

Pupils' Perception of the Role of Forestry in Sustainable Environmental Protection in Nigeria: A Case Study of Birnin-Gwari Local Government Area, Kaduna State

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Abstract

The study of the role of forestry and primary education in sustainable environmental protection was performed to indicate the need to examine the involvement of primary school pupils in environmental protection in Birnin-gwari Local Government. It was noticed that there are significant difference ($p < 0.05$) in the relationship between pupils' participation and their benefit directly or indirectly in environmental protection. According to results obtained in this study, it has been observed that majority of the respondents and the pupils have ideas of forestry (75%), with a few practicing it (13.33%). This was explained to be as a result of parents' refusal because of the general belief that forestry is not lucrative and would rather involve their children in agricultural practice with respondents showing intriguing willingness (81.67%) to practice forestry in order to save the future generation. They also have a clear-cut misunderstanding that forestry could not be practiced by the school pupil at such age. The study also has shown that educating a child in forestry will rather help more in environmental protection than reduce poverty, while, protection from diseases among other things aforementioned.

Keywords: pupil's perception, forestry, sustainable development, reading, environmental protection

INTRODUCTION

This is the most important and earliest program of education for children, beginning generally at the age of five or six and lasting from six to eight years. In most countries elementary education is compulsory for all children. In Nigeria 2 or 3 year of kindergarten often precedes the first grade of the 5 or 6-year elementary course. In the larger communities, special classes or schools are usually provided for children who have physical or developmental disabilities. The purpose of the elementary school is to introduce children to the skills, information, and attitudes necessary for proper adjustment to their community and to society. Basically, the subjects taught are reading, writing, spelling, mathematics, social studies, science, art, music, physical education, and handicrafts. These are often supplemented with other subjects, such as foreign languages. Over the years new subject matter has made the elementary school curriculum more advanced than heretofore. Primary education is the first stage of compulsory education. It is preceded by pre-school or nursery education and is followed by secondary education. In North America this stage of education is usually known as elementary education and is generally followed by middle school. In most countries, it is compulsory for children to receive primary education, though in many jurisdictions it is permissible for parents to provide it. The transition to secondary school or high

school is somewhat arbitrary, but it generally occurs at about eleven or twelve years of age. Some educational systems have separate middle schools with the transition to the final stage of education taking place at around the age of fourteen.

The major goals of primary education are achieving basic literacy and numeracy amongst all pupils, as well as establishing foundations in science, geography, history, math, and other social sciences. The relative priority of various areas, and the methods used to teach them, are an area of considerable political debate. Children's social and emotional wellbeing is important in its own right but also because it affects their physical health (both as a child and as an adult) and can determine how well they do at school. Good social, emotional and psychological health helps protect children against emotional and behavioural problems, violence and crime, teenage pregnancy and the misuse of drugs and alcohol ('Systematic review of the effectiveness of interventions to promote mental wellbeing in children in primary education' *Adi et al.*, 2007).

Typically, primary education is provided in schools, where the child will stay in steadily advancing classes until they complete it and move on to high school/secondary school. Children are usually placed in classes with one teacher who will be primarily

responsible for their education and welfare for that year. This teacher may be assisted to varying degrees by specialist teachers in certain subject areas, often music or physical education. The continuity with a single teacher and the opportunity to build up a close relationship with the class is a notable feature of the primary education system. Traditionally, various forms of corporal punishment have been an integral part of early education. Recently this practice has come under attack, and in many cases been outlawed, especially in Western countries.

The need for forestry education in an early and primary stage of life is an important observation as it becomes part of an integral life of the individuals involved. Forestry is not just a study but an act of managing the forest for sustained yield of forest products. Therefore, when religiously inculcated into the elementary stage of a child's education, will never be easily neglected. Forestry Education should be regarded as a process of integrating indigenous and derived knowledge, attitudes and skills to determine what is needed, how it can be done, what local co-operation and resources can be mobilized and what additional assistance is available and may be necessary to overcome particular obstacles. This places the administration of forest resources in position that will make available to forest users, knowledge and skills that would readily be accepted for conservation purposes. Forestry extension encompasses any situation in which people are directly and voluntarily involved in forestry activities from which they can derive tangible benefits within a time period (Ojo *et al.*, 2009). On the other hand, deforestation has been sharply increased in the last three decades rating approximately 1.6 million hectares per year. Low law enforcement, illegal logging, forest fire, lack of industrial plantation, and low participation of local communities in forestry activities have failed in providing benefits to local forest communities and created social jealousy and conflicts. Forestry education is basically a program geared towards the liberation and integration of concerned beneficiaries through dissemination of expedient information. This is also no different from providing resources for the development of target audience and their community. Such resources include human, environmental and infrastructural resources. Therefore, this exercise aims to achieve the extent of availability and the importance of these resources to the national economy and the lives of the people.

PURPOSE OF FORESTRY EDUCATION

The main purpose of forestry extension is to help people to examine problems which are affecting their lives and to consider if they may be solved, or at least alleviated, by using forestry techniques within the range of their skills and financial resources. The views of the people should, in turn be relayed to the

officials who frame the laws and design the infrastructure of the region so that they may promote policies which facilitate the achievements of the people's objectives. The emphasis must be on local people recognizing a need and deciding to do something about it. For at least 50 years, nursery schools and preschools have been viewed by parents and educators as a means to promote social and academic skills prior to entry to formal schooling (Lamb & Ahnert, 2006). In contrast, others, influenced in part by attachment theory, have expressed concerns that extensive non-maternal care, especially beginning very early in life, could disrupt attachment bonds and result in problem behaviors (Belsky, 1986, 1988; Egeland & Hiester, 1995).

The contribution of forestry education in child upbringing is to facilitate early definition of such a need to indicate a variety of possible courses its depletion in the environment in which they reside and the ecological globe they belong. The fundamental aim is to provide an organization to do things for themselves, to develop a genuinely critical view of their own situation and a realistic assessment of their ability to take the necessary steps to correct any defects. From an initial success in solving one limited problem a child may go on to tackle more complex problems and building up the experience and judgment necessary to improve a whole range of activities to enhance the quality of live with which was learnt. In other research, more time in center care predicted larger academic gains among low-income than middle-income children (Gormley *et al.*, 2005). A second issue involves possible pathways through which child care could affect adolescent development. The most simple and straightforward proposition is that differences in child functioning at entry to school that are linked to early care are carried forward to middle adolescence. We address this possibility by evaluating the extent to which observed effects of child care on adolescent functioning at age 15 are mediated by prior cognitive and social functioning in early and middle childhood. A third issue that merits attention is whether associations between child care and adolescent functioning are moderated by child gender or familial risk. Hypotheses regarding Age 15 Follow-up 7 differential gender effects have been in the literature for years (Belsky, 2001; Love *et al.*, 2003; Maccoby and Lewis, 2003), with some evidence of these effects reported for child care and developmental outcomes in the preschool and early elementary years.

ENVIRONMENTAL PROTECTION

Environmental protection is therefore a practice of protecting the environment, on individual, organizational or governmental level, for the benefit of the natural environment and (or) humans. Due to the pressures of population and our technology the

biophysical environment is being degraded, sometimes permanently. This has been recognized and governments began placing restraints on activities that caused environmental degradation. Since the 1960s activism by the environmental movement has created awareness of the various environmental issues. There is not a full agreement on the extent of the environmental impact of human activity and protection measures are occasionally criticized.

In studies of farmers in Kenya and Burkina Faso, when statistically adjusted for resource differences, women and children farmers proved to be more productive than men (Blumberg, 1995). In Kenya it was found that the influence of schooling on output was greater for women and children than for men for individuals with fewer than four years of education, and they benefited less than men from the predominantly male forestry extension service (Moock, 1976). Attendance data based on household surveys show that the number of children of primary school age who are out of school has declined markedly in recent years, from 115 million in 2002 to 101 million in 2007. This is substantial progress, and many countries are close to delivering universal primary education.

Yet, in some countries and regions the task remains enormous, for example in sub-Saharan Africa, where 46 million primary-school-age children are out of school, and in South Asia, where 35 million remain out of school. Nevertheless there is no provision for sustaining forest product by educating the children about forestry. There is many believe that all the children in the world can be better environmental managers and scientists if they are taught to act so. Priority to the children has been drawn to conventional topics that are of little or no impact in their lives. There could be cognitive development in forestry if child education in forestry is enhanced by the government. Many children have various lessons which were learned which are absolutely materialistic till adult. This is as a result of the strength in elementary education which precedes the age at which they can think for themselves. In the efforts of the government in tackling forest problems and all the literatures of possible solution to reduce the effect of forest depletion in the global earth the children have been left out. Their primary goal is to live in a safe environment without disasters and mishaps. The training of a child in forestry education is like tree itself planted and awaited to be harvested though takes a long time before harvest. When a child grows then the end justifies the means. Being leaders of tomorrow is far 'beyond said than done' as every child guards to put all knowledge to practice with little or no supervision.

STATEMENT OF PROBLEM

As the population increases the number of children increases and the extent of forest depletion also is foreseen on the increase. The task of forestry is seen to be measured to be involved by adults alone not relevant to primary education pupils. Also, there is need for the children to understand the extent of environmental misappropriation caused by anthropogenic activities. If the level of awareness of forestry increases among the children, there is a future for their generation.

OBJECTIVE OF THE STUDY

The broad objective of this study is to carefully observe forestry and primary education as remedy to climate change or behavior for sustainable environmental protection.

Specific Objectives are to;

- i. access the socio-economic characteristics of the respondents
- ii. examine the enrollment of Forestry study in Primary Education
- iii. identify the prospect of primary and forestry education in environmental protection
- iv. identify the benefits of forestry education to the children in the community

JUSTIFICATION

Forestry education had been one of the foremost attempts to combat the problems facing climate change. However, the role of primary education may go a long way in capacity building of knowledge and its applicability in forestry activities for greener environment as it becomes an integral part of life of the beneficiary. Adi *et al.* 2007, looked into the Systematic review of the effectiveness of interventions to promote mental wellbeing in children in primary education; but then the standard of education should be in tangential with the growth and development of their surrounding environment.

MATERIALS AND METHODS

Study Area

This study was carried out in Birnin-gwari Local Government area of Kaduna State. The local government lies between latitude 12° 20' and longitude 9° 10' and also lies in western part of Kaduna. She forms boundaries with Zamfara, Katsina, and Niger States. Created in September 1976, is situated with an area of 6,185km² and a population of 252,363 at the 2006 population census.

DATA COLLECTION AND SOURCE

The target respondents for the purpose of this study are the primary school teachers. Primary data was collected using well structured questionnaires. The questionnaires will be designed to collect the following types of information;

- i. Personal characteristics of sampled respondents (such as education, age, sex, e.t.c.)
- ii. Awareness of the pupils in forestry education
- iii. Pupils participation in forestry education
- iv. Benefit of forestry and environmental protection in the area

SAMPLING PROCEDURE

A total sixty (60) questionnaires was randomly distributed in the study area. Interviewed schedule was used to source information illiterate respondents while for the literate questionnaire was given and later retrieved for interpretation.

ANALYTICAL TECHNIQUE

The following analytical tools were employed to achieve the stated objectives of the study.

- Simple descriptive statistic

CONTIGENCY (X²)

- Study hypothesis:
Ho: There are no significant relationships between students’ enrollment/ participation and their benefits from forestry through environmental protection

$$X^2 = \sum \frac{(O - E)^2}{E}$$

Where O = observed frequency

E = expected frequency

This was used to test for the hypothesis; (H₀)

DESCRIPTIVE STATISTICS

Simple descriptive statistics was employed to evaluate summary of data. This involves the use of percentage, frequency distribution and histogram. This will be used to achieve objectives (i), (ii) and (iv)

RESULTS AND DISCUSSION

In table 3.11, most of the teacher/respondents are male and it was noticed the female teachers/respondents were very few in each of the school randomly selected for the study. The male respondents dominated with 68.33% while the female with 31.67%. It was shown that the school teachers dominating in their values in the selected samples sites fall within the age percentages of 45, 40 and 15 (%) and age ranges of 21–30, 31–40 and 41–50 respectively.

Most of the respondents are married showing the value of 70% while 30% of them are yet to get married which goes a long way explain their wives , husbands and children are vulnerable to disasters resulting from environmental degradation and forest depletion.

Table 3.1.1 Shows the socio-economic features of the respondents

Variables	respondents'	percentage (%)
Gender		
• Male	41	68.33
• Female	19	31.67
Age range		
• 21 – 30	27	45
• 31 – 40	24	40
• 41 – 50	9	15
	60	100
Marital status		
• Single	42	70
• Married	18	30
	60	100
Other forms of occupation		
• Farmer	45	75
• Extension worker	15	25
	60	100
Pupils’ age range		
• 5 – 7	15	25
• 8 – 10	20	33.33
• 11 – 13	15	25
• Unknown	10	16.67

The respondents are secondarily engaged with farming and extension works. This is as a result of agricultural practice to meet both subsistence and commercial need of the family. The farming activities by the respondent exposed some of them to extension work. The value of respondents involved in farming activities is 75% and those involved in extension work is 45% respectively. In this table, the socioeconomic characteristics of the respondents have a long to deal with their involvement in forestry. Naturally, it is believed that the men are more involved with environmental issues with their families directly faced with the consequences. The studies showed that these men only go about with their agricultural practice without a future for forestry.

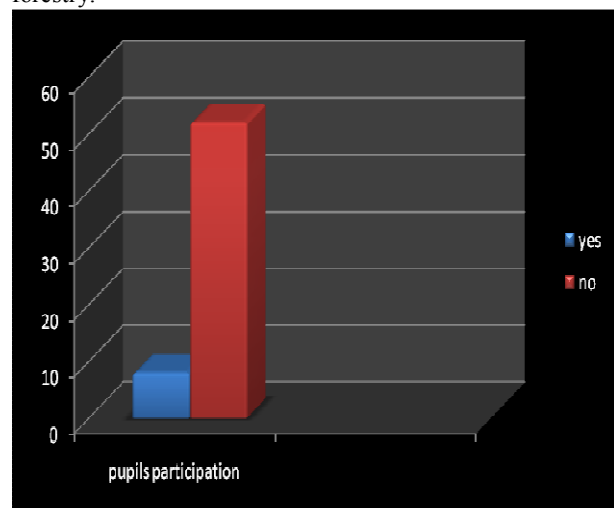


Fig. 1: Shows Pupils Participation In Forestry Education

Source: Field work, 2010

The study shows in figure 1 above, the participation of the school pupils in forestry practices indicating that students rather concentrate on other subjects provided by the school curricular. The result also shows that the level of involvement of the school pupils in forestry is very low representing 8 and non-involvement, 52 respectively.

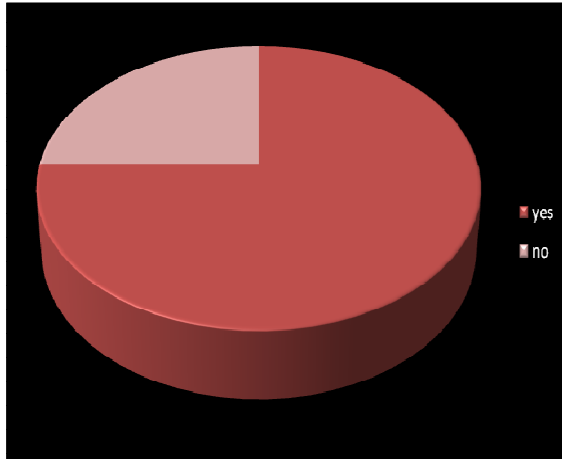


Fig. 2: Shows Pupils Awareness of Pupils in Forestry
Source: Field work, 2010

The figure above shows the level of awareness of the school pupils. The study shows the pupils have ideas of forestry but do not practice forestry. The chart shows that almost one quarter of the respondents are not aware of forestry with 25% while three quarters are aware of forestry but do not practice forestry with 75%.

Table 3.1.2: shows the factors hindering pupils participation in forestry practice

Variables	Respondents	Percentage (%)
• Lack of funds	39	65
• Students' lack of interest	9	15
• Refusal at PTA meeting	12	20
	60	100

In the above table it is shown that the major hindrance to pupils' participation in forestry practice can be attributed to lack of funds and this has so many facets from labour to cost of maintenance showing with the value of 65%. Parents and teachers association is another limitation where it could be agreed for its total refusal by the parents and some lazy teachers with the value of 20%.

Table 3.1.3: Shows correspondence on provision for forestry education

Variables	Respondents	Percentage (%)
• No	55	91.67
• Yes	5	8.33
	60	100

In the table above it is showed that almost the entire correspondents revealed that there are no provision for forestry education even if the students are willing to practice. This shows further that only 8.33% results the provision of forestry education affirmatively while 91.67% do not find it necessary.

Table 3.1.4: Shows the willingness of schools to practice forestry education

Variables	Respondents	Percentage (%)
• Yes	49	81.67
• No	11	18.33
	60	100

The table above shows the willingness of schools respondents to practice forestry education. According to the respondents, 81.67% affirms their willingness showing greater interest to 18.33% respondents that disagree because of limiting factors hindering forestry education practice.

Table 3.1.5. Contingency (X^2) results: participation of pupils and their benefit in environmental protection through forestry education

Variance	Df	Xcal	Xtab	Remark
• Students' participation	7	45.07	14	significant
• Forestry beneficiary	12	36.82	21.03	significant

The table above shows the relationship between student enrollment and their benefit from forestry education through environmental education. This goes further that the correspondence on their low participation in forestry education prove significant to the study and responsible for lack of posterity for nature guiding forests showing the need for urgent attention. Also, it is shown in the study that the forestry beneficiary is significant showing the level of involvement of respondent in forest utilization directly and indirectly. At 95% probability level it is evident that with low participation of respondents of pupils in forestry education, a lot of benefits are harnessed from forestry. Therefore, we reject the null hypothesis (H_0) in this research.

CONCLUSION

According to results obtained in this study, it has been observed that majority of the respondents and the pupils have ideas of forestry but do not practice it. This was explained to be as a result of parents refusal because of the general believes that forestry is not lucrative and would rather involve their children in agricultural practice. They also have a clear cut misunderstanding that forestry could not be practiced by the school pupil at such age. This also shows that the continuous failure of forestry and environmental protection and management could be as a result of

involving the grass root entities who grows along with forests themselves. Nevertheless, the study revealed forestry education has completely been neglected from the basic root and this could be a genuine reason for continuous forest depletion experienced across the globe. The mind of a child never neglects early instruction and the reason why the fate of the forests and their environment lie immensely with the future of these children that own them.

RECOMMENDATION

There is general believe that educating children helps to reduce poverty and that an educated child is an inheritance to the nation. Educating a child in forestry will provide the next generation with the tools to fight not just poverty but conquer environmental degradation through forest depletion, spread of diseases and prevention of global warming. Forest schools also offer children a safe environment, with support, supervision and socialization. Here they learn life skills that can help them prevent collapse of the global ecosystem. They may receive life-saving training, fresh water and nutrient supplementation at such schools.

REFERNCES

Adi Yaser, Amanda Killoran, Kulsum Janmohamed, Sarah Stewart-Brown (2007): Children and young people's voices on emotional well-being report for NICE 2007'.

Belsky, J. (1986). Infant day care: A cause for concern? *Zero to Three*, 6, 1-7.

Belsky, J. (1988). The "effects" of infant day care reconsidered. *Early Childhood Research Quarterly*, 3, 235-272.

Belsky, J. (2001). Developmental risks (still) associated with early childcare. *Journal of Child Psychology and Psychiatry*, 42, 845-859.

Blumberg, R. L. (1997). Introduction: Engendering wealth and well-being in an era of economic transformation. In: R.L. Blumberg, Cathy A. Rakowski, Irene Tinker, and Michael Montéon (eds.), *EnGENDERing Wealth & Well-Being: Empowerment for Global Change*, 1-14. Westview Press, Boulder, CO.

Lamb, M. E., and Ahnert, L. (2006). Nonparental child care: Context, concepts, correlates, and consequences. In W. Damon & R. M. Lerner (Series Eds.) & K. A. Renninger & I. E.

Sigel (Vol. Eds.), *Handbook of child psychology: Vol. 4. Child psychology in practice* (6th ed., pp. 950-1016). Hoboken, NJ: Wiley.

Egeland, B., & Hiester, M. (1995). The long-term consequences of infant day-care and mother infant attachment. *Child Development*, 66, 474-485.

Gormley, W. T., Jr., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-K on cognitive development. *Developmental Psychology*, 41, 872-884.

Love, J. M., Harrison, L., Sagi-Schwartz, A., van IJzendoorn, M. H., Ross, C., Ungerer,

J. A. (2003). Child care quality matters: How conclusions may vary with context. *Child Development*, 74, 1021-1033.

Maccoby, E. E., & Lewis, C. C. (2003). Less day care or different day care? *Child Development*, 74, 1069-1075.

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Moock, P. R. (1976). The efficiency of women as farm managers: Kenya. *American Journal of Agricultural Economics* 58 (December): 831-835.

Ojo, O.S., Sodimu, A.I, and Akinyemi O., 2009: Proceedings of the Maiden Annual Conference of Association of Women in Forestry and Environment (AWIFE).