

HOME PROJECTS IN AGRICULTURAL EDUCATION AS A MEASURE TO COMBATING SECURITY CHALLENGES IN NIGERIA

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Abstract

This paper examines the meaning, causes and impact of insecurity. It also discusses the concept of Home Project in Agricultural Education. It identifies different projects where students could be trained to acquire skills for self-reliance in order to prevent in security in Nigeria. It was recommended that students should be exposed to different skill development activities and programmes in Agricultural Science right from secondary schools to stimulate and sustain their interest in Agriculture. It was also recommended that youths should be encouraged to practise backyard farming so as to alleviate the problem of food insecurity and joblessness among youths.

Keywords: Home Projects, Social Vices, Insecurity, Self-reliance, Youths.

Introduction

Nigeria is a nation that is affected with so many security challenges or social vices, a country where people in the nation find it difficult to move from one place to another without being afraid of what could happen at any time. Security challenges involve the state of mass destructions, socio economic injustice, and human right abuse among others. No nation can develop with a lot of security challenges because success and progress of a nation lies on the peaceful co-existence of people in the country.

Security challenges or socio vices in Nigeria is a situation where some group of people engage in activities that could disturb the peace of the society. For example, kidnapping of other people in order to collect money for freedom of their captives to earn a living, Boko Haram insurgence is common in some states in the Northern Nigeria, continuous ethnic and religious fightings and killing of people in some states in the nation, high profile militancy in the Niger Delta, the acts of political thuggery in almost all the states in the nation, armed robberies in most high ways and roads in the nation and the issues of vandalisation of oil pipelines (Adesina, Gbadamosi & Akanni, 2013). Other security challenges noticeable in Nigeria are bombing of properties here and there which may pose

the problem of loss of lives as well. Hunger and the current cases of farmers and Fulani herdsmen's fighting, political and electioneering conflicts, ethno-religious crises, boundary disputes, cybercrimes, ritual killings, cultism, gang rappings, organized crimes and wickedness among others.

Major cause of security challenges in Nigeria today is that many people do not have jobs. Unemployment among youths could be due to low standard of education from the secondary schools, every year secondary schools and higher institutions produce non-prepared graduates that do not have enough information to obtain additional employable skills, in some areas the possession of such skills is necessary so that they can greatly increase their chances of getting jobs but not all graduates seek ways to improve themselves.

Lack of entrepreneurial skills among youths hinder them from finding a job, they also have no desire to continue their education or acquire some needed skills. They just move around aimlessly and get involved in things that could disturb the peace of people around, like the proverb that says an idle hand is the devils workshop, this has led to a high level of poverty in the society. Closely related to that is nepotism, this is a situation where people are given jobs not by their professional skills but

by their connections. More qualified people are staying unemployed while the unskilled ones have taken over economic activities of the country and young school leavers or graduates work in an organizations below their expectations, this makes them to engage in all manner of bad deeds to get money to survive.

Impacts of security challenges in Nigeria has been noticed in the area of hunger and shortage of food in the society, breakdown of law and order, fears and lack of trust, hatred and wickedness, lack of focus by the youths, continuous and sudden death, loss of properties and slow social economic developments in the nation. It is against this background that this paper seeks to look at the concept of Home Projects in Agricultural Education as a measure to reduced food security challenges in Nigeria and to discuss different projects where youth or young school graduates could be trained to acquire a skill for self-reliance.

For any nation to be secured, knowledge and skills are required in the country. Youths need to acquire skill to perform different tasks in the society. Famiwole, (2015) described skills acquired from different educational programmes as meaningful when they are used to solve societal problems. He further opined that this could happen only if the skills are relevant to the needs of the society but when knowledge or skills acquired from any educational programmes are not relevant to the needs of the society, individual who possesses such knowledge or skills finds it difficult to gain meaningful employment. Hence, unemployment leads to low income and poverty. Despite the magnitude of the disasters of security challenges, there is still a way to solving the menace. This could be achieved by training the youths to acquire skills in agriculture through the Home Project Teaching Strategy Approach.

The concept of Home Project

Home Project as used in Agricultural practices, is referred to as a piece of work carried out by students with the aim of gaining experiences. Home Project is a programme specifying students desired competencies in

explicit forms. Phipps (1980) and Famiwole, (2015) defined Home Project as a special kind of teaching strategy in which method, knowledge and skills are learnt by students through experiential learning experience and practical handling of problems in natural setting at home. Home Project is a systematic teaching model that engages students in learning knowledge and skills from a series of complex tasks including designing and planning, problem solving, decision making and the communication of the results. Home Project is a supervised practice in agriculture, students are urged to broaden their practical experience in Agriculture by conducting appropriate programmes involving planting of crops and livestock rearing if land and other facilities are available. In training secondary school students, Dadisman (2010) opined that the Home Projects should be carried on outside the regular classroom and when properly presented, would develop greater interest and more improvements in Agricultural Science students' performances. It would give the students retentive memory to carry their understanding to completion and provide a basis for direct thinking to a logical conclusion.

The abilities, interest and learning styles of the students could affect the various strategies they adopt in carrying out Home Projects. Students actively participate in learning process by interacting with their teachers, as observed by Shafgat, Sarfraz, Serwart and Sadaf (2011). The students' see the Home Project as a hearty purposeful act and a whole hearted purposeful activity that proceeds in social environment whereby students participate in agricultural productions in order to gain self-confidence and strengthen their skill acquisition. They also described Home Project to be rooted in Dewey's Theory of Experience. The students acquire experience and knowledge by solving practical problems in social situations. Students would decide freely what they wanted to do, the belief was that their motivation and learning success would increase to the extent to which they pursued their own purposes.

Similarly, the Home Project in Agricultural Science, is recognized as a unit in the students' occupational experience program-mme. Famiwole and Kolawole (2013) opined that the term Home Project in Agricultural Science and Supervised Practice used formally are now replaced with more comprehensive term Supervised Occupational Experience Programme. Supervised Agricultural Experience Programme (SAEP) according to Famiwole (2015), consists of all planned practical activities conducted outside the school class time, where the students develop and apply agricultural knowledge and skills. SAEP is the heart of students' vocational training in agriculture where students have a splendid opportunity to learn many tasks and competencies through experience and accumulate some experience and skills development in management, feed formulation, livestock feed, farm machinery and technology, agricultural economics, agribusiness and other resources that will assist students to become established in different agricultural occupations.

Home Projects in Agricultural Science, like the Supervised Agricultural Experience Programme equip potential students of agriculture to start, run and manage a small or medium scale agricultural projects, under the supervision of an adviser, subject teacher, professionals in the specific agricultural business and at times parents. Students are made to complement the classroom instructions with actual skill development projects on the field, having real agricultural life, so as to be able to ask questions and improve through such activities as exploratory, ownerships, placement and supplementary projects.

Production Activities where Home Projects could be carried out

The following according to Famiwole and Akindola, (2015) are some of the main production activity areas where Home Projects in Agricultural Science could be carried out in order to stimulate and sustain students interest in agriculture and enhance skill acquisition for self-reliance.

Crop Production: Students involved in Home Projects are expected to employ modern management practices in production and marketing of a combination of two or more crop planting. Such as cereals, legumes, forages and oil crops among others. Students are taught to plan a rotation designed for maximum production coupled with good soil conservation practices. Agricultural Science students are expected to make a list of new crop production skills as they are learned and put into practices. Home Projects students' are taught to build an inventory of machinery, land, seeds, chemicals, fertilizers and harvest crops. Together with maintaining complete and accurate records of income, inventories, efficiency, factors and hours worked.

Arable Crop cultivation: Daluba (2013) described cultivation of annual crops as those crops that are planted and harvested within a year. For example, cereal crops; maize, guinea corn, millets, rice, Legumes crops; cowpea, soya beans, Vegetable crops; garden egg, tomatoes, pepper, okra, sweet potatoes, carrot, onion, ginger, mushroom and tuber crops; yam, cassava. Other crops like plantain, banana among others. The task involves choosing of location to use preferably around the students house, clearing of the portion, making heaps and ridges or tilling of the soil as the case may be, selecting desirable planting materials, planting at the right time of the season, planting to distances, observing germination of crops, supplying vacant spaces, thinning of weak stands, weeding of the plot, application of fertilizer where necessary, prevention and control of pests and diseases, prompt harvesting of crops at maturity, processing and storage of the crops.

Agricultural Processing: Activities in agricultural processing offers great opportunities for students to acquire skills. Famiwole, (1999) listed such activities to include feed manufacturing, meat cutting, fertilizer formulation, crops harvesting, processing, packaging and marketing of agricultural products. Each student would select an exploratory plan to gain a variety of experience in agricultural processing skills or other areas mentioned and may also visit some

areas of agricultural processing establishments. Students' would learn to keep records of all agricultural tasks they have to perform and some skills they have to learn, be involved in agricultural processing activities through direct laboratory experiences or family business where students would also learn to keep complete and accurate records of earnings.

Horticulture and Ornamental Agriculture:

Here, according to Iwena (2008) students would receive practical experiences on the principles and practices of production of flower and related plant materials used for ornamental purposes. Apart from arranging, packaging and marketing these products, interested students would also learn and use the principles and practices needed for successfully producing and marketing fruits or vegetables. Students would be encouraged to make their homes better places to live by engaging in planting of flowers, fruits or vegetables, home decorations, landscaping and improved home management through classroom and laboratory experiences. In all these activities, it is important for students to keep all records relating to skills as required. Students while still at the secondary schools could be taught practical steps on how to start planting of flowers and hedges as Home Project as explained by Howlider (2013) as follows: Practical Identification and description of annuals, herbaceous, perennials, climbers, creepers, foliage flowering shrubs, trees, palms, ferns, ornamental grasses just to mention a few. Planning and designing gardens, layout of location of components of garden study and functional uses of plants in the landscape. He also described horticulture as a special type of crop farming in which fruits, vegetables and ornamentals plant are grown. Here fruit and vegetables are cultivated for food while the ornamental plants are used to beautify homes, compounds and the surrounding of offices and roads. Examples of some common fruits are orange, banana and pawpaw, while the vegetables could include lettuce, carrot, tomato, amaranthus, mushrooms and garden egg. Ornamental plants that could be grown commonly are roses, lily, royal palm, zinnia, sunflower and hibiscus.

Youths could acquire skills in the area of flower occupation, the tasks according to Grandy and Julie (2007), have to begin with the identification and study of important commercial varieties of the flowering crops. Preparation of ground or garden and beds for planting specific flower crops, sowing of seeds or stem cuttings in the nursery bags, tray or boxes, top dressing (application of fertilizers for specific flower crops), pinching and disbudding in specific flower crops, providing support and training for specific crops, construction of shades, use of growth regulators, identification of pests and diseases, preparation of solutions and application of sprays or dusts on the flowers planted.

Nursery Production: Nursery is the preliminary stage for plant cultivation to enhance better production as explained by Fatunsin (2011). The nurseries are production units whose objectives are to produce marketable plants and needs to be located in a suitable permanent area where there is perennial source of water. In training Agricultural Science students to acquire production skills in nursery production, Ray (2008) asserted that some nursery skills involve buying cuttings of small plants (called liners) and growing them to sell. The liners are potted up in larger container and allowed to grow for a few larger container that would be sold later. Products of secondary schools who have experiences in the above with good knowledge of safe use of tools and equipment could apply for nursery operations proficiency.

Landscaping: This is the beauty of the environment [home, business or park]. It involves the use of natural material, like plant and rocks as well as human made features such as walkways, walls and pools in an area and fit together in an attractive appearance. Examples of Landscape plants as highlighted by Tiwari, Sharma and Sharma (2010) includes Trees, Lawn, Shrubs, Hedges, Climbers, Pot plants, Cut flower crops, Annuals and other bedding plants, Bulbous plants, Flock gardens, Aquatic plants among others. Students who have acquired skills right from secondary school in this areas could grow up to be a landscaping architect and an interior decorators which the

line of tasks involves bringing potted plants into the living rooms, he concluded that landscaping could be a well-paid and enjoyable occupation.

Vegetable production: Home garden as defined by Fatunsin (2011) is the idea of growing vegetables at the backyard, the family grows vegetables that are consumed by the family in such a way that the family is self-supporting. This type is also referred to as family garden. The location selected for the home garden should be as close to the house as practicable, the garden should be located where it can be easily irrigated and protected from wind direction. Vegetable crops to be grown by youth or students should depend on the environment, societal needs and interest. The following are some examples of vegetables that could be grown as Home Projects; tomatoes, beans, cabbage, lettuce, spinach, carrot, garden egg, cucumber, peppers, amaranthus and other desirable vegetables.

Diversified Livestock Production: Diversified livestock production stimulates students interest to use good management methods to efficiently produce and market a combination of two or more specific livestock such as poultry, swine, sheep, rabbit, or specialized animals like Bee, Fish, Worms, Snails, or Grass Cutters. The aim is to encourage the use of good management practices in efficient production at home. It also includes parents being made to take active part especially in the Home Projects' supervisions.

Rabbitary: Rabbit production is a veritable way of alleviating animal protein deficiency in Nigeria (Mailafia, Onakpa and Owoleke, 2010). They stated the tasks required for skill development in rabbit rearing to include locating a conducive environment for rearing of the stock, construction of the hutches, disinfecting the hutches, selection of breeding stock, adjusting ventilation in the house, selection and administration of medication, controlling pest, rodents and other predators, repairing hutch equipment, keeping management records, controlling flies,

collection of feeding materials and managing rabbits droppings and waste.

Fish Farming: Fish farming deals with rearing of fish species and other aquatic animals, it also involves their husbandry, harvesting, processing, preservation and marketing of fish and its products. Aganga (2011) explained that students and youths could acquire skills that involves raising fish fingerlings commercially in tanks, ponds, or ocean enclosures, usually for food. Fish species that could be reared as occupation includes almon, carp, tilapia, catfish and cod. Other task activities in aquaculture could be learnt and impacted by a number of issues such as stocking densities, behavioral interactions, and disease control.

Snail Rearing: This is the animal husbandry of growing snails in cages or fenced areas and pen that contains soil that can hold water. Steve (2017) discussed important skills in snail rearing to include locating the right soil which must be free from termites and other dangerous ants or construction of snail pens, stocking the pens with snails, selecting or getting the fresh snails with hard shells without damage, patches and nodes on the surface, sexually matured and heavy weight. Steve opined that the best snail species known are the *Achantina fulica*, *Achantina Achantina* and the *Archantina Marginata* but for rearing, it is better and highly recommended to get the *Achantina Achantina* (also known as Giant Ghana Snail or Giant Tiger land Snail.) The reason why *Achantina Achantina* snail species is recommended is because it is big in nature and most especially, this snail can lay many eggs up to over one thousand each year. Investigations by James (2016), revealed that Home Projects students can quickly acquire skills in snail rearing because it is really not costly. Snails feed on fruits, sweet potato, cassava tuber, soya bean, maize chaff, palm kernel cake, fish meal, tomatoes, cocoyam, pawpaw fruits, cucumber, and leaves, plantains, banana, cabbage, lettuce leaves, and guava fruits.

Poultry: Wikipedia (2016), described poultry farm as a place where birds of different nature

are housed and managed, either for personal consumption or for commercial purposes. Examples of poultry birds normally been raised around the house are fowls, turkeys, ducks, geese, quails and guinea fowls for the purpose of producing meat or eggs for food. Backyard poultry rearing has proved easier for youths and students to manage successfully (Billar, Nargis, Hossain, Howlider & Roundles, 2013). They highlighted poultry management skills expected to be acquired by youths and students to include; the need to know about various breeds of poultry birds, selecting birds, layers, broilers or cockerels, balancing ration, disinfecting poultry house, selecting beddings, adjusting ventilation in the poultry house, vaccinating birds, clipping birds wing, culling up birds, candling eggs, incubating eggs, grading eggs, dressing and cleaning birds, sexing birds, marketing mature birds, managing birds droppings, preparing and exhibiting birds for show, debeaking birds, recording chick mortality, keeping management records, adjusting and maintaining feeders and water, preventing and controlling flies, wild birds, pest and diseases.

Broilers production: This is for meat production, youths could grow broilers and sell them out to consumers. Broilers grow so fast, within 42-45 days, most broilers are grown and ready to be sold which could be a way for students to get started as they could have quick returns on their project investment.

Layers production; Adeosun (2016) specified that youths could rear layer birds with the major aim of egg production, though they might eventually sell them off after the birds are becoming weak and are no longer laying much eggs as expected (this is usually after 54-70 weeks, about one and half years).

Forest Management: Example of forest trees that can be raised from nursery for seedling production to earn money include African wall nut, Teak, Iroko, Obeche, Afara, Camwood, Gmeliana, Opepe, Ukpeka, Mahogany, Abura among others (Iwena, 2008). Students who are into Forestry Management are expected to source for the improved planting materials, locate good environment to sow the seeds or

seedlings at the nursery, construct shades and observe other good management practices, keep records of all forest related skills learnt in the classroom and put same to practice. They also need to develop an inventory of tools, equipment and harvested forest products. It is equally important for them to take advantages of modern technology in management and keeping complete and accurate records, all these would prepare the youth to starting a worthwhile occupations to earn money for a living.

Conclusion and Recommendations

This paper discussed the social vices that are leading to security challenges in Nigeria, the causes of security challenges. It also discussed the impact of security challenges, the concept of Home Project and the different projects where youths could learn by doing. It was recommended that Home Project implementation as a strategy for teaching Agricultural Science in Nigeria secondary schools, would help in no small way to equip students with skills in agricultural production for them to be self-employed in order to reduce food and unemployment security challenges in the nation. It was also recommended that all Agricultural Science teachers should adopt Home Project as a strategy to complement the teaching and learning of Agricultural Science in schools. Students' should be given practical projects in form of assignments from time to time to be carried out at home to complement classroom instructions. Students should develop appropriate vocational mindset and attitudes towards creating jobs on their own by putting into use knowledge and skills acquired in agriculture. Curriculum planners in Agricultural Education should review the curriculum to incorporate Home Projects.

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