ECOLOGICAL ORGANIC AGRICULTURE IN AFRICA

REPORT ON RESEARCHES DONE FROM 2002 TO 2012 ON ECOLOGICAL ORGANIC AGRICULTURE IN TANZANIA

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INTRODUCTION

Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (IFOAM, 2009). It is an ecological production system that is based on minimal use of off-farm inputs and on management practices that restore, maintain, or enhance ecological harmony. The primary goal of ecological organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people (NOSB, 1997).

The increase of challenges to agricultural productivity including dependency on inorganic resources, rain fed agriculture and effects of climate change have necessitated application of alternative sustainable farming systems in Africa. Ecological Organic Agriculture (EOA) is capable of sustaining the health of soils, ecosystems and the people. The system draws on agro-ecology that is the science of applying ecological concepts and principles to design and manage ecological processes, biodiversity and cycles adapted to local conditions. It draws on agricultural knowledge, science and technology to benefit from the shared environment, promote fair relationships and ensure good quality life.

Under implementation of EOA Initiative Project phase I in Tanzania, a baseline study on tertiary and research institutions to identify EOA research projects implemented from 2002 to 2012 was done. The purpose of this work was to identify EOA researches done by gender under different agricultural discipline.

METHOD USED

This information was gathered from the Ministry of Agriculture Food Security and Cooperatives (MAFC) through the Directorate of Research and Development (DRD), Agricultural Research Institutes (ARIs), Universities, as well as online searching. Fields covered were soil fertility management technologies, biological control of pests and diseases, soil conservation technologies, rain water harvesting and conservation in the soil, agro forestry, socio economic issues and marketing of organic products.

RESULTS

A total of 100 abstracts were collected (Table 1), where by 81% of corresponding authors were male while 19% were female. Among abstract collected, about 43% was soil fertility management and conservation technologies, 18% biological control of pests and diseases, 10% rain water harvesting and conservation in the soil, 10% agro forestry, 13% socio economic issues, 2% marketing and value chain of organic products and 2% livestock production (Figure 1 and Table 1).

Table 1: Number of abstracts collected in their respective fields

FIELD COVERED	NUMBER OF ABSTRACTS COLLECTED	PERCENTAGE OF ABSTRACT COLLECTED
Soil fertility conservation and management technologies	43	43
Biological control of pests and diseases	18	18
Rain water harvesting and conservation in the soil	10	10
Agro forestry	13	13
Socio economic issues	12	12
Marketing and value chain of organic products	2	2
Livestock production	2	2
Total	100	100

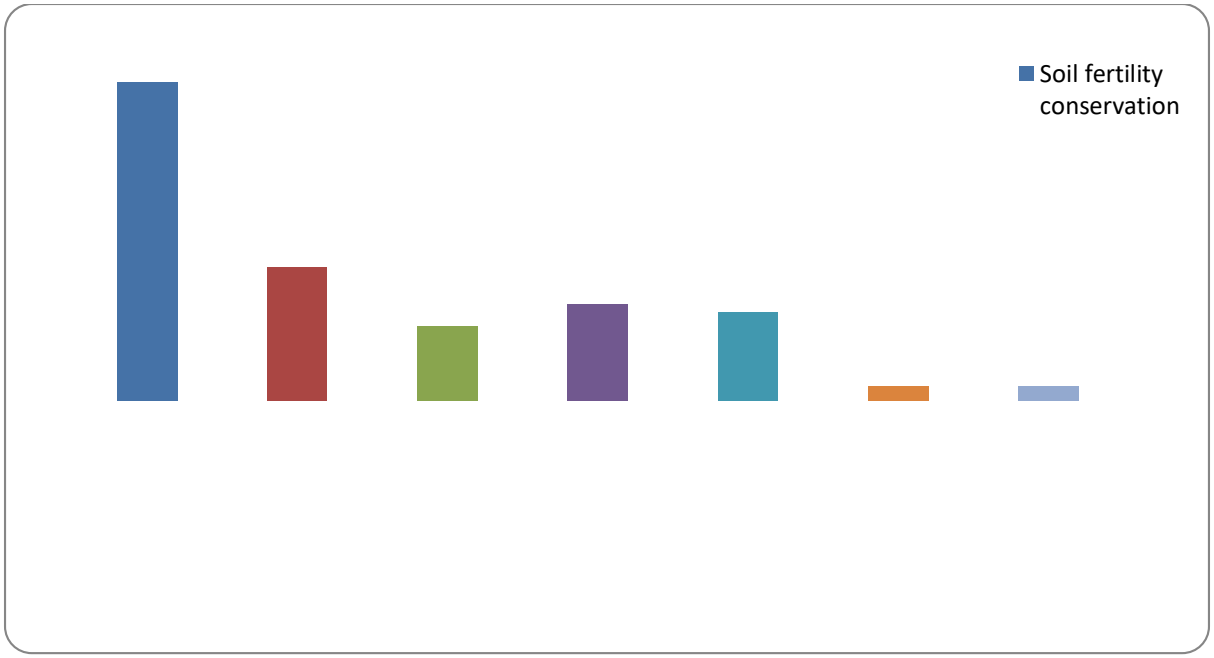

Figure 1: Percentage of abstracts collected with respect to relevant fields

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

From the baseline survey conducted to collect abstracts on EOA in Tanzania, the following issues were observed:

- Some of research works were in form of progress reports, these reports do not have abstracts hence, it was difficult to extract abstracts especially in the Ministry of Agriculture Food Security and Cooperatives.
- Lack of complete research reports, some of research works were observed to have incomplete reports basing on the time frame.
- Some of research works are not yet published; this limits the accessibility to wider range of stakeholders.
- Most of the research works done do not have EOA components, many of them are conventional based researches, hence they do not conform to the principles of organic agriculture.

- This work was very important in the Information and Documentation Unit (IDU) under the Directorate of Research and Development (DRD), researchers, Universities and other stakeholders for reference.

Recommendations

- Basing on research time frame, a complete research reports should be prepared and made available to research institutes and the Directorate of Research and Development (DRD) office.
- Researchers should increase the spirit of publishing their works so as to increase the accessibility of their findings to beneficiaries within and outside the country.
- The Ministry of Agriculture Food Security and Cooperatives should promote the EOA for climate change adaptation in agriculture and sustainable production of healthy food.