### NIGERIA'S QUEST FOR DEVELOPMENT: THE TECHNOLOGICAL FAST-TRACKING

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#### ABSTRACT

The paper examined the historical perspective of development in Nigeria, identified some of the impediments and discussed the elements that would facilitate technological fast-tracking towards the realization of the Millennium Development Goals.

#### INTRODUCTION

I am very delighted to be at this occasion as the Chief Host and theme speaker of this year 2006 Lecture Series organized by the Federal University of Technology Owerri (FUTO) Alumni Association. In my maiden address to the 15th General Assembly of FUTO as the 5th substantive Vice-Chancellor of the Federal University of Technology Owerri in July, 2006, I outlined the objective targets which I have set out to achieve in my tenure of office. Most of the targets centered on information and communications technology (ICT); enhancement of fund procurement and judicious application of scarce resources, physical and structural development of the University, goal oriented qualitative undergraduate and postgraduate training; extending the frontiers of the University nationally and internationally in a world that is becoming globalised; etc. All the planned actions and indeed my vision for FUTO in the next 5 years corroborate the very essence of this theme.

I thank the organizers of this lecture series. I am proud of FUTO Alumni most of whom have excelled in different fields of endeavor as Managers or Chief Executives in Industry, Commerce, Business and Education. I want to take this opportunity to invite all FUTO Alumni at home and in Diaspora to partner with FUTO management through whatever form possible to support the realization of the aspirations of the founding fathers of Federal University of Technology Owerri. The establishment of Federal Universities of Technology in the eighties was all in line with Nigeria's quest for development.

In this talk, I shall examine the requisite ingredients for technological fast-tracking in Nigeria's quest for development.

However, as part of the preamble, the terms "technology" and "development" in the context of the theme of this talk shall be defined as follows.

Technology is a set of systematic procedure or art for scientific production of raw materials, goods or finished product for the market. Environment friendly technology be it indigenous or adapted is required for sustainable development.

<u>Development</u> on the other hand is the process of improving the well-being of the society using all the required instruments which include natural endowment, education, conscientization, adequate application of human capital, a p p r o p r i a t e t e c h n o l o g y a n d responsible/responsive leadership.

### THE HISTORICAL PERSPECTIVE

The Nigerian economic development during the colonial era under the British supported the production of raw materials and tropical products such as palm oil, palm kernel, rubber, cocoa, groundnut, groundnut oil, and timber as well as minerals for export. This trend persisted even after independence in October 1, 1960. The advent of oil boom in 1970 consequently changed the economic landscape of Nigeria. Since then oil has come to dominate the whole economy and trade of Nigeria. In the second development plan 1970-74 the role of the government was reviewed and stated. The rationale for the government in the economy was stated as follows:

"that progress would be faster if the nation is motivated in its economic activity by common sound purpose. Effective coordination would be made easier when they all subscribe to a common goal and operate under a common impetus".

Invariably due to politics and lack of focus, and inspite of the oil economy, technological development was not given sincere push. The industrial and service sector components became dependent heavily on importation of machinery from overseas countries to keep wheels of industry running. In most cases the maintenance



of industrial facilities was done by experts from abroad. Nigeria was wholly dependent on foreign technologies. Often investment of multinationals meant a mere translocation of facilities without transferring ability to innovate since all the elements of technology required were transferred as a package. The technical local human resource was lacking. There was the problem of inadequacy of science and technology infrastructure including dearth of information technology (IT) and capacity building facilities. And so Nigeria's quest for development was jaundiced though inundated with great potentials.

### THE CONSTRAINTS

National development in all ramifications require the commitment of all and sundry guarded under a responsible and responsive democratic leadership. Sadly, Nigeria could not be said to be lucky in this regard. For a long time after the oil boom, the influence of the Nigeria Government in the economy has been all pervading, not restricted to the traditional areas of providing infrastructural support, law and order but has made direct investment via its publicly owned companies, corporations and joint ventures in direct production of some goods. Government in this dual role became the proverbial man who in attempt to cross a bridge with his two legs together fell into the under-water.

Under the various regime changes between Military and Civilian governments. organizational problems retarded developmental efforts in Nigeria. Planned objectives could not be achieved due to shortage of funds, inadequate executive technical manpower and uncoordinated management in the public sector which unfortunately dominated the economy. Rapid advancement in technology of the Western world beyond the scope of local capacity made procurement of spare parts for maintenance of existing systems a costly undertaking; new equipment for replacement could not be imported in most cases due to cost consideration and the enabling environment for innovative local technology was not created by government. Infrastructural planning lacked coordination, and the bottom line of these constraints was that Nigeria was faced with poorly defined and discontinuous policies on national development The net effect of these problems was constant failure to attain planned targets and poor performance of development undertakings.

The current on-going government reforms under His Excellency, President Olusegun Obasanjo are intended to redress the constraints to Nigeria's quest for sustained development.

## TECHNOLOGICAL FAST-TRACKING INITIATIVES

Nigeria is one of populous countries of the world, but on the technological development front, Nigeria is a developing country. It is not yet on the threshold of industrialization though it has the potentials to be an industrialized nation if only it borrows a leaf from threshold countries such as India. The challenge calls for initiatives as follows.

### 1. REFORMS

The efforts of the present administration should be highly commended in this regard.

Government should through its present reforms, continue to establish the right atmosphere and structure for technological fast-tracking so that local manufacture of systems, components and materials can be achieved by indigenous entrepreneurs. Government reform policies should take into account need to focus on sustainable development as enunciated in United Nations Agenda 21 and the Millennium Development goals (MDGs).

In the Millennium Declaration of September 2000, member States of the United Nations made a passionate commitment to address the crippling poverty and multiplying misery that gripped many areas of the globe. Governments set a date of 2015 by which they would meet the MDGs, namely eradicate poverty and hunger, achieve Universal education, promote gender equality and women empowerment, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, ensure environmental sustainability and develop a global partnership for development. In view of the above mandate, time is of the essence.

### 2. INFORMATION AND COMMUNICATIONS TECHNOLOGY

Information and communications technology (ICT) will leapfrog Nigeria's development and accelerate the achievement of millennium development goals in the country. ICT for development in Nigeria is necessary. The recipe for ICT progress as it impacts advancing socio-economic conditions include several necessary but sufficient conditionalities. Based on an analysis of successful cases in developing economies such as Malaysia and Chile, Slovenia and Czech Republic a common practice have emerged.

First, government must de-politicize IT policy, break-up existing monopolies, lessen censorship,

encourage grass-root approaches for applying technology to solve real problems and open the markets to international trade. Second, government should continue with its privatization programme which engenders competitiveness. With less government control, more private sector initiatives will flourish attracting foreign direct investment in technology-related initiatives. These will however be feasible in an environment of freedom of expression and absence of corruption and monopolies.

Information and communications technologies are at the heart of economic growth in the modern world. They enable us to process and exchange information in increasingly greater quantities, at higher speeds and with more details. ICT can be captured for economic gains via e-business and e-Communications network makes commerce. well-being of society a reality. It makes it possible for people to cooperate, to produce and exchange commodities, to share ideas and information to enhance business, commerce and quality of life. ICT is an essential tool in meeting MDGs such as facilitating access to health information and informatics and/or promoting online educational resources. e-learning infrastructure is needed in Nigerian Universities to bring the quality of learning and manpower resource at par with foreign ones through raising education coverage.

The good news is that there are international initiatives that support ICT for development in Africa which Nigeria can benefit from e.g. the Digital Diaspora Network for Africa (DDNA) and NEPAD. DDNA launched by the UNICT Task Force in July, 2006 has action plan (through the African business leaders) for mobilizing intellectual, entrepreneural, technological and financial resources of African IT entrepreneurs residing in North America and Europe for supporting ICT for-development efforts in Africa. On the other hand the other initiatives especially, NEPAD initiative is a platform for cooperation on ICT in Africa. Many bilateral and multi-lateral donors are ready to extend their full support to NEPAD ICT strategy if there is a clear and robust plan for ICT development in Africa. And in particular if there is willingness of the major initiatives operating in Africa to develop synergy and collaboration among them to be effective in true partnership.

### 3. COMPUTER EDUCATION/LITERACY

In order to achieve the benefits of ICT for development in Nigeria as enumerated earlier, computer education should be introduced in our educational system at primary, secondary and tertiary levels. In addition, computer literacy through capacity building programme is required for people in the public service, academic and research institutions, organizations, NGOS, business and commerce.

# 4. STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

The SIWES essentially designed to allow University students of engineering or professional programmes some months to gain industrial experience while on attachment to industries should be sustained. There should be policies to support this through making companies, organizations and corporations to mandatorily accept students for placement on request.

### 5. COLLABORATIVE RESEARCH

Research is the hub of technological development. Any nation desiring better quality of life for its citizenry must embrace investment in research and development (R and D). Industries and companies should collaborate with Universities to solve their technological problems through R and D. Results of research by academics and research institutes should not be wasted by not putting them into industrial scale production to enhance the socio-economic development of Nigeria. A Unit in the Ministry of Science and Technology should have a regular update of research results in all Universities and Institutes which should be published to attract entrepreneurs to utilize them.

## 6. UNIVERSITY INDUSTRY RELATION

Part of the ways to facilitate Nigeria's development is through University Industry relation. It is a symbiotic relationship which fosters partnership between Industries and Universities across the country for the following objectives:

To support the Training of students through SIWES

To support endowment and Research in the Universities

To use Professors as consultants to solve industrial based problems requiring investigative study and technology development

To encourage industries or companies to source and buy technologies developed by research in the Universities or Institutes

#### 7. ALUMNI INITIATIVE

The University Alumni through their Initiative should partner with the University administration

to achieve and sustain high standards of University education and research for Nigeria's development. The Alumni Partnership Initiative is required to foster University development and qualitative training of graduates. Their roles include but not limited to the following:

(i) Fund mobilization for the provision of infrastructural facilities etc., e.g. FUTO Environmental Technology building and Laboratory, FUTO Postgraduate School building etc.

(ii) Facilitating true partnership with International and Local Initiatives or organizations to establish ICT facilities for computer training and e-learning, academic linkages, collaborative research, SIWES placements etc.

(Iii) Involvement of alumni in the realization of the strategic plan of FUTO through donations, endowment etc.

#### CONCLUSION

The Nigeria's development in globalised IT driven economies is a task for all stakeholders and development partners; but the enabling environment and social infrastructure are primary

imperatives. The framework for achieving MDGs should be realistically put in place giving impetus to ICT applications to education, business and commerce. The present on-going Government reforms are laudable and provide veritable widow for the creation of enabling climate for a sustainable national development.

The various corporations, companies, industries and banks in Nigeria as part and parcel of the stakeholders should through funding infrastructural development or donations of equipment, endowment etc to Universities help in quality manpower training, research and technology development for socio-economic growth of Nigeria. The Professors in the Nigerian Universities are at the beck and call of any company or corporation that needs their expertise to develop required technology to solve their technological problems. The Alumni Association should galvanize Initiatives to support their alma mater through fund mobilization, partnership and active participation in the process of achieving the strategic plans for University development. All these elements constitute the measures that aggregate to self reliant technological fast-tracking for Nigeria's attainment of the millennium development goals on a sustainable basis.



