

CSIR- PGRRI Indigenous leafy vegetables (ILV) and Bambara groundnut (BGN) Seeds for Resilience (SfR) Germplasm User Groups Communication Strategy and Action Plan:

Project areas: Northern, Upper East and Ashanti regions of Ghana

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1. Project Background and Objective

The rapid simplification of the world's food basket and the corresponding erosion of genetic resources is a great concern of our time. In sub-Saharan Africa's hugely variable environmental, climatic, and cultural conditions, the high-input approach to agriculture has not been as successful as on some other continents. Meanwhile, hundreds of locally grown crop species and varieties are not exploited to their full potential in contributing to poor communities' livelihood because of limited investment in research and development as well as limited human and institutional capacity to study, develop and market neglected and underutilized species (NUS) such as indigenous leafy vegetables, tropical fruits, 'minor' grains, roots, tubers, and pulses (Padulosi *et al.*, 2013)

In sub-Saharan Africa, research support is minimal for early career scientists who are interested in developing new varieties of NUS. Additionally, enhancing, and commercializing NUS requires a 'value-chain approach' using collaborative action research involving multiple disciplines and multiple stakeholders, including the private sector. Such an approach differs in many ways from mainstream agricultural research and development (R&D). Consequently, the tools, methods and approaches required for such research are not well developed (RUFORUM, 2010).

As part of the Seeds for Resilience Project, the CSIR-PGRRI has chosen to focus on indigenous leafy vegetables (ILVs) and Bambara groundnut (BGN). Both ILVs and BGN are lesser known and/or underutilized species. Through the Germplasm User Group (GUG) engagement concept, the CSIR-PGRRI and its partners will promote the conservation and utilization of ILVs and BGN using the GUG concept to engage various actors in the value chains of the selected crops so as to harness their potential to build resilience to climate change, improve food and nutrition security, enhance sustainable livelihoods for rural households as well as address research gaps on the selected crops.

1.1 Project relevance

Ghana is endowed with nutrient-rich ILVs (Abbiw, 1990; International Plant Genetic Resources Institute, 1997; Atuna *et al.*, 2021). These serve as the main source of nutrients especially in resources poor households in the country (Yakubu and Kumah, 2019). Studies have been done on various aspects of ILVs including their nutritional value and use in the preparation of Ghanaian dishes, their conservation, potential for commercialization, preference by consumers, and agro-morphological characterization (Atuna *et al.*, 2021). However, non-appreciation of ILVs and urbanization have been identified as some leading factors that contribute to people's preference for exotic vegetables as against indigenous ones (Darkwa and Darkwa, 2013).

Bambara groundnut is a traditional indigenous crop mainly cultivated on a subsistence basis. The crop serves as an important source of edible protein, particularly lysine. It is complementary to staple cereals which are low in amino acids (Akpalu *et al.*, 2013). The ability of BGN to produce an appreciable level of yield where other crops such as groundnut fail have been established (Berchie *et al.*, 2016). More so, the balanced nutritional quality of BGN coupled with its tolerance to drought makes it a very important crop of choice to achieve food security, especially in the dry areas of Ghana.

Aside being underutilized, ILVs and Bambara groundnut were until recently, also less researched crops. Previous studies point to the fact that the cultivation of ILVs and BGN is mostly carried out by women (Ezeanya-Esiobu *et al.*, 2018, Bioversity International, 2017). This observation has far-reaching positive impacts on the nutritional security and sustainable livelihoods of rural households where these crops are cultivated.

With the expanding threat of climate change and in some cases its attendant drought coupled with the drying up of water bodies even when irrigation facilities are available, research on crops with inherent drought tolerant characteristics cannot be over-emphasized (Berchie *et al.*, 2016). Equally, the need to promote ILVs and BGN as key components of national farming and food systems through increased cultivation and consumption is very critical. Furthermore, promoting the mainstreaming of NUS can enhance crop diversity, alleviate poverty, and promote food security (Darkwa and Darkwa, 2013).

This GUG engagement component of the Sfr project therefore seeks to establish user groups of ILV and BGN by bringing together, key value chain actors including breeders or researchers (CSIR-PGRRI, CSIR-SARI and CSIR-CRI), farmers, policy makers and extensionists (the Ministry of Food and Agriculture), inputs dealers, traders, processors, the private sector, and NGOs to collaborate and develop new approaches for accessing ILV and BGN diversity from the national genebank for addressing challenges faced by smallholder farmers and other users within their operational contexts.

The overall objective of the project is to promote the conservation and utilization of ILVs and BGN.

The specific objectives are:

- To exchange experiences and build capacity for long term collaborative user engagement for the advancement and use of the CSIR-PGRRI's collections of ILV, BGN and possibly, other crops;
- To facilitate and improve access to the CSIR-PGRRI's collections of ILV and BGN groundnut by a diverse range of users;
- To increase the diversity and use of ILV and BGN germplasm for improving resilience to climate change through the direct engagement of users;
- To disseminate relevant information regarding the opportunities inherent in the CSIR-PGRRI's collections for users.

2. About this Strategy

This communications strategy and action plan aim to build the capacity of farmers and all the key actors (breeders/scientists) and foster good relationships among actors in the value chain in order to formulate, design, implement and disseminate the result of engagements on ILV's and BGN through the use of effective communication tools targeted at different audiences guide the CSIR-. The document would be updated as necessary to reflect the changing dynamics of the project. In this manner, project communications can adapt as necessary in order to remain effective and meaningful. The most recent version of the strategy will be available on the CSIR-PGRRI (Project) website.

3. The Communications Strategy: Purpose, Principles and Objectives

3.1 Purpose

The purpose of the communications strategy is to serve as a framework document to guide all project communications in promoting the conservation and utilization of ILV's and BGN in Ghana. It is expected that good communication, both 'internal' and 'external' will support learning, increase stakeholder buy-in and engagement, and lead to deeper project impact.

3.2 Goal

To promote the conservation and utilization of ILVs and BGN in Ghana

3.2 Objectives

1. To increase farmers and other germplasm user's awareness of and access to the diversity of ILV and BGN germplasm at the national genebank and facilitate their utilization.
2. To enhance the visibility of the national genebank to the public and increase the publicity of the SfR Project to key stakeholders including policy makers, researchers, students, industry and other collaborators.

3.3 Principles

The communication strategy and interventions are founded on four 'i' principle. Communications should:

Inform – information provided and exchanged should be relevant and able to be used or applied. For NUS information to be informative, it must be available, accessible, and applicable.

Inspire – sharing information should be inspirational. By exchanging ideas, we generate new knowledge and drive innovation.

Include – effective communications should facilitate a sense of community and engagement, particularly amongst active project partners.

Interact – communication should never be one-way. We will work towards building in feedback mechanisms and tools for multi-way exchanges so that knowledge remains relevant and demand-driven.

COMMUNICATION GOALS

4. Communications Sustainability

Active communication interventions will only be made during the life cycle of the project. Using the onion theory of communication, the project will establish linkages with relevant organizations and ILV knowledge providers (Breeders, farmers, agricultural extension agents, marketers among others) for project output and knowledge sharing, repackaging and re-dissemination, to ensure project memory.

5. Audiences and Knowledge Stakeholders

The project’s communications strategy will be effective only if the target audience is clearly defined. For each audience, there are appropriate communication channels, time scales and content types. The list of key audiences and communication channels was collaboratively developed by project partners during the project inception meeting. The list (Table 1) will be updated frequently as new information about users and communication channels are identified.

Table 1: List of key audiences and communication channels for disseminating information on ILV and BGN

Target audience	Appropriate communication channels
Farmers (ILV and BGN)	Face-to-face (F2F) meetings and personal outreach WhatsApp platforms Field fairs for ILV and BGN <u>user groups</u> / Exhibitions, Brochures in local languages
Internal project partners and actors (Project collaborators including the identified Social scientists and plant breeders teams) (CSIR- SARI; CSIR-CRI)	Email (email group) WhatsApp (WhatsApp Group) F2F Webinars Meetings and workshops Website (Resources: e-newsletters, articles, photos and videos in particular) Partner websites and blogs if possible Annual report

	Technical reports
<p>Ministries of Food and Agriculture: Barekese- Atwima Nwabiagya District, Boadi-Oforikrom Municipal Naransaag: Binduri District, Bugri bulpielis-Tempene District Assembly (The Directorate, Extension agents and other field officers)</p> <p>Nyankpala/Golinga: Tolon District Assembly</p> <p>Libga: Salevugu- Nanton District Assembly Seed Inspectorate Division in the Northern, Ashanti and Upper East regions</p>	<p>Newsletters sent by post or email User Group meetings (brochures, information/ fact sheets, F2F contact Policy briefings Annual reports</p>
<p>Ministries of Science, Environment, and Innovations (Monitoring and Evaluation team)</p>	<p>Newsletters sent by post or email Webinar presentations (brochures, information sheets) F2F contact Policy briefings Field visits Annual reports</p>
<p>NGOs and relevant ILV/ BGN ground nut /NUS working groups</p>	<p>Workshop Exhibitions Field fairs (F2F and brochures, fact sheets) Annual reports</p>
<p>Private Sector National Seed Traders Association of Ghana (NASTAG) RMG Groupe LIMAGRAIN</p>	<p>Website F2F through personal networks Meetings Fact sheets Flyers Brochures Annual reports</p>
<p>External Project partners (Crop Trust; Project consultants; Project Manager)</p>	<p>Project reports Website (Resources: e-newsletters, published articles, documentaries and photos in particular) Webinars Meetings (F2F) & Virtual Workshops/ Training WhatsApp Group One-to-one email Email (Email group) Social media (FB, X posts You Tube videos, Flickr photos)</p>

	Annual reports
General Public	Website Radio talk shows TV documentaries / YouTube videos Social media (Posts) Brochures/Flyers Pull up stands Project information contact Exhibitions

6. Communication Responsibilities and Management

During the project inception meeting with the Crop Trust user group consultant, it was emphasized that all project partners and stakeholders are communicators and play a role in sharing news, results, and other project information. However, it is also clear that there needs to be one individual (or unit) charged with core communication activities for the project, including website development as embedded in the project document. At the inception meeting in April, 2022 at the CSIR-Crops Research Institute, it was reiterated that this responsibility would be carried out by a communication team (Yaw Kwateng, Dr. Joseph Bandanaa, Dr. Daniel Ashie Kotey, Solomon Nkrumah and Emmanuel Danquah) with specific timelines as well as coordinate project communications/ information related activities at the two project locations in the Northern and Southern sectors of Ghana.

Communications Channels

Social Media

- WhatsApp platforms
- Social media (Facebook and X posts)
- Instagram
- YouTube videos
- Flickr photos

Materials

- Brochures in local languages
- Policy briefings
- Information sheets (possibly in local languages)
- Fact sheets
- Project reports
- Pull up stands
- Annual reports
- Newsletters
- Articles
- Flyers
- Book

Online

- Email (email group) + One-to-one email
- Website (Resources: e-newsletters, articles, photos and videos in particular)
- Partner websites and blogs if possible

- Newsletters sent by post or email

Media

- Radio talk shows
- TV documentaries

8. Planned Communication activities for 2023/24

In Person

- Face-to-face (F2F) meetings and personal outreach
- Field fair / Exhibitions
- Meetings and workshops
- User Group meetings (brochures, information/ fact sheets, F2F contact)
- National and regional and international meetings
- Symposia
- Exhibitions
- Workshops/ Training

Online

- Webinar presentations (brochures, information sheets)

The Gantt chart below illustrates key communication activities that are planned for the first 15 months of the project. In the main, they relate to the establishment of important communication infrastructure and procedures.

Key activities include:

1. Development and circulation to partners of a draft Communications Strategy outlining core communication principles, audiences, and information dissemination approaches.
2. Implementation of email and WhatsApp groups for project partners and key stakeholders. This will simplify and strengthen internal project communication.
3. Development and implementation of a project website, which will serve as the interface between the genebank and the general public as far as the SfR ILV and BGN GUG activities are concerned. The website is envisaged to host project news, proceedings and meeting reports, images, videos and documentaries. A core component of the website will be an e-resources webpage for promotional material developed as part of the project; Project and media webpages to capture project news, activities and other moments. This will host a series of practical tools (such as guidelines and manuals, publishing support tools etc.) to support early career NUS researchers. The website will further host researcher profiles, ILV/BGN publications, and links to external ILVs/BGN resources including relevant regional and international networks. There will also be links to database systems such as Genesys, GBIF as well as CSIR-PGRRRI social media platforms including Flickr, Facebook, and Twitter.
4. Publication /development of a logo or visual identity for the project.

5. Implementation of a subscription module on the website allowing users to receive periodic email updates and newsletters. This will be paired with the development of a newsletter template for both HTML (email) and PDF (print) dissemination.

7. Communications Monitoring and Evaluation

Active steps will be taken to ensure that project communications and information dissemination are **timely, relevant, and effective**. Feedback channels, including an email address and instant chat response (e.g., WhatsApp) for questions and comments related to the project and its communication will be established and promoted. Website and social media statistics will be used to monitor trends in website usage and user location. Face-to-face meetings will be used as an opportunity to address user requirements and expectations. Structured questionnaires and other indicators will be developed to evaluate the efficacy of communication interventions.

Indicators for Measuring Communication Success will include;

- The number of target audiences reached and engaged on social media and other networks
- Feedback sessions from meetings from targeted audience.
- The number of targeted audiences visiting the genebank, the website, or emailing or contacting the genebank via phone calls.
- The number of germplasm requests made in a year.

Communications activity plan for 2023/24

Key Activity	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Presentation and active discussion with partners regarding Project communications	█														
Draft communications strategy developed and circulated.	█	█	█												
Group email/list serve for partners set up and operating	█	█													
Logo/identity developed				█											
Website development and content generated	█	█	█												
Website User Agreement Testing				█											
Website training/ Website live and publicly available					█										
Development of project promotional resources e.g. documentaries, flyers, pull-up stands					█	█	█								
Radio talk show- Southern/ Northern							█	█							
Photobook collection of ILVs and BGN accessions								█							
Publication of Preliminary studies of ILVs and BGN									█	█					
Newspaper article on										█					

ILVs/BGN																
Exhibition- Southern/ Northern																
Mounting of billboards on demonstration sites																
Develop factsheet of ILVs and BGN																
Develop MCPD Book and Factsheet																
Compile and publish ILV & BGN data on GGCE & Genesys																
Sensitisation workshop Presentation of characterisation data to user groups																
GOAL Workshop																
SFR User Group Dissemination workshops																
Policy dialogue meeting																

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