



Agroforestry Practices Common among Youths in Ifo Local Government Area of Ogun State

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Abstract

The study investigated the agro-forestry practices common among youths in Ifo Local Government Area of Ogun State. The study aimed specifically at ascertaining the types of agroforestry systems common among the youth and determining the role of youth in such systems in the study area. The study was carried out in five randomly selected villages with the aid of semi-structured questionnaire administered to selected respondents. One hundred and twenty respondents were randomly selected from Ifo Local Government. Data collected were analyzed using descriptive analytical tools. Majority of the respondents (70.2%) were male, most (62.5%) of whom were within ages 21-30 years. no fewer than 97% of the respondents had formal education. About 15.38% of the respondents were actively involved in home gardens, while alley cropping and *Taungya* were practiced by only 1.9% and 2.88% respectively. However, the activities of the youth are most prevalent in Crop farming with Livestock (22.12%) not fewer than 86% plant annual crops. The beneficial factors that encouraged youth to participate in agroforestry include; optimum production of food (53.85%) and maintenance of soil fertility (25.0%). Among the unique roles of the youths are: forestry/agricultural extension within the study area (55.77%), artificial tree regeneration (47.12%) and participation in cooperative farming (46.15%). The youths' level of participation in agroforestry is still very low in the study area but it has a good potential for improvement, particularly *Taungya* farming which is well suited to their popular choice of crop farming. It is recommended that government policies on agricultural land as well as reserved forest should be improved upon to make adequate farmland available to the interested youths who want to engage in agroforestry in a larger scale. Further studies should also be carried out to investigate the effects of agroforestry practices on yields of annual crops as this will ascertain the sustainability of agroforestry in the study area.

Keywords: *Agroforestry, practices, Taungya, youths*

Introduction

The basic goal of agroforestry is to create a long-term land use system that may raise agricultural productivity, while also improving the well-being of rural communities. Agroforestry practices have been defined by a number of authors. Agroforestry has been defined as a dynamic ecologically based natural resources management system that through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels (Amonum *et al.*, 2009; Alao and Shuaibu, 2013). A recent definition by Leakey (2017), defined agroforestry as a dynamic, ecologically based, natural resource management system that involves the integration of trees in farm and rangeland, diversifies and sustains smallholder production for increased social, economic and environmental benefits. According to Ishola *et al.*, (2020) the benefits of agroforestry activities are diverse, but they may be classified into three categories: social,

economic, and environmental. The use of various tree species as a source of firewood, pole, medicinal plants, and the manufacture of domestic furniture and utensils are among the social benefits received, while some tree species also have cultural significance. Economic benefits include; food production, revenue creation, livestock feed, timber production, and the use of some products, such as gum, resin, and others, as raw materials in cottage industries. There are three basic types of Agroforestry systems. They include; agrosilviculture (Crops + trees), silvopastoral (Pasture/animal + trees); and agrosilvopastoral (crops + pasture + trees). Other specified Agroforestry can also be defined e.g. apiculture (bees with trees), aquaculture (fishes with trees and shrubs) and multipurpose tree lots. Studies (Okunade *et al.*, 2007 and Akinwalere, 2016) show that most of agroforestry practices are common in the south western zone of Nigeria. Youth according to African Union (2006) is anyone between the ages of 15 and 35 years., however Rukuni and Zvavanyange

(2013) stated that youths are a mobile group and ready to exploit opportunities in different employment spectrums including agriculture as a sector of opportunity, because of its close links across the value chain and its potential to attract youths in its service industries. Rural youth are the future of food security (FAO, 2014), it is therefore imperative to delve into knowing what this category of farmers are doing in an area as important as agroforestry as there is much advocacy on smart agriculture. Today's farmers and landowners face many challenges as they seek to make their farms and forestlands profitable, productive and environmentally sustainable and one of the options is agroforestry. This study was carried out to investigate the types of agroforestry practices common among youth in Ifo Local Government Area of Ogun State. We specifically determined the role of youth in agroforestry practices, ascertained types of agroforestry systems common among the youth. We also determined the effect of education level of the youth in agroforestry practice in the study area.

Methodology

The study was carried out in Ifo Local Government Area (LGA) of Ogun State. The LGA is located between 6°49'0"N and 3°12'0"E, and has a size of 82,000 square kilometers with an estimated population of 750,000 at 3.4% annual population change (NPC, 2016). Majority of the inhabitants are Yoruba. Farming is the major occupation of the people and this could be connected with the large expanse of fertile soil and favourable climate condition. The area is well suited for cash crop production, fruit trees as well as vegetables and pepper. There is a wide range of tribes among the inhabitants of the area, with the major tribe being Yoruba. Data were collected using a well designed semi-structured questionnaire. Five villages were purposively selected from the LGA for prevalence of agroforestry activities. Questionnaires were administered to One hundred and twenty youth (within ages of 15-30years) randomly selected from the selected villages at an average rate of 24 youths per village, while only 104 questionnaires were retrieved. Data collected were analyzed using descriptive analytical tools.

Results and Discussion

Table 1 shows that majority (70.2%) of the participants were male which implies that males are more actively involved in Agro-forestry in the area of study. This may be because the female youths are likely to be more involved in food processing and domestic chores in the study area. It also shows that youths of age range 31-35 had the highest representation (62.5%). This is very significant as age factor determines the level of involvement and effectiveness of the youths in agriculture and agroforestry activities. Table 1 further shows that no fewer than 52.88% of the respondents had formal education above primary school education. This shows that a good number of the respondents should be well informed because of the ability to read and write. This result is in agreement with earlier findings (Orisakwe and Agomuo, 2011; Jamala *et al.*, 2013 and

Gambo *et al.*, 2018) who submitted that most of their respondents were young and males in their active ages. Majority (77.9%) of the respondents had personal farmland, while only 22.1% had no farmland of their own. This implies that even the youths are really actively involved in farming activities in the study area. Table 2 shows that several respondents had access to farmland for cropping. The most popular being access to portion of parent's land (35.6%), rent (22.1%) and inherited land (16.4%). This result is in line with the submission of Abdulhamid *et al.* (2017) who reported that majority of their respondents acquired their land by inheritance. This factor may have influenced the farm land sizes of the youths in the study area and the decision to plant trees on lands that was rented for just a cropping season or two. Table 3 shows that many (37.5%) of the respondents had less than 2 hectares, while 26.92% had between two and four hectares. This result shows that the youth has small farm sizes. This result actually agrees with Orisakwe and Agomuo (2011) and Abdulhamid *et al.* (2017) who submitted that most of the farmers in their study areas operate on land of farm size between 0.5 to 5 hectares. This implies that majority of the sampled farmers are involved in subsistence farming and belong to low income community. This may have had a high tendency to affect the types of agroforestry system that they can practice. Table 4 shows that many (55.77%) of the respondents engage in forestry/agricultural extension within and outside the study area, while 47.12% participate in artificial regeneration of trees. Thirty eight respondents (36.54%) participate in organizing annual tree planting campaigns. Some of the respondents (46.15%) indicated that they are involved in group (Cooperative) farming which involves taking turn to work on each others' farms. Table 5 shows what motivated the respondents to practice agro-forestry. It was observed that 55.77% of the respondents are interested in developing agro-forestry, 49 respondents (47.12%) indicated that they are interested in acquiring the knowledge about agro-forestry. However few (36.54%) of the respondents indicated that they are interested in utilizing agro-forestry products. The products include but are not limited to manure, forage for livestock and medicinal tree species and woodlots for fuel. This is in line with the Observation of Benjamin and MacFarland (2017) that Land owners are increasingly using agroforestry to add trees to their landscapes or improve the health of their forests. They suggest that Agroforestry allows landowners to intentionally grow trees and shrub which creates a more diverse agricultural operation and helps to boost their profits. Table 7 shows that many of the respondents practice crop farming with livestock rearing (mostly ruminant) (22.12%), fruit farming (0.96%), alley cropping (1.92%), home gardens (15.38%) and Taungya (2.88%). This report is in agreement with the findings of Ahmed *et al.* (2009) and Kareem *et al.* (2017) who submitted that farmers in their study area practiced more of scattered trees in a farm land and agrosilviculture. Table 8 shows the response of participants when asked to indicate the single most important benefit of agroforestry to their

agricultural enterprise. Majority (53.85%) of respondents reported optimum food production, while 25.0% experienced better soil fertility. With this report, it was discovered that there is likely increase in level of optimum food production and soil fertility. This agrees with the submissions of Alao and Shuaibu (2013) and Kareem *et al.* (2017) that farmers practicing agroforestry have soil erosion better controlled, while they have their soil fertility boosted. Other report by Abdulhamid *et al.* (2017) shows that practice of agroforestry affects the yield of crops due to the influence of the practice on the soil organic matters, nutrient cycling and soil organisms. However, in the area where agroforestry is not practiced, the farmers usually depend on inorganic fertilizer. Table 9 shows that maize, cassava, yam and vegetable/pepper are the most common food and cash crop planted in agroforestry farm in the area of study, it has the frequency of 24 respondents (23.08%). This report agrees with Idumah *et al.* (2014), who reported that their agroforestry respondents cultivated most of the annual crops. Major livestock reared by the respondents are presented in Table 10. The result shows that many (28.85%) of the respondents reared local chicken/hen. However, 14.42% also reared chicken, sheep and goat. This result varied slightly from the findings of Abdulhamid *et al.* (2017) who carried out a similar study in Kastina and reported that majority of their respondents involved in ruminant production. It was observed that none of the respondents in the study area is involved in cattle rearing. It is however important to

state that small-ruminants may be more compatible with agroforestry than non ruminant animal production.

Conclusion

Agroforestry, among other benefits, strive to optimize the use of land for agricultural production on a sustainable basis and at the same time meeting other needs from forestry. Based on the findings of this study, it was established that many youths in the study area are involved in agro-forestry at various levels. In this study we discovered that most of the respondents in the study area engaged in aquasilviculture (fishing with scattered trees around the pounds) and Agrosilvopastoral (Cropping within scattered trees). Also, the youth are actively involved in agro-forestry practice with keen Interest in acquisition of knowledge about agro-forestry as well as in utilizing Agro-forestry products. The study also revealed that the practice of agro-forestry in the area improved the level of optimum food production and also helped to maintain the soil fertility.

It is evident from the findings of this study that government policies on agricultural land as well as reserved forest should be improved upon to make adequate farmland available to the interested youths who want to engage in agroforestry in a larger scale. Further study should also be carried out to investigate the effects of agroforestry practices on yields of annual crops of young farmers as this will ascertain the sustainability of agroforestry in the study area.

Table 1: Socioeconomic Characteristics Respondents

	Frequency (n=104)	Percentage
Gender		
Male	73	70.2
Female	31	29.8
Age range (Years)		
15-20	13	12.5
21-25	26	25.0
25-30	30	28.8
31-35	35	33.7
Educational Status		
No formal education	7	6.73
Completed primary school	49	47.12
Completed Junior Secondary school	10	9.62
Still in secondary School	10	9.62
Completed senior secondary school	28	26.92
Having farmland		
Yes	81	77.9
No	23	22.1

Source: Field Survey, 2020

Table 2: Distribution according to the source of farm plots among the respondents

Source of farm plot	Frequency (n=104)	Percentage
Inheritance	17	16.34
Rent	23	22.11
Leasehold	1	0.96
Through forest officer	2	1.92
Belongs to my parent	37	35.57
Belongs to my husband	3	2.88
Through school teacher	2	1.92
No response	19	18.26

Source: Field Survey, 2020

Table 3: Distribution According to Farm Size of the Respondents in the Study Area

	Frequency (n=104)	Percentage
Less than 2 hectares	40	38.46
2.01 to 4 hectares	28	26.92
4.01 to 6 hectares	8	7.69
Above 6 hectares	10	9.62
No response	18	17.31

Source: Field Survey, 2020

Table 4: Activities/ Roles of Youth in the Area of Agroforestry*

Activities of youth in the area of Agroforestry	Yes (%)	No (%)
Forestry/Agricultural Extension Program within and outside the area	58(55.77)	46(44.23)
Artificial regeneration of trees	49(47.12)	55(52.88)
Organization of annual tree planting	38(36.54)	66(63.46)
Group (Cooperative) farming	48(46.15)	56(53.85)

*Source: Field Survey, 2020, n=104. *Multiple responses recorded*

Table 5: Factors that motivated respondents to practice agro-forestry in the study area*

	Yes (%)	No (%)
Interest of agro-forestry development	58(55.77)	46(44.23)
Interest of acquisition of knowledge about agro-forestry	49(47.12)	55(52.88)
Interest of utilizing Agro-forestry products	38(36.54)	66(63.46)
Interest of group farming	48(46.15)	56(53.85)

*Source: Field Survey, 2020. *Multiple responses recorded*

Table 7: Type of agro-forestry the respondents participated in the study area

Once participated in	Frequency (n=104)	Percentage
Fishing	26	25.0
Animal rearing (silvopastoral)	1	0.96
Fruit farming	1	0.96
Taungya system	3	2.88
Crop farming with Livestock (Agrosilvopastoral)	23	22.12
Crop farming and fishing	13	12.5
Home gardens	16	15.38
Crop rotation	7	6.73
Alley cropping	2	1.92
Home gardens & Taungya system	1	0.96
No response	11	10.58

Source: Field Survey, 2020

Table 8: Distribution of benefit derived from agroforestry in the study area

Benefits derived from the practice	Frequency (n=104)	Percentage
Soil protection and stabilization	3	2.88
Optimum production of food	56	53.85
Maintenance of soil fertility	26	25.0
Woody and non woody forest products	13	12.5
No response	6	5.77

Source: Field Survey, 2020

Table 9: Frequency Distribution of the crop planted on the agro forestry farm

Food and cash crops planted	Frequency (n=104)	Percentage
Maize	8	7.69
Yam	10	9.62
Cocoyam	4	3.85
Cassava	12	11.54
Oil palm	2	1.92
Melon	3	2.88
Vegetable/pepper	5	4.81
Maize, cassava, Yam & vegetable	24	23.08
Vegetable, Maize and Cassava	19	18.27
Maize, Cassava, oil palm & melon	2	1.92
Maize, Yam, Cassava, melon, pepper	3	2.88
No response	12	11.54

Source: Field Survey, 2020

Table 10: Types of animals reared in Agro-forestry practices in the study area

Animals reared	Frequency (n=104)	Percentage
Sheep	10	9.62
Pig	7	6.73
Goat	15	14.42
Cow	-	-
Poultry	30	28.85
Sheep, goat & cow	2	1.92
Sheep & goat	1	0.96
Pig and Chicken	-	-
Chicken, sheep & goat	15	14.42
Sheep, pig & goat	3	2.88
Sheep, pig & cow	1	0.96
No response	20	19.23

Source: Field Survey, 2020

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