



REDUCING INSURGENCY IN SOUTH-SOUTH NIGERIA: YOUTH PARTICIPATION IN BEE FARMING FOR ECONOMIC SUCCESS

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Abstract

It is indeed a reality that youth involvement in bee farming has potentials to reduce insurgency in South-south, Nigeria but the competency of these youths to participate in bee production enterprise remains a source of worry. This study identified the competencies required by youths in bee farming for economic success and reduction of insurgency in South-south Nigeria. Five (5) research questions guided the study. The survey research design was adopted for the study. The sample for the study was 212. A triangulation technique involving mixed methods of data collection, that is, quantitative and qualitative methods was adopted. The quantitative method of data collection involved the use of a 39-item structured questionnaire titled 'Bee farming

Entrepreneurial Skills for Economic Success of Youths in South-South, Nigeria (BESESYSN)' while Focused Group Discussions were held with participant to generate qualitative data. The instrument was content-validated by 5 experts in the Department of Animal Science, University of Calabar with as reliability coefficient of 0.75 established through Cronbach Alpha method. Data collected was analyzed using mean and standard deviation from SPSS version 20 to answer the research questions. The study identified 47 skills required by youths in planning, stocking, husbandry, harvesting, processing and marketing operations in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The study recommended that the identified skills be packaged into a training programme for youths in South-south Nigeria to enhance their participation in bee farming for economic success and reduction of poverty.

Keywords: Bee, Farming, Insurgency, Youth, Participation, Economic success

INTRODUCTION

Since the independence of Nigeria in 1960, the country has passed through several developmental stages with ease phase possessing distinctive features. The most recent in Nigerian historical growth is bedeviled by the scourge of insurgency. Insurgency in Nigeria generally and South-South geopolitical zone in particular has assumed an alarming rate and youths are culpable for most occurrence. Most youths are directly involved as a consequence of availability of viable alternatives in the midst of unemployment and economic recession. The Movement for the Emancipation of the Niger Delta (MEND), O’Odua People’s Congress (OPC), Arewa People’s Congress (APC), Bakassi Boys, Egbesu Boys, Movement for the Actualization of the Sovereign State of Biafra (MASSOB), Boko Haram, Ansaru, ‘Kala-Kato’ among others are cases in point that express insurgency in Nigeria and youths are always in the fore front of these activities. These insurgencies have led to kidnap of Nigerian citizens, armed robbery and has claimed many lives. The continued peaceful existence of Nigeria as an indivisible country cannot be sustained in the midst of insurgent activities of youths. It is more worrisome in the spate of population explosion and unemployment at its peak but bee farming has potentials to sufficiently engage these youths.

Bee (*Apis spp*) is an insect of the order *Hymenoptera* characterized by the possession of small membranous two pairs of wings. There are an estimated 30,000 bee species worldwide and the vast majority of these species are solitary and do not produce honey or large nests with young, and therefore do not exhibit colony defense (Buchman in Stone, 2005). Bee keeping has numerous benefits. Burgess (2013) stated that bee keeping provides valuable products such as

honey, wax and royal jelly to bee farmers as well as serves as a source of pollination for nearby cultivated crops. Bishop (2005) and Stone (2005) stated that honey is invaluable to the pharmaceutical companies for the manufacturing of drugs and could be used as a sweetener because of its rich sugars that nourish the cells. The authors explained further that bee wax could be used for the preparation of furniture, shoe polish crayon, candles, lipstick and hand cream. The usefulness of bee products thus, makes it to be invaluable to every household in Nigeria in general and south-south Nigeria in particular hence, the need for the involvement of youths in bee production.

Production according to Eyiye, (2001) involves creation of something or the rendering of any service, which satisfies a human wants. In this study, production is conceived as the processes involved in the raising of bees from mere conceptualization of the enterprise until the products get to the final consumers. Precisely, the processes include planning, stocking, management, harvesting, processing and marketing of honey and other products to final consumers. All these processes have accompanying competencies and youths through training could take advantage and get involved in bee farming enterprise.

A youth is an individual between the age of childhood and adulthood. In the context of this study, they are young adults that are easily gullible to be coerced into carrying out actions that a normal adult would not usually yield to. In most cases these actions are against societal norms and expectations. Their level of gullibility may not be unconnected with the fact that these young adults are idle, mostly disaffected, unemployed and live in hostile environment with challenges that span through economic, social and political deprivations. These youths because of the circumstances they find themselves get radicalized. Wiktorowicz in Beutel (2007) identifies cognitive opening, religious seeking, frame alignment, socialization as interrelated stages of youth radicalization process. The author further explains that these processes may not entirely describe the circumstances for all radicalized people but certainly illuminates how youths get radicalized. However, if youths are empowered entrepreneurially in bee production, they may not be predisposed to this level of gullibility.

Entrepreneur as submitted by Uduma in Onwuka and Olaitan (2007) is a person who creates, manages a business undertaking and bears risks for the sake of profit. In the view of Etuk in Alawa and Udida (2015), an entrepreneur is visional and must have a clear conception of what he has envisaged and also be in a position to translate the idea into a workable project. In the context of this study, an entrepreneur is a young adult who participates in agro-based productive activities and turning them into a profitable venture

by harnessing the necessary skill and resources to manage the enterprise. Entrepreneurs work with the spirit entrepreneurship.

Entrepreneurship according to Agomuo (2002) is a process of bringing together creative and innovative ideas, combining them with management and organization skills in order to combine people, money, and resources to meet an identified need. In the view of Uduma in Onwuka and Olaitan (2007) entrepreneurship is the process through which individuals combine human and material resources in order to provide goods and services desired by man. Entrepreneurship in this study is a process through which youths in South-South Nigeria combine human and material resources and participate in agro-based enterprises for economic success and reduction of insurgency. Effective entrepreneurship in agro-based enterprises requires some skills.

Skill in the opinion of Onwuka and Olaitan (2007) is a well established habit of performing task in a manner acceptable by workers in the profession. In the view of Osinem and Nwoji (2005) skill refers to the ability of a person to perform an act expertly. The authors explained that it involves expertness, practice, ability or proficiency displayed in the task. Skill in this study is the ability of youth in South-South Nigeria to expertly participate in bee farming for economic success and reduction of insurgency.

South-South geo-political zone is one of the six zones in Nigeria located in the Niger Delta region comprising Cross River, Rivers, Bayelsa, Delta, Akwa-Ibom and Edo States. This zone is among the most agriculturally endowed regions of the world and still remains despite the extensive soil degradation caused by petroleum prospecting and exploitation in some parts of the region. The abundant human resources, equable climate, viable forest, fertile soil and aquatic resources for which this area is noted guarantee employment in agro-based enterprises generally and bee farming in particular to its rather violent youths. A focus on bee farming is therefore believed to be a panacea for reducing insurgency if youths are active participants in planning, stocking, management and marketing of bees. This is partly because the agricultural sector amongst other potentials, offers a wide range of employment opportunities and alternatives to the much crave insurgency in the zone. In a focus group discussion by the researchers with some youths in the resettlement camp at Obubra Local Government Area of Cross River State, South-South Nigeria, interest was indicated for participation in bee farming. A youth specifically said thus: *"...we are involved in insurgency activities because we do not have what to do to eke a living and if we could be trained on how keep bees with financial support from government to begin our own farm business we cannot be here as we will be busy with our farms..."*

From the foregoing, youths in South-South Nigeria have indicated a strong commitment to hands off from insurgency through the development of competencies and participation in bee farming. The researchers' concern to break into this self perpetuating spiral necessitated this study. The study seeks to identify:

1. planning skills required by youth for economic success and reduction of insurgency
2. Stocking skills required by youth for economic success and reduction of insurgency
3. Husbandry skills required by youth for economic success and reduction of insurgency
4. Harvesting and processing skills required by youth for economic success and reduction of insurgency
5. marketing skills required by youth for economic success and reduction of insurgency

METHODOLOGY

This study was carried out in the South-South geo-political zone of Nigeria. The South-South geopolitical zone consists of Akwa Ibom, Cross River, Rivers, Delta, Edo and Bayelsa States. The choice of South-South geo-political zone was informed by the magnitude of loss, destruction and wanton human carnage perpetrated by youths in this area. Similarly, the zone has endowments in agriculture, human resources as well as investment opportunities in this sector. It is hoped that these economic opportunities if properly utilized could help a great deal in developing the youths of this zone thus, reducing their involvement in insurgency.

The population for this study was one thousand and forty four (244), comprising 68 registered bee farmers and 176 Animal science lecturers obtain from the five States and ten federal Universities in South-South geo-political zone of Nigeria. The entire population was involved in the study because it was small and manageable by the researchers and also enhances generalization of findings.

The study adopted a triangulation technique involving mixed methods of data collection, that is, quantitative and qualitative methods. The quantitative method of data collection involved the use of a structured questionnaire tagged 'Bee farming Entrepreneurial Skills for Economic Success of Youths in South- South, Nigeria (BESESYSN)'. The questionnaire contained two parts; I and II. Part I solicited information on personal data while part II contained three Sections with five clusters. The questionnaire contained a total of 39 items.

The qualitative data was gathered through Focused Group Discussion solicited responses from registered bee farmers and Animal Science Lecturers in the geo-political zone according to the objectives that guided the study.

The instrument for collection of quantitative data was content-validated by 5 validates in the Department of Animal Science, University of Calabar. The reliability of the instrument was established through Cronbach Alpha method and an overall coefficient of 0.75 was obtained. The structured questionnaire was administered to 224 respondents with the help of 30 research assistants, that is, 5 State supervisors and 25 research enumerators/assistants for the collection of both quantitative and qualitative data.

Data obtained after the administration of research instrument was analyzed using mean statistics to answer the research questions. To answer the research questions, real limit of numbers was used to interpret the mean values of items. Thus, any item with a mean score of 3.50 to 4.0 was regarded as very highly required, while items with scores of 2.50 to 3.49 were regarded as highly required. Similarly any item with a mean of 1.50 to 2. 49 was regarded as slightly required and items with mean scores of 1 to 1.49 was regarded as not required. Furthermore, any item with a standard deviation of 1.96 or below indicated that the respondents were close and therefore, the item was valid while any item with a standard deviation above 1.96 indicated that the respondents were not close to the mean and therefore, the item was not valid.

For the qualitative data, information gathered from the respondents through FGDs was guided by the objectives of the study and involved key informants in the Department of Animal Science (Senior Lecturers and above), graduate extension personnel (Grade level 14 and above) and experienced bee, snail and fish farmers in the study area. The justification for involving these categories of stakeholders as participants was based on working/farming experience. The FGDs were held once with key informants from the various stakeholder groups in the study area. The trustworthiness of qualitative data was established through prolonged engagements with participants, triangulation, peer debriefing and data collection was logical, traceable and documented (Lincoln & Guba, 1985). The FGD data generated was analyzed through the development of codes (themes), patterns, and establishment of relationships based on the patterns.

Two hundred and twenty four (224) copies of the questionnaire were administered to the respondents and two hundred and twelve (212) copies were retrieved representing 94% return rate were retrieved for analysis.

RESULTS

The result of the study was based on the research questions that guided the study.

Research question one

What are planning skills required by youth in bee farming for economic success and reduction of insurgency?

Table 1 Mean ratings of respondents on planning skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. N=212

SN	Item Statement	\bar{X}	SD	Remarks
Planning skills in bee farming				
1	Formulate specific objectives for bee farming enterprise	3.20	0.63	Required
2	Review the objectives from time to time	3.10	0.58	“
3	Prepare a budget for the bee farming enterprise	2.97	0.52	“
4	Identify materials and equipment for the enterprise	2.89	0.71	“
5	Identify sources of finance for the bee production enterprise	3.04	0.67	“
6	Prepare a schedule of activities for the enterprise	3.41	0.53	“
7	Identify personnel for the enterprise	3.26	0.68	“
8	Select suitable land for the bee farming enterprise	3.11	0.77	“
9	Decide on the system of bee keeping, that is, traditional or modern bee keeping.	3.18	0.53	“
10	Choose appropriate equipment for hive construction, such as, pot and baskets	2.66	0.72	“
11	Fix the equipment in appropriate locations to specification	2.82	0.64	“
12	Construct bee frames to specification	3.31	0.79	“
13	Plant bee attracting plants around the bee farm	2.67	0.47	“
14	Clean the environment for the bee farm	3.12	0.61	“

Note: \bar{X} = Mean; SD= Standard deviation

Table 1 presents the mean ratings of respondents on planning skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The data showed that the 14 isolated planning skills in bee farming had mean values that ranged from 2.66 to 3.41. This implies that respondents agreed that formulation of specific objectives for bee farming enterprise, review of the objectives, preparation of budget for the enterprise, identification of materials and equipment for the bee farm, sources of finance, selection of suitable land, decision of bee keeping system, selection of appropriate equipment for hive construction, placement of equipment in appropriate locations, construction of bee frames, planting of bee attracting plants around the bee farm and cleaning of the environment for the

bee farm are entrepreneurial skills that are highly required in planning for bee farming for reduction of insurgency in the study area,

Similarly, data on standard deviations of the fourteen planning skills in bee farming ranged from 0.52 to 0.79 and were less than 1.96 (95% confidence limit). The implication of this result is that respondents were not far from the mean and from one another in their responses. Furthermore, focus group discussions were held by the researchers with experienced Animal Science lecturers, extension personnel and bee farmers across the six States in South-south geopolitical zones in Nigeria. From the qualitative information, many participants expressed that bee farming is not a common micro-livestock farming enterprise. They explained that prospective bee farmers must carefully plan, budget, source for resources, construct bee hives, stock/capture the bees, feed, manage the bees, harvest, process and market the honey to desired buyers. A participant (bee farmer) said thus:

“... bee farming is a very lucrative enterprise but one must be ready to endure at the initial stages of establishment. You cannot wake up one day and establish a bee farm because one needs to be very proficient in planning for the bee farm and ensuring that the plan is implemented to the final stage”

Research question two

What are the stocking skills required by youth in bee farming for economic success and reduction of insurgency?

Table 2 Mean ratings of respondents on stocking skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. N=212

SN	Item Statement	\bar{X}	SD	Remarks
Stocking skills in bee farming				
1	Select bee species to be stocked	3.14	0.72	Required
2	Bait a swarm by placing baited hives in an open place	3.61	0.54	“
3	Procure nursed bees from established bee keepers	2.90	0.62	“
4	Transport bees to the farm site using appropriate means	3.53	0.58	“
5	Wear protective gears to prevent bee stings	2.84	0.75	“
6	Introduce the bees gently into the hives	3.04	0.60	“
7	Keep appropriate records of bees stocked	3.28	0.80	“

Table 2 presents the mean ratings of respondents on stocking skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The data showed that items 2 and 4 had mean values of 3.53 and 3.61. This indicated that respondents agreed that transportation of bees to the farm using appropriate means and baiting a swarm by

placing baited hives in an open place are very highly required as stocking skills in bee farming. The result also showed that items 1, 3, 5, 6 and 7 had mean values that ranged from 2.84 to 3.28

This implies that respondents agreed that Selection of bee species to be stocked, procurement of nursed bees from experienced bee keepers, use of protective gears, introduction of bees into the farm and records keeping are highly required in the stocking of bees for economic success and reduction of insurgency in the study area,

Data on standard deviations of the seven stocking skills in bee farming ranged from 0.54 to 0.80 and were less than 1.96 (95% confidence limit). The implication of this result is that respondents were not far from the mean and from one another in their responses.

Also, focus group discussions were held by the researchers with experienced Animal Science lecturers, extension personnel and bee farmers across the six States in South-south geopolitical zones in Nigeria. From the qualitative information, many participants expressed that bee farming need careful attention during stocking as intending farmers are expected to identify reliable sources of bee, transport the bees to the farm or technically capture bees through baiting a swarm. They added that stocking of bees is technical and that the farmer must be very skilled in the operation.

Research question three

What are the husbandry skills required by youth in bee farming for economic success and reduction of insurgency?

Table 3 Mean ratings of respondents on husbandry skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. N=212

SN	Item Statement	\bar{X}	SD	Remarks
Husbandry skills in bee farming				
1	Prepare feeds in form of honey wax or sugar solution for the bees.	3.14	0.74	Required
2	Check the bees periodically to identify disease conditions	3.01	0.62	“
3	Check the bees periodically to identify disease conditions	2.53	0.53	“
4	Provide preventive treatment for bees to avoid diseases.	2.85	0.69	“
5	Clean the environment for the bees to be kept	3.13	0.73	“
6	Provide safety gears for workers in the bee farm	3.58	0.61	“
7	Provide security for the bees that are stocked	3.16	0.57	“
8	Keep adequate records of all activities in the farm	3.07	0.48	“

Table 3 presents the mean ratings of respondents on husbandry skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The

data showed that item 6 had a mean value of 3.58. This indicated that respondents agreed that provision of safety gears for workers in the bee farm is very highly required as a husbandry skill in bee farming. The result also showed that items 1, 2, 3, 4, 5, 7 and 8 had mean values that ranged from 2.53 to 3.16. The result showed that preparation of feeds in form of honey wax or sugar solution, checking of bees to identify diseases and pests, provision of preventive treatment prevent diseases, clean environment, security and good records keeping are highly required in the husbandry of bees for economic success and reduction of insurgency in the study area.

Data on standard deviations of the eight husbandry skills bee farming ranged from 0.48 to 0.74 and were less than 1.96 (95% confidence limit). The implication of this result is that respondents were not far from the mean and from one another in their responses.

Furthermore, focus group discussions were held by the researchers with experienced Animal Science lecturers, extension personnel and bee farmers across the six States in South-south geopolitical zones in Nigeria. From the qualitative information, many participants expressed that bee farming need cautious management practices for better results in the area of feeding, sanitation and medication. They explained that bees are often aggressive hence, workers need to wear protective coverings to prevent stings.

Research question four

What are the harvesting and processing skills required by youth in bee farming for economic success and reduction of insurgency?

Table 4 Mean ratings of respondents on harvesting and stocking skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. N=212

SN	Item Statement	\bar{X}	SD	Remarks
Harvesting skills				
1	Select appropriate equipment for bee harvesting	2.52	0.60	Required
2	Wear protective materials like bee suits to prevent stings	2.68	0.46	"
3	Smoke the bees to death using fire	3.11	0.81	"
4	Extract the combs using hands from the hives	2.78	0.51	"
Processing skills				
5	Squeeze the combs to extract the honey with hands or machines	3.46	0.75	"
6	Sieve the honey to remove associated impurities	2.92	0.73	"
7	Package the honey into bottles or other suitable containers	2.84	0.64	"
8	Transport the honey to the stores using appropriate means	3.41	0.67	"
9	Place the honey in raised platforms of about 10-15 cm above the ground	3.13	0.86	"
10	Keep appropriate records of the quantity of honey processed.	3.00	0.70	"

Table 4 presents the mean ratings of respondents on harvesting and processing skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The data showed that items 1 to 4 that measured competencies in bee harvesting had mean values that ranged from 2.52 to 3.11. This indicated that respondents agreed that selection of appropriate harvesting equipment, use of protective materials, smoking of the bees to death by fire, extraction of combs from the hive are highly required as harvesting skills in bee farming. The result also showed that items 6 to 10 that measured competencies in bee processing had mean values that ranged from 2.84 to 3.46. The result showed that squeezing of the combs to extract honey, sieving of the honey to remove impurities, packaging honey in suitable containers, transportation of honey to stores and keeping of appropriate records are highly required in the processing of bees for economic success and reduction of insurgency in the study area.

Data on standard deviations for the 10 item cluster of harvesting and processing skills in bee farming ranged from 0.46 to 0.86 and were less than 1.96 (95% confidence limit). The implication of this result is that respondents were not far from the mean and from one another in their responses.

Data from focus group discussions held by the researchers with experienced Animal Science lecturers, extension personnel and bee farmers across the six States in South-south geopolitical zones in Nigeria revealed participants expression of bee harvesting and processing to be major operations that sustain the bee farming enterprise. They call for use of protective gears, appropriate smoking of bees, extraction of combs and squeezing out of the honey manually or mechanically.

Research question five

What are the marketing skills required by youth in bee farming for economic success and reduction of insurgency?

Table 5 Mean ratings of respondents on harvesting and stocking skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. N=212

SN	Item Statement	\bar{X}	SD	Remarks
Marketing skills in bee farming				
1	Advertise honey using appropriate media to attract customers	3.24	0.78	Required
2	Grade honey based on purity, that is, absence of impurities	3.10	0.61	"
3	Determine the payment mode, that is, cash or through Cheque	3.39	0.48	"

4	Open a sales book for recording of daily sales	2.99	0.52	“	Table 5...
5	Select buyers based on honey quality of choice	2.62	0.57	“	
6	Arrange for distribution of honey to buyers	3.19	0.83	“	
7	Balance farm account at the end of the farming season to determine profit	3.02	0.71	“	
8	Expand the size of bee farm based on farm profit acquired	3.40	0.55	“	

Table 5 presents the mean ratings of respondents on marketing skills required by youths in bee farming for economic success and reduction of insurgency in South-South, Nigeria. The data showed that items the 8 isolated items had mean values that ranged from 2.62 to 3.40. This indicated that respondents agreed that Advertisement of honey using appropriate media, grading of honey base on purity, determination of payment mode, keeping records of daily sales, selection of buyers based on their choices, distribution of honey to buyers, balance farm accounts and expansion of farm size based on profit are highly required as marketing skills in bee farming for economic success and reduction of insurgency in the study area.

Data on standard deviations for the 8 item cluster of marketing skills in bee farming ranged from 0.48 to 0.83 and were less than 1.96 (95% confidence limit). The implication of this result is that respondents were not far from the mean and from one another in their responses.

Data from focus group discussions held by the researchers with experienced Animal Science lecturers, extension personnel and bee farmers across the six States in South-south geopolitical zones in Nigeria revealed participants expression that marketing of bee and bee products is the peak of bee farming. Participants agreed that advertising, grading, actual sale, records keeping, determination of profit and possibly expansion of bee farm enterprise are necessary in the marketing of bees. An experienced bee farmer said thus:

“...if you don't sell your honey to buyers at a good price, you may farm at a loss and it is always discouraging to do so. Bee farming as a lucrative business relies on good sales for its growth but this depends on the ability of the farmer to advertise his products and identify buyers to sell to them...”

DISCUSSION OF RESULTS

The result of research question one showed that youths required competencies in formulation of specific objectives for bee farming enterprise, review of the objectives, preparation of budget for the enterprise, identification of materials and equipment for the bee farm and sources of finance, selection of suitable land, decision of bee keeping system, selection of appropriate equipment for hive construction, placement of equipment in appropriate locations, construction of bee frames, planting of bee attracting plants around the bee farm and

cleaning of the environment for the bee farm to enhance their planning for bee farming for economic success and reduction of insurgency in South-south Nigeria. This finding agrees with Olaitan and Mama (2001) who described planning as the process of arranging and documenting activities before implementation. The authors identified planning competencies such as formulation of objectives, revision of the objectives periodically, budgeting, identification of sources of funds and labour among others to be essential for the success of any enterprise. Similarly, Osinem (2005) opined that planning is critical to every agricultural activity and explained that individuals intending to enter into any enterprise should precisely define the goals of the farm business and plan for achievement of these goals as well as execution of the plan. The result further strengthened Etuk's (1998) submission that formulation and review objectives, identification of sources of income for the business operation, budgeting and identification of personnel for the business operation are necessary components of the plan for individuals, intending business men and women who want to get involved in any enterprise.

The result of research question two revealed that youths required competencies in transportation of bees to the farm using appropriate means, baiting a swarm by placing baited hives in an open place selection of bee species to be stocked, procurement of nursed bees from experienced bee keepers, use of protective gears, introduction of bees into the farm and records keeping to be able to stock bees for economic success and reduction of insurgency. Odonta (1999) who suggested that intending bee farmers should identify the best species of bees for stocking and food in form of sugar solution, bee wax and palm wine should be provided to the bees. The finding also strengthen Burgess (2013) opinion that bees can be captured from a swarm, obtained from an established beekeeper or purchased from a commercial bee supply company along with other equipment such as smoker, hive tool and protective gear. The author explained that the beekeeper during routine inspection needs to open each hive to examine the condition of the brood; check food stores; identify signs of diseases and pests and to perform various hive maintenance operations.

The result of research question three revealed that youths required competencies in provision of safety gears for workers in the bee farm, preparation of feeds in form of honey wax or sugar solution, checking of bees to identify diseases and pests, provision of preventive treatment prevent diseases, clean environment, security and good records keeping to be able to manage bees for economic success and reduction of insurgency in the study area. The finding of the study partly agrees with Onadeko and Amubode (2002) and Ayodele and Meduna (2007) who stated that provision of quality and adequate nutrition is essential to grass cutter rearing in addition to occasional management operations like castration of males not selected for breeding.

The result of research question four revealed that youths required competencies in selection of appropriate harvesting equipment, use of protective materials, smoking of the bees to death by fire, extraction of combs from the hive, squeezing of the combs to extract honey, sieving of the honey to remove impurities, packaging honey in suitable containers, transportation of honey to stores and keeping of appropriate records to be proficient in the harvesting and processing of bees for economic success and reduction of insurgency in the study area. The finding agrees with Burgess (2013) who suggested that that as soon as the bees cap the honey, it should be harvested and process immediately after harvest. The author explained that extracted honey should be packed in clear glass or plastic containers for storage.

The result of research question four revealed that youths required competencies in advertisement of honey using appropriate media, grading of honey base on purity, determination of payment mode, keeping records of daily sales, selection of buyers based on their choices, distribution of honey to buyers, balancing of farm accounts and expansion of farm size based on profit to be proficient in the marketing of bee and bee products for economic success and reduction of insurgency. The finding conforms with McCarthy and Perreault in Akwagiobe, Alawa, Okeme and Udie (2021) who described marketing as a process which involves buying and selling and identified activities such as identification of buyers, grading, transportation, storage, risk management, records keeping among others to be essential in every enterprise. Ogieva in Alawa and Udida (2015) outlined the activities involved in marketing of agricultural produce as assembling, canning, advertising, fixing of prices and keeping of records.

Generally, the findings of this study tend to collaborate earlier research efforts by Alawa and Okeme (2015) who found out that the quality assurance of teachers of agriculture in teaching beekeeping in the areas of planning and hive preparation, stocking and husbandry, harvesting and processing and marketing operations hence, required improvement in these operations to be proficient in teaching beekeeping to students of Colleges of Education in Cross River State. The inability of these youths to get involved in bee farming may not be unconnected with the fact that lecturers at Colleges of Education level where the youthful population is domiciled cannot provide requisite skills for youths from training to get involved in bee farming. This has further added to the confirmation that youth in the zone require training in bee farming to get involved in bee farming as an alternative means of sustainable engagement thus, shelving insurgency in all its ramifications in South-south Nigeria.

CONCLUSION AND RECOMMENDATIONS

Insurgency among youths in Nigeria generally and in South-south Nigeria has assumed an alarming dimension and there are indications that the monster will keep increasing. Government efforts at the moment aimed at reducing the ugly trend has not yielded desired results most importantly because of absence of gainful employment opportunities. The deviation from paid employment to entrepreneurship in bee farming with its potentials to unlock the fortunes and qualitatively engaged youths to turn their back on insurgent activities forms the fulcrum of this study. It is the hope of the researchers that if these identified competencies are made available to the youths in the study area in particular and Nigeria generally; they would be equipped and ready for participation in profitable bee farming and shelve insurgency. Based on the findings and conclusion reached in this study, It was recommended that:

1. The indentified competencies should be integrated as content into the skill acquisition programmes for youth in Nigeria for acquisition of these bee farming skills and their subsequent involvement as entrepreneurs.
2. Youths should be provided with financial assistance to get involved in bee farming to sufficiently engage them and reduce insurgency
3. A Ministry of Youth and Entrepreneurial Development should be set up to timely identify, trained and equipped you for participation in micro-livestock production generally to reduce insurgency.
4. There should be organized market for bee products to enable them to obtain the benefits of participation in bee farming.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests

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