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Policy Initiatives for Enhancing Green Agriculture for Sustainable Food Production in South East, Nigeria

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Abstract

This study explored policy initiatives for enhancing green agriculture to achieve sustainable food production, security, and poverty alleviation in Southeast Nigeria. It involved 165 participants using a descriptive survey design. A questionnaire was utilized for data collection, and the data were analyzed using weighted means, standard deviation, and ANOVA at a significance level of ≤ 0.05 . Findings revealed that farmers could implement seven policy initiatives, communities could implement eight, banks nine, and the government fourteen. Based on these findings, the study recommends government approval of these initiatives, followed by sensitization of stakeholders for their adoption and implementation. These measures will serve as guidelines for promoting green agriculture and ensuring sustainable food production and security in the region.

Keywords: Food production, Green agriculture, Policy initiatives

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Background to the Study

Agriculture refers to the growing of crops, rearing animals, and processing of crops and animal materials for human consumption. As stated by the International Labor Organization – ILO (1999), agriculture is the cultivation of plants, and rearing of animals, fungi, and other life forms for food, fiber, bio-fuel, medicinal, and other products to sustain and enhance human life. In the opinion of Rimando (2004), agriculture is a systematic raising of useful plants and livestock under man's management. National Geographic Society- NGS (2015) explained that agriculture is the art and science of cultivating the soil, growing crops, and rearing livestock, which includes the preparation of plant and animal products for man's use, and their distribution to markets to reach consumers. Agriculture in this study is the cultivation of soil to raise crops and rearing of animals on land with the objectives of producing crop and animal materials for man's use, providing raw materials to feed local industries for making their by-products, and as well enhance the foreign exchange of the produce and by-products with other countries. To achieve these objectives, productivity must be enhanced through green agriculture practices.

Green agriculture as reported in Lovo, Bezabih, and Singer (2015) refers to farm practices and technologies that simultaneously maintain and increase farm productivity and profitability while ensuring the provision of food and other ecosystem services on a sustainable basis; reduce negative externalities, like soil erosion menace, incidences of inorganic agro-chemical pollution, agricultural greenhouse gas emissions; and rebuild or preserve ecological resources, such as soil fertility, forest, water, air and biodiversity which include animal and plant genetic diversity. As explained by the Food and Agriculture Organization - FAO (2024), Green agriculture is actioning a green agenda into agri-food system policies to achieve agri-food system transformation to ensure food security for all. According to the author, it is an important element for transforming local food systems by reducing the toll on natural resources, avoiding environmental degradation through high recycling rates and low use of external inputs while reducing poverty, increasing livelihoods, and ensuring nutritional needs through sustainable policies and practices; natural resources, the authors continued are the foundation of local food systems, and it is clear that without land, water and biodiversity we could not produce, commercialize or eat our food. In the context of this study, green agriculture is sustainable farming to alleviate poverty, engage food security, and create wealth based on environmental conservation policies and programs.

It was observed in the area of study that most people depend on agriculture for their livelihood; plant and animal materials that are produced by farmers at various levels and statuses (that is, small-scale, medium-scale, or large-scale farming) make food available to people either in raw perishable forms or in industrially processed and packaged forms for better longevity and value. It is regrettable to notice that, natural resources such as soil and water bodies that support agricultural production are in deplorable condition; most of the farmers are poor and not well educated on better ways of carrying out their farming activities; social amenities such as good roads, hospitals, healthy source of water, school facilities to promote agricultural studies in the farming communities, and so on are not available, and where they are available, they are dilapidated or in poor conditions. These deplorable situations do not encourage the sustainability of agricultural activities rather they promote food insecurity, and above all lead to poverty among the people. To salvage these unfavorable situations towards realizing green agriculture, there is a need to figure out what can be done to ensure sustainable agricultural production. Sustainable agricultural production for food security, wealth creation, and proper maintenance of the ecosystem can be achieved through good policy initiatives that can support green agriculture.

Policy in the view of Farlex (2015) is a plan or course of action of a government, political party, or business, intended to influence and determine decisions, actions, and other matters. According to the author, it could be guiding principles or procedures considered expedient, prudent or advantageous. Office of General Counsel (2019) stated that policy is an established system of principles to guide decisions and achieve rational outcomes. Policy, the author continued is a statement of intent that is implemented as a procedure or protocol to achieve set objectives or goals. Initiative in the submission of Merriam (2015) is a plan or program of activities intended to solve a problem; it can also be referred to as the power or opportunity to do something before others do it. Policy initiative in the context of this study is a plan or program of actions of certain stakeholders such as farmers, banks, and government that can enhance agricultural productivity for improved food security, wealth creation, and standard of living of people. The purpose of this study therefore is to determine the policy initiatives that can support green agriculture for sustained food production in South East, Nigeria. Specifically, the study sought to identify policy initiatives that can be implemented by:

- a. Farmers
- b. Community
- c. Banks and
- d. Government for enhancing green agriculture for sustained food production in South East, Nigeria

Methodology

Four research questions were answered by the study, while four hypotheses were tested at $P \le 0.05$ level of significance, and relevant degree of freedom. Descriptive survey research design was adopted for the study. A descriptive survey as defined by Kothari and Garg (2014) is a design that describes the characteristics of a particular individual or a group. According to the authors, it is concerned with specific predictions, narrations of facts, and characteristics about individuals, groups or situations and defines clearly what things to measure and the population to be studied. Descriptive study the author said makes use of data collection instruments such as questionnaires, or interview schedules, or observation checklists to document information. The study was carried out in South East Nigeria made up of five states which are Abia, Anambra, Ebonyi, Enugu, and Imo state. Abia and Imo states were selected for the study. The population for the study was 523 made up of 12 agricultural education lecturers from universities in the area of study, 226 registered farmers (Abia 117, Imo 109), 31 community leaders (Abia 13, Imo 18), 18 officials of the ministry of agriculture (at 9 per state), 16 bank

executives (at 8 per state)- the banks involved are those interested in agricultural investments, and 219 agricultural extension agents (Abia 106, Imo 113). The sample for the study was 165 made up of 12 agricultural education lecturers from universities in the area of study, 45 registered farmers, 31 community leaders (Abia 13, Imo 18), 18 officials of the Ministry of Agriculture (at 9 per state), 16 bank executives and 43 agricultural extension agents. Proportionate (20%) stratified random sampling technique was adopted to obtain the samples for registered farmers and agricultural extension agents, while the entire population of lecturers, community leaders, government officials, and bank executives was involved in the study because of their manageable size.

The instrument for data collection was a 38-item questionnaire. Four sets of questionnaires were involved in the study. Each questionnaire item had a four-point response scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with corresponding values of 4, 3, 2, and 1 respectively. The four sets of questionnaires were validated by three experts, two from the Department of Agricultural Education, Faculty of Vocational Technical Education University of Nigeria Nsukka, and one from the Ministry of Agriculture Enugu State. Their suggestions and corrections were used to improve the questionnaire. Cronbach alpha method was used to obtain the reliability coefficients of 0.84, 0.80, 0.86, and 0.83 for sections A, B, C, and D respectively. One hundred and sixty-five (165) copies of the questionnaire were administered to respondents at their various locations with the help of two research assistants (one for each state). One hundred and sixty copies of the questionnaire were returned after three weeks. Data collected were analyzed using weighted mean to answer research questions, the standard deviation was used to determine the spread of respondents around the mean of each questionnaire item, and Analysis of Variance (ANOVA) was used to test the hypothesis of no significant difference.

In making the decision on the weighted mean values, the cut-off point of the arithmetic mean which is 2.50 was used. Therefore, any item whose weighted mean value is 2.50 or above was regarded as an item on which the respondents agreed. Any item with a weighted mean value of less than 2.50 was regarded as an item on which respondents did not agree. Any item with a standard deviation of 1.96 (95% confidence limit) or less showed that the respondents were close to the mean and to one another in their responses. For the hypothesis of no significant difference, any item with a p-value of 0.05 or above shows that there is no significant difference in the responses of the three groups of respondents; therefore, the hypothesis of no significant difference will be accepted for that item. If the p-value of any item is less than 0.05, it shows that there is a significant difference in the responses of the three groups of respondents; therefore, the hypothesis of no significant difference, the hypothesis of no significant difference will be accepted for that item. If the p-value of any item is less than 0.05, it shows that there is a significant difference in the responses of the three groups of respondents; therefore, the hypothesis of no significant difference. Will be rejected for that item. Co-efficient of determination (E^2) was utilized to determine the ratio of agreement or relationship among respondents.

Coefficient of determination $(E^2) = TSS - SS/TSS$

Where; $E^2 = 0.6$ to 0.9 high relationship,

Journal of Occupation and Training, 9(1)

0.59 to 0.4 average relationship, and below 0.4 low relationship

Results

The results for the study were obtained from research questions answered and hypothesis tested through data collected and analyzed

Research Question 1: what are the policy initiatives that can be implemented by farmers for enhancing green agriculture in South East Nigeria?

Hypothesis 1: there is no significant difference in the mean ratings of the responses of farmers, lecturers, and agricultural extension agents on policy initiatives that can be implemented by farmers for enhancing green agriculture in South East, Nigeria

The data for answering research question 1 and testing the hypothesis are presented on Table 1

Table 1: Mean ratings and analysis of variance of the responses of farmers, lecturers, and agricultural extension agents on policy initiatives that can be implemented by farmers for enhancing green agriculture in South East, Nigeria

| S/N | Item statement | X | SD | TSS | e | F- | Р- | E ² | Remark | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|--------|------|-------|-------|----------------|--------|-----|
| | Farmers to: | _ | | | | ratio | value | | RQ | H₀ |
| 1 | Adopt zero/minimum tillage methods to conserve soil | 3.32 | 0.249 | 158.4 | 0.83 | 0.94 | 0.38 | 0.99 | Agree | N.S |
| 2 | Adopt organic farming methods | 3.30 | 0.245 | 156.4 | 0.84 | 0.91 | 0.36 | 0.99 | " | " |
| 3 | Frequently engage in soil erosion management to protect farmland from erosion hazards | 2.88 | 0.226 | 226.05 | 0.74 | 0.19 | 0.87 | 0.99 | " | " |
| 4 | Allow period of rest to land (bush fallow) where possible to prevent erosion, and improve soil nutrients build up | 3.29 | 0.272 | 192.51 | 1.17 | 1.36 | 0.28 | 0.99 | " | " |
| 5 | Adopt new or modern farm friendly techniques to improve crops and animals' production | 3.08 | 2.242 | 240.74 | 2.16 | 2.28 | 0.16 | 0.99 | | " |
| 6 | Organize themselves into workable and relevant cooperatives to enable them obtain benefits from government, bank, philanthropists, and non-governmental organizations | 3.22 | 0.242 | 239.62 | 1.57 | 2.56 | 0.23 | 0.99 | | cc |
| 7 | Ensure proper report of their complaints on farming experiences to extension agents for solutions | 2.93 | 0.203 | 161.42 | 1.56 | 2.51 | 0.08 | 0.96 | " | " |

Key: X = weighted mean; SD = standard deviation; e = residual; TSS = Total Sum of Squares;

 E^2 = correlation ratio or coefficient of determination

Data on Table 1 revealed that the weighted mean score values of the 7 items ranged from 2.88 to 3.32 and were above the cut-off point of 2.50 indicating that the three groups of respondents

agreed that the 7 items are policy initiatives that can be implemented by farmers for enhancing green agriculture for sustainable food production. The table revealed that standard deviation for the 7 items ranged from 0.203 to 0.272 which indicated that the respondents are not too far from the mean and are close to one another in their responses. The table also revealed that the P- value for each of the 7 items is greater than 0.05 which showed that there is no significant difference in the mean ratings of the responses of the three groups of the respondents on the 7 items. The correlation ratio (E^2) for all the 7 items is high and positive indicating that many variables about the respondents are explained which gives credence to the result of the study.

Research Question 2: what are the policy initiatives that can be implemented by community members for enhancing green agriculture in South East Nigeria?

Hypothesis 2: There is no significant difference in the mean ratings of the responses of lecturers, community leaders, and agricultural extension agents on policy initiatives that can be implemented by community for enhancing green agriculture in South East Nigeria.

The data for answering research question 2 and testing the hypothesis are presented on Table 2

| S/N | Item statement | X | SD | TSS | e | F- | P- | E ² | Remark | |
|-----|-------------------------------------------------|------|-------|--------|------|-------|-------|----------------|--------|------------------|
| | Community to: | - | | | | ratio | value | | RQ | \mathbf{H}_{o} |
| 1 | employ her human resources in maintaining, | 3.19 | 0.275 | 192.52 | 1.18 | 1.39 | 0.27 | 0.99 | Agree | N.S |
| | repairing and sustaining already established | | | | | | | | | |
| | infrastructures where possible | | | | | | | | | |
| 2 | help ensure safety of forest (vegetation areas) | 2.98 | 0.205 | 160.43 | 1.50 | 2.58 | 0.09 | 0.99 | " | " |
| | against vandalism such as bush burning | | | | | | | | | |
| 3 | notify government of highly degraded and or | 3.06 | 0.245 | 240.97 | 2.16 | 2.27 | 0.17 | 0.99 | " | " |
| | abandoned land areas where community | | | | | | | | | |
| | need help to rescue | | | | | | | | | |
| 4 | make land available for agricultural practices | 3.15 | 0.249 | 199.4 | 0.95 | 0.64 | 0.55 | 0.99 | " | " |
| | in their schools | | | | | | | | | |
| 5 | provide for adequate security of their lands | 2.96 | 0.261 | 258.82 | 2.14 | 2.27 | 0.17 | 0.99 | " | " |
| | and other landed property | | | | | | | | | |
| 6 | engage members in collaborative activities for | 3.26 | 0.241 | 239.65 | 1.56 | 2.52 | 0.23 | 0.99 | " | " |
| | soil erosion management, environmental | | | | | | | | | |
| | sanitation, and others | | | | | | | | | |
| 7 | review her traditional and cultural practices | 3.22 | 0.275 | 192.55 | 1.19 | 1.34 | 0.28 | 0.99 | " | " |
| | that affect agricultural development and | | | | | | | | | |
| | healthy living | | | | | | | | | |
| 8 | review their cultural trades as it concerns | 3.24 | 0.272 | 190.57 | 1.15 | 1.38 | 0.27 | 0.99 | " | " |
| | agriculture for improvements, future | | | | | | | | | |
| | engagements, difficulties to tackle for the way | | | | | | | | | |
| | forward | | | | | | | | | |
| - | | | . 1 1 | | 1.0 | 6.0 | | | | |

Table 2: Mean ratings and analysis of variance of the responses of lecturers, community leaders, and agricultural extension agents on policy initiatives that can be implemented by community members for enhancing green agriculture in South East Nigeria.

Key: X = weighted mean; SD = standard deviation; e = residual; TSS = Total Sum of Squares;

 E^2 = correlation ratio or coefficient of determination

Journal of Occupation and Training, 9(1)

Data on Table 2 revealed that the weighted mean score values of the 8 items ranged from 2.96 to 3.26 and were above the cut-off point of 2.50 indicating that the three groups of respondents agreed that the 8 items are policy initiatives that can be implemented by community members for enhancing green agriculture. The table revealed that standard deviation for the 8 items ranged from 0.205 to 0.275 which indicated that the respondents are not too far from the mean and are close to one another in their responses. The table also revealed that the P- value for each the 8 items is greater than 0.05 which showed that there is no significant difference in the mean ratings of the responses of the three groups of the respondents on the 8 items. The correlation ratio (E^2) for all the items are high and positive indicating that many variables about the respondents are explained which gives credence to the result of the study.

Table 3: Mean ratings and analysis of variance of the responses of lecturers, officials of ministry of agriculture, and bank executives on policy initiatives that can be implemented by banks for enhancing green agriculture in South East Nigeria.

| S/N | Item statement | Х | SD | TSS | e | F- | Р- | E ² | Remark | |
|-----|-----------------------------------------|------|-------|--------|------|-------|-------|----------------|--------|-----|
| | Banks to: | - | | | | ratio | value | | RQ | H₀ |
| 1 | extend loan opportunities to farmers | 2.90 | 0.203 | 160.42 | 1.52 | 2.56 | 0.09 | 0.99 | Agree | N.S |
| | (in their cooperatives) with little | | | | | | | | | |
| | collateral | | | | | | | | | |
| 2 | give professional advice to farmers on | 2.93 | 0.204 | 160.43 | 1.53 | 2.56 | 0.09 | 0.99 | " | " |
| | how best to invest acquired loans to | | | | | | | | | |
| | avoid misuse and subsequent | | | | | | | | | |
| | bankruptcy | | | | | | | | | |
| 3 | assist farmers to sell off their farm | 3.19 | 0.274 | 192.52 | 1.18 | 1.37 | 0.28 | 0.99 | " | " |
| | produce by identifying and locating | | | | | | | | | |
| | markets (buyers) for them | | | | | | | | | |
| 4 | help organize the off-take of the farm | 3.38 | 0.243 | 156.7 | 0.85 | 0.93 | 0.38 | 0.99 | " | " |
| | produce at farm gates while offering | | | | | | | | | |
| | heart-warming prices to curb excessive | | | | | | | | | |
| | influence of middlemen | | | | | | | | | |
| 5 | help to advertize publicly what farmers | 3.33 | 0.247 | 158.3 | 0.81 | 0.96 | 0.36 | 0.99 | " | " |
| | can gain through partnership with | | | | | | | | | |
| | banks | | | | | | | | | |
| 6 | encourage farmers to deposit proceeds | 3.13 | 0.244 | 199.4 | 0.92 | 0.67 | 0.54 | 0.99 | " | " |
| | of their sales with banks | | | | | | | | | |
| 7 | advice farmers on how to re-invest part | 3.09 | 0.245 | 240.78 | 2.19 | 2.27 | 0.17 | 0.99 | " | " |
| | of their profits to ensure increased | | | | | | | | | |
| | investment in their farming venture | | | | | | | | | |
| 8 | help to evaluate the farmers' | 3.45 | 0.243 | 174.96 | 1.73 | 2.83 | 0.07 | 0.98 | " | " |
| | productive capacity through research, | | | | | | | | | |
| | and proffer advice for improvement | | | | | | | | | |
| 9 | advice farmers to buy shears with | 3.31 | 0.248 | 156.8 | 0.81 | 0.93 | 0.36 | 0.99 | " | " |
| | banks that advertise for shareholders | | | | | | | | | |
| | particularly the microfinance banks | | | | | | | | | |

Key: X = Weighted Mean; SD = Standard Deviation; e = Residual; TSS = Total Sum of Squares

E²= Correlation ratio or coefficient of determination

Data in Table 3 revealed that the weighted mean score values of the nine items ranged from 2.90 to 3.45, and were above the cut-off point of 2.50. This indicated that the three groups of respondents agreed that the nine items are policy initiatives that can be implemented by banks for enhancing green agriculture. The table also revealed that the standard deviation for the nine items ranged from 0.203 to 0.274 indicating that the respondents are not too far from the mean, and are close to one another in their responses. The table further revealed that the P-value for each of the nine items is greater than 0.05 indicating that there is no significant difference in the mean ratings of the three groups of respondents, on the nine items. The correlation ratio (E^2) for all nine items is high and positive indicating that many variables about the respondents are explained which gives credence to the result of the study.

Research Question 4: what are the policy initiatives that can be implemented by the government to enhance green agriculture in South East Nigeria?

Hypothesis 4: There is no significant difference in the mean ratings of the responses of lecturers, agricultural extension agents, and Ministry of Agriculture officials on policy initiatives that can be implemented by the government to enhance green agriculture in South East, Nigeria.

The data for answering research question 4 and testing the hypothesis are presented in Table 4

Table 4: Mean ratings and analysis of variance of the responses of lecturers, agricultural extension agents, and Ministry of agriculture officials on policy initiatives that can be implemented by the government for enhancing green agriculture in South East, Nigeria.

| S/N | Item statement | X | SD | TSS | e | F- | P- | E ² | Remark | |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|--------|------|-------|-------|----------------|--------|----|
| | Government to: | - | | | | ratio | value | | RQ | H。 |
| 1 | review land use techniques for agricultural development and other sectors of the | 3.14 | 0.242 | 194.71 | 2.35 | 2.53 | 0.09 | 0.99 | " | " |
| 2 | train or retrain agricultural extension agents on regular basis for better work out | 3.08 | 0.247 | 195.3 | 0.91 | 0.63 | 0.54 | 0.99 | " | " |
| 3 | ensure proper disposal of waste and their recycling | 2.94 | 0.204 | 160.40 | 1.51 | 2.55 | 0.09 | 0.99 | " | " |
| 4 | support and fund research in green agriculture practices | 2.97 | 0.253 | 125.4 | 0.12 | 0.64 | 0.54 | 0.99 | " | " |
| 5 | maintain and intensively fund agricultural research institutions | 3.14 | 0.246 | 199.3 | 0.95 | 0.64 | 0.57 | 0.99 | " | " |
| 6 | regulate and ensure minimal to zero use of agro- chemicals that pollute land and water resources | 3.23 | 0.244 | 204.1 | 0.58 | 0.09 | 0.97 | 0.99 | " | ** |
| 7 | regulate and reduce to barest minimum the emissions of greenhouse gases | 3.12 | 0.185 | 187.64 | 2.31 | 2.54 | 0.09 | 0.99 | " | " |
| 8 | effectively manage deforestation and forest conversion issues | 3.27 | 0.221 | 126.32 | 1.26 | 2.83 | 0.95 | 0.99 | " | " |
| 9 | review land use options towards agricultural development and sustainability | 3.12 | 0.245 | 198.3 | 0.92 | 0.66 | 0.54 | 0.99 | " | ** |
| 10 | secure the protection of land, water bodies and their resources from degradation such as desertification, erosion, and pollution | 2.93 | 0.230 | 160.42 | 1.53 | 2.56 | 0.09 | 0.99 | " | " |
| 11 | regulate and stabilize prices and marketing of agricultural products | 3.33 | 0.246 | 158.4 | 0.80 | 0.97 | 0.34 | 0.99 | " | " |
| 12 | establish and maintain farmer education clinics | 3.20 | 0.270 | 192.53 | 1.19 | 1.37 | 0.28 | 0.99 | " | " |
| 13 | provide and maintain social infrastructure which include access roads, good source of water, schools, health clinics, storage facilities, modern market, etc., in the rural and urban areas | 3.09 | 0.244 | 240.77 | 2.17 | 2.28 | 0.17 | 0.99 | " | " |
| 14 | maintain effective provision of soft loans, credit facilities and improved/organic inputs to farmers | 3.15 | 0.262 | 256.83 | 2.15 | 2.28 | 0.18 | 0.99 | " | " |

Key: X= weighted mean; SD = standard deviation; e = residual; TSS = Total Sum of Squares;

 E^2 = correlation ratio or coefficient of determination

Data on Table 4 revealed that the weighted mean score values of the 14 items ranged from 2.93 to 3.33 and were above the cut-off point of 2.50. This indicated that the three groups of respondents agreed that the 14 items are policy initiatives that can be implemented by government for enhancing green agriculture. The Table revealed that standard deviation for the 14 items ranged from 0.185 to 0.262 indicating that the respondents are not too far from the mean and are close to one another in their responses. The table also revealed that the P-values for the 14 items were greater than 0.05 indicating that there is no significant difference in the mean ratings of the responses of the three groups of respondents. Therefore, the hypothesis of no significant difference was accepted for each of the items. The correlation ratio (E^2), for each of the 14 items is high and positive indicating that many variables about the respondents are explained, and this adds credence to the result of the study.

Discussion of findings

Result of the study on Table one revealed that seven initiatives could be implemented by farmers. The initiatives include: adopting zero/minimum tillage methods to conserve soil; adopting organic farming methods; allowing periods of rest to land (bush fallow) where possible to prevent erosion and improve soil nutrients build up; ensuring proper report of their complaints on farming experiences to extension agents for solutions; and others. Results of the study on Table two revealed that eight initiatives could be implemented by the community to enhance green agriculture; the initiatives include: employing human resources in maintaining, repairing and sustaining already established infrastructures where possible; help ensure safety of forest (vegetation areas) against vandalism such as bush burning; make land available for agricultural practices in their schools; provide for adequate security of their lands and other landed property; review her traditional and cultural practices that affect agricultural development and healthy living; and others. Result of the study on Table three revealed that nine initiatives could be implemented by banks for enhancing green agriculture. the initiatives include the following: extend loan opportunities to farmers (in their cooperatives) with little collateral; give professional advice to farmers on how best to invest acquired loans to avoid misuse and subsequent bankruptcy; help organize the off-take of the farm produce at farm gates while offering heart-warming prices to curb excessive influence of middlemen; encourage farmers to deposit proceeds of their sales with banks; help to evaluate the farmers' productive capacity through research, and proffer advice for improvement; and others. Results of the study on Table four revealed that 14 initiatives could be implemented by the government to enhance green agriculture; the initiatives include: reviewing land use techniques for agricultural development and other sectors of the economy; training and retraining agricultural extension agents regularly for better work output with rural farmers; support and fund research in green agriculture practices; maintain and intensively fund agricultural research institutions; regulate and reduce to the barest minimum the emissions of greenhouse gases; and others.

These findings are in line with the findings of Ani and Nwachukwu (2019) in a study on mobilization initiatives for enhancing rural women's participation in rabbit production for poverty reduction in Enugu State. Nigeria where it was found that a eight mobilization

initiatives can be put in place to create awareness in rural women on rabbit production. The initiatives include: visit rural women in their cooperative society gatherings and or August meetings to inform them of rabbit production; using slide projectors, film shows and video shows to illustrate rabbit production activities practically to the women, their housing and management; use posters to publicize the benefits and gains in rabbit production as additional source of income; use farm visit to demonstrate to rural women simple techniques of rearing rabbits. B. Eight mobilization initiatives can be put in place to create interests in rural women on rabbit production. The initiatives include: organize excursion for rural women to interested sites of rabbit production; lead rural women to rabbit processing and marketing sites; demonstrate to rural women how to start small-scale backyard rabbit production; organize participant observation training to allow rural women touch, handle, feel and observe rabbits; and others. C. 12 mobilization initiatives can be put in place to help rural women make decision to enter into rabbit production. The initiatives include: demonstrate to the women the fast turn-over rate of rabbit production; display to women some cheap sources of rabbit feed, and demonstrate to the women how to feed rabbits; take women out to established rabbit farms to see inexpensive rabbit hutches and other cheap facilities used in rearing rabbits; group women into committees for activities in rabbit production.

This study is in conformity with the finding of Dimelu and Olaitan (2010) in a study on motivational initiatives for enhancing skill empowerment of youths in Home Economics occupations for work toward peace in Niger Delta where it was found out that, 11 motivational initiatives could be implemented by government. 12 motivational initiatives could be implemented by community, and 9 out of 10 motivational initiatives could be implemented by company for skill empowerment of youths in Home Economics occupations for work towards peace in Niger Delta areas of Nigeria.

Result of hypothesis tested showed that there is no significant difference in the opinions of the groups of respondents on, a. initiatives that could be implemented by farmers, b. policy initiatives that could be implemented by community, c. policy initiatives that could be implemented by banks, and d. policy initiatives that could be implemented by government to enhance green agriculture for a sustainable food production in South East, Nigeria.

Conclusion

In the area of study, it was observed by the researcher that people depend on agriculture for their livelihood; plant and animal materials that are produced by farmers at various levels and status (that is, small scale, medium scale, or large scale farming) make food available to people either in raw perishable forms or in industrially processed and packaged forms. It is worrisome that natural resources such as soil and water bodies that support agricultural production are in deplorable conditions; most of the farmers are poor and not well educated on how well to carry out their farming activities. Also, social amenities such as good roads, hospitals, healthy sources of water, school facilities to promote agricultural studies in the farming communities, and so on are not readily available or are grossly inadequate. These deplorable situations do not encourage sustainability of agricultural activities rather they promote food insecurity, and

above all lead to poverty among the people. The purpose of this study therefore, was to identify policy initiatives that could be implemented by various stakeholders such as farmers, community, banks and government to help enhance green agriculture towards ensuring sustainable food production in south east Nigeria. It was found out from the study that, a. seven policy initiatives could be implemented by farmers, b. eight policy initiatives could be implemented by farmers, b. eight policy initiatives could be implemented by farmers, b. eight policy initiatives could be implemented by source could be implemented by anks, and d. 14 policy initiatives could be implemented by government to enhance green agriculture for sustainable food production in South East Nigeria.

Recommendation

Based on the findings of the study, it was recommended that the policy initiatives identified in this study be considered for approval by government, and that the government should on approval of the initiatives sensitize other stakeholders for adoption and implementation of the initiatives as guidelines for enhancing green agriculture for sustainable food production and its security in South East Nigeria.

References

- Ani, M. O. & Nwachukwu, C. U. (2019). Mobilization initiatives for enhancing rural women's participation in rabbit production for poverty reduction in Enugu State. Nigeria, *Journal of Agricultural Education Teachers' Association of Nigeria.* 3(2), 104-112 ISSN: 2635-2974
- Dimelu, I. N. & Olaitan, S. O. (2010). Motivational initiatives for enhancing skill empowerment of youths in home economics occupation for work toward Peace in Niger Delta, *Nigerian Journal of Curriculum Studies* 17 (3) 53-62.
- Farlex Inc. (2015). *Policy*. http://www.thefree dictionary.com/Policy.
- Food and agriculture organization-FAO (2024). Regional technical platform on green agriculture, https://www.fao.org/platforms/green-agriculture/about/en
- International labor organization-ILO (1994). *Agriculture*, https://en.wikipedia.org/wiki/ Agriculture.
- Kothari, C. R. & Garg, G. (2014). *Research methodology,* New Delhi: New Age International (p) Limited Publishers
- Lovo, S., Bezabih, M. & Singer, G. (2015). *Green agricultural policies and poverty Reduction*, https://www.Ise.ac.uk/granthaminstitute/wp-content/uploads/2015/10/2087_ GRI_LSE-Agriculture-GGGI-Policy_Lores_51.pdf

- Merriam-Webster (2015). *Initiative*, https://www.merriam-webster.com/dictionary/ initiative#
- National Geographic Society-NGS (2015). Agriculture. https://education. nationalgeographic.com/encycloped
- Office of General Counsel Of- University Sydney (2019). *What is policy?* Sydney.edu.au/ legal/policy/what/index.shtml
- Rimando, T. J. (2004). *Crop science: Fundamentals of crop science,* UP. Los Baños: University Publications Office P.I