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INITIAL BEHAVIOR CHANGE COMMUNICATION (BCC) INTERVENTIONS' EFFECTIVENESS EVALUATION REPORT

NAFAKA PROJECT

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ABBREVIATIONS AND ACRONYMS

ACDI	Agricultural Cooperative Development International
BCC	Behavior Change Communication
FGD	Focus Group Discussion
FtF	Feed the Future
GAP	Good Agricultural Practices
M&E	Monitoring & Evaluation
PSA	Public Service Announcement
RFA	Radio Free Africa
SPSS	Statistical Package for Social Sciences
TBC	Tanzania Broadcasting Corporation
USG	U.S. Government
VBAAs	Village-Based Agricultural Advisors
VEO	Village Executive Officer
VOCA	Volunteers in Overseas Cooperative Assistance
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

Danya International Inc. (Danya) implemented an initial evaluation of the effectiveness of Behavior Change Communication (BCC) interventions within the NAFAKA project in September 2013. The evaluation was to assess the effectiveness of BCC campaigns already implemented by the project and identify the BCC contribution to two NAFAKA project indicators: "Number of farmers and others who have applied new technologies or management practices as a result of USG assistance" and "Numbers of beneficiaries reached with BCC messages." This evaluation builds on the qualitative Assessment of the Effectiveness of the NAFAKA BCC campaigns, the first of which was conducted in May 2013 to be followed by a second similar assessment scheduled for March, 2014. This report outlines details of the current evaluation implementation, including design, findings, conclusions, and recommendations.

A predominantly quantitative data collection questionnaire was administered to 333 individuals in 15 randomly sampled villages across six project clusters. Data was entered in Excel data files and analyzed using the Statistical Package for Social Sciences (SPSS), version 22. The following are some of the key findings:

- Averages of 42 percent, or about 160,745, were reached by NAFAKA project BCC campaign messages.
- Most of the respondents (74.2%) had seen BCC campaign T-shirts from the Village-Based Agricultural Advisors (VBAAs).
- Most of the respondents (39.3%) had seen BCC campaign posters either at their Association, Village office, or community centre/office.
- Most of the respondents (56.5%) attributed not believing BCC messages to not being exposed to/not see the BCC materials, with lack of knowledge of training in Good Agricultural Practices (GAP) as a major factor for lack of belief.
- Many respondents attributed their following the advice of BCC campaign messages to the planting of certified seeds (9.3%) and to the realization of high crop yields (4.8%).
- An average of 76 percent of radio ownership was reported across the study area with Abood FM (30.3%), Tanzania Broadcasting Corporation (TBC) radio (14.1%), and Radio Ulanga (12%) the three top radio stations preferred by respondents across the study area.
- An average of 17.3 percent of, or 66,211 farmers adopted[1] one of the four GAP promoted by the project as follows:
  - ✓ Use of certified seeds by 30.3 percent or 115,966 farmers
  - ✓ Appropriate use of fertilizers by 16.8 percent, or 64,298 farmers,
  - ✓ Use of storage facilities by 15.3percent, or 58,557 farmers, and
  - ✓ Joint selling of crop produce by 6.9 percent, or 26,408 farmers.

The evaluation finds that NAFAKA's interventions are most effective when coupled with evidence-based BCC and that BCC interventions contribute significantly to project indicators. Further, the findings suggests strong correlation between BCC interventions and application of new technologies however, these results are not directly attributed to BCC, but are part of the overall package of interventions from NAFAKA to reach more beneficiaries and to increase adoption.

From the findings, it is recommended that intensive sensitization and training of farmers in GAP will promote a faster uptake of farming technologies when complemented with BCC campaigns.

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[1] **Adopted** is used in this evaluation to mean "farmers applying new technology", **"new"** is used as per FtF language which refers to farmers who have applied the improved technology/management practice this reporting year as their first year.

1. BACKGROUND AND INTRODUCTION

1.1 NAFAKA PROJECT BCC INTERVENTIONS

The United States Agency for International Development in Tanzania (USAID/Tanzania) issued a 5-year subcontract to Agricultural Cooperative Development International (ACDI) Volunteers in Overseas Cooperative Assistance (VOCA), titled "Staples Value Chain Activity – NAFAKA," under the U.S. Government's (USG) Feed the Future (FtF) Initiative. The goal of the FtF Initiative is to "sustainably reduce global poverty and hunger." USAID/Tanzania's overall program under FtF is intended to:

- Increase agriculture productivity;
- Maintain the natural resource base and promote adaptation to climate change;
- Stimulate the private sector;
- Increase trade;
- Support policy reforms and good governance;
- Ensure underserved groups benefit from growth; and
- Expand knowledge and training by supporting research and development.

Although ACDI VOCA is the Prime to this contract, Danya is one of the subcontractors and is contributing to the NAFAKA project work effort by providing support to Behavior Change Communication (BCC) interventions.

The NAFAKA project's BCC interventions follow the cropping cycle of its two value chains, rice and maize, to inform and encourage faster adoption of Good Agricultural Practices (GAP). Two BCC intervention campaigns were implemented in the second year of the project. The project used radio advertisements and print materials (posters and T-shirts) to disseminate GAP messages during the first round of campaigns in January/February 2013, which focused on encouraging farmers to "use certified seeds" and "the appropriate use of recommended fertilizers."

During the first campaign, the project procured advertisements in two radio stations, Mwangaza in Dodoma and Pambazuko in Ifakara, to transmit the two categories of public service announcements (PSAs) in four slots of 60 seconds per day for 6 weeks.

The second BCC intervention campaign, conducted in July/August 2013, focused on "use of storage facilities/warehouses" and "joint sale of farm produce" by farmers. The project used radio advertisements and print materials (only posters) to disseminate GAP. Two extra radio stations, Abood FM in Morogoro and Radio Ulanga in Mahenge, were procured in addition to Radio Mwangaza and Pambazuko FM during the second BCC campaigns. Additionally, because of the audiences' demand for more follow-up GAP information, NAFAKA was granted free airtime for seven slots of 1-hour live interactive radio talk-shows.

1.2 EVALUATION OF EFFECTIVENESS OF BCC INTERVENTIONS/ ASSESSMENT OF BCC CAMPAIGN EFFECTIVENESS

The evaluation of the effectiveness of the BCC interventions is an important component of NAFAKA's BCC monitoring and evaluation (M&E) plan used to track changes resulting from the implementation of BCC campaign activities and part of the project's M&E strategy. The purpose of the evaluation is to document the beneficiaries' awareness of the campaign messages, change in attitude, and change in behaviors in their farming practice. Previous

BCC effectiveness assessments have also measured these outcomes but have not linked these results specifically to the NAFAKA project indicators.

This evaluation will document the BCC contribution, among other interventions, to the following NAFAKA project indicators:

- Number of farmers and others who have applied new technologies or management practices as a result of USG assistance (FTF-4.5.2-5)
- Number of beneficiaries reached

The findings of the evaluation will be used for the continuous improvement of the project's BCC and other related interventions.

2. PROJECT AREA AND STUDY METHODOLOGY

2.1 PROJECT AREA

Although NAFAKA project targets villages in Morogoro, Dodoma, and Manyara regions together with Zanzibar, BCC activities are targeted only to farmers in the three regions within the Tanzania mainland. The project implements BCC activities in four districts within the three regions. The districts are further subdivided into six clusters with different numbers of villages. Details are presented in Table 1. The targeting of villages with project activities in the three regions is based on consistent scaling up, with about 100 villages receiving project activities by the time of this evaluation activity. This evaluation, therefore, covers both the villages already receiving BCC activities and those not yet reached by BCC activities.

Table 1: NAFAKA Project Area Targeted by BCC Activities

Region	District	Cluster	Village
Morogoro	Kilombero	Mlimba	11
		Ifakara North	21
		Mangula	20
	Mvomero	Mvomero	14
Dodoma	Kongwa	Kongwa	33
Manyara	Kiteto	Kiteto	17

According to the 2012 national census released in 2013, the populations of the four districts covered by NAFAKA project's BCC interventions have a total population of about 846,745. The most densely populated Kilombero District in Morogoro Region had 281,074 people; Kongwa District in Dodoma Region reported 221,009; and Kiteto District in Manyara Region had 165,763, with Mvomero District also in Morogoro Region recording the lowest population of 146,303.

Productive adult population in the target area (ages 18–65 years) is about 45.2 percent[2] of the total population.

2.2 METHODOLOGY

2.2.1 RECRUITMENT AND THE EVALUATION DESIGN

The participating villages were randomly selected from the six clusters of villages in the project region as outlined in section 2.1. As further outlined in the project's BCC effectiveness evaluation plan, to appropriately evaluate the effectiveness of the BCC campaign, data was collected from three groups of farmers:

(1) A group of villages that has been exposed to the BCC campaign;
(2) A group of villages that has been exposed to the campaign *and* received intensive training; and
(3) A group of villages that has not been exposed to the BCC campaign.

[2] This percentage of the total population (846,745) has been used for the calculation of adoption rates etc.

A randomized control evaluation design was used. This involved assigning randomly selected villages to one of the three treatment conditions as follows:

E_1: O_1 X_1 O_2

E_2: O_1 X_2 O_2

C: O_1 O_2

E_1 = Experimental Group 1 that has been exposed to the campaign;

E_2 = Experimental Group 2 that has been exposed to the campaign *and* received intensive training;

C = A Control Group that has not been exposed to the BCC campaign;

O_1 = Observation 1/Baseline; O_2 = Observation 2/Follow-up; X_1 = Intervention 1/BCC Campaign;

X_2 = Intervention 2/BCC campaign + intensive training.

2.2.2 SAMPLE SIZE

Based on the preliminary data from the first pilot BCC campaign effectiveness assessment of the NAFAKA project (July 2013), of the farmers across the six clusters, 59 percent had seen posters on seeds and fertilizers promoted by the project; an average of 38 percent of the respondents had seen the T-shirts across the six clusters; and 39 percent had heard NAFAKA-related radio messages. Of all the respondents who had seen print materials, 74 percent reported believing the messages, with 70 percent of them being able to follow the advice of the messages.

To be on the safe side for the purpose of sample size estimation, an effect size of 0.20 was used, assuming that at least 20 percent of the farmers in the area covered by the BCC campaign will adopt the new farming practices. Although the adoption of the new farming practices may be higher than 20 percent, the use of a 0.20 effect size will ensure that we have a large enough sample size for the evaluation. A detailed sample size estimation process is presented in Table 2.

Table 2: Effective Size and Sample Size Estimation

Effect Size	0.20
Power	0.80
Confidence Level	95%
Sample Size	E_1 Group = 102, E_2 Group = 102, C Group = 102 (Total number of farmers: 306)

Therefore, a minimum of 102 farmers was to be sampled from each of the three groups of five participating villages, which will add up to a minimum of 306 farmers from 15 participating villages. However, to have at least 306 farmers in the final analysis, there was a need to actually recruit 310 to 350 farmers in case some of the farmers are not available for the follow-up survey.

2.2.3 SELECTING THE SAMPLE

A two-stage sampling approach was used. The first stage involved sampling of villages followed by sampling of respondents. Ten project villages were randomly selected from 95 villages within the six project clusters. Then 22 respondents per village, on average, were randomly sampled from among the list of village inventory kept by the project. In both stages, the sampling was done using a computer-assisted random number generator, Stat Trek.

Due to logistics, five villages where the project is not currently implemented but where the project plans to initiate activities within one of the districts were purposively sampled. However, at the village level, 22 respondents were randomly sampled from lists of village residents received from the Village Executive Officer's (VEO) office. A detailed list of sampled villages is presented in Table 3.

Table 3: Sampled Villages

Sampling Type	Cluster	Village
Project	Kiteto	Magungu Kibaya
	Kongwa	Makawa
	Mvomeo	Kigugu Milama
	Mlimba	Mpanga Towela
	Ifakara North	Namawala Vigaeni
	Mangula	Mgudeni
Control	Mvomero	Kisala Kunke Makuyu Kidudwe Kilimanjaro

2.2.4 DATA COLLECTION TOOL

A questionnaire targeting individual farmers was designed, borrowing heavily from evaluation questions in the project's BCC intervention evaluation plan and the first BCC campaign effectiveness assessment focus group discussions (FGD) guide. The major evaluation questions intend to measure the coverage, exposure, and awareness of the BCC campaigns by the farmers. The questions also aim to evaluate the attitudes, beliefs and farming practices as a result of implementation of BCC campaigns. A translated version of the questionnaire is provided in Appendix 1.

The questionnaire, which took an average of 40 minutes to administer, contained questions on basic demographics, including age, sex, education, marital status, and occupation. It also contained questions on **awareness** of the two BCC campaigns already mounted by the project covering "the use of certified seeds and fertilizers" in the first round and "the use of storage facilities and joint sales of farm produce" in the second round. These were followed by questions regarding print materials on **ever seeing** campaign materials, **remembering** main campaign messages, **believing** in the campaign messages, and **following advice** from the campaign messages. Radio campaign-related questions covering radio ownership, access, and hearing of NAFAKA project messages were also included. The questionnaire concluded with questions on practices adopted as a result of the BCC campaigns.

Although most of the 23 questions were closed, a few open-ended questions were also included to help capture specific information on certain variables.

2.2.5 SURVEY TEAM TRAINING

An intensive 2-day training of the evaluation team was conducted prior to the beginning of the fieldwork. The training covered topics on: survey techniques and approaches with focus toward interviews; the "Do's" and "Don'ts" during interviews, participatory review and translation of the questionnaire into Kiswahili and back translation, and role plays/pre-testing of the tool.

Field data collection logistics, including sampling of households, roles and responsibilities of survey team members, and field travel schedule were also discussed during the training.

2.2.6 IMPLEMENTATION OF THE FIELD DATA COLLECTION

Two survey teams, each consisting of three enumerators, a supervisor, and a driver, were constituted. The assessments' fieldwork was conducted in two phases: the first one from September 19–20, 2013, followed by the last phase from Monday through Friday, September 23–27, 2013. Phase I, which targeted five villages where activities had not been implemented, was jointly covered by the two survey teams.

In Phase II, the survey team was also divided into two, with four members each. One team, under the supervision of Hiyana Nasoro, the NAFAKA BCC Manager, covered five project villages in the Mlimba/Ifakara North/Mangula cluster. Besides having the overall coordination role for the fieldwork, the NAFAKA BCC Manager supervised the second team that collected data from five villages in the Kongwa/Kiteto/Mvomero project cluster.

The two teams traveled back to the project office in Morogoro on Friday, September 27, 2013, on completion of field data collection.

2.2.7 DATA PROCESSING

All completed questionnaires were reviewed for completeness during the fieldwork. Final completed questionnaire verification was done during the weekend immediately after fieldwork. Once verified, the completed questionnaires were submitted to the Data Entry Officer, who commenced data entry in Excel data files. Once data entry was complete, the data was exported into Statistical Package for Social Sciences (SPSS) software, version 22, for analysis.

To protect the privacy of the farmers and the confidentiality of their information, the data was analyzed in the aggregate form with no personal information entered into the data files. The data files are stored in Danya's data storage system and password-protected. Access to the data is closely restricted to the evaluation team.

3. FINDINGS

3.1 DEMOGRAPHICS AND OVERVIEW OF THE ENTIRE AREA OF EVALUATION COVERAGE

The initial evaluation covered 333 respondents. The surveys were completed by respondents from six clusters in three regions of Morogoro, Dodoma, and Manyara. Nearly half of the respondents (47.1%) were from Mvomero and 13.2 percent each were from Kiteto, Mlimba, and North Ifakara (Table 4). Among the three regions where the surveys were completed, 80.2 percent of the surveys were from Morogoro, 13.2 percent were from Manyara and 6.6 percent were from Dodoma. In terms of the district distribution, 47.1 percent of the respondents were from Mvomero, 33.0 percent from Kilombero, 13.2 percent from Kiteto, and 6.6 percent were from Kongwa(Table 5).

Table 4: Distribution of Respondents by Cluster

Cluster of Respondent	Percent (n=333)
Mvomero	47.1%
Kiteto	13.2%
Mlimba	13.2%
Ifakara North	13.2%
Kongwa	6.6%
Mang'ula	6.6%

Table 5: District Distribution of the Respondents

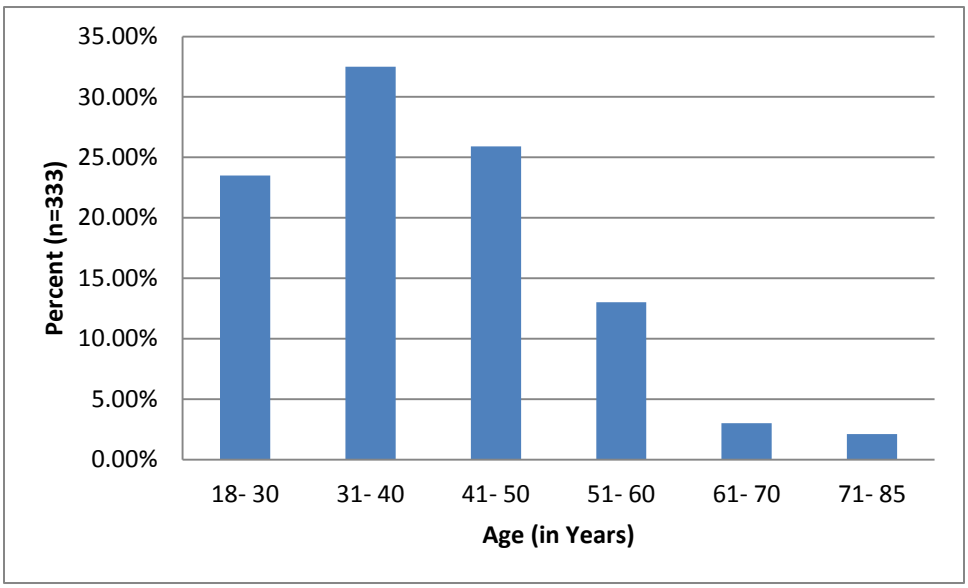
District of Respondent	Percent (n=333)
Mvomero	47.1%
Kilombero	33.0%
Kiteto	13.2%
Kongwa	6.6%

On average, 22 respondents (about 7.0%) were from each of the 15 villages. Of the 333 respondents, 220 respondents, or 66.1 percent, were from the intervention group, while the remaining 113 were from the control group villages.

In terms of gender of the respondents, slightly more than half (52.5%) were male, and the other half (47.5%) were female. It is interesting to note that nearly half of the farmers who completed the surveys were female.

Among the 333 respondents who completed the survey, the youngest was 18 and the oldest was 85 years old. More than three quarters of the respondents (81.9%) were in the productive age between 18 and the age of 50, with the rest between the age of 51 and the age of 85 years (Figure 1).

Figure 1: Age Distribution of Respondents



A majority of the respondents were married (75.7%), and the rest were single, divorced, or widowed. However, in terms of educational level among the 333 respondents, the majority (81.4%) had primary education, while 8.1 percent had secondary education and only 2.7 percent reported to have attained college education. It is also worth noting that 7.8 percent of the respondents had no education.

In regard to the main occupation of the respondents, 94.6 percent were in crop production as expected. A small number of people whose main occupation was other than crop production were in business (3.3%) and livestock keeping (0.9%) (Table 6).

Table 6: Distribution of Main Occupation of the Respondents

Main Occupation of Respondent	Percent (n=333)
Crop production	94.6%
Business	3.3%
Livestock keeping	0.9%
Data not available	1.2%

3.2 AWARENESS OF NAFAKA BCC CAMPAIGNS

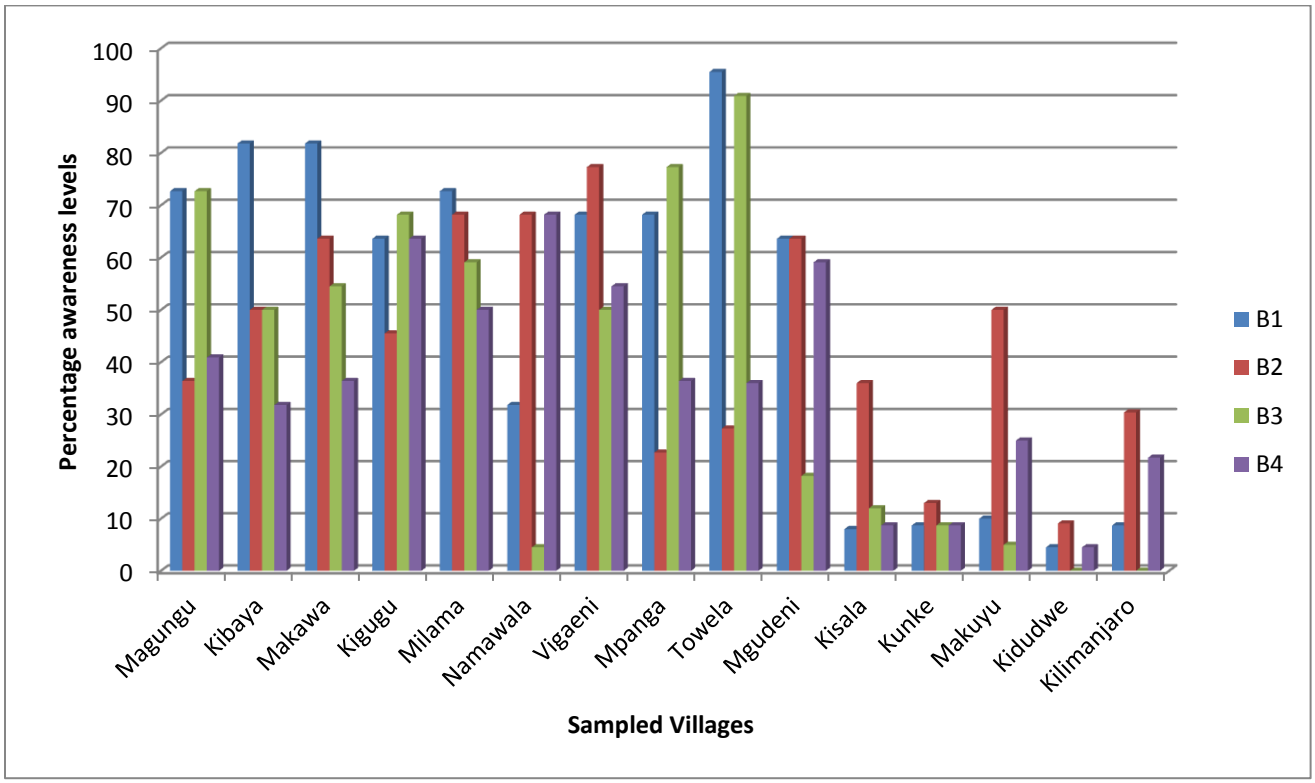
The respondents were asked whether they were **aware** of any of the two NAFAKA project BCC campaigns, either from print materials or through radio announcements/spots. Nearly half (48.9%) indicated that they were aware of the campaign on the use of certified seeds and fertilizers through print materials; 43.8 percent were aware of the use of certified seeds and fertilizers through radio announcements/spots; 37.8 percent were aware of the use of storage facility and joint selling of crop produce through print materials; and 38.4 percent were aware of the use of storage facility and joint selling of crop produce through radio announcements/spots in the whole area of coverage (Table 7).

Table 7: Percent of Respondents Aware of Various NAFAKA Project Campaigns through Print Materials and Radio Spots

Aware of:	Percent aware in:		
	Whole Area of Coverage	Intervention Area Only	Non-Intervention Area Only
Use of Certified Seeds and Fertilizers through Print Materials (B1)	48.9%	70.0%	8.0%
Use of Certified Seeds and Fertilizers through Radio Announcements/Spots (B2)	43.8%	52.3%	27.4%
Use of Storage Facilities and Joint Selling of Crop Produce through Print Materials (B3)	37.8%	54.6%	5.3%
Use of Storage Facilities and Joint Selling of Crop Produce through Radio Announcements/Spots (B4)	38.4%	47.8%	20.4%

However, when analyzed in terms of intervention and non-intervention villages, awareness levels were higher for all four of the different categories in intervention areas (column 3 in Table 7). Awareness levels for the four BCC campaign materials and services (B1, B2, B3, and B4) at the village level are presented in Figure 2.

Figure 2: Percent of Respondents Aware of Various NAFAKA Project Campaigns through Print Materials and Radio Spots by Village



3.3 EVER SEEN NAFAKA BCC PRINT CAMPAIGN MATERIALS

NAFAKA project BCC campaigns involved the sharing of print materials (T-shirts, brochures, and posters) and radio announcements/spots, addressing specific aspects of GAP. The next sets of questions addressed whether the

respondents had ever seen any of the print materials for specific campaigns and the place where the materials were seen.

To the question on whether they have **seen** the BCC campaign T-shirts on improved seeds and fertilizer, 39.9 percent across all villages indicated that they have. As to **where** they have seen the BCC campaign T-shirts, more than two thirds (74.2%) indicated that they had seen the BCC campaign t-shirts at the VBAA/VBAA house, and 10.9 percent at the association office or from an association member/association group leader/official (Table 8).

However, when disaggregated by intervention and non-intervention villages, slightly more than half (53.6%) of project villages reported to have ever seen T-shirts on improved seeds and use of fertilizer campaigns compared to an average of only 4.36 percent for respondents from non-project villages.

Table 8: The Place Where Respondents Have Seen T-Shirts on Improved Seeds and Fertilizer

Place Where Respondents Have Seen T-shirts on Improved Seeds and Fertilizer	No. of Respondents Seen	Percent (n=128)
VBAA/VBAA house	95	74.2%
Association office/Association member Association/group leader/official	14	10.9%
Village Office	7	5.5%
Have T-shirt oneself	6	4.7%
Lead progressive farmer	2	1.6%
Others	4	3.6%

To the question on whether they have seen the BCC campaign posters on certified seeds, 41.7% indicated that they have (Table 9). As to where they have seen the BCC campaign posters, 18.8% reported that they had seen the BCC campaign posters at the association office, 18.1% at the village office, and 11.6% at VBAA/VBAA house

About 38.7% of the respondents in the whole area of coverage indicated that they had seen the BCC campaign posters on the appropriate use of fertilizer. As to where they have seen the BCC campaign posters, 17.1% reported having seen them at the village office, 16.3% at the association office, and 10.9% at the VBAA/VBAA house.

Table 9: Percent of Respondents Ever Seen NAFAKA Project BCC Print Campaign Materials by Campaign Type

Ever seen:	Percent ever seen in:		
	Whole Area of Coverage	Intervention Area Only	Non-Intervention Area Only
T-shirts on improved seeds and fertilizer (B5)	39.9%	58.2%	4.36%
Posters on improved/certified seeds (B7)	41.7%	59.5%	7.10%
Posters on appropriate use of fertilizers (B9)	38.7%	56.3%	4.32%
Posters on crop storage (B11)	34.2%	50.9%	1.80%
Posters on joint sale of farm produce (B13)	31.2%	46.3%	1.80%

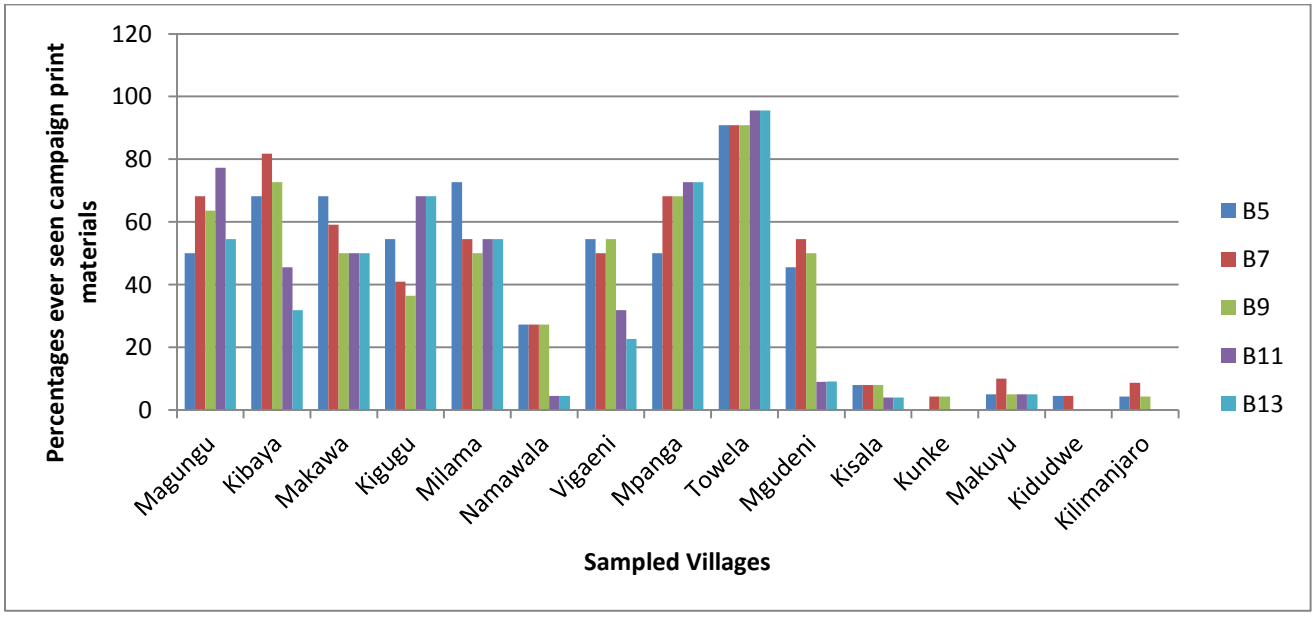
On BCC campaign posters on crop storage, 34.2 percent reported to have seen the posters, with 18.4 percent having seen the posters at the association office, 15.8 percent at the village office, and 14 percent indicated that they had one in their home (Table 10).

Table 10: Place Where Respondents Have Seen BCC Campaign Posters on Crop Storage

Place Where Respondents Have Seen BCC Campaign Posters on Crop Storage	Frequency	Percent (n=114)
Association office	21	18.4%
Village office	18	15.8%
I have one/my house/home	16	14.0%
Warehouse	11	9.6%
VBAA/VBAA house	10	8.8%
Community centre/community office/VEO office	7	6.1%
Cannot remember	6	5.3%
Roadside	6	5.3%
Market/town/shop	5	4.4%
Bar/hotel/restaurant	4	3.5%
Posho mill	4	3.5%
Church	2	1.8%
Village Sacco bank	2	1.8%
At the milling machine	1	0.9%
Agro-dealers shop	1	0.9%

BCC campaign posters on joint sale of farm produce were reported to have been seen by 31.2 percent of the respondents in the whole coverage area, the number in the project villages increased to 46.3 percent, compared to 1.8 percent in non-project villages (Table 9). As to where they had seen the campaign posters, 20 percent cited the association office, 16.2 percent at the village office, and 13.3 percent indicated that they had one in their home. Details of the respondents who reported to have ever seen the campaign print materials by study village are presented in Figure 3.

Figure 3: Percent of Respondents Ever Seen NAFAKA Project BCC Campaign Print Materials by Village



3.4 BCC CAMPAIGN MESSAGES RECALL

A critical part of the behavior change process is the ability of recipients of messages to **recall** the messages to give them an opportunity to practice a behavior. Therefore, this initial evaluation sought to document the number of respondents who could remember the main messages from various print materials produced and shared during the two BCC campaigns in 2013.

When asked whether they could remember the main messages from the T-shirts on certified seeds, 8.1 percent of respondents from all the study villages indicated that they could, compared with 12.3 percent from intervention villages only (Table 11). As to what messages they could remember, the top three messages that they could remember were: (1) "Uses of certified seeds" (19.2%); (2) "Sema nami kuhusu pembejeo" (15.4%); and (3) "Mbegu bora, mavuno bora, masoko bora" (11.5%) (Table 12).

Table 11: Percent of Respondents Who Could Remember Main Messages of BCC Print Campaign Materials

Can you remember:	Percent who remember in:		
	Whole Area of Coverage	Intervention Area Only	Non-Intervention Area Only
T-shirts on improved/certified seeds (C1)	8.1%	12.3%	0
T-shirts on appropriate use of fertilizer (C3)	6.3%	9.5%	0
Posters on certified seeds (C5)	10.5%	15.0%	1.86%
Posters on appropriate use of fertilizer (C7)	9.9%	15.0%	0
Posters on crop storage (C9)	14.1%	20.9%	0.8%
Posters on joint sale of farm produce (C11)	7.8%	11.4%	0.8%

Table 12: Messages That Respondents Remember From the T-Shirts on Certified Seeds

Message	Frequency	Percent (n=26)
Use of certified seeds	5	19.2%
Sema nami kuhusu pembejeo	4	15.4%
Mbegu bora, mavuNo bora, masoko bora	3	11.5%
Use of improved seeds	3	11.5%
Niulize kuhusu mbegu bora	2	7.7%
High yield	1	3.8%
A picture of sacks	1	3.8%
Kilimo bora	1	3.8%
Kilimo bora mavuNo bora masoko bora	1	3.8%
MavuNo mengi	1	3.8%
Mazao bora maisha bora	1	3.8%
Mtetezi wa mkulima nii mkulima mwenyewe	1	3.8%
Sema nami juu ya pembejeo	1	3.8%
Use of certified fertilizer	1	3.8%

Results for those who could remember the main messages from the T-shirts on the appropriate use of fertilizer, posters on certified seeds, posters on the appropriate use of fertilizer, posters on crop storage, and posters on the joint sale of farm produce are presented in Table 11. Table 13 outlines messages respondents could remember from posters on the joint sale of farm produce.

Table 13: Messages Respondents Can Remember from the Posters on the Joint Sale of Farm Produce

Message	Frequency	Percent (n=34)
Tuuze kwa faida *(We sell at a profit)*	18	52.9%
Store together to get good market	4	11.8%
Kuuza pamoja kwa bei nzuri *(See jointly for a better price)*	2	5.9%
A picture of farmers weighing sacks	2	5.9%
Joint sale	2	5.9%
Kuuza pamoja kuna faida ya kujipangia bei	1	2.9%
Collective storage	1	2.9%
Follow GAP, join association	1	2.9%
Nitauza kwa pamoja	1	2.9%
Tuuze kwa pamoja	1	2.9%
Warehousing	1	2.9%

3.5 BELIEVING BCC CAMPAIGN MESSAGES

Just like in the other steps toward practicing a behavior, respondents were asked whether they believed the BCC campaign messages in the various print materials.

To the question on whether they believed BCC campaign messages from the T-shirts on certified seeds, 36.0 percent indicated that they did. About one third (32.1%) reported believing messages from the T-shirts on the appropriate use of fertilizer. As to the reasons for **not believing** the BCC campaign messages, 56.5 percent said, "Did not see the materials (T-shirts, brochures, etc.)"; 3.6 percent reported, "I have not used fertilizer"; while 1.2 percent reported that "Fertilizer destroys crops." Details on the reasons for not believing the messages are presented in Table 14.

Table 14: Reasons for NOT Believing the BCC Campaign Messages from T-Shirts on the Appropriate Use of Fertilizer

Reasons for NOT Believing the BCC Campaign Messages	Frequency	Percent (n=333)
Did not see the materials (T-shirts, print-outs, etc.)	188	56.5%
I have not used fertilizer	12	3.6%
Fertilizer destroys crops	4	1.2%
My farm is fertile	2	0.6%
No	2	0.6%

To the question on whether they believed BCC campaign messages from the posters on certified seeds, 41.1 percent indicated that they did. As to the reasons for not believing the BCC campaign messages from posters on certified seeds, 50.8 percent reported, "Did not see the materials"; 0.6 percent reported, "Has never planted certified seeds" (Table 15).

Table 15: Percent of Respondents Who Believe BCC Campaign Messages

Believe messages from:	Percent who believe in:		
	Whole Area of Coverage	Intervention Area Only	Non-Intervention Area Only
T-shirts on improved/certified seeds (D1)	36.0%	53.1%	2.46%
T-shirts on appropriate use of fertilizer (D3)	32.1%	46.8%	3.46%
Posters on certified seeds (D5)	41.1%	59.1%	6.2%
Posters on appropriate use of fertilizer (D7)	32.7%	46.2%	4.32%
Posters on crop storage (D9)	26.7%	40.0%	0.8%
Posters on joint sale of farm produce (D11)	25.8%	38.5%	0.8%

About 26.7 percent of respondents indicated that they believed BCC campaign messages from the posters on crop storage, 8.4 percent reported not believing. As to the reasons for not believing the BCC campaign messages, 62.8 percent reported, "Did not see the materials," and 5.1 percent cited the lack of warehouses nearby.

3.6 MAIN REASONS FOR NOT BELIEVING BCC CAMPAIGN

During the evaluation, respondents were asked to give two main reasons why they did not believe BCC campaign messages. The top three of the first reasons cited were:

- Lack of knowledge/training on GAP" (15.0%)
- We are used to local agricultural practices/believe in local varieties (4.2%)
- Lack of guaranteed markets to farmers/as promised by project" (3.3%) (Table 16)

The top three second reasons were:

- Lack of capital to buy farm inputs for GAP (2.4%)
- Expensive to follow GAP (2.1%)
- Lack of knowledge/training on GAP (1.8%)

Table 16: Percent of First Reasons for Not Believing the BCC Campaign Messages

First Reason	Frequency	Percent (n=333)
Lack of knowledge/training on GAP	50	15.0%
We are used to local agricultural practices/believe in local varieties	14	4.2%
Low education level among farmers	11	3.3%
Lack of guaranteed markets to farmers/as promised by project	10	3.0%
No examples from other farmers/lack of demo-plots	9	2.7%
Expensive to follow GAP	8	2.4%
Did not see the materials (T-shirts, printouts, etc.)	7	2.1%
Fertilizer destroys soil fertility	7	2.1%
Lack of capital to buy farm inputs for GAP	5	1.5%
Limited access of inputs	3	0.9%
Farmers fear to store in the warehouse	2	0.6%
Lack of knowledge on collective market	2	0.6%
Drought discouraged those who used fertilizer	1	0.3%
I have not tried practicing GAP	1	0.3%
Limited land for planting	1	0.3%

First Reason	Frequency	Percent (n=333)
Most farmers are poor so they sell crops early/poverty	1	0.3%
Other misconceptions and myths	1	0.3%
Not enough IECs	1	0.3%
Other misconceptions and myths	1	0.3%
No	1	0.3%
Not applicable	193	58.0%
Data not available	5	1.9%

3.7 FOLLOWING ADVICE OF BCC CAMPAIGN MESSAGES

The next series of questions respondents were asked were on those who followed the advice of the campaign messages in the various BCC print materials. Response to the use of certified seeds was the highest, with 24.3 percent of the respondents reporting that they followed the advice of the posters and 20.4 percent reporting they followed the advice of the T-shirts. Response to the appropriate use of fertilizers was second, with 15 percent reporting following the advice of posters and 14.1 percent following the advice of T-shirts. The percentages of respondents who reported to follow the advice of messages from the other print materials in the whole coverage area, project areas, and non-project villages is outlined in Table 17.

Table 17: Percent of Respondents Who Follow the Advice of BCC Campaign Messages

Follow advice of messages from:	Percent who follow advice in:		
	Whole Area of Coverage	Intervention Area only	Non-Intervention Area Only
T-shirts on improved/certified seeds (E1)	20.4%	30.9%	0
T-shirts on appropriate use of fertilizer (E3)	14.1%	21.3%	0
Posters on certified seeds (E5)	24.3%	35.9%	1.8%
Posters on appropriate use of fertilizer (E7)	15.0%	22.7%	0
Posters on crop storage (E9)	13.8%	15.4%	10%
Posters on joint sale of farm produce (E11)	7.5%	11.3%	0

When asked what made them follow the advice, the top three reasons given were (1) "Planted certified seeds" (9.3%), (2) "High yield" (4.8%), and (3) "Just wanted to try something new" (0.6%) (Table 18).

Table 18: Reasons Respondents Followed the BCC Campaign Advice

Reason to Follow	Frequency	Percent (n=333)
Planted certified seed	31	9.3%
High yield	16	4.8%
Just wanted to try something new	2	0.6%
Mobilization	2	0.6%
After demo	1	0.3%
Attended training	1	0.3%
Explanation helped	1	0.3%
He planted certified seed	1	0.3%
High germination	1	0.3%
Saw from others	1	0.3%
To produce more yield	1	0.3%

Reason to Follow	Frequency	Percent (n=333)
Used improved seeds	1	0.3%
None	1	0.3%
Not applicable	268	80.5%

3.8 OTHER FACTORS THAT MAY ENCOURAGE FARMERS TO FOLLOW ADVICE OF BCC CAMPAIGN MESSAGES

When asked to suggest any additional factors that may encourage community members to follow the advice of BCC campaign messages, many recommendations were made. Among them, the most common recommendation was the need to provide training to farmers on GAP, which was cited by about 30 percent of the respondents. Other recommendations include:

- Help farmers to get improved seeds at affordable prices
- Farm inputs to be delivered in time
- Help farmers build groups
- Introduce more demonstration plots for learning purposes
- Need more mobilization on good farming practice to reach more people
- Promises should be fulfilled so as to motivate farmers
- Provide agricultural loans to the farmers

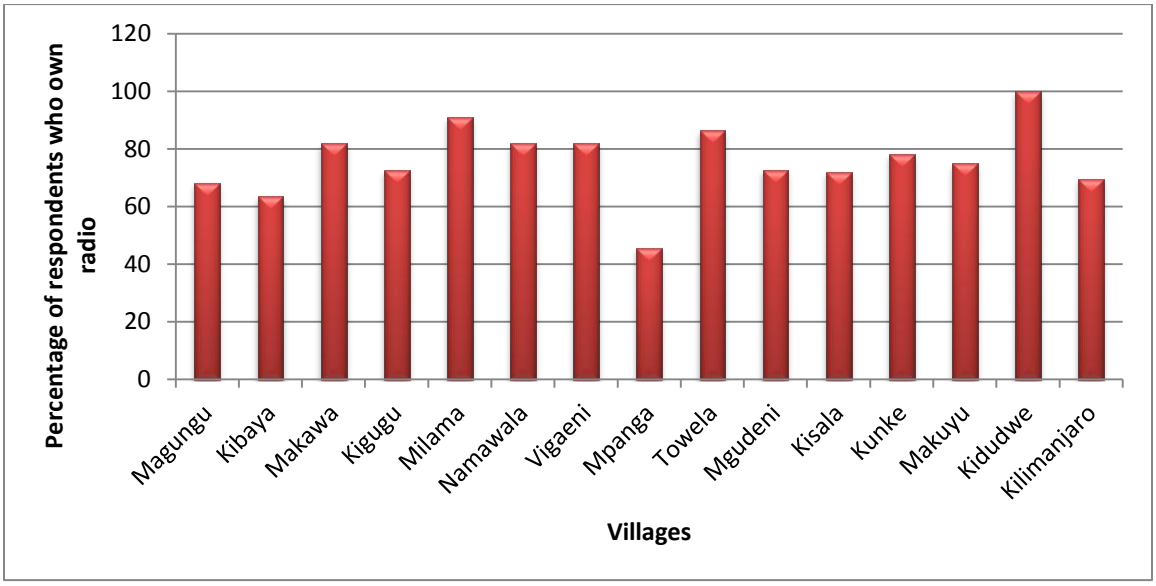
4. NAFAKA BCC RADIO CAMPAIGNS

4.1 RADIO OWNERSHIP

An average of 76 percent of the study respondents owned a radio, with most of the villages reporting radio ownership of more than 60 percent except Mpanga Village in Mlimba Cluster. Radio ownership by village is presented in Figure 4.

However, it was also encouraging to note that 11.7 percent among the respondents who reported not to own a functional radio at their homes confirmed that they could access a working radio somewhere else on a regular basis.

Figure 4: Radio Ownership by Village



4.2 PREFERRED RADIO STATION

Abood FM is the favorite radio station, cited by 30.3% of all the respondents across the study area. Tanzania Broadcasting Corporation (TBC) radio, Radio Ulanga, Radio Free Africa, and Radio Mwangaza make the list of the five most preferred stations among a total of 19 radio stations reported. Details of all the favorite radio stations are in Table 19, in order of preference.

Table 19: Respondents' Favorite Radio Stations

Respondents' Favorite Radio Station	Frequency	Percent (n=333)
Abood FM	101	30.3%
TBC FM	47	14.1%
Radio Ulanga	40	12.0%
Radio Free Africa	30	9.0%
Radio Mwangaza	15	4.5%
Radio One	13	3.9%
Pambazuko FM	12	3.6%
Top Radio	8	2.4%
Clouds	7	2.1%

Respondents' Favorite Radio Station	Frequency	Percent (n=333)
Sauti ya Injili	6	1.8%
Ukweli	5	1.5%
Planet	2	0.6%
Radio Maria	2	0.6%
Radio Imani	2	0.6%
Radio Tumaini	2	0.6%
Capital	1	0.3%
Magic FM	1	0.3%
Morning Star	1	0.3%
Radio Five	1	0.3%
Don't listen	32	9.6%
Data not available	5	1.5%

Several reasons were given for preferring specific radio stations, the five top reasons being:

- Easy access
- Good news
- Information
- Good programs
- Awareness
- Clear broadcasting

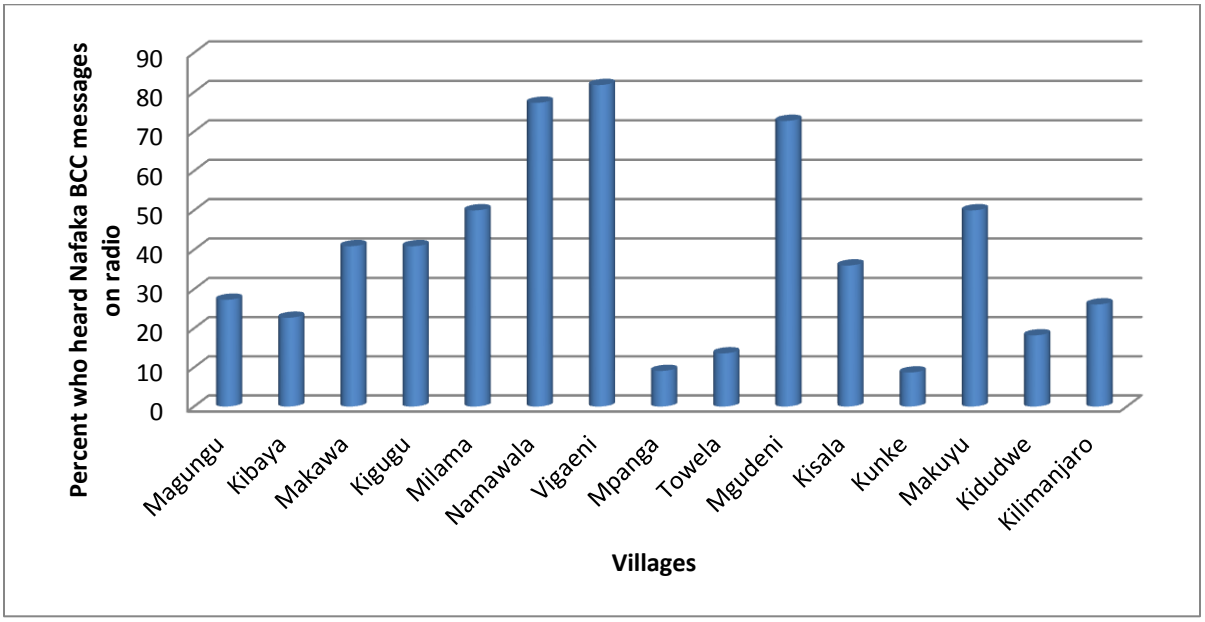
The top three radio programs cited were: "News," "Sports," and "Morning Special," while the top five radio presenters among the respondents were:

- Duke
- Julius Nyaisanga
- Bibiana Palangu
- Maulidi Kitenge
- Hilda Singamo

4.3 NAFAKA BCC CAMPAIGN MESSAGES ON THE RADIO

An average of 38.1 percent of all the respondents across the study area reported to have heard NAFAKA project message(s) on the radio. Among the respondents from the project area villages, 43.6 percent confirmed to have heard the BCC messages over the radio, compared to 27.8 percent among the non-intervention villages. Details of percentages of respondents who reported to have heard NAFAKA project BCC messages on the radio by village are presented in Figure 5.

Figure 5: Respondents Who Heard NAFAKA Project BCC Messages on Radio by Village



Besides being the most popular radio station, Abood FM is also the station where most (44.8%) of the respondents heard the NAFAKA BCC messages. Although seven other radio stations were cited, the project so far engaged the services of Radio Ulanga, Pambazuko FM, and Radio Mwangaza, besides Abood FM (Table 20).

Table 20: Radio Stations from Which Respondents Heard NAFAKA Messages

Radio Station Name	Frequency	Percent (n=125)
Abood FM	56	44.8%
Radio Ulanga	40	32.0%
Radio Mwangaza	13	10.4%
Pambazuko FM	8	6.4%
TBC FM	5	4.0%
Radio Maria	1	0.8%
Radio Free Africa	1	0.8%
Sauti ya Injili	1	0.8%

About one quarter (24.6%) of the respondents across the coverage area reported that they could **remember** NAFAKA messages from the radio, while 15.0 percent indicated they **followed the advice** of the radio messages.

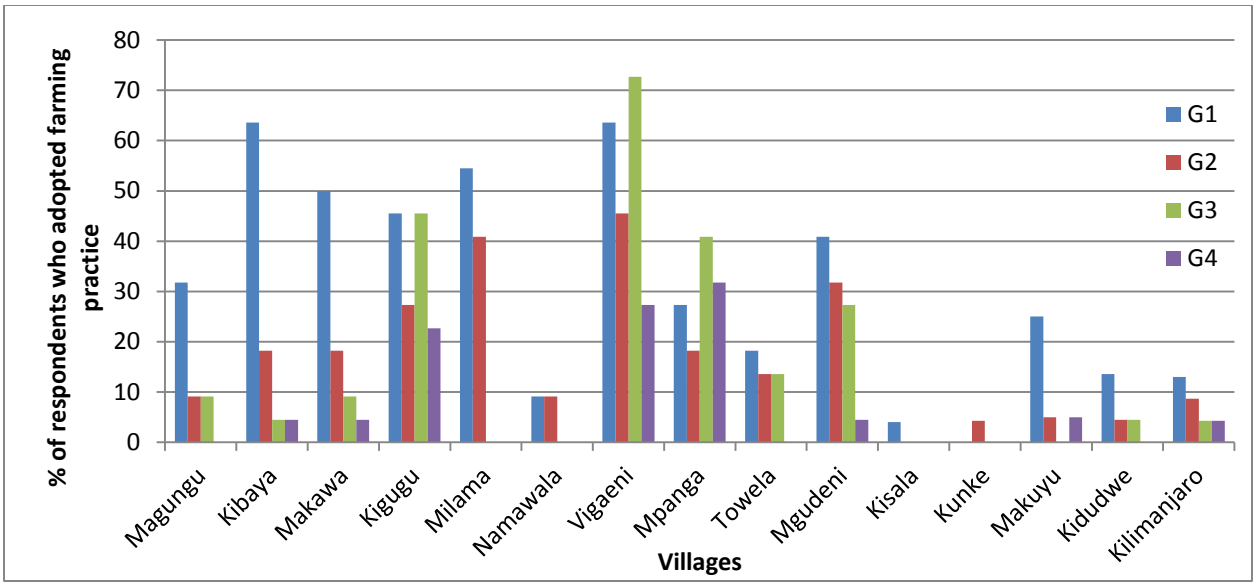
4.4 FARMING PRACTICES ADOPTED AS A RESULT OF BCC CAMPAIGNS

When asked about the effect of the NAFAKA project BCC campaign messages (from print materials and radio announcements/spots), many respondents reported practicing certain good farming practices. About 30.3 percent reported the adoption of the use of certified seeds; 16.8 percent% adopted the use of fertilizers; 15.3 percent% adopted the use of storage facilities; and 6.9 percent adopted the joint selling of crop produce across the study area (Table 21 and Figure 6).

Table 21: Percent of Respondents Who Adopted Certain Farming Practices Following BCC Campaigns by Village

Adopted:	Percent who adopted practice in:		
	Whole Area of Coverage	Intervention Area Only	Non-Intervention Area Only
Use of certified seeds (G1)	30.3% (115,966)	40.4% (154,622)	11.1% (42,482)
Appropriate use of fertilizers (G2)	16.8% (64,298)	23.2% (88,793)	4.5% (17,222)
Use of storage facilities (G3)	15.3% (58,557)	22.2% (84,965)	1.7% (6,506)
Joint selling of crop produce (G4)	6.9% (26,408)	9.5% (36,359)	1.9% (7,271)
Total	***17.3% (66,211)***	***23.8% (91,089)***	***4.8% (18,370)***

Figure 6: Percentage of Respondents Who Adopted Farming Practice Following BCC Campaigns by Village



5. MAJOR FINDINGS AND LESSONS LEARNED

Nearly half (48.9%) of the respondents indicated that they were aware of the campaign on the use of certified seeds and fertilizers through print materials, and 43.8 percent were aware of the use of certified seeds and fertilizers through radio announcements/spots; 37.8 percent were aware of the use of storage facility and joint selling of crop produce through the print materials, and 38.4 percent were aware of the use of storage facility and joint selling of crop produce through radio announcements/spots in the whole coverage area. Therefore, an average of **42 percent, or 160,745,** people were reached with BCC messages.

As to whether the respondents have **seen** the BCC campaign T-shirts on improved seeds and fertilizer, 39.9 percent across all villages indicated that they had. More than two thirds (74.2%) indicated that they had seen the BCC campaign T-shirts at the VBAA/VBAA house. When disaggregated by intervention and non-intervention villages, slightly more than half (53.6%) of project villages reported to have ever seen T-shirts on improved seeds and use of fertilizer campaigns, compared to an average of only 4.36 percent for respondents from non-project villages.

About 38.7 percent of the respondents in the whole coverage area indicated that they had seen the BCC campaign posters on the appropriate use of fertilizer. As to where they have seen the BCC campaign posters, 17.1 percent reported having seen them at the village office and 16.3 percent at the association office.

In regard to the BCC campaign posters on crop storage, 34.2 percent reported that they have seen the posters, with 18.4 percent having seen the posters at the association office, 15.8 percent at the village office, and 14 percent indicated that they had one in their home.

BCC campaign posters on joint sale of farm produce were reported to have been seen by 31.2 percent of the respondents in the whole coverage area; the number in the project villages increased to 46.3 percent, compared to 1.8 percent in non-project villages.

A critical part of behavior change process is the ability to **remember** the messages to give them an opportunity to practice a behavior. Of the respondents from all the study villages, 8.1 percent indicated that they could remember the messages, compared with 12.3 percent from intervention villages.

As to whether they believed BCC campaign messages from the T-shirts on certified seeds, 36.0 percent indicated that they did. About one third (32.1%) reported believing messages from the T-shirts on the appropriate use of fertilizer.

As to how well respondents followed the advice of the campaign messages in the various BCC print materials, about 20.4 percent of the respondents followed the advice of the BCC campaign messages from T-shirts on certified seeds while, 14.1 percent followed the advice of the BCC campaign messages from T-shirts on fertilizer.

As to what made the respondents follow the advice of the BCC campaign messages, the top three reasons given were (1) "Planted certified seeds" (9.3%), (2) "High yield" (4.8%), and (3) "Just wanted to try something new" (0.6%).

An average of 38.1 percent of all the respondents across the study area reported to have heard NAFAKA project message(s) on the radio. Among the respondents from the project area villages, 43.6 percent confirmed to have heard the BCC messages over the radio, compared to 27.8 percent among the non-intervention villages.

In terms of the effect of the NAFAKA project BCC campaign messages (from print materials and radio announcements/spots), about 30.3 percent reported the adoption of the use of certified seeds; 16.8 percent adopted the use of fertilizers; 15.3 percent adopted the use of storage facilities; and 6.9 percent adopted the joint selling of

crop produce across the study area. Therefore, an average of **17.3 percent,** or **66,211** farmers adopted GAP based on a package of interventions by the NAFAKA project, including BCC messaging.

The most common reasons why farmers did not believe BCC campaign messages were:

- Farmers' lack of knowledge/training on GAP
- Farmers used to local agricultural practices/believe in local varieties (4.2%)
- Lack of guaranteed markets to farmers/as promised by the project
- Lack of capital to buy farm inputs for GAP
- Expensive to follow GAP

Based on the reasons provided by respondents, future efforts should include education to change old agricultural practices, helping farmers to secure markets, and assisting farmers in getting the financial means they need so they are enabled to follow the new farming methods, using improved seeds and adopting new technologies.

6. CONCLUSIONS AND RECOMMENDATIONS

The preliminary results of the evaluation indicates that when the BCC campaign activities are properly implemented, there will be noticeable improvement in the knowledge, attitude, and practice of the farmers to adopt new farming methods, using improved seeds and adopting new technologies. Based on the suggestions of the respondents, one of the most important strategies to improve the effectiveness of the BCC campaigns in future efforts is to provide more intensive training to farmers on GAP. Other recommendations include:

- Help farmers to get improved seeds at affordable prices
- Deliver farm inputs on time
- Help farmers build groups
- Introduce more demonstration plots for learning purposes
- Increase mobilization on good farming practice to reach more people
- Fulfill promises so as to motivate farmers
- Provide agricultural loans to the farmers

However, based on the NAFAKA project's BCC evaluation plan and without the data from follow-up surveys, we are not able to make statements concerning significant improvement in knowledge, attitude, beliefs, and practices.

7. STUDY LIMITATIONS

One of the limitations of the evaluation study was that the limited time and resources prevented the evaluation team from covering all the districts that could have been selected for the evaluation. The other limitations include:

- The study was relying on self-reporting. Self-report data has some disadvantages, specifically with regard to validity. For example, respondents are not always truthful (because he/she may want to please the evaluator with a positive response or may be embarrassed about a negative response) or may perceive reality differently from that of the evaluation parameters. Furthermore, the respondent may not fully understand the question being posed and may no answer correctly.
- Correlation through the use of control groups is possible, but impact cannot be attributed solely to BCC interventions as farmers in sample groups accessed a number of other services and project interventions, such as demonstration plots, farmer field days, etc.
- Logistical challenges in selection of control groups with limited or non-exposure to project activities
- Lack of baseline data before the implementation of BCC activities was initiated
- Limited accessibility of the farmers who are dispersed across a wide geographical area and have limited time to participate in evaluations
- Impact can only be discussed after the next round of evaluation.

REFERENCES

1. United Republic of Tanzania 2012 Population and Housing Census. (2013, September). National Bureau of Statistics Ministry of Finance, Dar es salaam, Tanzania.
2. BCC Campaign Effectiveness Assessment Report – NAFAKA project. (2013, July).
3. An Evaluation Plan of the Effectiveness of the Behavior Change Communication (BCC) Interventions in the NAFAKA Project. (2013, September).

APPENDIX I

NAFAKA PROJECT BCC CAMPAIGN EFFECTIVENESS EVALUATION

INITIAL SURVEY QUESTIONNAIRE

INSTRUCTIONS TO THE ENUMERATOR

- Introduce yourself, then state the purpose of your visit.
- Verify that you are in the right household as per the sampling sheet (Project sites).
- Verify that you are about to interview the right respondent as per the sampling sheet (Project sites).
- Move to the next household (if not in the list) in case you miss the sampled respondent.
- Ask for permission to start the interview.

BASIC INFORMATION: *TAARIFA ZA JUMLA*

Date _____(dd/mm/yy) Questionnaire No._____

Region _____ District _____

Cluster_____ Village_____

DEMOGRAPHICS

1. What is your sex? ***Jinsi yako?***
   A. Male/***Mume***
   B. Female/***Mke***
2. How old are you? ***Umri wako?*** _____ (Years/***Miaka***)
3. What is your marital status**?/ *Hadhi ya ndoa?***
   A. Single
   B. Married
   C. Divorced
   D. Widowed
4. What is the highest level of education you attained? ***/ Kiwango cha elimu yako?***
   A. None
   B. Primary
   C. Secondary
   D. College/University
   E. Others; specify_____

5. What is your main occupation **(Probe)** /***Shughuli inayokupatia kipato***
   A. Crop production
   B. Livestock keeping
   C. Business
   D. Others; specify _____

NAFAKA BCC CAMPAIGNS

(Make a brief background explanation of the BCC campaigns already conducted by the NAFAKA project)

6. Are you **aware** of any of the following Campaigns conducted by Nafaka project? (***Prompt to the respondent one by one)/Je una ufahamu wowote juu ya kampeni za Mradi wa Nafaka za uhamasishaji katika yafuatayo:***

	Yes/***Ndio***	No/***Hapana***
Use of certified seeds and fertilizers through print materials?/***Fulana/Mabango yanayoelezea matumizi ya mbegu bora na mbolea?***		
Use of certified seeds and fertilizers through radio announcements/spots? ***Vipindi/ matangazo ya redio yanayoelezea matumizi ya mbegu bora na mbolea?***		
Use of storage facilities and joint selling of crop produce through print materials? /***Mabango yanayoelezea kuhifadhi mazao ghalani na kuuza kwa pamoja?***		
Use of storage facilities and joint selling of crop produce through radio announcements/spots? ***Matangazo na vipindi vya redio vinavyoelezea kuhifadhi mazao ghalani na kuuza kwa pamoja?***		

PRINT MATERIALS

7. Which of the following BCC Campaign materials have you ever **seen**?/ ***Umewahi kuona chochote kati ya vitu vifuatavyo vinavyohamasisha matumizi ya?***:

	Yes/ ***Ndio***	No/ ***Hapana***	**Where** did you see material? /***Wapi umeona vitu hivi?***
T-shirts on improved seeds?/ ***Fulana kuhusu matumizi ya mbegu bora?***			
T-shirts on fertilizer? /***Fulana kuhusu mbolea***			
Posters on certified seeds?/ ***Mabango kuhusu matumizi ya mbegu bora***			
Posters on appropriate use of fertilizer?/ ***Mabango kuhusu matumizi ya mbolea?***			
Posters on crop storage?/ ***Mabango kuhusu uhifadhi wa mazao ghalani?***			
Posters on joint sale of farm produce? ***Mabango kuhusu uuzaji wa mazao pamoja?***			

8. Can you **remember** the main messages of the following BCC campaign materials?/***Je unaweza kukumbuka ujumbe wowote wa kuhamamsisha matumizi ya?***

	Yes/***Ndio***	No/***Hapana***	What message can you remember?/***Unakumbuka ujumbe gani?***
T-shirts on certified seeds?/ ***Fulana kuhusu matumizi ya mbegu bora?***			
T-shirts on appropriate use of fertilizer? /***Fulana kuhusu matumizi ya mbolea***			
Posters on certified seeds? / ***Mabango kuhusu matumizi ya mbegu bora***			
Posters on appropriate use of fertilizer?/ ***Mabango kuhusu matumizi ya mbolea?***			
Posters on crop storage? / ***Mabango kuhusu uhifadhi wa mazao ghalani?***			
Posters on joint sale of farm produce?/ ***Mabango kuhusu uuzaji wa mazao pamoja?***			

9. Did you **believe** the BCC campaign messages in the following materials?/ ***Je unaamini ujumbe wowote wa kuhamamsisha matumizi ya?***

	Yes/***Ndio***	No/***Hapana***	If **NO**, give reasons/ ***Kama hapana, taja sababu***
T-shirts on maize seeds? / ***Fulana kuhusu matumizi ya mbegu bora?***			
T-shirts on fertilizer? /***Fulana kuhusu mbolea***			
Posters on certified seeds? / ***Mabango kuhusu matumizi ya mbegu bora***			
Posters on appropriate use of fertilizer?/ ***Mabango kuhusu matumizi ya mbolea?***			
Posters on crop storage? / ***Mabango kuhusu uhifadhi wa mazao ghalani?***			
Posters on joint sale of farm produce? /***Mabango kuhusu uuzaji wa mazao pamoja?***			

10. What were the two main reasons for those who did **not believe** the campaign messages?/***Sababu kuu mbili zilizowafanya wasiamini ujumbe wa uhamasishaji?***

    a. _____

    b. _____

11. If you believed the messages, have you **followed the advice** of the campaign messages in the following materials?/***Kama uliamini, je ulifuata ushauri wa ujumbe huo?***

	Yes/***Ndio***	No/***Hapana***	If **YES**, what made you follow the advice?/***Kama ndio, ni kitu gani kilikufanya ufuate ushauri?***
T-shirts on certified seeds? / ***Fulana kuhusu matumizi ya mbegu bora?***			
T-shirts on fertilizer? /***Fulana kuhusu mbolea?***			
Posters on certified seeds? / ***Mabango kuhusu matumizi ya mbegu bora***			
Posters on fertilizer? / ***Mabango kuhusu matumizi ya mbolea?***			
Posters on crop storage? ***Mabango kuhusu uhifadhi wa mazao ghalani?***			
Posters on joint sale of farm produce? /***Mabango kuhusu uuzaji wa mazao pamoja?***			

12. What could additionally be done to convince farmers to follow the advice of campaign messages?/***Unfikiri ni kitu gani cha ziada kingefanyika iIi kuwashawishi wakulima wafuate ushauri wa matumizi ya mbegu bora, mbolea, uhifadhi wa mazao ghalani na kuuza mazao kwa pamoja?***

    a. _____
    _____
    _____

    b. _____
    _____
    _____

RADIO CAMPAIGNS

13. Do you own a working radio in your home?/***Je, unamiliki radio inayofanya kazi nyumbani kwako?***
    A. Yes/***Ndio*** → Go to/***Nenda Q15***
    B. No/***Hapana***

14. Do you access a working radio somewhere else on a regular basis?/***Kuna sehemu nyingine tofauti na nyumbani ambapo huwa unasikiliza redio?***
    A. Yes/***Ndio***
    B. No/***Hapana***

15. What is your favorite radio station? ***Ni kituo gani cha redio unapenda kusikiliza zaidi?***
    _____

16. What is your main reason for favoring/preferring the radio station above? /***Ni sababu gani kuu inayokufanya upendelee kusikiliza redio hiyo?***
    _____

17. What is your popular radio programme?

18. Who is your most popular radio presenter?

19. Have you ever heard NAFAKA project related message(s) on the radio?/ ***Umewahi kusikia matangazo yanayohusiana na mradi wa Nafaka?***
    A. Yes/***Ndio***
    B. No/***Hapana*** ——————————————→ **Go to Q23**

20. Which radio station did you hear the NAFAKA messages?/***Ni kituo gani cha redio ulisikia ujumbe huo?***
    A. Radio Ulanga
    B. Abood FM
    C. Pambazuko FM
    D. Radio Mwangaza
    E. Others; specify _____

21. Can you remember the NAFAKA related messages from the radio?/***Je,unaweza kukumbuka ujumbe uliousikia kwenye redio kuhusiana na mradi wa Nafaka?***
    A. Yes/***Ndio***
    B. No/***Hapana***

22. Did you follow the advice of the radio message(s)?/ ***Je, uliufata ujumbe huo?***
    A. Yes/**Ndio**
    B. No/**Hapana**

23. Which of the following practices did you **adopt** as a result of the following BCC campaign(s) (radio/print materials)?/***Ni njia zipi za kilimo bora ulifuata kati ya hizi kama matokeo ya kampeini za redio/matangazo?***

	A. Yes/ ***Ndio***	B. No/***Hapana***
Use of certified seeds? /***Matumizi ya mbegu bora***		
Appropriate use of fertilizers? /***Matumizi sahihi ya mbolea***		
Use of storage facilities? / ***Matumizi ya maghala***		
Joint selling of crop produce? / ***Kuuza mazao kwa pamoja***		

End/Mwisho

Thank the Respondent

Review the Questionnaire for Completeness

Name of Enumerator: _____

Signed: _____

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