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Abstract
The study sought to analyse the efficiency of Farm Concern International’s Communication strategies in promoting the commercialisation of African Indigenous Vegetables in Lari Sub-County, Kenya. Qualitative and quantitative research designs were adopted for the study and purposive sampling, followed by random sampling used to select 100 farmers from the five villages in Lari Sub County. The data was gathered from the primary source through the use of structured questionnaire for both quantitative and qualitative. The data was then processed and presented by the use of graphs, tables and pie charts and analysed by use of descriptive analysis. The study used two theories, Rational Argumentation Theory propounded by Cragan and Shields (1998) and Trans theoretical Model (TM) by Prochaska, Johnson and Lee (1998). The study established that the rate of commercialisation is currently high, with the majority of farmers earning between sh. 5,000 to sh. 15,000 per month. Majority of farmers sold AIVs to Uchumi Supermarket. The findings also indicated that FCI majorly used two forms of Ora-Media, barazas and demonstrations, to promote production, consumption and commercialisation of AIVs. However, a bit of Use of projector was also used, but no form of mainstream media or internet and drama was used. The study recommends that NGOs should liaise with financial institutions to train farmers on financial literacy and facilitate them to make savings to enhance production. Also, there is a need for more campaign by NGOs and other gatekeepers like the media, government leaders and local leaders to enhance increased production of AIVs.

INTRODUCTION
African indigenous vegetables refer to vegetables grow naturally in a particular locality (Maundu, 1997). More than 45,000 plant species can be found in sub-Saharan Africa, and this includes approximately 1000 species that are consumed as green leafy vegetables. And, according to MacCalla (1994), these usually form an integral part of traditional African diets. Traditional and indigenous, as used in this context, refer to leafy vegetables which have for long been part and parcel of the sub-Saharan African food systems for ages. Indigenous leafy vegetables grow naturally in Sub-Saharan Africa whereas traditional leafy vegetables were brought to Africa more than a century ago and, since they have been in use for long, they have been adopted into the food culture in the continent (Smith, & Eyzaguirre, 2007).

However, AIVs have been one of the diets usually neglected by most people in the society as they are considered as poor man’s crop. AIVs are therefore left to be grown and consumed by smallholder farmers in rural areas while majority go for exotic varieties such as kales, spinach and cabbages to supplement their diets with vitamins thus missing the nutritional value that goes with these indigenous vegetables.

LITERATURE REVIEW
Commercialisation of AIVs
Horticultural production (particularly of vegetables) is a major income-earner for smallholder farmers in Kenya. These farmers contribute more than 70 per cent of the output in this sector (McCulloch, & Ota, 2002). This is caused by the relatively higher returns in horticulture comparative to other cash crops. Additionally, this type of farming can be conveniently carried out on small and marginal farms in different climatic conditions (Minot, & Ngigi, 2004). Cabbages, onions, kales (sukuma wiki), tomatoes and indigenous vegetables (commonly known as African Leafy Vegetables (ALVs) such as amaranth) are the most commonly grown vegetable crops smallholder farmers for both commercial and subsistence and purposes (Omiti, Omolo, & Manyengo, 2004).

In the last 15 years, ALVs have become increasingly essential commercial products in Kenya, finding acceptance in both the informal and formal and markets of Nairobi and its environs. Prior to 2000, ALVs could only be found in the back-streets as well as a few open-air markets. But they have become quite common even in supermarkets since then. The city and its environs also feature grocery shops and retail kiosks that also stock the various types of the ALVs (Irungu et al., 2007; Otieno, Omiti, Nyanamba, & McCullough, 2009; Maundu et al., 1999).

Kiambu district is one of the key peri-urban production zones in Kenya. In 2003, the ALVs sales in Kiambu district increased from less than 31 tonnes a month to well over 600 tonnes a month in 2006. AVRDC (2010) approximates that about 9000 tonnes of ALVs have changed hands in trade in the informal and formal markets in the intervening period from 2008 to 2010 in central Kenya. Commercially, ALVs have gained popularity because of the exponential growth witnessed in their marketing over the last 15 years (Irungu et al., 2007). The growth can be accounted for by the increase in consumer demand for ALVs. The increased demand has resulted in ALVs entering the supermarket chains and other lucrative markets which result in better incomes (FAO 2012).

The International Plant Genetic Resource Institute (IPGRI - now Biodiversity) has been playing a critical role of promoting African Leafy Vegetables (ALVs) in Sub-Saharan Africa (SSA) since 1995 (IPGRI,2004). Nevertheless, more attention has been focused on seeds and neglecting sources of green leafy vegetable (Yadav, & Sehgal, 2004). This neglect has resulted in a greater percentage of the
African population negatively disposed towards ALVs, leading to low levels of consumption, and a subsequent poor nutrition status (Obel-Lawson, 2006).

AIVs, in spite of their higher nutritional and economic value, have an image problem and have faced a myriad of challenges. Some of them include low awareness of their nutrition potential, perception as poor man’s crop among farmers, lack of quality seed, technical production, utilisation packages and poor marketing system among others (Abukutsa-Onyango, 2002). Abukutsa-Onyango (2003) adds that AIVs have been neglected for long by researchers, policymakers and funding agencies. As a result of this neglect, many of these vegetables are facing extinction, yet the communities in the region continue to languish in malnutrition and poverty. The study will, therefore, investigate the FCI’s ability to promote AIVs among smallholders’ through the NGO’s subsidiary role of communication.

Shaheen (2012) points out that most of the NGOs use both verbal and nonverbal methods to convey their messages through community mobilisers, but they find verbal communication more reliable and effective as it is simple and easy to communicate with common people in the mobilisation process. It is on this basis this study is formulated and will look into the impact the DoHoMa project had in Lari Sub County, as one of the areas it was implemented in Kenya by Farm Concern International. The indicators of efficient communication strategies used would be an increased production of AIVs, increased financial income and increased rate of consumption at the household level among the smallholder farmers.

FINDINGS AND DATA ANALYSIS

Communication Strategies and language(s) used by FCI
This section analyses the communication method(s) used by FCI to promote AIVs, the preferred communication method of the respondent, the language used and the preferred language choice of the interviewee.

Communication method
FCI mostly used barazas at 61%, demonstrations 30% and Use of projector 9%. None of the training conducted by the organisation used drama or media programmes, as shown in figure 1 below. Baraza is a form of Ora-media and has some advantages over the use of radio as observed by Wangari (2012). Its high participatory nature between the
communicator and the audience elicits a quick response and necessary action as seen in the production, consumption and commercialisation of AIVs.

**Communication method preferred by respondents**

Much of practical work than theory. Notably, it is also important to realise that the majority, 63%, had only basic education while 5% had no formal education, and this could have contributed to their choice of method of communication. Only 36% preferred the use of *barazas* while none preferred the Use of projector method, as shown in figure 2. However, majority 64% of the respondents preferred demonstration which they cited was simpler because it entailed
Language used to promote AIVs
FCI majorly used Kikuyu and Swahili languages, 76% and 24% respectively, to train on AIVs in the barazas and demonstrations held in Lari Sub County. There was no baraza or demonstration that was conducted in English or other languages, as shown in figure 3 below.

Figure 3: Language used to promote AIVs

Language preferred by respondents
In spite of the use of Kikuyu and Swahili language in promoting AIVs, some people, 18%, preferred the English language while 5% and 77% still preferred Swahili and Kikuyu languages respectively as shown in figure 4 below.

Figure 4: Language preferred by respondents
Kikuyu thus remains the preferred language of communication in the region because it is the first language of the majority. Those who preferred Swahili and English were relatively educated at secondary or tertiary level.

Rate of AIVs Commercialisation
All the respondents admitted to having been informed of the economic value of AIVs by FCI through various methods of communication.

Most of the training on the economic value of AIVs were conducted through barazas, while the use of drama was rarely used. The use of barazas was 81%, Use of projector 13% and drama was 6% while media was not used at all as shown in figure 5 above. Perraton (1978) states that use of baraza, as a method of group learning, is more effective than individual learning, use of radio or any other form of communication.

Monthly income
Before FCI implemented the DoHoMa Project in the region, none of the respondents neither grew nor generated income from AIVs. After the training on production and economic value of the crop, the respondents currently earn between Kshs 1,000 to 15,000 per month. On the other hand, those who produce exotic vegetables earn between Kshs 500 to 5000 per month. This shows that farmers who produce AIVs earn more income than those who produce exotic vegetables. Irungu et al. (2007) note that ALVs have gained commercial importance over the past 15 years due to enormous marketing. FAO (2012) indicates the increase in marketing attributed to increased consumer demand for ALVs, which results in the sale of the value chain in supermarkets and better incomes.

Market options provided by FCI
All the respondents interviewed admitted to having been informed on the available markets for AIVs. They include Wangige market, Uchumi Supermarket, Limuru, Kangemi, Soko Mjinga, Muthurwa, Gikomba, Githurai, Korogocho and Mai Mahiu.
Out of the 10 markets provided by FCI, only three were used by respondents to sell AIVs. 75% sold at Uchumi Supermarket, 15% sold at Soko Mjinga while 10% sold at Mai Mahiu market as shown in figure 6 above. Uchumi Supermarket, which is a formal market, takes the largest share of AIVs produced by farmers in the region. Otieno et al. (2009) note how ALVs were found in back-street and open-air markets before the year 2000. Since then, the scholar indicates how the value chain has become a common occurrence in most supermarkets which sell in large quantities.

Irungu et al. (2007) identify how the city and its environs also feature grocery shops and retail kiosks that also stock the various types of ALVs.

Reasons why farmers produce AIVs
All the respondents who were interviewed mostly preferred producing AIVs than exotic vegetables. A majority, 51%, cited high income accrued to AIVs, 20% admitted that only a small piece of land is required for production, 19% admitted that AIVs are easy to produce while 10% cited resistance to pests and diseases as shown in table 1.

Ekesa, Walingo and Abukutsa-Onyango (2009) concur with the findings as ALVs have short production cycles, requires few purchased inputs, thrives in poor soil, ability to resist to pests and diseases, and are acceptable to local tastes. NRC (2006) adds that ALVs grow well in small plots with the limited resources possessed by village families, yet they produce high yields and have strong nutritional value.
Table 1: Why AIVs are preferred most

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Per cent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High income</td>
<td>51</td>
<td>51.0</td>
</tr>
<tr>
<td>Are easy to produce</td>
<td>19</td>
<td>19.0</td>
</tr>
<tr>
<td>Requires a small piece of land</td>
<td>20</td>
<td>20.0</td>
</tr>
<tr>
<td>Are pest and disease resistant</td>
<td>10</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
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Challenges faced in the production and marketing of AIVs

A majority, 57%, of farmers lack piped water for irrigation while 19% pointed out poor roads during rainy seasons and lack of means of transport as shown in figure 7 below. Also, 15% cited pests and diseases as another challenge, 9% stated lack of capital while none faced challenges in marketing or lack of technical know-how in production. It thus shows that farmers in Lari Sub County can produce more if they can be provided with adequate facilities like water, means of transport, capital, effective ways and chemicals to control pests and diseases.

However, Mwaura (2013) only indicates a lack of technical support. Out of the 55 MHH, 67.3 per cent had no access to technical support for AIVs farming, while 32.7 per cent had. Of the 28 FHH, 64.3 per cent had no access to technical support, while the remaining 34.7 per cent had access to technical support. This indicates the extent of AIVs neglect by the Ministry of Agriculture and other responsible stakeholders in ensuring proper and optimum production.

Figure 7: Challenges faced in producing and marketing AIVs
Project benefits
The respondents interviewed cited various benefits gained from DoHoMa Project which ranged from a reliable source of income, improved health, savings, stable and reliable market, improved land cultivation, bank services, capacity building, improved diet and improved community welfare through the ability to contribute to various joint activities. Some of these findings concur with DFID and R4D (2010) that ALVs can support urban, rural, and peri-urban populations in terms of subsistence and income generation, without requiring huge capital investments.

CONCLUSION
Production of AIVs has numerous advantages as compared to exotic vegetables ranging from the use of small pieces of land, easy and cheap production, and resistance to drought, market availability to high income. However, the mentality that AIVs are food for the poor is still etched in people's mind resulting in huge production of exotic vegetables. Also, the proceeds earned from the sale of AIVs is still minimal in spite of the huge market potential for AIVs in Lari Sub County. The markets include both formal and informal, but the majority prefer selling to Uchumi Supermarket due to regular supply and income, which enable them budget. The following recommendations were drawn from the research findings. First, Agriculture based NGOs need to incorporate other means of communications like mainstream media, posters, internet and billboards to implement projects. Second, community-Based Organisations need to liaise with financial institutions to train farmers on financial literacy so as to increase savings and facilitate them to increase the production of AIVs.

References


