

## Gender Dimension to Organic Agriculture Involvement in Southwest Nigeria

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### Abstract

Female involvement in agriculture generally is low. Given the fact that women are known to be closer to nature, it is expected that an environmentally friendly agricultural practice should be of interest to them. Therefore, this study investigated the gender dimension to involvement in organic agriculture in Southwest Nigeria. Multistage random sampling technique was used to select 160 respondents for the study in Ekiti, Osun and Oyo states. Data were collected on respondents' information needs, involvement and knowledge about organic agriculture and analysed using descriptive and PPMC analytical tools. Results revealed that most (51.9%) of women and fewer (48.1%) men had higher demand for organic information. Women were at par with men on the basis of involvement in organic agriculture practices, as opposed to involvements in conventional agricultural practices. All the respondents, men and women alike had low level of knowledge of organic agriculture.

**Keywords:** Organic agriculture knowledge, involvement in organic agriculture, environmental friendly agriculture.

### Dimension de Genre Pour L'implication de L'agriculture Biologique Dans le Sud-ouest du Nigeria

#### Résumé

La participation des femmes à l'agriculture est généralement faible. Étant donné que l'on sait que les femmes sont plus proches de la nature, on s'attend à ce qu'une pratique agricole respectueuse de l'environnement les intéresse. Par conséquent, cette étude a examiné la dimension de genre dans la participation à l'agriculture biologique dans le sud-ouest du Nigeria. Une technique d'échantillonnage aléatoire à plusieurs degrés a été utilisée pour sélectionner 160 répondants pour l'étude dans les États d'Ekiti, Osun et Oyo. Les données ont été collectées sur les besoins d'information des répondants, leur implication et leurs connaissances en matière d'agriculture biologique, puis analysées à l'aide d'outils de description et d'analyses PPMC. Les résultats ont révélé que la plupart (51,9%) des femmes et moins (48,1%) des hommes avaient un besoin plus élevé d'informations biologiques. En ce qui concerne leur implication dans les pratiques de l'agriculture biologique, les femmes étaient à égalité avec les hommes, contrairement à ce qui s'observe dans l'agriculture conventionnelle. Tous les répondants, hommes et femmes, avaient peu de connaissances en matière d'agriculture biologique.

**Mots-clés:** connaissance de l'agriculture biologique, implication dans l'agriculture biologique, agriculture respectueuse de l'environnement

### Introduction

Gender refers to the socially determined and culturally specified difference between male and

female; it is not their biologically determined differences. The term is often misunderstood as promotion of women. It focuses on the relationship between men and women, their roles, access to,

and the control over resources, division of labour and needs. Men and women perform different roles in crop production and take decisions, at different levels, regarding ownership of farm inputs and enterprises. These roles are variable from place to place depending on the culture, tribe, religion and location (FAO, 2004).

There have been various discussions with respect to the degree of contributions of men and women to agricultural production activities and ownership of farm enterprises. The need to highlight the roles of women arises because of the arguments that have often posited that farming activities are prerogatives of men while women were noted, at best, as providing supporting role. As a result of this position, most agricultural development policies and innovation packages were directed by men.

Gender relationships are fundamental to understanding the way farm work is organised. They determine the way assets such as land, labour, seeds and machinery are owned and managed, as well as decisions on farm enterprises, are taken. The revolutionary potential of sustainable approaches to farming toward food systems reshaping and the way humans interact with those systems will not be realised unless there is a concerted effort to work towards gender equality (Farnworth and Hutchings, 2009).

The approach towards gender-environment-development nexus suggests that involvement of women in organic agriculture is meaningful for the understanding of women's connection with sustainable agriculture; as they are known to be very close to nature. Several works and interactions between scholars, practitioners and policy makers resulted in the understanding of the approach to connect women with environment (Bock and Shortall, 2006). According to Zweifel (2001), women are viewed as victims of environmental degradation, partly responsible for the destruction of the environment, protectors of the environment, being in harmony with nature and managers of natural resources.

According to Altenbuchner *et al* (2017), gender gap is entrenched in organic agriculture practices, as women have higher workload and uneven distribution of knowledge. Women's exclusion from participation and lack of empowerment might lead to this gender gaps widening in organic agriculture. In developing climes, equitable involvement of practitioners of both sexes will lead to opportunities

forepowerment.

The study was designed to focus on the gender dimension to involvement in organic agriculture in Southwest Nigeria. Specific objectives were to;

1. identify areas of information needs for organic agriculture practitioners;
2. determine extent of respondents' involvement in organic agriculture practices; and
3. evaluate the practitioners' knowledge about organic agriculture.

The study proposed an hypothesis, stated in null form, that;

$H_01$ : There is no significant difference in involvement in organic agriculture among the male and female respondents.

## Materials and Methods

The study was carried out in Southwest Nigeria, being the region that is foremost in organic agriculture promotion activities in the country. The respondents comprised all the organic agriculture practitioners (farmers, producers and marketers) of both sexes who are involved in value chain activities. Multistage sampling procedure was used to select 160 respondents for the study from the randomly selected States (Osun, Oyo and Ekiti).

The extent of involvement in the various organic agricultural practices by the respondents was captured as the dependent variable of the study, apart from other independent variables that were assessed in the study.

## Results and Discussions

### Information needs

Results, as shown in Table 1, reveal that the information items that most of the respondents needed in their enterprises were organic agriculture techniques (weighted score=187.5), skill acquisition (187.0), health information (175.6), food/nutrition (173.1) and education (171.8); whereas the information items in which they do not indicate much need are religion (132.5), non-agricultural marketing (118.1), and politics (87.5).

The summary of information needs along gender line, as given in Table 2, shows that fewer (48.1%) of male and more (51.9%) of female were in the high level of information need. This suggests that the female respondents expressed

**Table 1:** Distribution of respondents by their information needs (n=160)

Information items	To a great extent (%)	To a lesser extent (%)	Not at all (%)	Weighted score
Organic agriculture techniques	90.6	6.3	3.1	187.5
Skill acquisition	88.8	9.4	1.9	187.0
Health information	80.6	14.4	5.0	175.6
Food/Nutrition	77.5	18.1	4.4	173.1
Education	78.1	15.6	6.3	171.8
Community development	76.3	15.6	8.1	168.2
Organic product price	66.3	29.4	4.4	162.0
Other agricultural marketing	60.0	36.3	3.8	156.3
Weather information	60.6	33.1	6.3	154.3
Home management information	49.4	46.9	3.8	145.7
Religion	45.6	41.3	13.1	132.5
Non-agricultural marketing	30.6	56.9	12.5	118.1
Politics	23.1	41.3	13.1	87.5

**Table 2:** Distribution of respondents by their levels of information needs

Levels of information needs	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Low	56	51.9	25	48.1
High	52	48.1	27	51.9
Total	108	100.0	52	100.0

their training needs more than their male counterpart. It may also suggest less of human capacity endowment to the female than male in the study area. This infers the reality of disparity in access to information items along the gender line (Altenbuchner *et al*, 2017).

**Involvement in organic agriculture practices**

Result of involvement in organic agriculture practices, as depicted in Table 3, shows that the respondents mostly utilized the use of mulch (186.3), avoiding bush burning (185.1), crop rotation (174.5), and mixed cropping (171.9); whereas the least used practices were alley cropping (83.9), use of off-farm waste (68.7), and

biological pest control (60.6).

In summary, 55.6% of male and 59.6% of female respondents were involved in organic agriculture practices in the study area. This means that the gender factor does not affect involvements in organic agriculture among the respondents in the study area. This suggests that dissemination and adoption of the sustainable agricultural practice cut across the gender lines without bias. According to IFOAM (2007), conventional farming is men's world, although they are equally involved in organic agriculture. This may explain women being at level with men in the organic agriculture sector.

**Table 3:** Distribution of respondents by their involvement in organic agriculture practices (n=160)

Organic farming practices	Always (%)	Rarely (%)	Never (%)	Weighed score
Use of mulching to conserve soil moisture	89.4	7.5	3.1	186.3
Avoiding bush burning	89.4	6.3	4.4	185.1
Crop rotation to control pests and diseases on the farm.	81.3	11.9	6.9	174.5
Mixed cropping/intercropping to control pests and diseases	80.0	11.9	8.1	171.9
Green manure	76.9	13.8	9.4	167.6
Use of plant residues on the farm as organic fertiliser	70.0	24.4	5.6	164.4
Planting of legumes/cover crops to increase the fertility of the soil and to reduce soil erosion	71.3	18.8	10.0	161.4
Shifting cultivation to replace lost soil nutrients	69.4	15.6	15.0	154.4
Use of plant extracts to control pests and diseases	65.0	21.9	13.1	151.9
Compost application	61.9	26.3	11.9	150.1
Use of ash to reduce pest infestation on the farm	59.4	21.9	18.8	140.7
Use of only animals/species of organic origin	65.6	9.4	25.0	140.6
Use of natural production techniques throughout	65.6	8.1	26.3	139.3
Planting of legumes/cover crops to suppress weed growth	48.1	41.9	10.0	138.1
Ensuring that all animal feeds are truly organic	63.8	10.0	26.3	137.6
Use of locally adapted breeds	63.8	9.4	26.9	137.0
Avoiding unnecessary mutilation of animals	63.1	10.0	26.9	136.2
Mixed farming (i.e. planting of crops and rearing of animals)	55.6	22.5	21.9	133.7
Minimum or zero tillage	40.6	46.3	13.1	127.5
Avoiding the use of vaccines except when necessary	58.1	10.6	31.3	126.8
Use of natural medication for animals	58.1	9.4	32.5	125.6
Avoiding the use of growth promoters	56.9	10.0	33.1	123.8
Avoiding the use of hormone for tissue improvement	53.1	11.9	35.0	118.1
Bush fallowing to allow the soil regain its lost soil nutrients	42.5	30.6	26.9	115.6
Use of animal manure	31.9	41.3	26.9	105.1
Use of potash to reduce soil acidity	28.8	45.6	25.6	103.2
Alley cropping; planting trees at the sides of the farm	18.8	46.3	35.0	83.9
Use of off-farm waste (e.g. kitchen wastes)	25.6	17.5	56.9	68.7
Biological pest control (e.g. use of predators)	13.1	34.4	52.5	60.6

**Table 4:** Distribution of respondents by their levels of involvement in organic agriculture

Level of involvement in organic agriculture	Male		Female	
	Frequency	Percent	Frequency	Percent
Low	48	44.4	21	40.4
High	60	55.6	31	59.6
Total	108	100.0	52	100.0

**Knowledge of organic agriculture**

Result of knowledge of organic agriculture, in Table 5, shows that more of the respondents have low level of knowledge of organic agriculture. Divergence of the result along gender line, in Table 6, entrenched the general picture, which shows

that 44.4% of male and 40.4% of female had high level of knowledge of organic agriculture in the study area. The finding is a reflection of the low level of involvement and interest in the emerging organic agricultural practices in Nigeria.

**Table 5:** Distribution of respondents by knowledge of organic agriculture

Knowledge level	Frequency	Percent
Low	91	56.9
High	69	43.1
Total	160	100

**Table 6:** Distribution of respondents by their level of knowledge of organic agriculture

Knowledge level	Male		Female	
	Frequency	Percent	Frequency	Percent
Low	60	55.6	31	59.6
High	48	44.4	21	40.4
Total	108	100.0	52	100

**Table 7:** Test of difference in involvement in organic agriculture between male and female respondents

Variable	t-value	df	p-value
Involvement in organic agriculture practices	-0.88026	158	0.380

Result of the t-test analysis as given in Table 7, shows that there was no significant difference in involvement in organic agricultural practices among the male and female respondents in the study area. Despite the opinion that women are expected to be more involved in organic agriculture (Altenbuchner, 2017), the fact that men are measuring up with them in the practice can be attributed to the effect of organic agriculture promotion activities in the study area. The development can be seen in a positive view as it would lead to early entrenchment of the practice, even among the female practitioners, who may be carrying out the practices on the fringe.

### Conclusion

The female practitioners are more in need of technical information on organic agriculture as a result of gender disparity in access to production resources, including information. Female's involvement parity with male meant that they (female) are substantially involved in organic agricultural practices, as opposed to their involvement in the conventional agricultural practices. Low level of knowledge of organic agriculture across all the respondents' strata meant that the promotion of organic agriculture is at its niche stage in the study area.

### Recommendations

1. Organic promotion activities should be made to target more women in order to entrench their interests in the practices
2. In terms of technical knowledge on organic agriculture, there is need for female organic agriculture practitioners to improve in order to bridge their information gap
3. There is the need to consciously train all the organic agriculture practitioners, male and female alike, in order to improve their level of knowledge.

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