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**Industrialisation And Sustainable Development In Nigeria**

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**Abstract: The main thrust of this paper is to diagnose the interface between industrialisation and sustainable development in Nigeria. The work using unstructured interview and other secondary sources of data collection and analysis discovered that industrialization is an essential aspect of long-run development in that most nations that have achieved socio-economic development, though with some attendant environmental consequences, have also seen structural transformation from primary production towards industrialization. The paper distilled that lack of proper government policy, adequate funding, poor infrastructural facilities and lack of funding are factors responsible for the backward nature of industrialisation in Nigeria. Finally, the paper recommends that government should invest more on industrial development through adequate funding and viable policies that could guarantee sustainable industrial development in Nigeria.**

**Keywords: Industrialisation And Sustainable Development**

**Introduction**

In recent years, the world's rapid industrialization has been given special attention by scholars and policy makers. This attention was because of the impact of industrialization on environmental, economic and social activities (David, 2005). These activities are

largely due to the process by which materials and energy are being consumed by industries and are transformed into usable products and waste, (Stewart, 1992). Industrialization is associated with economic development and has been a hallmark of modernization and national economic power,

(Brundtland, 2007). It is no accident therefore, that most developing nations have made industrialization a national priority.

Industrialization is an essential aspect of long-run development in that most nations that have achieved socio-economic development, though with some attendant environmental consequences, have also seen structural transformation from primary production towards industrialization, (Aneta, 2006). Keeping the pace of such development to meet the requirement of the present without jeopardising the needs of the future, is sustainable development, (Classzone, 2007).

Sustainable development can be seen as a complex, multi-dimensional and an interdependent process which has to be approached from an international, interdisciplinary and dynamic perspective.

Sustainable development may not be achieved in a hegemonic and unipolar world in which everything is commoditised and market driven. It could be a humanistic approach such as an alternative framework for poverty eradication which is a major means to ensuring development, (Famade, 2007). Sustainable development is now widely accepted as resting on 3 pillars of the sustainability of economic growth, social development and environmental protection (UNIDO, 2004). Countries like Britain, India and others from Asia and the Pacific, have also accepted this concept which is also essentials of industrialization.

In Britain, industrialization brought a lot of positive effects in terms of job creation, technological

advancement and rise in the standard of living. It however also brought about unhealthy working conditions and water pollution, (Adejugbe, 2004). These negative effects could inhibit both industrialization and sustainable development. India also recorded a long term impact of industrialization resulting to environmental changes and exploitation of natural resources, (Famade, 2007). The extensive exploitation of natural resources could lead to the depletion of such resources thereby threatening industrialization and sustainable development.

Nations in the continent of Asia and the Pacific though experienced economic growth and infrastructural development brought about by industrialization, they also experienced environmental consequence of solid waste disposal (Osita,2007). The solid waste disposal is as a result of nuclear power technology and creates health hazards thereby threatening sustainable development. In Sub-Saharan Africa, the economic and social benefits of industrialization are far being overrun by industrial pollution which is becoming highly concentrated due to weak industrial development policies,( Nabende, 2002). These weak policies could not support the efforts towards improving a clean air environment conducive to human activities at the same time enhancing economic

and social development towards an industrialized yet sustainable future.

In Nigeria, industrialization has been pursued since the early 1960s, (Famade, 2007). This was done through formulation of series of industrial development policies. Although the level of industrialization in Nigeria is low, it has not only impacts on the economic and social development but also, creates pressure on the environment. One of the economic benefits is the rise gross domestic product (GDP) between 2008 and 2009, (Beckerman, 2007). Also, industrialization brought about improved health care services through manufacture of drugs and other medical ancillaries. In the area of environmental, the issue of greenhouse gas from continuous gas flaring of multi-national oil companies in the oil sector which the FG, despite several policies, have not been able to curtail, (UNIDO, 2004). All these are issues relating to industrialization and sustainable development. These issues require re-examining the ways in which industrialization policies are formulated. Lack of adequate industrialization policies or their proper implementation may bring about environmental insecurity, social and economic underdevelopment which could subsequently impinge on industrialization and sustainable development.

Thus, scholars and policy makers are under the increased pressure of finding ways to enhance industrialization for a sustainable development. This increased pressure to formulate solutions could be attributed to the fact that industrialization and sustainable development have been and will continue to be major trends in our emerging world which has a common future. The process of attaining industrialization and the corresponding impact on sustainable development in Nigeria, appear to defy series of policy formulation. Hence, the researcher was motivated to undertake this study.

### **Objectives of the Paper**

The main objective of the paper is to examine how to enhance industrialization for sustainable development in Nigeria. Specifically, the paper seek to:

- a. Establish the relationship between industrialization and sustainable development.
- b. Examine the effects of attempt to industrialize on sustainable development in Nigeria.
- c. Discuss the issues involved in industrialization in Nigeria.

**Methodology** The paper involves descriptive methods using data obtained from various sources. The primary source of data will include the use of unstructured interviews to collect data from Directors at Ministry of Trade and Industries, Ministry of Environment, Ministry of Labour and Productivity, General Managers of Kaduna Refinery and Petrochemicals (KRPC), Peugeot Automobile Nigeria (PAN) Plc, Kaduna Textiles Limited (KTL) and Niyya Farms. In addition, Heads of Non Governmental Organizations and Directors of Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and Millennium Development Goals (MDGs) would be interviewed.

## Conceptual Discourse

### Industrialization

Adejube defines industrialization as the process of harnessing human and material resources, with increasing application of science and technology to the production of goods and services, (Beckerman, 2007). This definition though captures some of the essential requirements for this study, it sounds hazy and not explicit about the application of science and technology.

Furthermore, it failed to touch on the issue of environmental effect caused by industrialization.

Osita looks at industrialization as the progressive ability of a people to harness human and material resources for the production of goods and services as is a key component of economic development.

Hewitt views industrialization as a particular way of organising production and assumes there is a constant process of social and technical change which continually increases society's capacity to produce a wide range of goods, (Osita, 2007). This definition regarded industrialization as a total process impacting on society through a unique increase in goods and services. However, it failed to highlight on the impact of environmental issues on the society as a result of industrial activities.

On the whole, most of the definitions tends to overlook the issue of environmental impact of industrialization.

Hence, for the purpose of this study, industrialization is defined as "a particular way of organising production with a constant process of socio-economic, technological and ecological changes which continually increases society's capacity to produce a wide range of goods and services with associated environmental consequences."

### Sustainable Development

Nabende sees sustainable development as a complex process that encompasses not only the ability of a population to achieve long term economic growth, but also its modes of thought and social organization, (Nabende, 2002). This definition though is direct and covers 2 out of 3 pillars of sustainable development, but left out the issue of ecology which is directly related to both industrialization and sustainable development.

Wilfred Beckerman, one of the prominent authors in the field of sustainable development, states that “sustainable development indicates an interdependent concern with promoting human welfare, satisfying basic needs, protecting the environment, achieving equity between rich and poor, and participating on a broad basis in development decision making” Beckerman (2007). This definition though captures the requirement of this study, is less succinct and is not clear about the position of future needs in line with the Brundtland Report which sees sustainable development as the “ development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

### **Relationship between Industrialization and Sustainable Development**

Industrialization involves the use of human and material resources to impact on the society through production of goods and services, (David, 2005). This implies the involvement of economic activities which leads to employment opportunity and income

generation. Industrialization is necessary for development and development brings about decent health care, education and environmental sustainability. The use of material resources for industrialization, creates fear in respect of the depletion of such (non renewable) resources which could affect sustainable development. Also, industrialization brings about environmental pollution that could lead to environmental insecurity. For industrialization to therefore lead to sustainable development, there must be a balance between profitability and sustainability. Hence, there is a direct relationship between industrialization and sustainable development.

### **Theoretical Framework**

This study uses the Modernization theory as its theoretical framework, since the theory recognises the process of Modernization within societies. The theory looks at the internal factors of a country while assuming that, with assistance, "traditional" countries can be brought to development in the same manner more developed countries have.

Modernization theory attempts to identify the social variables which contribute to social progress and development of societies, and seeks to explain the process of social evolution. Not surprisingly, modernization theory is subject to criticism originating

among communist and free-market ideologies, world systems theorists, globalization theory and dependency theory among others. Modernization theory not only stresses the process of change but also the responses to that change. It also looks at internal dynamics while referring to social and cultural structures and the adaptation of new technologies, (Beckerman, 2007).

Historically, the idea of modernization is relatively new. Its basic principles can be derived from the Idea of Progress, which emerged in the 18th century Age of Enlightenment with the idea that people themselves could develop and change their society. French philosopher Marquis de Condorcet was involved in the origins of the theory with the concept that technological advancements and economical changes can enable changes in moral and cultural values. Condorcet was the first to make the economic-social development connection and that there can be continuous progress and improvement in human affairs. With that said, new advancements and improvements would need to keep pace with a constantly changing world. Furthermore, he encouraged technological processes to help give people further control over their environments, arguing that technological progress would eventually spur social progress, (Osita, 2007).

### **An overview on Industrialization and Sustainable Development in Nigeria**

The industrialization process was first introduced in Nigeria by British colonial government in 1964 with the launching of a Ten-Year Plan of development and welfare for Nigeria. The aim of the plan was stated in the following general terms:

*“To improve the general health and mental condition of the people, and to provide those physical facilities which may be regarded as the minimum necessary for the general improvement of the country”*  
(Beckerman,2007).

Unfortunately the focus of the Ten Year Plan was on the provision of some basic social and infrastructural services, and not with the aim to industrialize the country. Consequently, the end result was essentially a catalogue of the projects which the officials thought necessary in their various departments. By 1951, it had become necessary to revise the plan mainly because of a failure to execute most of the indicated projects, (Aneta, 2006). The Revised Development Plan 1951-1956 was not different from the original plan except that the size was reduced to about 60 percent of the original budget.

In 1953, a World Bank Mission visited Nigeria at the request of the Nigerian and British governments. The

Mission identified inadequate infrastructures as the critical developmental bottleneck, and recommended that government should focus on this area, and on the adoption of policies to stimulate private investment rather than get involved directly in productive ventures, (Cities, 2006). It also recommended the establishment of a National Economic Council (NEC) as a forum for top level policy dialogue, (Jane, 2007). The Council was established in 1955. Also in 1955, several plans were launched by the Federal Government and by each of the regional governments. By 1959, the plan were completely out of line with one another, and in an attempt to realign development efforts, the regional governments agreed to terminate their plans by 1962, and embark on a national Plan, (Cities, 2006).

The first National Development Plan was introduced between 1962 and 1968 and was coordinated by the NEC and a joint Planning Committee (JPC) which were set up in 1958, (Osita, 2007). The guiding principle was expressed as follows:

*“A national development plan should be prepared for Nigeria with the objective of the achievement and maintenance of the highest possible rate of increase in the*

*standard of living, and the creation of necessary conditions to this end” (UNIDO, 2004)*

The regional government during the 1955-62 periods also supported the efforts at formulating the first National Development Plan, with each Region producing its plan independently of the others. However, it was an improvement on the past, and its goals were more explicit. By 1965, the plan was clearly off-target as a result of the political upheavals which culminated in the civil war and its heavy dependence on foreign sources of finance, (Cities, 2006).

The Second National Development Plan came immediately after the civil war between 1970 and 1974. The plan was emphasized on the need for rapid growth and progressive localization of economic dominance.

These general objectives were to provide the overriding framework for the planning process, and they have continued to be stressed in every plan since then.

The plan document observed as follows:

*“As the country’s manufacturing consists mostly of goods to final consumers, import-substitution brought in its wake a rise in the importation of raw materials,*

*intermediate, and capital goods. The manufacturing sector has thus become highly dependent on import” (Class zone, 2007).*

Also, the government noted that the country's manufacturing had achieved a very low level of interdependence which had serious implications for the structure of industry and employment. Government therefore decide that “the answer lies in the upgrading of local production of intermediate and capital goods for sale to other industries”, (Aneta, 2006). This strategy led to the planning of public sector industries like pulp and paper mill, salt refineries, iron and steel mills, passenger car assembly plants, petroleum refineries, fertilizer plant and others for execution. It was assumed that the establishment of these plants would create the much needed linkage with agriculture, production industry itself, and with services such as transport, health and education.

Unfortunately, by the end of the plan period, none of the capital-intensive, goods industries had been established, and therefore had to resort to imported inputs. This led to the introduction of the Third National Development Plan, 1975-1980.

The guidelines for the Third National Development Plan were presented in 1973, (Class zone, 2007). The plan was formulated against the background of a

dramatic increase in oil revenue, and the planners assumed that foreign exchange would not be a constraint on plan implementation, (Brundtland, 2007). Although the plan shifted emphasis to heavy industries, it continued to emphasize direct state participation in productive activities even while it acknowledged the “mixed economy” system and the primary role of private enterprise in the economy.

However, in the middle of the plan period, there was the oil crisis which brought about shortage of capital, forestalling the attempt to restructure the industrial sector and put it on a firm footing, (Adejugbe, 2004). During the plan period, more import dependent industries were established as the structure of traffic encouraged import of capital goods and raw materials as against the search for local alternatives, (Beckerman, 2007). In addition, incentives were introduced by government to promote industrialization which included pioneer status, approved user scheme, customs duty (draw back) regulation-1959, customs duties (dumped and subsidised goods) act-1958 and accelerated depreciation of capital investment, (UNIDO, 2004).

Most of these incentives turned out to be defective in the sense that they tended to provide excessive production to consumer goods industry using imported inputs, and thus failed to address the real issues such as



encouragement of capital goods and intermediate goods manufacturing, technology acquisition and so on, (Brundtland, 2007). The incentive regime also failed to direct manufacturing industry to the desired area, while the administration of these incentives in most cases left a lot to be desired, (David, 2005). This, in essence, shows that the import substitution strategy which was not wrong, but was not followed therefore could not support the industries to produce raw materials to substitute import inputs. This brought the need for the fourth National Development Plan, 1981-1985.

The fourth National Development Plan was launched in a different political and economic context from the two preceding ones. This was the temporary slump in the international oil market in 1977/1978 had disappeared by 1980 when the plan was prepared, Stewart, (1992). The plan which was launched in 1981 succinctly expressed the minimal contribution of the industrial sector as follows:

*“The manufacturing sector is still to make significant impact on the structure of the economy by way of contribution to GDP, provision of employment, enhancement of the value of natural resources, foreign exchange conservation, and promotion of wider*

*and more effective linkages among the different sectors of the economy.”( David, 2005).*

Unfortunately, hardly had the plan been launched in 1981 than the oil market slumped again. The Nigerian economy was confronted with various problems such as declining foreign exchange earnings, balance of payment disequilibrium, stagflation and unemployment, (Stewart, 1992). As a result, its systematic implementation had to be abandoned and attention shifted to short term macro-economic management (austerity and stabilisation measures), (UNIDO, 2004). The Fourth National development Plan carried on the basic philosophy of the preceding three plans, continued (and increased) participation of the state in the key productive sectors of the economy, emphasis on reduced economic dependence, and welfarist declarations.

After this came the Fifth National Development Plan, 1986-1990. The fifth plan was to have been launched in 1986. It was however, delayed by abrupt changes in government on December 31, 1983 and August 27, 1985. Eventually, the federal government announced its suspension and decided to adopt a perspective plan along with three year rolling plans, (Jane, 2007).

By 1999, after evaluating the problems facing the entire country's economy, the Federal Government of

Nigeria (FGN) adopted an Economic Blue-print to build a private sector led economy that is technology-driven, market oriented, open and broad based, highly competitive, responsive to incentives and export focused, (Stewart, 1992). The strategy was, to prepare the real sector of the economy for investment opportunities in specific areas like agriculture, manufacturing, mining, oil and gas, science, engineering and technology, water resources, culture and tourism and environment (Jane, 2007). In all these sectors, the manufacturing was set to be the fore bearer of the industrialization process. It was set to enhance contribution of industry to national output (GDP), foreign exchange, revenue earnings and job creation to alleviate the high level of poverty and improve economic growth in the country for a sustainable development.

### **Challenges and Prospects to enhance Industrialization and Sustainable development in Nigeria**

Based on the analysis of industrialization and sustainable development in Nigeria, it has been confirmed that six fundamental challenges affecting industrialization and sustainable development were identified. These include Corruption, lack of

institutional framework co-ordination, inadequate infrastructural development, inadequate funding, lack of inter-sectoral integration and in-effective human capital development.

### **Challenges**

### **Corruption**

The biggest impediment to the future development of Nigeria remains corruption. Available data from Transparency International (2010) ranked Nigeria amongst the most corrupt nations in the World, (David, 2007). Funds meant for industrial development are diverted by corrupt government officials to satisfy their selfish interests. The socio-economic dimension of corruption has equally affected the attainment of sustainable development in Nigeria. Equally, political corruption has played a vital role in curtailing development. There is need for an effective governmental anti-corruption policies that will enhance the effectiveness of the Economic and Financial crimes commission (EFCC) and the Independent Corrupt practices and other related offences commission (ICPC)

### **Lack of Institutional Framework Co-ordination**

The lack of coherence and intergration among the existing institutions is a serious bottle neck to

industrial development in Nigeria. Inadequacies in institutional framework in Nigeria emerge as a result of constant interference by the policy makers. This as mentioned earlier has affected the attainment of the nation's industrial master plan for a sustainable development. Policies should be integrated as one irrespective of changes in government or interference of individual policy makers, (Stewart, 1992).

#### **Inadequate Infrastructural Development**

The absence of effective policies on infrastructural development has had adverse effects on Nigeria's industrial sector. Industrial problems such as lack of roads, water and rail transport system and most importantly ineffective power supply to generate energy for industrial growth serve as threats against sustainable development. Adequate resources must be made available to improve these and other related infrastructures for industrial and sustainable development, (Cities,2006).

#### **Inadequate Funding**

Lack of adequate funding is one of the factors responsible for the failure of industrialization and sustainable development in Nigeria. This could be as a result of the high level of institutional corruption. Funds meant for industrial development are not effectively utilized. As a serious challenge to industrialization, priority must be given to adequate

funding, as a means of promoting sustainable development, (Aneta, 2006).

#### **Lack of Inter-sectoral Integration**

Lack of inter-sectoral integration and corporation between the large scale and small and medium enterprises is a serious problem to the development of industries in Nigeria. Efforts must be made in order to bridge the gap between these important sectors of the economy. The inter-connectivity among these industries will enhance industrialization and promote sustainable development, (Stewart, 1992).

#### **In-effective Human Capital Development.**

The quest for industrial and sustainable development can not be achieved without human development. Countries generate maximum level of productivity through the implementation of human capacity related policies. The most fundamental amongst these policies are; educational, life expectancy and living standards. In this regard, sustainable industrial development could only be achieved through improved expenditure on human capacity building, (Osita, 2007).

#### **Conclusion**

The findings of the work indicates that industrial and sustainable development till remain an issue in the Nigerian context. Perhaps it could be argued that certain level of industrialization has been achieved, but positions of various scholars have determined the

comatose nature of the Nigerian economy as a result of the failure of the industrial sector. Inter-sectoral integration has been extensively discussed as a serious issue affecting the process of industrialization and sustainable development in Nigeria.

The present state of corruption in the country has also played a vital role in further crippling the industrialization process in Nigeria. As discovered by the paper, many years of lack of effective policies to control the menace caused by corruption in our industrial sector is what led to the collapse of the entire industrial sector leading to the closure of industries such as, Katsina steel rolling mills, Ajaokuta Steel Rolling mills, Northern Textiles, Iron smelting industry, Arewa Textiles to mention just a few.

The paper further confirmed that human capacity development has suffered serious neglect due to ineffectiveness of policies initiated to promote human capacity in Nigeria. Educational sector and other agencies responsible for developing human capacity have suffered due to lack of adequate resources and financial support to effectively conduct their activities.

Another discovery made by the work is that inadequate infrastructural facilities has played a major role in the collapse of industries in Nigeria. Erratic power supply, lack of good roads, absence of feeder roads,

linking rural centres to the urban centres, inadequate water supply and provision of housing has led to the poor performance of industries in Nigeria.

Subsequent findings of the work established that inadequate funding by the government remain a very serious issues in addressing the problems associated with industrialization and sustainable development in Nigeria. It was further confirmed that SMEs need to be adequately financed if industrialization and sustainable development is to be achieved.

Finally, this work was able to confirm that the ineffectiveness of the institutional framework present also hindered Nigeria's quest for industrialization and sustainable development. Addressing these issues by implementing effective institutional framework will no doubt greatly enhance Nigeria's ability in achieving sustained development.

### **Recommendations**

This paper has the following recommendations:

- a. The Federal Government should strengthen the anti-corruption bodies charged with fighting corruption. Also special courts should be created to try corrupt officials.
- b. The Federal Government should open a means of communication through which all sectors of

the economy cooperate in aiding Nigeria's development

c. A special fund should be created to provide money for the industrial sector.

d. A road map, lightening key government policies on the path to sustainable development should be made readily available to all citizens.

e. Infrastructural upgrade should be prioritized by the government.

f. Education at primary levels should be made compulsory and free. Secondary and tertiary education fees should be subsidized by government as a means of boosting human development.

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