

BUILDING TECHNOLOGY EDUCATION FOR NATIONAL DEVELOPMENT

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Abstract:

Physical development of the environment is concerned with the provision of infrastructure. Buildings are crucial to man's existence and survival as he lives and carries out his activities in life. The provision of housing is accorded huge financial budgets and efforts by individuals and government. This paper will look at the area where technology education can assist in the sustainability of the national's development. The buildings industry needs the skill, knowledge. How building technology education can empower individual, Building maintenance, and the problems militating against the building industry are highlighted in the paper. The paper concludes that: Nigeria must encourage the buildings sector to be part of the world development policy advancement in the 21st Century. Some recommendations are made, among which are: Manual labour should be recognized and encouraged in Nigeria and effective enlightenment should be vigorously pursued by stakeholders.

Introduction:

Housing has universally been ranked as one of the basic needs of mankind after food. Housing at different epochs, remains a strategic asset to man and it is so significant that it impacts on the physical, social and mental well being of man irrespective of his socio-economic status, colour or creed. Man is incomplete without housing and his health, welfare and productively is greatly impaired when proper shelter is missing (Chuwkujekwu 2007).

The production process of building includes design, construction, commissioning of the project and management. Maintenance program in buildings has no fixed time of commencement or duration. The process starts from the design stage of the management stage.

Developing the housing industry creates demand for building construction. The construction industry involves a process that brings professional together. These professionals are called upon at on stage or the other during construction to do their job. Building construction creates job opportunities for man from the time of designing, construction, management and occupation and use of the houses.

Widespread poverty does not make for national development. A situation where the bulk of government revenue derivable from the construction industry is not realized does not ensure availability at adequate funding for government projects. According to Akin (2005) reforming our land is vital to enhancing access to capital for our small and medium scale industries. Construction industry reformation is essential for the growth and development of free market economy in the country. Construction industry reform programme will generate useful construction information system that will be used for physical planning.

Technical Education in Nigeria:

Technical Education in Nigeria dates back to the Nineteenth Century. Technical education is that aspect of education, which lead to the acquisition of practical and applied skills as well as basic scientific knowledge, Ekpenyong, (2005). UNESCO (1978) defines technical education as education designed at upper secondary and tertiary levels to prepare middle-level personnel and at university level, for higher management positions. Technical education includes general education, scientific and technical education may vary considerably depending on the type of personnel to be prepared and the educational level concerned.

Technical education had a slow start and developed less quickly than other forms of education. This is due to the fact that the colonialists who introduced western education did not popularize it on the same scale as literacy, religious and pedagogical form of education.

According to Batagarawa (2001) the low pace of technical education in Nigeria is as a result of the fact that "it is expensive to develop and sustain partly because of its high resources requirements.

PROVISION OF BUILDING IN NIGERIA:

Government attempt at housing buildings policy started through direct intervention in housing provision with the setting up of the Nigeria Building Society (NBS) in 1956 to assist government workers to own their buildings, some of the strategies include; the establishment of housing corporations, the establishment of Federal Housing Authority and creation of Federal Mortgage Bank of Nigeria (FMBN).

All the national development plans introduced by successive government spanning from 1962 to 1985 explicitly recognized the importance of providing housing in the country as a tool of stimulating economic development, but there was no organized housing policy in place to stimulate and enhance the anticipated development. The result however, was that most Nigeria, apart from a handful of civil servants, received no form of housing assistance from the government as most housing were provided by private sector. For instance, out of a total 202,000 dwelling housing units programmed by government to built between 1975 and 1980 comprising 50,000 units in Lagos and 8,000 units in each of the other nineteen states, less than fifteen (15%) of the housing were completed by the end of the plan period. Between 1978 and 1983, it was obvious that housing programmers and various tactics adopted were grossly inadequate and not meet the housing needs of Nigeria, (Chukwujekwu 2007).

Building Maintenance:-

Building maintenance is the combination of all technical and associated administrative actions intended to restore an item in or restore it to a state in which the item can perform its required function, restore or improve every facility, that is, every part of building, its services and surroundings to an agreed standard, determined by a balance between needs and available resources. Akigbougbe (2000) put maintenance standards qualities and life span of a property with a view of perpetuating its full- capacity benefits.

So many reasons have been advanced for carrying out building maintenance.

The aspects that touch on safety to life and property should above other considerations compel users or occupiers of buildings to evolve sophisticated maintenance culture to avert calamity. The estate surveying practice recognized the role of maintenance in perpetuating the useful life of a building. It is on account of this that the traditional investment method of valuation makes room for maintenance (repairs, insurance, and management) before capitalizing an ascertained income flows.

Building deterioration stems from a host of factors affecting the building from inception to completion. i.e the pre-construction, construction and the post- construction stages. During the pre-construction stage it is necessary for the designer to take the client through a maintainability-supported scheme. During the construction stage good workmanship essential through supervision is imperative. During the post construction stage, so many factors affect the buildings from the environment like solar radiation, wind, moisture, condensation, rain, soil, movement, plants, insects, fungi and even man. To ensure a safe, healthy and enabling environment for effective learning and development in Nigeria, a very high maintenance culture is required.

Empowering Nigeria through Building Technology:

The poor economic climate in Nigeria has worsened; the rate of unemployment is alarming. There is the need to seriously consider the building industry as an area that has not being fully tapped. Building technology education can play a vital role in economic development; effective skill acquisition in building technology is indispensable towards empowering people and producing a self-reliant nation with dynamic man- power for suitable development.

Small business is the engine of employment. There are many areas in the building industry where employment can be created, for instance, the sale of building materials is a job creation potential.

Building technology is concerned with construction, and the construction of houses is one of the areas building technology is a course that equip the learner with knowledge and skills in diverse areas such as, Woodwork, Metal work, Bricklaying, Plumbing, Electrical installation and so on. It will be out of place therefore for any graduate of building technology having acquired this knowledge to be unemployed. According to Ekpenyong, (2007) they have the knowledge and skills needed to enable them successfully fit into the world of works within the available job opportunities in the society after graduation.

The construction process requires skills of many professionals: Architect Landscape architect, Civil engineers and Site planners to address project design, attorney to handle agreements and government

approvals, environmental consultant and soil engineers and environmental impact, surveyors and title companies to provide legal descriptions of a property building, appraisals and other skilled unskilled labour creation.

Problems Militating Against Technology Education:

The basic problems of Building/Housing in Nigeria over the years has weakened the fabrics and adversely affected the building industry in realization of its sustainability potential. In Nigeria, we have failed to learn that technology cannot be transferred, its can only be developed.

- ❖ **Inadequate Training:-** The training being offered in schools is not relevant to real industrial situations in the building industries. Teaching and instruction are abstract because students cannot practice what they are being thought. Acquisition of knowledge is different from technological capability.
- ❖ **Lack of Recognition:-** One of the problems of the building industry is lack of recognition, in Nigeria, the craftsman does not enjoy any recognition. Manual labour has no value and the construction industry is associated with manual labour.
- ❖ **Fund Rising:-** In Nigeria the institutions offering building technology has financial problem, they lack the finance to equips their laboratories. They pass through the schools without mastery their own skills.
- ❖ **Lack of Qualified and Experienced Teachers:-** Building/Housing industries requires qualified and experienced teachers. The caliber of teacher we have in schools cannot undertake any task above their capabilities as many are not up to date, as a result of rapid change and innovations in technology. The teachers cannot teach what they do not know or have never seen. According to Oviawe I.J. and Anavberokhai .M. (1999). City Amaefule, there must be a constant program for the training and re-training of teachers of skill courses. This is very important for the teacher to be abreast of the continuing changes in structure and equipment.
- ❖ **Shortage of Adequate Facilities:-** There is the problem of adequate housing facilities in Nigeria towns. Lagos, for instance, has an average of 3.8 persons per room and extreme density ranging between 5 to 7 persons per room has been recorded, Omirin (1998) more housing are added to relieve the existing overcrowding in Nigeria urban center. A report on housing in Africa produced for the United Nations describes clearly the present state of housing in this situation is getting worse owing to the increasing impact of its cause, population growth and urbanization.

Importance of Building Construction Education:-

Technology development: The importance of building construction education cannot be over-emphasized. It provide basic technological literacy for everyday living, it emphasizes practical demonstrations, modeling and the acquisition of skills in the use of tools and equipment. Improved information and communication technology:

The information revolution places an increasing role on education and knowledge as critical factors of production thereby becoming key inputs into a nation's development strategy. Information is essential in improving country productivity. The nation's educational system needs to produce the right caliber of graduates; they need information to get acquainted with the current technological requirements of the environment, current development trends in other parts of the world, to reduce economic isolation and allow nations to diversify their volatile economic bases.

Conclusion:

In this paper, the writer has examined the relevant of building technology education in the area of national development. To have a safe, health and enabling environment for effective learning and development, building technology education should be enhanced, because this aspect of education provide the necessary skills, altitude and knowledge for conquering the challenges of the built environment.

Recommendations for Improvement:

The following recommendations are made for technology education system.

- ❖ The conditions of service of teachers and teaching facilities, especially the workshops, equipment and laboratories need special improvement to meet the demand of imparting knowledge to students.
- ❖ Manual labour should be recognized and encouraged in the Nigeria society.
- ❖ The building technology education requires qualified and experienced teachers, there should be training and re-training of skill teachers for sustainable developments.
- ❖ The Federal and State Government should ensure that sufficient financial resources are available to institutions that offer building technology for the purchase of new and modern equipment.
- ❖ The professional bodies should assist technological institutions to link with industry thereby making various training relevant.

References:

- Akin, L.M (2005), Real estate and national development challenges for the profession of estate surveyors and valuers, *paper presented at the launching of the NIESV research foundation (Abuja, Nigeria)*
- Batagarawa. L. (200), Ministerial address during a seminar organized on technical and vocational education in Nigeria Peace Mission Hall, Abuja 30th October.
- Chukwujekwu J.E. (2007), The impact of housing sector. *Being a paper delivered at the continuing professional development seminar*. Pg. 27-37.
- Ebube O.C. (2008), Impact of maintenance in building performance: *Journal of Environmental Science and Management*, (JESAM) volume 1, No. 1, Pg. 155-160.
- Ekpenyong, L.E. (2005), Foundations of Technical and Vocational Education: New directions and approaches for Nigerian students in TVE and adult education, practitioners and policy makers, (2nd ed) *Supreme Ideal Publishers Int. Ltd. Benin-City*
- Emeka D. E. (2010). Vision 20:2020 and the challenges of housing; construction and development in Nigeria. *A paper presented by the Nigeria institution of estate surveyors and valuers in Lagos*. Pg. 1-11.
- Ikpo I.J (2008), Building maintenance culture: The Nigeria experience: *Journal of the Nigeria Institute of Building*. Volume 1, Pg 12-18
- Omirin, M. M. (2008), Land Accessibility and Low Income Housing Building Activity in Lagos. *Lagos Journal of Environment Studies*. Volume 1 No. 1 Pg. 76-92
- Oviawe J.I. and Anavberokhai (2008), The role of entrepreneurship education in the realization of the national economic empowerment and development strategy (NEEDS): *Journal of Technical and Vocational Education*. Era Productions (Nig) Ent. Benin-City.
- UNESCO (1978), *A Practical Guild to International Terminologies* in the field of Technical and Vocational Education, preliminary Ed. UNESCO