

**SUSTAINABLE STRATEGIES FOR RENEWED HOPE IN FOOD SECURITY AND
JOB CREATION AMONG FARMERS IN BWARI AREA COUNCIL, NIGERIA**

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Abstract

The study focused on the impacts of the Soil, water resources conservation and management on 120 farmers as it affects their renewed hope for food security and job creation in a selected area council in Abuja namely; Bwari Area council, F.C.T, Abuja, Nigeria. Questionnaire was administered to 30 farmers each at Igu, Gaba, Garam, and Kuchiko-Bwari farming communities, who were selected at random. Qualitative research methodology was adopted, and data were also collected from primary and secondary sources through document reviews and inferences were drawn from them. Multiple regression results revealed that the significant factors affecting sustainable strategies for renewed hope on food security include; bush burning ($p<0.01$), deforestation ($p<0.05$), overgrazing ($p<0.01$ and insecurity ($p<0.01$). Similarly, rainfall ($p<0.01$) and application of chemical fertilizer ($p<0.01$) were statistically significant but negatively related to farmers' food security. The study also reveals that soil and water management resources management was very poor at Gaba and Garam this impacted negatively on their food security, 87% of the farmers were affected in the two farming communities, and 75% of farmers' job creation were equally affected, while at Igu and Kuchiko-Bwari 21% and 15% of the farmers were affected. This paper thus recommends an increase in mitigation against anything that can endanger soil, water resources conservation and management among the affected farming communities, to strengthen their natural ecosystem that will improve the stability of their natural environment, also the soil and water management to ensure enough sustainable food security.

Key Word: Food Security, Soil Management, Water Resource, Renewed Hope.

Introduction

Soil resources are majorly the main sources of livelihoods for most of the people of the world, such as human exploitation being the foremost factor for soil degradation (Molla and Sisheber 2017). In most of the developing countries, many people have been settled in the highlands due to favorable agricultural and ecological conditions, which always result to high population densities and causing resource degradation at long run (Haregeweyn, Tsunekawa, Tsubo, Meshesha, Adgo, Poesen, Schutt, 2016).

Degradation of the soil and water resources in Nigeria such as; erosion, salinity, alkalinity, sodicity, as well as acidification, water repellence, and degradation of soil structure, it affects food security directly (AbdelRahman, 2023).

Methodology

Abuja, the Federal Capital Territory of Nigeria, is situated in the “North of the confluence of the Niger River and Benue River”. The boundaries are with Niger state to the “West and North, Kaduna to the Northeast, Nasarawa to the East and South and Kogi to the southwest”. With a land mass of approximately. It is “lying between altitude $8^{\circ}.25^1$ and $9^{\circ}.20^1$ North of the equator and longitude $6^{\circ}.45^1$ and $7^{\circ}.39^1$ east Greenwich meridian, Abuja is geographically located at the centre of the country” and Abuja is made up of six area councils, which are; Abaji, Bwari, Gwagwalada, Kuje, Kwali and Abuja Municipal Area Council (Akomolafe, Sennuga, Bamidele, Alabuja, & Bankole, 2023). The population of Federal Capital Territory is estimated at 3,464,123 (<http://worldpopulationreview.com>). This research was specifically carried out in Bwari Area Council of the Federal Capital Territory (FCT), in North Central Nigeria. This research work assessed sustainable strategies for renewed hope in food security and job creation among farmers in Bwari Area Council, Nigeria.

Sampling Techniques and Sample Size

The study was carried out at Bwari Area Council (FCT), questionnaires was administered to Gaba, Garam, Igu, and Kuchiko-Bwari farming communities they were purposefully chosen for the study because of their active farming activities. A total of one hundred and twenty (120) questionnaires was administered to them so as to obtain information from the respondents and all the (120) of them were successfully retrieved, which account for 100% of their total validity, from each farming community forty questionnaires was administered to them at random.

Data Collection and Analysis

Data for this study was generated from primary sources using some well-structured questionnaires. The questionnaire captured information on the socio-economic characteristics of respondents. The questionnaires were administered by well-trained enumerators, who are already conversant with the selected locality. Primary data was also obtained through personal contact, oral interviews, among others.

Results and Discussion

Determinants of Factors Influencing Food Security and Job Creation

Multiple regression analysis was used to determine the factors affecting food security and job creation in the study area as shown in Table 1. Food security and job creation was regressed on bush burning, deforestation, overgrazing, insecurity, amount of rainfall and chemical fertilizer application. The semi-log functional form was chosen as the lead equation based on the number of significant variables, the magnitude of the coefficient of multiple determinations (R^2), the

conformity of variables to *apriori* expectation as well as the significance of the F-ratio. The coefficient of multiple determinations (R^2) was 0.6974 which implies that 69.74% of the changes noticed in the food security and job creation were explained by the explanatory variables included in the model. While the F- ratio of 30.49 showed that the joint determination of the explanatory variables was significant at 1% level.

Table 1: Multiple Regression Result on Factors Affecting Food Security and Job Creation

Variables	Linear	Exponential	Semi log+	Double log
Intercept	14277.5 (9.02)***	6.88 (110.19)***	-1478.89 (-16.09)***	-5493.43 (-2.16)***
Bush burning	128.43 (2.54)**	0.016 (2.70)***	1200.46 (2.65)***	12.63 (3.74)***
Deforestation	38.16 (1.15)	0.026 (1.37)	1057.318 (3.93)**	40.53 (3.05)***
Overgrazing	851.65 (1.55)	-0.04 (-1.67)	1329.546 (2.36)***	57621.55 (0.38)
Insecurity	0.007 (1.69)	2.74e-07 (1.35)	-218.7626 (1.39) ***	-5484.96 -0.38
Rainfall	-0.038 (-2.94)***	-1.46e-06 (-3.25)***	1834.54 (-3.09)***	90681.98 0.56
Chemical fertilizer application	-0.38 (-5.87)***	-0.0000 (-5.80)***	-4893.28 (-5.52)***	-380.37 -3.08***
R^2	0.6692	0.6812	0.6974	0.4652
Adj R^2	0.6455	0.6585	0.6635	0.4133
F-ratio	28.02***	29.60***	30.49***	12.92

Source: Field Survey, 2023

Note: Values in parentheses are t-value.

Soil and water management was very poor at Gaba and Garam farming communities which resulted to 87% of the farmers that bear the brunt and 75% of their job creation were equally affected. Meanwhile, at Igu and Kuchiko-Bwari only 21% of the farmers' soil and water management were also affected as it only affected 15% of their job creation, they are more empowered compares to other farming communities.

Conclusion

Effective soil, water resources conservation and good soil management can bring about sustainable strategies for renewed hope in food security and job creation among the farmers in the study area, most of the food we eat comes from a well enriched soils, and its proceeds can bring about job creation or employment opportunities to farmers, this work is corroborated with AbdelRahman, (2023) who agreed that the quality of soil determine food security for farmers.

Recommendations

- ✓ The study recommend that the farmers farm and environmental security should be well consider by all relevant agencies.
- ✓ The farmers should avoid deforestation and bush burning as it affects soil microbes, soil cations and anions that can improve soil fertility.
- ✓ Overgrazing should be eradicating completely as it affects soil productivity.
- ✓ Their environment should be well protected by planting more trees to replace the cut ones.
- ✓ Feeder roads should be constructed for the farmers, for their easy accessibility to market.

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