BUILDING HUMAN CAPITAL FOR SUSTAINABLE DEVELOPMENT: ROLE OF THE UNIVERSITY

By

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Introduction

• The satisfaction of human needs and aspirations has always been the major objective of development.

• For several decades, economic growth and development had resulted in substantial improvements in health, education, and the quality of life.

• However, it has become very apparent that the global community, over these decades, has pursued a path of development which is clearly not sustainable.

• Today, the world is grappling with enormous and unprecedented crises. These include:
  - Massive destruction of the natural ecosystems resulting in considerable losses in biodiversity;
Introduction

• Global crises cont’d:
  ▪ Soil, air and water contamination;
  ▪ Sizeable amounts of waste in the environment that neither can be assimilated by the biosphere nor managed by humans effectively;
  ▪ Climate changes;
  ▪ Extensive land degradation including catastrophic deforestation and desertification;
  ▪ Global food crisis;
  ▪ Population explosion
  ▪ Extreme poverty and worsening income inequality;
  ▪ Economic and financial crisis.
Introduction

• The challenges for developing countries including Nigeria are even more serious. There are risks of reversal of the gains made in the last decade or so with some countries already falling behind target dates for meeting the MDGs.

• The United Nations and several other agencies have raised alarm over the imminent threat to human survival posed by these crises.

• According to Sampson (2013), “At the current reckless rate of exploitation and manhandling, we face the threat of waking up one day to find that our economies have been debased beyond recognition and our social and institutional structures have been gruesomely mismanaged at the detriment of this and future generations.”
Introduction

- The crises that threaten the continued survival of the world are the overarching concern that sustainable development seeks to address.
- The concept came into limelight following the activities of the United Nations and its agencies in the 1970s & 1980s which aimed at creating awareness about, and mobilizing support for addressing, the deteriorating condition of the global environment.
- It was popularized by the Brundtland Commission with the publication, in 1987, of its landmark report, *Our Common Future*.
- The work of the Commission led to the first Earth Summit held in Rio de Jenairo in 1992 (noted for its Agenda 21). This was followed by the United Nations Conference on Environment and Development (UNCED) held in Johannesburg, South Africa in 2002 & the UN Conference on Sustainable Development (Rio+20) in 2012.

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Introduction

• The UN Conferences and activities seek to make the world realize that human well-being (as reflected in the health, wealth and quality of life of people) is part of, and linked to the diversity, productivity and quality of the ecosystem.

• Consequently, the unsustainable human practices pursued in the past that have led to environmental degradation and socio-economic imbalances must be reversed while more sustainable practices adopted.

• From all indications, sustainable development has the potential to offer humanity the recipe to tackle all or most of the crises that threaten its survival if concerted efforts are made at different levels to make its implementation a priority.

• This will, however be hinged on building the requisite human capital to drive and sustain the process.

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Introduction

• Human capital is recognized as the most critical input in development as the quality of a country’s human capital is central to promoting and sustaining innovation as well as the adoption of appropriate technology for accelerated development.

• Building the requisite human capital for sustainable development requires a new and innovative approach to education.

• The role of the university in providing high quality education that promotes creativity, innovation and adoption of modern technology, all ingredients that are necessary for catalyzing sustainable development, cannot be overemphasized.
The Concept of Sustainable Development

- The term ‘sustainable development’ was coined in 1980 by the environmental NGO, International Union on the Conservation of Nature, which argued for conservation as a means to assist development and specifically for the sustainable development and utilization of species, ecosystems, and resources.

- The concept has been interpreted in many ways by different people. But the most popular explanation of the concept is the one given by the Brundtland Commission.
The Brundtland Commission, in its report, argued that:

‘The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word “environment” a connotation of naivety in some political circles. The word “development” has also been narrowed by some into a very limited focus, along the lines of “what poor nations should do to become richer,” and thus again is automatically dismissed by many in the international arena as being a concern of specialists, of those involved in questions of “development assistance.” But the “environment” is where we live; and “development” is what we all do in attempting to improve our lot within that abode. The two are inseparable.”
Based on the aforementioned argument, the Brundtland Commission defines sustainable development as:

“... development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
The Brundtland report stresses that sustainable development is about meeting human needs within the restraints of the life support systems of the planet. It states that Development & the Environment are inseparable

**On Development**
1) human needs are basic and essential;
2) economic growth is required to sustain them;
3) equity in sharing resources with the poor is vital; and
4) equity is encouraged by effective citizen participation.

**On Environment**
Sustainable dev. implies limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities.

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The Concept of Sustainable Development

According to Al-Roubaie (2013), sustainable development is a situation that:

At a minimum, must not endanger the natural systems that support life on Earth: the atmosphere, the waters, the soils, and the living beings.”

Requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life.

Requires the promotion of values that encourage consumption standards that are within the bounds of the ecologically possible and to which all can reasonably aspire.

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The Concept of Sustainable Development

- From all the above ideas, sustainability depends on improving and maintaining the well-being of people and the ecosystem together. This fundamental coupling of the human system as an integral part of the ecosystem is visually depicted in the simple yet powerful schema of the ‘egg of sustainability’.
- The egg of sustainability depicts human societies as an integral part of the surrounding ecosystem, like the yolk of an egg within the white. They are likely to be sustainable only if both the human condition and the condition of the ecosystem are good or improving.
- It follows that sustainable development entails improving and maintaining the well-being of both.

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The Key Issues of Sustainable Development

- Sustainable Development draws global attention to the urgent need to address issues that have the potential to endanger our individual and collective existence and threaten to rob future generations of their wellbeing.

- It seeks to resolve the conflict between the various competing goals, and involves the simultaneous pursuit, of *economic prosperity, environmental quality* and *social equity* – famously known as the triple bottom-line.

- Degradation, global warming, deforestation, loss of biodiversity, climate change, greenhouse gas emissions, waste management, renewable energy, natural resource depletion, food security, water preservation, physical infrastructure management.

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The Key Issues of Sustainable Development

**Economy**
- Cyclical economic crisis, growth challenges, poverty, trade barriers, financial inequality, growing unemployment, social security nets, grassroots development.

**Social**
- Human right issues, socio-cultural diversity management, religious, racial, gender differences management, social exclusion, stigmatizations and discriminations, extra judicial killings, police brutality, illiteracy, population management, adequate shelter.

**Globalization**
- Uneven global development, inequitable distribution of global resources, harmful and unfair trade practices, import subsidies, unemployment, technology and knowledge transfer, social media, cybercrime, migration, resource strain, terrorism.

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The Key Issues of Sustainable Development

Responsible business practices, corporate governance, CSR policies, resource efficiency, effective risk management practices, accountability and transparency, full disclosure in financial and non-financial reporting, global best practices in production and service delivery, staff welfare, working conditions and safety measures, best practices in human resource management, unhealthy competitive practices, etc.

Transparency and accountability; efficient management of all forms of capital, including human, natural, financial social; community and grassroots development; effective reporting and public disclosure; policy consistency, debt management, savings and external reserves policies and management, participatory governance, democratic norms, equitable distribution of national resources, sovereign wealth management for the now and the future.

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Sustainable Development Goals (SDGs)

- The need to clarify the concept of sustainable development further and better focus the strategies for its implementation informed the decision of the Rio +20 Conference to launch a process that will bring up a set of Sustainable Development Goals (SDGs).

- In the report of the Conference, tagged “The Future We Want”, it was agreed that the SDGs must, among other things:
  - Build upon commitments already made.
  - Address and incorporate in a balanced way all three dimensions of sustainable development and their inter-linkages.
  - Be coherent with and integrated into the United Nations development agenda beyond 2015.
  - Not divert focus or effort from the achievement of the Millennium Development Goals.
  - Include active involvement of all relevant stakeholders, as appropriate, in the process.
Sustainable development is a multi-dimensional concept requiring the participation of diverse stakeholders and perspectives - governments, non-governmental institutions, corporate organizations, communities, families and individuals.

Making reasonable progress toward the successful implementation of sustainable development will be hinged on building the requisite human capital, i.e. people with the right frame of mind, the right attitude and most importantly, people with the ability to use education and knowledge to deliver the multiple objectives of sustainable development – economic prosperity, environmental and social equity and inclusion, good governance.

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The formal concept of human capital was developed in the 1960s by a group of economists although the idea that investment in education has a long-term economic and social payoff for the individual and society at large goes back to Adam Smith. Over the years, various authorities have attempted to define the concept.

Due to its all-embracing and multi-dimensional nature as the outcome of investment in education, health, training, experience, and migration, it has often proved difficult to capture the concept of human capital by a mere definition.

However, for the purpose of our discussion, there are a few definitions that will suffice.
The Concept of Human Capital

- Armstrong (2006) explains the concept of human capital as representing:

  “... the human factor in the organization; the combined intelligence, skills and expertise that gives the organization its distinctive character. The human elements of the organization are those that are capable of learning, changing, innovating and providing the creative thrust which if properly motivated can ensure the long term survival of the organization.”
The Concept of Human Capital

• The Organization for Economic Co-operation and Development (OECD 2001) defines human capital as:

“the knowledge, skills and competencies embodied in individuals that facilitate the creation of personal, social and economic well-being”.

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Human capital encompasses the capacities and abilities acquired by individuals, groups and societies that enable them to carry out assigned responsibilities for the attainment of predetermined goals.

The notion of ‘human capital’ became popular in economic literature as a result of the realization that physical capital alone was not sufficient to bring about long term development.

Indeed, it is known that plants, offices, computers, automated equipment, intranets, systems, internets, websites and all other facilities that any organization may install remain unproductive except for human efforts and direction.

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The Concept of Human Capital

• According to the World Bank, fast economic growth requires three fundamental factors – natural, physical and human. Of the three, human capital has a major share in generating economic growth (contributing 64 per cent).

• This point had been aptly captured by Harbison (1973), who stated that: “Human resource, not physical capital, not income or material resources constitute the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agents who accumulate capital; exploit natural resources; build social, economic and political organizations; and carry forward national development. Clearly, a nation which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else”
The Concept of Human Capital

• No country can make any meaningful economic progress without developing the knowledge, skills and capabilities of its citizens to manage available resources.

• It is indeed an incontrovertible fact that human capital constitutes the most precious assets of any nation.

• “It is people who do the thinking and planning, people who execute, people who build and develop industries. In short, it is people who advance nations.” (Former Prime Minister of Malaysia, Abdullah Ahmad Badawi)

• This therefore underscores the imperative for building requisite human capital for sustainable development.
• A key strategy in creating a critical mass of requisite human capital is strengthening the role of education and in particular, education for sustainable development using a multidisciplinary approach (Pidlisnyuk et al., 2005; Kasimov et al., 2002).

• The crucial importance of a strong educational component for sustainable development was stressed at the 1992 World Summit in Rio de Janeiro. Chapter 36 of Agenda 21 states that:

"Education, including formal education, public awareness and training should be reorganized as a process by which human beings and societies can reach their fullest potential. Education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues."

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Building Human Capital for Sustainable Development

• The Dakar Framework for Action proclaimed that: “education is a fundamental human right. It is the key to Sustainable Development ... for effective participation in the societies and economies of the 21st century, which are affected by rapid globalization (UNESCO, 2000).”

• In the same vein, at the 2002 World Summit on Sustainable Development in Johannesburg, it was stressed that: “the achievement of the internationally agreed development goals, including those contained in the Millennium Declaration will require a significant increase in the flow of financial resources to education and awareness raising” and the “integration of sustainable development into education systems at all levels of education in order to promote education as a key agent for change (UN, 2002).”
In recognition of the crucial role of education, the UN’s Decade on Education for Sustainable Development (ESD) was declared for the period 2005-2014.

The Decade aims to see ESD implemented in thousands of local situations, involving its integration into a multitude of different learning situations. These initiatives can be catalysts for action and contribute to the goals and objectives of the Decade.

In such ways, organizations, local communities and individuals, different educational units can be actors within the global movement toward sustainable development.
Building Human Capital for Sustainable Development

• To be a strong instrument for attainment of sustainable development, education must incorporate key themes of sustainable development in all education systems as stated by United Nations Economic Commission for Europe (UNECE, 2005).

• These themes include issues such as poverty alleviation, peace, ethics, democracy, justice, security, human rights, health, social equity, cultural diversity, economy, environmental protection, and natural resource management.

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Building Human Capital for Sustainable Development

• There are also suggestions by experts that the ultimate target of education for sustainable development should be to make the principles of sustainable development an integral part of every person’s life.

• In addition, it is also suggested that effective education for sustainable development will depend upon a combination of a number of factors: legitimacy through the curriculum; new ways of learning; competence of staff; institutional development; partnerships and finances.

• It within this context that the university is expected to perform its critical role to play in the promotion and implementation of sustainable development.

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The Role of the University

- Incorporation of Sustainable Development Aspects into Existing University Courses and Programmes.
  - Universities have a critical role to play in educating all stakeholders, disseminating information about sustainability, and particularly by training leaders with the skills to solve regional and local problems.
  - They should incorporate relevant themes of sustainable development in their existing courses and programmes to make university graduates sustainability literate or ecologically responsible citizens.
  - The themes could include a wide range of issues such as poverty alleviation, peace, ethics, democracy, justice, security, human rights, health, social equity, cultural diversity, economy, environmental protection, natural resource management.

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The Role of the University

Conducting Research on Sustainable Development

- Universities can initiate pure or action research in specific areas that are germane to addressing sustainable development issues.

- Pure research helps to create and increase knowledge and enhance understanding of sustainability issues which in turn help shape or modify behaviour of people.

- Applied research helps inform policy decisions thereby enhancing the quality and reliability of policies in promoting sustainable development.

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The Role of the University

- Execution of Community-based Programmes and Projects
  - The university can conduct special projects and programmes to address problems and challenges in local communities.
  - The challenges could include prevalence of water borne diseases in a given community, disaster risks, poor harvest, help to educate local people on use of farm inputs (e.g. fertilizer), addressing poor quality of drinking water, improving accessibility to internet services, etc.

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Development of New Approaches and Solutions

- The university can identify areas of critical human needs that have great negative impact on sustainability and work to develop new and innovative approaches and solutions to these problems.

- The university’s focus should not merely be on preventing over-exploitation of existing resources or on limiting the growing excesses of pollution but to provide alternatives which have a positive impact such as alternative clean energy sources (wind, solar...
Creation of Awareness on Sustainable Development Issues

- The university has a special role in creating awareness on sustainability issues including control of greenhouse gases, land and energy use, consumption patterns, pollution, disaster risks, etc.

- An understanding of these issues contributes to building the skills and attitudes needed to reexamine the values we hold and enable individuals to take informed and responsible decisions and actions, which have direct impact on the environment

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The Role of the University

Engagement with Industry, Commerce and the Community

- Universities have a responsibility to articulate and disseminate new sustainability-related scientific knowledge and information, including its attendant uncertainty, to society at large through roundtable discussions, conferences, seminars and dialogue between scientists and other stakeholders, including citizens and policy makers.

- New knowledge can be a catalyst for social innovation and effective policymaking. Conversely, this dialogue can spur further innovations in knowledge that help society progress along the path of sustainability.

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Regional and International Cooperation and Exchange

The university can establish collaboration with all educational and training institutions, government, NGOs & CBOs, communities, other stakeholder groups and consumers.

Such cooperation can be used for joint programmes, research and for exchange of ideas, new knowledge from research findings and debates through

Cooperation and exchange are an essential way to shape knowledge and attitudes, and hence could help us to address these problems.
The Role of the University

- Adoption and Teaching of New Training /Delivery Methods

  - The university can adopt and teach trainers new methods of training and delivery by involving practitioners from business as well as political and governmental leaders to make presentations to students.
  
  - This provides opportunities for students to engage with practitioners in conversation and discussion with about the different aspects of environment and sustainability and to help them to develop the confidence and skills to add to this knowledge and to challenge it, when appropriate.

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The Role of the University

- Serving as Role Models for Sustainable Development.
  - Another potential role for the university in the effort to attain sustainability is the use of their campuses as models for a sustainable society.
  - The university can provide venues in which to test new sustainability-relevant knowledge in a social context.
  - By serving as test model for society at large, the university can help foster in its students the attitudes and skills necessary to achieve a sustainable society in the future.
  - Thus the sustainable campus can serve as both an experiment in progress and an ideal tool for educating future generations.

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Establishment of Partnerships and Networks.

- The university in collaboration with other universities and institutions can establish a “Network of Networks” (NNs), which is able to link the various discipline-specific research networks already in place, thereby utilizing and augmenting their respective strengths and knowledge bases.

- The NNs operate as a platform for science and public policy innovation, bringing universities and research institutes together to pull their strength through joint research and education programs, and to provide support to each other as needed.

- They work actively within the universities’ and surrounding communities to develop social models for sustainable and responsible development.
Challenges of the University

• **Inadequate Funding** – as a result of dwindling budgetary allocations and IGR

• **Weak Infrastructure** – inadequate lecture halls, laboratories, students hostels, library space, books and journals and office spaces

• **Inadequate Faculty** – 37,504 academics in the country’s 124 universities (less than half of what is required) and student-teacher ratio of 1:122 in some universities

• **Brain Drain** – many academic staff leaving for greener pasture to other countries

• **Low level of awareness of sustainable development among Nigerians**

• **Rigid Institutional Structures** – the university is compartmentalized

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Suggestions for the Way Forward

- Establishment of a Focal Point/Office to handle programmes and projects related to sustainability development;
- Launching of a dedicated sustainable development endowment fund to solicit for funds and assistance from donor organizations, international agencies, corporate organizations, etc.;
- Integration of sustainable development issues into the university’s strategic plan to gain management recognition and formal approval;
- Seeking technical assistance for training of faculty to build requisite capacity management of sustainability development programmes and projects;

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Suggestions for the Way Forward

• Establishment of partnership and collaboration arrangement with local and foreign institutions who are already implementing sustainability training;

• Headhunting experienced personnel;

• Identifying and establishing a pool of associates for the purpose of strengthening capacity at a reasonable cost.

• The suggestions above are not exhaustive but they can give the university a good start or some push if the programme is already in place. Over time, with lessons learned from doing, the programme can take root.

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Conclusion

• The global community has pursued the path of growth and development that has largely been unsustainable over the years leading to unprecedented socio-economic and environmental problems

• These crises and the need to address them gave birth, through the activities of the UN, to the concept of sustainable development

• The overarching objective of sustainable development is meeting the needs, now and in the future, for human, economic, and social development within the restraints of the life support systems of the planet
Conclusion

• Sustainable development focuses on key issues relating to the environment, economy, social inclusion, globalization and governance.

• Successful implementation of sustainable development is hinged on building requisite human capital, i.e. knowledge, skills and competencies embodied in individuals that facilitate the creation of personal, social and economic well-being.

• The paper discussed the role of the university in building human capital for sustainable development, highlighting some of its challenges and giving suggestions for addressing these challenges

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Thank you for listening

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