

Capacity Building and Sustainable Development: The Tertiary Education Example

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Abstract - Capacity Building is a conceptual approach to social and personal development that focuses on understanding the obstacles that inhibit people, governments, international organizations and non-governmental organizations from realizing their development goals while enhancing the abilities that will allow them to achieve measurable and sustainable results. It is central to sustain economic growth and development because human capital is the greatest asset to any organization. Tertiary institutions are expected to achieve National Policy on Education goals through teaching, research and development; sustainable staff development programmes; generation and dissemination of knowledge ; a variety of modes of programmes including full time, part time, day release, sandwich etc. Therefore, this study examined capacity building and sustainable development in Nigeria Institutions with a view to maintain minimum tertiary education standard, inter-institutional cooperation and dedicated service to the community through extra-mural and extension services. The study concluded that today "knowledge sharing" is becoming a key phrase - those who have useful knowledge (e.g. good universities, polytechnics and colleges of education) must share it with those who need it (e.g. industry, the public sector, or the public in general. This is not easy, but if properly applied will enhance sustainable development.

Keywords: Capacity Building, Sustainable Development

I.INTRODUCTION

Capacity building is the ability of individuals, organizations and societies to perform functions, solve problems, and achieve goals. Capacity development entails the sustainable creation, utilisation and retention of that capacity, in order to reduce poverty, enhance self-reliance, and improve people's lives. Capacity development builds on existing skills and harnesses them towards achieving growth, rather than replacing indigenous capacity. It is about promoting learning, boosting empowerment, building social capital, creating enabling environments, integrating cultures, and orientating personal and societal behaviour. (www.capacity.undp.org).

Capacity building is thus based on learning and acquisition of skills and resources among individuals and organizations. It is committed to sustainable development, to a long rather than short term perspective, and attempts to overcome the

shortcomings of traditional way of doing things toward achieving individual and organizational development. While sustainable development is that "*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*"

Although, skills and knowledge can be acquired in various settings, but formal education systems play a paramount role in this connection. In other words, economic and sustainable developments are increasingly driven by the advancement and application of knowledge. Education in general and higher education in particular, are fundamental to the construction of a knowledge economy and society in all nations (World Bank, 1999).

The potential of higher education has shown that sustainable development are driven by capacity building with practical examples from Brazil, China, India and South-East Asia. Through their stride to augment productivity, they increasingly constituted the foundation of their country's competitive advantage, were investment in 'knowledge base of the country (e.g., research and development, higher education and computer software,) exceeded investments in physical equipment (OECD, 2001).

With many sustainable development issues facing Nigeria today, formal education systems need to respond by including these issues into policy, strategy, curricula, teacher training and materials development. There is a widening understanding that sustainable development is about much more than concern for the environment. What is needed is for connections to be made between learning and regeneration initiatives, and the total integration of the understanding and knowledge that will lead to sustainable development.

For us to grow as a nation in this direction, using academic capacity in practice is very key, which most of our universities still lack. If they could obtain such skills, development might benefit immensely through the application of the model in Fig.

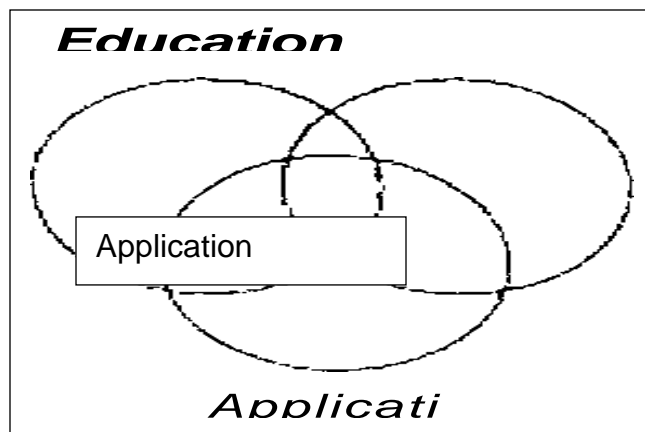


Fig.1 Integration of Education, Research and Real Life application

Fig.1 shows the integration of education, research and real life applications as it is practiced at modern universities. Nigeria is yet to accomplish such integration, although it is essential for capacity building and sustainable development.

II. CAPACITY BUILDING AND SUSTAINABLE

Conceptual issues

Capacity building and sustainable development in Nigeria

The goal of capacity building is to tackle problems related to policy and methods of development, while considering the potential, limits and needs of the people of the society or institution concerned. The UNDP outlines that capacity building takes place on an institutional level and the societal level (World Bank, 2000,).

1. **Institutional Level:** Capacity building on an institutional level should involve aiding pre-existing institutions in developing countries. It should not involve creating new institutions, rather modernizing existing institutions and supporting them in forming sound policies, organizational structures, and effective methods of management and revenue control.
2. **Societal Level:** Capacity building at the societal level should support the establishment of a more "interactive public administration that learns equally from its actions and from feedback it receives from the population at large." It must be used to develop public administrators that are responsive and accountable to ensure sustainable development.

Sustainable Development in this regards therefore involves a dynamic concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating and enjoying a sustainable future. The overall aim of sustainable development is to empower citizens to act for positive environmental and social change, implying a participatory and action-oriented approach.

It integrates concepts and analytical tools from a variety of disciplines to help people better understand the world in which they live. Pursuing sustainable development through education requires educators and learners to reflect critically on their own communities; identify nonviable elements in their lives; and explore tensions among conflicting values and goals. It also brings a new motivation to learning as people become empowered to develop and evaluate alternative visions of a sustainable future and to work to collectively fulfill these visions (World Bank, 1986).

On this note, higher education is therefore acknowledged as the engine of development in the knowledge economy" (Castells, 1999). According to this view, the new modes of economic production are increasingly dependent on knowledge. Capacity building has become central to sustainable development in the global economy. A recent World Bank calculation shows that the knowledge sector adds more value to a product than the business process (Serageldin, 2000). So, "if knowledge is the electricity that enhances an economy, then institutions of higher education are the power sources on which a new development process must rely" (Castells, 2001).

There is increasing evidence that high levels of education in general, and tertiary education in particular, are essential for the design and productive use of new technologies, while they also provide the foundations for any nation's innovative capacity (Carnoy and Castells, 2003; Serageldin 2000). This is evidence in Nigeria where the products of our higher education have been the engine of the nation's development such as local content in building the first warship in Africa and so on (The Nations Newspaper, 2nd June, 2012).

There are more than 300 higher education institutions in Nigeria which include 104 universities, 71 polytechnics, 47 monotechnics, 79 colleges of education, schools of sciences and technologies, agricultural institutions, medical research centres and other related institutions. The

gamut of these has led to the development of new ideas and has contributed to the creation of new knowledge in virtually all the sectors of the economy. Thus, these institutions of higher learning in the course of consistent knowledge enrichment have contributed to the growth and sustainable development of their immediate environment and the country at large. This has remained the only avenue for advancing education for sustainable development of the individual and the Nigerian society (Adedeji and Bamiro, 2010).

Knowledge and skills acquired from all forms of higher education in Nigeria play a significant role in any capacity building strategy. In this case the ultimate goal of capacity development strategy is therefore, to achieve progress and development, *inter alia* by becoming a developed high-income economy. She may need and want to develop capacity in education, trade, health and agriculture, in which each sector contributes to the growth and development in a different manner. It is noteworthy that some sectors like education health or trade are cross-sectional or horizontal in the sense that they impact on all sectors in the economy. Even if agriculture is the main priority in a Nigeria's strategy, it should not neglect the horizontal sectors as its agricultural sector will be more competitive if it has a healthy labour force (health), if its peasants know how to use the latest agricultural techniques (education), and possibly, if she can trade them effectively on the world market (trade). However, from the above example, education is perceived to have a unique privilege as a built-in feature of any capacity development. Whatever the sector, capacity building will rely on the strengthening of individual capacity through training and learning, in order to raise the domestic stock of human capital in a specific field. This can be done by setting up specific educational programmes in the formal education system or by other forms of learning. Although some of the necessary skills would typically be acquired on-the-job or through learning-by-doing. But developing countries like Nigeria characterized by less efficient organizations of work or by obsolete technologies might need to rely more on formal vocational education and training to improve and sustain her economy (UNDP, 2004).

III. CAPACITY BUILDING AND NIGERIA UNIVERSITIES

Higher education is very important for sustaining and developing the people. With education, people are able to acquire experience, wisdom and the capability to fend for themselves as well as serve their communities and nation. It is also both an instrument of stability and of change: stability in the sense that good traditions are documented, taught, imbibed and practiced, and "change" because it equips people to meet new challenges.

Capacity building is therefore very essential for a developing country like Nigeria to help her reduce poverty and stimulate economic growth. But mismanagement of

funds which has resulted to severe resource constraints force governments to make tough decisions while setting priorities to grow various types of capacity. This has been the case of tertiary education in Nigeria in which the dearth of educational facilities and poor budgetary allocation has impeded capacity building (Osifil et al, 2011). This according to (Ekpo, 1999) is caused by long leadership under military rule for 30 years of her political independence but could be improved by robust budgetary allocation and transparency in the sector.

However, tertiary education institutions in Nigeria are increasingly recognized for their catalytic role in national innovation systems, as well as for stimulating social and economic change. Healthy and agile higher education institutions are therefore essential drivers of the knowledge economy not only as producers of knowledge, but also as significant societal structures delivering public goods through multiple externalities. Ideally, such important institutions should demonstrate accountable and transparent governance, efficient and effective use of resources, accurate and timely data collection, evidence-based decision making, along with the ability to respond to changing demands of myriad stakeholders and external factors.

In recent time, the Nigerian government is beginning to pay increasing attention to quality in tertiary education by increasing the budget allocation of N210 billion for the education sector in 2008 and N249 billion in 2009 (Federal Ministry of Education, 2011). These concerns are being driven by the acknowledgement that human resource development (HRD) plays a key role in the achievement of national development. The growth of knowledge economy demands new and changing competences such as adaptability, communication, and the ability to acquire new skills independently. Tertiary education institutions must therefore adapt programs, curricula, and pedagogy to meet these challenges. In Nigeria, the number of jobs requiring high-level skills has grown faster than those requiring only basic-level skills further stimulating demand (Anya, 2006). In Nigeria, demographic trends combined with improving school completion rates have been met by a rapid expansion of demand for tertiary education, a compression of public expenditure with parallel growth in education opportunities.

International migration of students and highly skilled workers increased dramatically in the 1990s, especially from developing countries to industrial countries; governments find themselves increasingly competing to attract foreign students or retain their own. Such migration was largely in response to economic conditions and favourable research opportunities (Migration News, <http://www.migration.ucdavis.edu>). The population of youth aged 18-30 is projected to continue to migrate in search for better environment and skills in the western world, who may likely stay behind after the completion of their study (Oni, 2001). This simply indicates that higher education services have become more than ever critical determinants of a country's economic growth and standards

of living. Recent developments worldwide — including the increasing share of services in economic activity, the spread of communication technology, falling telecommunications costs and shorter product development cycles — have turned knowledge into a primary factor of production throughout the world economy. This corroborates with The World Bank Report, (2002).

Strengthening the higher education service sector is therefore of key importance. This indicates the fact that enhanced investment in tertiary education could provide Nigeria with greater access to these services. Nigeria as continentally observed possesses the largest university system in Sub-Saharan Africa. Although South Africa's tertiary enrolments are higher, Nigeria boasts of more

institutions. Her university system supports numerous graduate programs (9% of enrolments) and the system embraces much of the country's research capacity and produces most of its skilled professionals (Thrusby, 2007).

In practice, however, the university system developed grew rationally than anticipated. Enrolments in the federal universities (34% female, 59% in sciences) grew at the rapid rate of 12% annually during the 1990s and grew to 325,299 students by 2000 (NUC 2002). Enrolment growth rates were the highest in the South-South Region, followed by the North-East Region. The overall growth rates in terms of enrolment exceeded government policy guidelines, as shown below in table 1.

TABLE 1 ENROLMENT GROWTH: POLICY NORMS AND RATES OF INCREASE BETWEEN 1989 & 1998

<i>Category</i>	<i>NUC</i>	<i>Policy Actual</i>
	<i>Norms</i>	<i>Rates</i>
G1 st Generation	3%	9%
Universities		
2 nd Generation	10%	13%
Universities		
3 rd Generation	15%	21%

Source: Hartnett 2000

Rising student numbers generated an enrolment ratio of 340 per 100,000 persons (Asia averages 650 and South Africa 2,500) and an average staff/student ratio of 1:21 (sciences 1:22; engineering 1:25; law 1:37; education 1:25). In terms of academic disciplines, the highest rates of enrolment growth occurred in the sciences and in engineering. As a result, the share of science and engineering in total enrolments rose from 54% in 1989 to 59% in 2000, consistent with national policy targets. Much of this expansion centred in the South-East Region, where a combined annual growth rate of 26.4% in science and engineering led the nation's enrolment outlook (NUC, 2002). This progress is as a result of capacity building in higher education. It has also contributed to the growth in soft and hard ware development and involvement of the nation's scientists and engineers in oil and gas exploration with the aim of reducing skilled expatriate and improves local capacity (Hartnett, 2000). The implication of this is that an increase in science and engineering enrolment in the nation's institution of higher learning will avail the country the technological advantage and growth in human capital development.

IV. RELEVANCE OF NIGERIAN UNIVERSITIES ON CAPACITY BUILDING AND SUSTAINABLE DEVELOPMENT

The role of education as an instrument for promoting the socioeconomic, political and cultural development of any nation can never be over-emphasised. According to (Abdulkareem, 2001), a nation's growth and development is

determined by its human resources. The provision of the much-needed manpower to accelerate the growth and development of the economy has been said to be the main relevance of university education in Nigeria (Ibukun, 2000). Higher education has a vital role to play in shaping the way in which future generations learn to cope with the complexities of sustainable development. Universities and other higher education institutions play the role of educating highly qualified graduates and responsible citizens who will be able to meet the needs of all sectors of human activity; they also provide opportunities for higher learning and for learning throughout life; they create and disseminate knowledge through research and provide relevant expertise to assist societies in cultural, social and economic development. They also help to preserve, enhance, promote and disseminate national, regional and historic cultures in a context of cultural pluralism and diversity; they help protect and enhance societal values by training young people in the values which form the basis of democratic citizenship; they contribute to the development and improvement of education at all levels, including training of teachers.

In considering the roles and functions of higher education institutions in promoting sustainable development, the issues to be addressed include; increasing the relevance of teaching and research, for more sustainable development by discouraging unsustainable patterns of life; improve the quality and efficiency of teaching and research; bridge the gap between science and education, and traditional knowledge and education; strengthen interactions with actors outside the university, in particular with local

communities and businesses organisations; introduce decentralized and flexible management concepts; increase access to scientific knowledge and quality education; provide a platform for students to obtain the competences needed to work together in multi-disciplinary and multi-cultural teams in participatory processes; and bring global dimension into individual learning environments. These belief in the efficacy of education, as a powerful instrument of development has led many nations, to commit much of their wealth, to the establishment of educational institutions at various levels. In accordance with Ajayi and Ekundayo (2007), the funds allocated to higher education should not be considered as mere expense, but as a long-term investment of immense benefit to the society as a whole.

The importance of university education to the individual in particular, and the society in general, has made the demand for university education increase astronomically in the last twenty years, resulting in a very high percentage of unsatisfied demand every year. Based on this fact the government alone cannot provide the much needed higher education to the teeming applicants seeking places yearly - hence the involvement of private sectors (NUC, 2010).

On that note it is pertinent to state that higher education is not only useful for the economic development. It may also have a significant political impact by creating cadres of informed and thinking young people in support of democratic reforms. There is little doubt that politics is important, and there is some indication that democratic systems on the whole are more efficient in reducing human suffering than other political systems. Nigerians in recent time have tried to strengthen democratic and peaceful developments in developing her economy through capacity building by directly supporting democratization efforts. However, many examples show that if young people are given useful higher education in relevant areas they will create enabling environment and sustainable development through skills and knowledge acquired.

V.CONCLUSION

Today "knowledge sharing" is becoming a key phrase - those who have useful knowledge (e.g. good universities, polytechnics and colleges of education) must share it with those who need it (e.g. industry, the public sector, or the public in general. This is not easy, but if properly applied will enhance sustainable development.

Capacity building has helped in sustaining many societies more importantly, through skills and knowledge acquisition.

The growth experienced in many emerging societies has also been associated with massive investment in human capital development. For this to be sustained, the University capacity building should target societal needs especially by making them part of problem based learning. This is beneficial for all parties involved, from the students in the learning process to the knowledge provider who will benefit from new information and understanding of the problem and may even find new Innovative solutions.

Mobility and scholarships are vital instruments in capacity building in higher education. One of the interesting observations in this idea is that increased mobility reduces brain drain problem, because in a long term perspective there will be sharing of knowledge and skilled human capital.

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