ii. To ensure food security. In this regard, IPAP 2 has identified agro-processing as a priority sector for promotion of industry growth. It includes sub-sectors such as food processing, beverages, horticulture, aromatics and some medicinal products. It will also exploit its comparative advantage in the fruit and beverage sectors (including wines and indigenous teas), "farmed fish" and other related high value products for domestic and external markets.
- iii. To identify and promote the growth of industries in the manufacture of products with emerging niche areas, for example, production and processing of organic food because of its growing demand, high value addition, and lower production costs since no chemicals (fertilisers, pesticides etc) must be used in their production. Production of organic cotton has been identified as another niche. There has also been a realization that there is stiff competition for non-organic cotton products particularly from East Asian markets. The pharmaceutical industry also offers new opportunities for industry development. The IPAP has identified, among other things, the manufacture of anti-retroviral drugs as a necessary investment largely because the sector is the 5<sup>th</sup> largest contributor to the trade deficit (US \$ 2.1 billion in 2008). South Africa is also known to be the world's largest market for ARVs because of the HIV/AIDS pandemic which plagues not only South Africa but most of Southern, Eastern and Central Africa. It is estimated the country spent about US\$ 2.2 billion in imports of ARVs in 2008 and thus, in order to reduce the deficit, it will promote local production.
- iv. The chemicals sub-sector will also be supported because its products are used across most manufacturing processes. It also contributes about 3.2 per cent to GDP.
- v. The Plan also aims to support industry to adapt and respond to new demands or pressures on the international market. For example, it identifies, as a growing threat, the new "eco-protectionism" from advanced industrial economies. The phenomenon refers to the tendency of those countries to impose tariff and non-tariff barriers for products whose production is deemed to have exceeded required thresholds of carbon emissions. Thus,

IPAP 2 seeks to promote “Low Carbon Green Sector” industries such as Solar Energy, the production of Medium to Heavy Commercial Vehicles (Auto industry) with low carbon emissions.

- vi. Through the Competition Commission, improve monitoring of large companies to ensure compliance with regulations which seek to promote competition in industry. The IPAP 2 document notes that, “current measures to exclude non-compliant products from the market are not effective” (IPAP, 2010/11-2012/13:28)
- vii. Reduce customs fraud and illegal imports which have been hurting the textile and clothing sectors
- viii. Invest in infrastructure and programmes which aim to improve quality of products from industry. This should enhance their access into international markets. There are plans for investments to strengthen the country’s Technical Infrastructure and Institutions (TIIs), institutions such as the South African National Accreditation (SANA) System, the National Regulator for Compulsory Specifications (NRCS), and the South African Bureau of Standards (SABS). TIIs will re-prioritise their activities to support the development, accreditation and enforcement of standards which can scale up or resuscitate certain industries.
- ix. Promote the advanced industries and materials sub-sectors. The government plans to continue to support the nuclear (for energy); metal fabrication and capital equipment, chemicals and advanced manufacturing industries. This is an attempt to improve the country’s capacity for Medium to Heavy Technology industries.

Under IPAP 2, the government is also developing industry policies to support the sector. Selective tariffs will be applied on a sector by sector basis and levels will be determined by the needs of each industry.

IPAP 2 also aims to improve financing to industry. There are plans for the Industrial Development Corporation (IDC) to provide concessional industrial funding. This is based on the observation that Development Finance Institutions (DFIs) have played a critical role in channeling finance to productive activities in countries which have industrialised rapidly, for example, the Korean Development Bank (KDB) in the Republic of Korea and some investment banks in Singapore and Brazil. The idea is that the state should make a capital injection into the IDC to enable it to provide such concessionary financing. (IPAP 2:18).

Other key policy decisions in the Plan include government procurement programs, which will incorporate the National Industrial Participation Programme (NIPP), and technical infrastructure and standards.

IPAP also has developed strategies to improve industrial capabilities and also plans to invest in skills development. Overall, the 2010/2011 IPAP aims to create about 800,000 jobs in the next 10 years through the various sector strategies and policy decisions.

IPAP 2 indeed has some innovative ideas and its success will critically depend on the government’s commitment to implement it as well as the responsiveness of industry. There is some optimism that the Plan is likely to work since it was developed after extensive consultation with various industry actors, representatives from development finance institutions, and government departments. It is also evident that the government has adopted a cautious approach in terms of minimizing the role of the state. Its role is largely confined to regulation, supervision, standards promotion and infrastructure development. Could it be that neo-liberal globalization is at play here? Making it difficult for the South African state to make bold moves to intervene in bigger and perhaps more likely to be effective ways? The author has not answer. This is an area which requires more careful and intensive research.

## **Morocco**

Morocco has been liberalising its economy for the last few years. It is actively involved in the multilateral trading system, and has also entered into regional and bilateral preferential agreements. And these have been aimed to liberalised trade with those partners particularly in the European Commission. A major challenge as indicated in the 2009 Trade Policy Review by the WTO, is that “belonging to several trade agreements whose geographical scope,

liberalization programmes, and provisions on rules of origin (*inter alia*) differ, is not only difficult to manage, but also makes Morocco's trade regime more complex and reduces its predictability" WTO (2009:xii)

Morocco has been able to continue with protection for the agriculture sector, a major employer in the country. The government provides incentives to the sector. Agriculture is the most heavily protected sector, with *ad valorem* tariff rates as high as 304 per cent, although the average has fallen from 40 per cent in 2003 to 29 per cent in 2009. WTO (2009:xi)

Morocco has adopted an export-oriented industry strategy. In particular, its manufacturing sector promotes exports. It is dominated by subcontracting (particularly in the textiles and clothing and the transport equipment industries). The textile and clothing industry is a major sector in the category of processing industries. The government has used tax incentives to promote export growth. There has been a gradual liberalization of the sector in order to improve its competitiveness, for example, the average import tariff in the sector is 19.9 per cent (as compared with 33 per cent in 2003). WTO (2009:xi) fiscal incentives are used to promote the growth of sectors such as mining, energy, tourism and transport. Customs benefits are also provided in order to promote exports. The government has also developed a network of free export zones. However, export subsidies, in line with the WTO rules, have been gradually phased out (eg the export tax on maize and plant fibre).

Part of the strategy to improve competitiveness is the conversion of the State monopoly *Office chérifien des phosphates* – OCP (Moroccan Phosphates Board, to a public limited company. The company has been inviting foreign equity participation in fertilizer production. To comply with the new trade rules, in 2004, the government also abolished the 60 to 70 per cent local content requirement for the automobile assembly industries. WTO (2009:x)

## **Kenya**

Kenya's horticulture industry is highlighted here to show how the country is exploring new opportunities. It is one of the largest exporters of fresh vegetables and cut flowers in Africa. The government of Kenya has been instrumental in the success of those exports.

It invested in logistics infrastructure for air-freighted perishable exports and in quality and food safety assurance systems. This was instrumental in attracting the private sector. For example, the government established the National Plant Inspection Service (KEPHIS) in 1997. The Inspectorate helps private companies on information and on how to comply with standards for the EU market. The government also invested in supply control and traceability systems, upgrading and packaging house facilities (advanced cold treatment and storage systems); staff training, health counselling and environmental testing.

Kenya's horticulture industry has been criticised for the poor working conditions of the workers. The labour legislation governing export-oriented industries not only in Kenya but also in countries like Mauritius, has been criticized as inadequate to protect the interest of the workers and therefore, any industry strategy which promotes export processing or enterprise zones has to ensure that the rights of workers are protected.

## **6. Conclusion: Towards a strategic framework for the industrialization in Africa**

Based on a review of the literature, The review has also highlighted a number of strategies that are critical to promoting industry growth. A major issue which emerges from the review is that it is important for a country to be innovative in terms of developing policies and strategies which are suitable for its own context and situation. While the experience of the East Asian economies was largely successful with respect to their industrialization agenda, some caution is necessary with respect to wholesale 'copying' of their industrialization model. However, there are also some very useful policy lessons which Africa could draw from those experiences and use to their own advantage. In particular, it is clear that one key success factor in East Asian industrialization was the role played by the state. Contrary to market-dictates,

the state took a leading role not just as a facilitator but in identifying existing and new industries and targeting them for substantial levels of state support in terms of protective policies, financing and human development and technical support. While such a role may not be sustainable in Africa, due to financial constraints, there needs to be concerted efforts to mobilise domestic resources to finance industry development under the close direction of the state. Direct intervention through targeting has been shown to be inefficient and unsustainable and it will be unavoidable for African countries to build strong partnerships with the private sector. The role of the state though will be to promote those foreign and local private investors who can promote local developmental goals, for example, a joint venture with a Malaysian investor can be justified if the investor will contribute in terms of technology transfer and other expertise which cannot be sourced locally. They should also be willing to comply with targets on job creation and local capacity building of employees to ensure skills transfer.

Thus, Africa's industrialization will critically depend on the evolution of a strong developmental state which has the knowledge and expertise to formulate and implement appropriate policies to promote the emergence and growth of a local industry sector. The UNCTAD (2009) calls for a "Schumpeterian" transformative policy. It also refers to this as "the new Developmental Industrial Policy (DIP). DIP is defined as any strategic intervention by the state that catalyzes structural change and stimulates economic restructuring toward more dynamic, higher value added activities. (UNCTAD, 2009).

Strategies to develop industry should also build on the resource endowments of the country. For example, most African countries are based on agriculture and so, it makes logical sense to promote industries in agro-processing, manufacture of agricultural inputs, tools, and equipment. Mineral rich countries can move beyond the comparative advantages which are based on abundance of the mineral resource by promoting industries which process minerals.

A strong institutional base is crucial. The state can support the establishment of organizations which promote investment in industry, those which provide technical and other support. In Singapore, the State Economic Development Board (EDB) which was so instrumental in the country's industrialization established the Economic Development Investment Board (EDIB) which invested in industry. In South Africa, the government has established the Industrial Development Corporation (IDC) for a similar purpose. Botswana has established a number of agencies to promote domestic and foreign investment in the industry sector.

With respect to resource mobilization, a fundamental shift in approach will be necessary. For too long, African states have tended to rely on ODA and FDI flows to support industry development but due to lack of competitiveness in most of the continent, FDI flows have declined over the last ten years. Increasingly, internal sources of finance have to be explored. More concerted efforts to mobilize tax and other revenue sources are necessary. In particular, questions have been raised as to whether African states are getting a fair share of the revenues which should accrue from the mining sector through royalties and taxes. Such resources could be harnessed to support industry. National budgets should also allocate more resources towards research and development.

Investment in science and engineering education and related fields. More resources should be allocated towards education in the sciences, engineering and technology fields. A significant shift is required in this regard in terms of education budgets. A massive investment in colleges which are oriented towards more technical subjects is pivotal. These efforts are necessary in order to build the human resource capacity for manufacturing which is currently underdeveloped.

Industry policy should also target Small to Medium Size enterprises (SMMEs) who have tended to be marginalized from state support. Mauritius has been very innovative in this regard. Its current industry strategy focuses on developing the capacity of the SMME sector to manufacture and export.

Regional Economic Communities (RECs) have a crucial role to play in promoting industry development. More effort should be made to come to implement industry plans. All RECs already have such plans but the problem has been that

implementation has been very slow or lacking. It will be important for all RECs to take advantage of the APCI which should be implemented at national and regional levels.

Infrastructure is still a challenge and is one of the factors which has made the continent to be uncompetitive compared to other regions. The need for reliable services such as water and electricity cannot be overstated. In addition, roads, transport and communications infrastructure need improvement.

Cluster development. South Africa is putting a lot of emphasis on a value chain approach in its industrialization strategy. It will be useful for other countries to identify value chains which have a strong growth and developmental potential. Substantial state support to promote the growth of industry clusters through appropriate policies will also be necessary.

The knowledge led-economy is becoming the essential support of production and competitiveness. A country, which fails to promote its innovation capability, will be marginalized from the global value chains production networks which can work to its own advantage. In order to take advantage of these, investment in market research, product and process innovations and building the capability formation required for absorption, diffusion, duplication and usage of that technology should be prioritized. States should invest significant resources into existing and new knowledge diffusion centres including universities, which are focusing on productive capacity, dynamic entrepreneurs and firms liaising with actors of the knowledge diffusion centres.

Finally, it has to be pointed out that African states are actually not deficient in terms of knowing what needs to be done in order to build a strong industrial base. The many industrial action plans which have been developed and adopted by continental bodies such as the OAU, now AU, NEPAD, the various RECs, among others, are a testimony to that. What **seems** to be lacking is the vision and will power, commitment and the capacity to mobilise national and other resources, the capacity to identify and negotiate agreements for appropriate joint ventures which can augment required capital, human resources, technology and skills which are so vital for the industrialisation process. Hopefully the APCI will be a turning point. The experiences of Singapore and the dedicated work of the Economic Development Board and that of the Republic of Korea, are some of the incredible cases which demonstrates what a developmental state can do and actually achieve.

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