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The Communication Plan (2021-2030) as an Integral Component of Accelerated Uptake and Utilization of Soil Fertility Management Best-Bets Practices in Eastern and Central Africa Sub-Region

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***Abstract* – The purpose of this project was to enhance uptake and scaling up of knowledge and technologies for soil fertility management. It was presumed that the project would lead to sustained productivity and competitiveness of small holder farming systems in Eastern and Central Africa (ECA) sub-region. The project was implemented in 2010 in the three East African countries of Kenya, Uganda and Tanzania. These countries face challenges on how to arrest and restore declining soil fertility mainly due to non-use or misuse and even insufficient use of external inputs, poor soil fertility management and low adoption of technology. The project team recognized that numerous soil fertility management technologies have been developed but this has not translated into significant increase in crop production due to low adoption by farmers. The author of the paper participated in the project as a Consultant in the Communication Sector of a wider project. The communication plan implemented in 2010 was monitored and evaluated for the feedback to all stakeholders in the project. This paper is therefore a preliminary forecast for further consideration by the stakeholders in preparing for the next period 2021 to 2030 being the anticipated and the planned millennium growth and sustained development in the National and International Agricultural Sector.**

***Keywords* – Communication Plan, Communication Strategy, Communication Matrix, Information Sharing Products, Shareholders.**

I. INTRODUCTION

It has been argued that poor packaging and dissemination approaches have been some of the causes of low adoption/adaptation and utilization of sound soil fertility and water management technologies. This project set out to develop methodologies for resolving this barriers by initiating mechanisms of sharing relevant information on promising soil fertility and water management technologies with all stakeholders. The project anticipated that more farmers would use the promising technologies and boost crop yields and improve their livelihoods through improved food nutrition and income security.

The outputs were to be realized by developing appropriate methodologies, policy briefs, strengthening capacity and availing relevant information and knowledge on uptake and scaling up of soil fertility management technologies. This would result in improved soil fertility and consequently crop productivity. The lessons learnt from the project would have regional applicability and would be used to design research for development projects not only in the project countries but also across the East and Central Africa (ECA) sub-region.

I. *Project Objectives*

The main objectives of the project were to achieve the following:

i. Develop appropriate methodologies for uptake and scaling up soil fertility management technologies.

ii. Identify policy induced constraints to enhanced uptake and scaling up of soil fertility management technologies.

iii. Strengthen the capacity of National Agricultural Research Enterprise Services (NARES) and stakeholders to scale up soil fertility management technologies.

iv. Produce knowledge sharing products for scaling up soil fertility management technologies.

II. PROJECT SITES

Project activities were carried out at selected benchmark sites in Kenya, Uganda and Tanzania. The sites were characterized by many stakeholder farming systems typical of East and Central African sub-region. In Kenya, project sites were located in Central Kenya comprising the Meru South and Mbeere Counties (Districts). The project involved stakeholders in the region, namely Kenya Agricultural Research Institute (KARI), Kenya Forestry Research Institute (KEFRI), Agricultural Extension Officers, Non-Governmental Organizations (NGOs), farmer-groups, input and output dealers such as Farm Inputs Promotions Africa.

In Uganda, the benchmark sites were located in Pallisa and Tororo counties (Districts) in southern and eastern parts of Lake Kyoga basin Agro-Ecological zone. The stakeholders participating in the project included; National Agricultural Advisory Services (NAADS) Department of Agriculture, Pallisa and Tororo Local Government, Africa 2000 Network, farmer groups, NGOs and schools.

In Tanzania, the project was carried out in Eastern zone in Morogoro Rural and Mvomeral Districts (counties). This area included the Morogoro region and the Ulugulu Mountains. Other stakeholders included, Sokoine University of Agriculture (SUA) Morogoro District Council, Department of Research and Development of the Ministry of Agriculture, Food and Co-operatives as well as the National Research Institute. These stakeholders were involved in different aspects including soil fertility, environment, agronomy, health and infrastructure. The main aim for all these stakeholders was to reduce or eliminate hunger and poverty of the affected groups in the region.

III. PURPOSE AND GOAL OF THE PROJECT

The purpose of the project was to enhance uptake and utilization of soil fertility management, knowledge and technologies in East and Central Africa (ECA) sub-region. The main goal of the project was to enhance sustainable productivity, value-added and competitiveness of the sub-regional Agricultural systems.

IV. WHAT IS A COMMUNICATION PLAN?

Communication Plan describes how the project intended to communicate the right messages or information to the right people at the right time. Within a Communication Plan, the communication goals, stakeholders and strategies, activities and timeframes are described. A Communication Plan assisted all the members of the project to be informed about what was going on and to be able to communicate consistent messages (information) to all target audience.

V. WHY A COMMUNICATION PLAN?

The success of the project could not be attributed to technical parameters alone but to effective communication strategies affecting all stakeholders in the project. This was to enhance the uptake and scaling up

of the technologies using appropriate methodologies and resulting in greater research and development impact. The promotion of the research outputs and products were to involve long term processes where different stakeholders were actively informed about the project activities.

Communication is important for all the stakeholders in the project. Effective communication was to make a difference between success and failure of the project. Information was required within and across all the parties involved in the project. This information was to be either oral (verbal), written, pictorial or in any other form that would reach the intended audience. It was difficult to plan the information for communication to all the relevant groups of stakeholders.

The Communication Plan was to ensure that the technologies developed by the project were widely known to all relevant stakeholders and to facilitate stakeholders' support and participation in the project activities.

VI. THE PROJECT STAKEHOLDERS

The stakeholders groups for this project comprised the following:

i. Small holder farmers (individually and collectively).

ii. Small holder farmers groups (These were about fifty-five farmer groups)

iii. Agricultural Officers (Ministry of Agriculture Officials such as Extension Officers, Crop Officers, DAO, DDAO etc.)

iv. Agri-business entrepreneurs – seed providers, fertilizer suppliers, stockiest, chemical stockiest etc.

v. Research Community comprising researchers' e.g NARs. NRM, CBO etc.

vi. Administrator's e.g PCs, DCs, DOs, chiefs, assistant chiefs etc.

vii. Schools – primary schools, secondary schools, post-secondary school institutions (T.T.C) teachers and learners.

viii. Non-Governmental Organizations e.g. churches.

These stakeholders required specific and specialized communication strategies to ensure effective utilization of resources and avoidance of wastage in terms of these resources and time. The Communication Plan catered for the stakeholders in providing relevant information to the target audience. The specific communication strategies focused on the following stakeholder groups;

i. *Small Holder Farmers and Farmer Groups*

These were the core and the most important component of the project. Communication for this group involved oral and written communication addressing issues of uptake, adaptation, adoption, acceptance and practice in the new technologies. The farmers were to practice the new technologies in selection and planting new and improved seeds, new and more productive fertilizers (organic and inorganic manures) appropriate planting periods according to advice from researchers and extension Agricultural Officers. The researchers and Extension Officers required constant and regular feedback from the small holder farmers and farmers groups. A two way process of communication was established where the parties involved were giving information and in turn taking (receiving) information from the farmer groups as was necessary from time to time.

ii. *Agricultural Officials*

These groups comprised the Ministry of Agriculture officers from various levels such as districts, divisions and zones. These were the intermediary personnel operating between the research community (researchers) and the farmers and farmer groups. The Agricultural Officials were expected to have taken induction and regular in-service training courses on new technologies, new products and new information that is relevant to the farmers and farmer groups. These officials were expected to know and to have been drilled on best bet practices and products such as new brands of fertilizers, organic manures and where these brands were to be utilized for more and improved productivity. Relevant information was to be communicated to these groups through written publications in form of brochures, pamphlets, reports, memos and field manuals that were to benefit the end users that is farmers and farmers groups. These Extension Officers were expected to receive feedback from farmers and farmers groups so that the best practices and products could be maintained and sustained while at the same time the new technologies and new products were to be adopted and adapted by the farmers and farmer groups.

iii. *Agricultural Business Entrepreneurs*

These were the service providers in the Agricultural Enterprises. They included, seed providers, (e.g. Kenya Seed Company), crop chemical providers (e.g. Bayer East Africa) and fertilizer stockiest. These entrepreneurs were to be coordinated by the Agricultural Officials so that they would not exploit the farmers by providing the farmers with overpriced products and even sometimes irrelevant and inappropriate products such as rebranded fertilizers. Interactive meetings between the agro-entrepreneurs, the extension officers, farmers and farmers groups were organized by the Agricultural Officials. These interactive meetings took place during field days, seminars and workshops for farmers. Brochures, pamphlets and leaf lets were circulated to farmers during these interactive meetings.

iv. *Scientific Communities and Agricultural Researchers*

These were professionals involved in different aspects of agricultural research. The findings from these researchers were communicated to farmers and farmers groups as well as agricultural officials including the Extension Officers. The various research aspects included soil fertility, soil infertility, degradation and decline in soil properties, innovation in soil enrichment with both organic and non-organic fertilizers as well as emphasis on the use of manures and other composts.

The scientific community disseminated relevant information to the farmers and farmer groups through the agricultural officials. New and modern technologies, new and approved and more productive seeds were communicated to individual farmers and farmer groups. Horizontal communication took place within and among the specific community of researchers. There were various strategies and methods used by researchers to disseminate information to agricultural officials and the farmers. These methods included conferences and technical report for officials, the farmers and the farmer groups.

v. *Administrators and Schools*

These were the support personnel to the farmers and farmer groups to carry out the relevant activities in utilization of new technologies as well as utilizing appropriate and approved products such as fertilizers, seeds

and chemicals that were necessary in modern farming. The schools on the other hand, provided additional labor and personnel who were to be used in the farming activities as well as the Agricultural Officials and Extension workers. The schools provided teachers and learners who encouraged farmers and farmer groups in carrying out the implementation of the new technologies, the utilization of the new products as well as offering experimental sites from researchers in the relevant areas. It was noted that in the current experimental sites the teachers had formed or joined the farming groups which were quite successful in taking up and up scaling the findings from the researchers involved in the experimental projects.

vi. *Non-Governmental Organizations*

These were organizations that encouraged and supported individual farmers groups. They were affiliated to religious and church organizations as well as other non-profit making organizations which gave financial and social support to these communities. These organizations included the Catholic Diocese of Embu, Christian Community Services and the National Council of Christian Churches of Kenya. All these organizations were coordinated and harmonized to continue encouraging and supporting famers and farmer groups. The farmers and the farmer groups utilized the new technologies and the new products. In turn, the farmers and farmer groups increased their crop productivity which enhanced food security and eradicated poverty while supporting and sustaining the National Agricultural Development.

vii. *Implementation of the Communication Plan*

Three activities were identified to actionalise the Communication Plan. These were as follows:

a. *Development of Knowledge and Information Sharing Products:*

They included products related to appropriate methodologies and approaches such as the national policies and capacity building suggested in the Communication Plan which were developed, tested and published in different formats.

b. *Dissemination of the Products:*

Project products were presented at national and regional workshops as project reports in form of manuals, posters, brochures, monitoring and evaluation reports to reach as many beneficiaries as possible.

c. *Publications:*

Students were encouraged to prepare primary publications in the form of formal papers in addition to their academic research theses and project papers.

viii. *Monitoring and Evaluation in Communication Plan*

The stakeholders were involved in monitoring and evaluating the Communication Process. The monitoring comprised continuous processes of observing, checking, collecting and recording appropriate information on all activities according to the Communication Plan. Evaluation comprised the following:

a. Assessing changes in the target groups.

b. Assessing achievement of set objectives in the Communication Plan.

c. Assessing outcomes and impact of key project at experimental level (sites) and the community level (imple-

-mentation).

d. Assessing performance of the key project in the implementation, take-off and upscaling of the new technologies and new products.

The stakeholders were involved in the following activities as part of the monitoring and evaluation processes:

a. Deciding what to be monitored and evaluated according to the communication matrix.

b. Developing specific indicators or criterion to be used in monitoring and evaluation.

c. Collecting, analyzing and documenting information relevant to the communication plan.

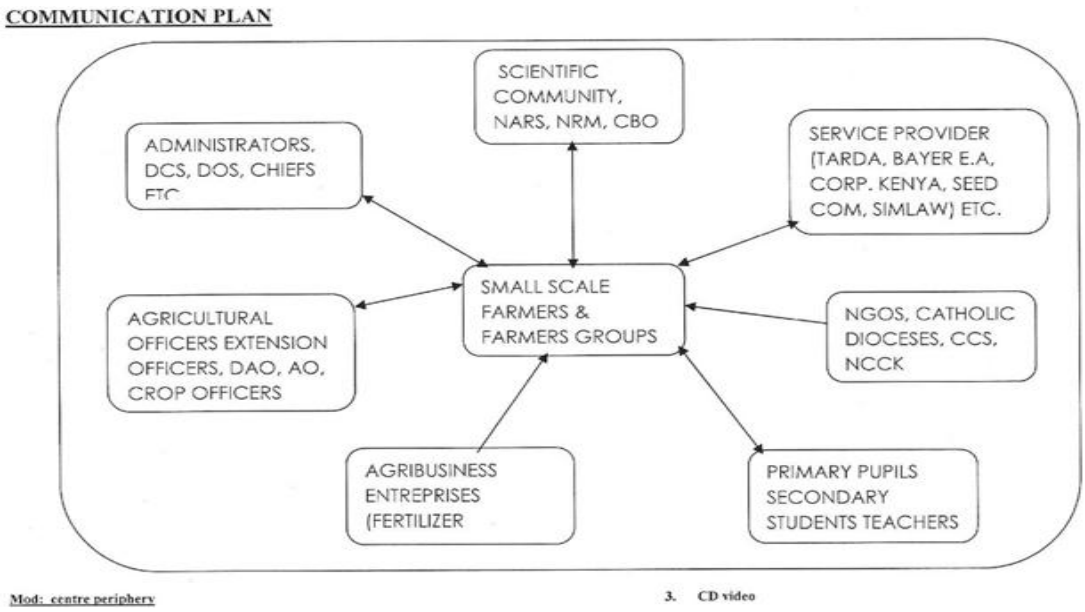
d. Using monitoring and evaluation indicators in decision-making process.

Making corrective and appropriate adjustments in the communication process to ascertain improved up-take and scaling of the new technologies and new products.

VII. Conclusion

The follow up action as part of the monitoring and evaluation of the Communication Plan were carried out at the three different levels; process, outcome and impact. The process aspect examined the quantitative dimension to answer the question on what messages were communicated to how many people? The outcome and impact aspects attempted to answer the qualitative dimension on what was the change in the audience awareness, their attitudes and behavior and what impact had the activities on the overall objective? The answers to these questions will be deduced from the figures and diagrams illustrated as the Communication Plan, Communication Strategy, the Communication Matrix. (See appendices 1, 2 & 3).

Appendix 1



1. Main medium- mass media radio and television

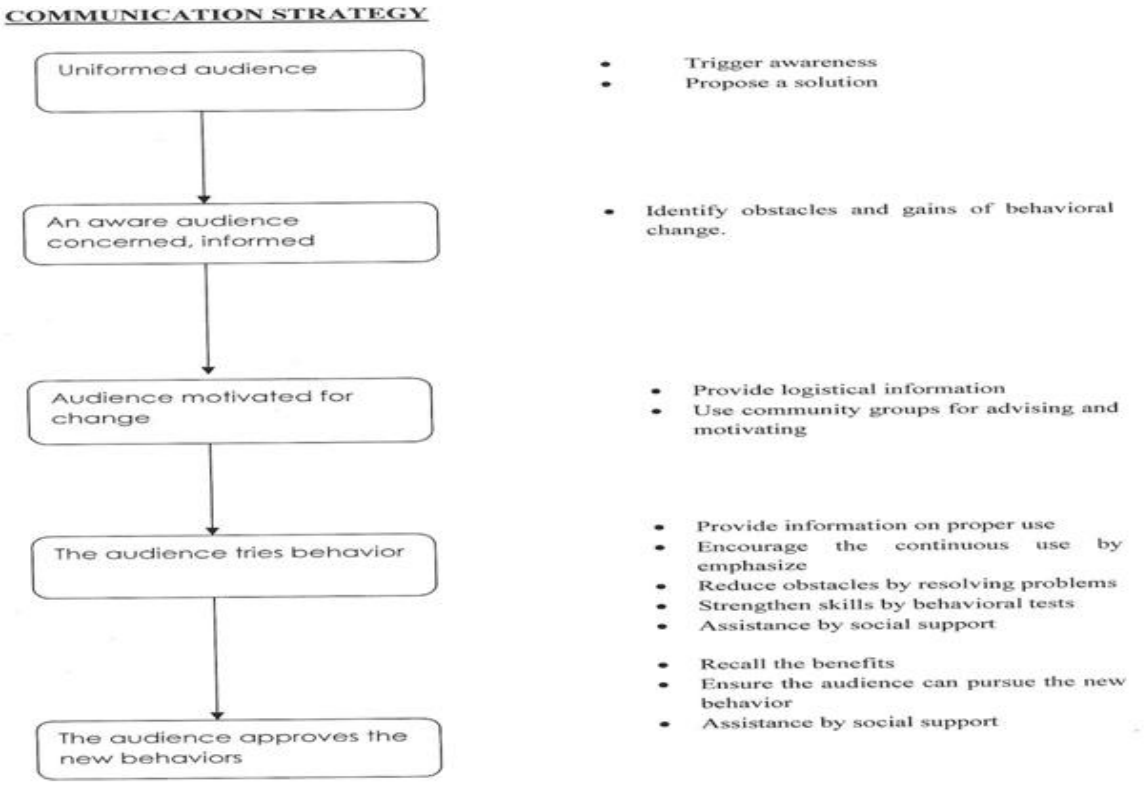
2. Local languages e.g. Inooro-Mugambo wa murimi

3. Supplementary Medium – written medium comprising

a. Pamphlets

b. Brochure

APPENDIX 2



APPENDIX 3

Communication Matrix

WHO (Stakeholders)	WHY (Objectives)	WHAT (Message)	HOW (Method)	WHEN (Period)
Smallholder Farmers Farmer-groups	Maintain interests in new technologies	Practice technologies on crops	Face to face, Radio & T.V., Pamphlets, Farm-fare, Exhibitions	Sept. 2021 To June 2022
Ministry of Agricultural Officials Extension workers DAO, AO crop officers	Reinforce understanding and acceptance of new technologies	Application of new technologies for improved crop yields	Face to face, T.O.T, Demonstrations, Pamphlets, Brochures Field visits	Sept. 2021 To Dec. 2022, Jan. 2023 To June 2023
Scientific Community Researchers Scientist	Share knowledge & evaluate performance of new technologies	Dissemination of findings on new crop technologies	Journal, papers, conferences, technical reports, leaflets, posters, evaluation and dissemination.	Sept. 2024 to Dec. 2025, Jan. 2026 to June 2027
Administrators D.C.s, D.O.s, chiefs, councilors	Increase awareness on importance of new technologies	Emphasis on new technologies for greater production of crops and food	Face to face, memos, policy briefs, leaflets and field days	Sep. 2028 to June 2029

WHO (Stakeholders)	WHY (Objectives)	WHAT (Message)	HOW (Method)	WHEN (Period)
Policy Makers, Min. of Agri., Min. of Trade, Min. of Livestock	Target support for project and new technologies	Importance of adopting new technologies & their impact on new crops and food security	Annual reports, Policy briefs, Progress reports, Seminars, Newsletters, Field-days	Sep. 2029 to June 2030
Agri-Business Enterprises Fertilizer –stockiest Bayer E.A TARDA etc	Raise & maintain awareness on quality of fertilizers, seeds chemicals	Availability of farming inputs	Face to face, Field-days, Seminars, Leaflets	Sep. 2029 to June 2030
Project Donors	Update & feedback on research progress	Performance and impact of new technologies for greater crop yields and food security	Annual reports, Progress reports, Website, Emails, Video, CDs etc	Sept. 2027 to Dec. 2028 Jan. 2029 to June 2030
All interested institutions and individuals, pupils, students, teachers, NGOs	Establish linkages and maintain good image	Importance of new technologies & impact on Agricultural products	Briefs on radio & television, Field days, Farm-fares, Demonstrations, Visits to sites, News papers	Sep. 2029 to June 2030
General public	Raise & maintain awareness on new technologies in crop production	Importance of best practices in improving crop production & food security	Agricultural shows. Radio & television programs, news papers	Sep. 2029 to June 2030

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