

# Report on the Food & Business Applied Research Fund Ghana Projects Workshop

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The background of the page is a photograph of a terraced rice field. The terraces are filled with green rice plants. In the middle ground, a person is visible working in the field, and a water buffalo is standing in a small pool of water. The overall scene is rural and agricultural.

## EXECUTIVE SUMMARY

The Food & Business Applied Research Fund (ARF), an initiative of the Ministry of Foreign Affairs of the Netherlands, which focuses on enhancing global food security in cooperation with the private sector, organised a Ghana ARF workshop on the 12<sup>th</sup> December 2016. More than 30 participants undertaking ARF projects in the West African sub-region attended this one day workshop. The workshop agenda included presentations by various project teams and plenary discussions which aimed at achieving the following objectives:

- Ensuring collaboration among on-going/ already existing initiative and aligning with new policies
- Making project results visible
- And identifying factors that influence our communication.

This workshop recommended the need for the various projects to collaborate through better linkage with other research platforms for the optimisation of output-outcome relations. Furthermore, the sustainability of research project funding and findings, marketing of research results, meeting safety standards and the need to engage local authorities and politicians through “success stories” were also identified as vital to achieving policy relevance and the initiative’s key goal. This goal is to sustain access to sufficient and healthy food for most vulnerable people.



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The background of the page is a photograph of a terraced rice field. The terraces are filled with green rice plants. In the middle ground, a person wearing a blue shirt and a hat is standing in the water, guiding a large water buffalo. The buffalo is also in the water, and its head is visible. The field is surrounded by a low wall or embankment. The sky is not visible, and the overall scene is a rural agricultural landscape.

## 1. INTRODUCTION

This is the report of the Food & Business Applied Research Fund (ARF) Ghana country workshop, organised by NWO-WOTRO Science for Global Development and the Food & Business Knowledge Platform (F&BKP) in collaboration with the Ghanaian University for Energy and Natural Resources. Mainly, the workshop aimed at enhancing policy impacts of research projects and building collaborations between ARF Ghana projects, while improving food and nutrition security.

The one-day workshop held on Monday, December 12, 2016, in Accra, Ghana attracted thirty representatives from the four ARF projects and the local institutes invited. The workshop was divided into two separate sessions. The morning session of the workshop entailed presentation of the four ARF research project. Selected ARF research projects were presented to share their experiences (successes and challenges). These ARF project presentations sought to explore ways of ensuring global food security by integrating stakeholder interests and involvements in research. The afternoon session, on the same day saw further deliberations on enhancing the relevance of research projects.



## 2. WELCOME WITH OUTLINE ARF APPROACH

Corinne Lamain (NWO-WOTRO) welcomed all the participants on behalf of the workshop organisers and outlined the objectives of the one-day workshop, which were to enhance joint working and learning in order to enhance policy relevance and impact on society in Ghana. ([Click to view presentation in PDF](#))

The ARF Ghana country workshop seeks to enhance collaboration among other ARF projects in the West African sub-region and most importantly enrich research for food and nutrition security among the Ghanaian society and Africa at large while improving policy impact of the research projects.



Figure 1: Corinne Lamain addressing the participants

To achieve these outstanding objectives there is the critical need to implement the problem definition and impact pathway in the analysis of ARF projects. Key within the analysis is the output outcome and impact flow chart (see slide 2 and 4). The output builds relations to the direct and immediate results obtained by a research project which goes further to influence the research outcome in behavioural relationships, actions and activities of stakeholders as a result of sharing and uptake of the research. All these come down to facilitating the research impact by changes in economy, environmental or social conditions for which these projects are raising interest.

The Office of the Food & Business Knowledge Platform F&BKP and NWO-WOTRO work together in increasing the impact of research on global food security implemented under the Food & Business Research (F&BR) programme. F&BR connects the Food and Business Knowledge Agenda of the Ministry of Foreign Affairs with the top sector approach of the Ministry of Economic Affairs. The F&B Applied Research Fund (ARF) is one of the funding mechanisms under FBR, the other instrument is the F&B Global Challenges Programme (GCP). The ARF projects feed their output and outcome into the platform.



### 3. DUTCH POLICY ON FOOD AND NUTRITION SECURITY by Thierry Van Helden

A representative from the Netherlands Embassy, the 1<sup>st</sup> Secretary of Economic Affairs, gave a report on the partnership between the Ghanaian and the Dutch government.

The Netherlands over the years has been and is still a firm supporter of the Agriculture sector of the Ghanaian economy. This firm support is more evident in the Dutch government being the biggest partner in the cocoa



Figure 2: Mr. Thierry van Helden, Netherlands Embassy

production, which is the backbone of the agricultural sector in Ghana. The Dutch government supports agriculture through applied research funding of crucial agricultural centred projects and studentship packages to upgrade the human resources potential. He also urged on the need for the Ghanaian government to start appreciating and adapting to trade instead of focusing on the frequent support from the Dutch government. All these Dutch-sponsored aids and commitments are to ensure agricultural growth in Ghana.

He further stated that as a means to create self-reliance in the agricultural sector of Ghana, the imperative attention of the Ghanaian government to agriculture must be upheld in four spheres. These are:

- Increasing the budget for the Agricultural sector
- Building an enabling environment for economic growth.
- Encouraging the involvement of private sector in the agriculture/ business agendum.
- Increase and establish research funding options.

He concluded that with an adequate blend of policy and initiatives by the Ghana government, the gradual shift from "Aid to Trade" can be realised by the year 2020 when the Dutch donor support is expected to end. This new Dutch policy rest on the "Dutch diamond" approach: the working together of government, civil society, knowledge institutes and business. The aims, goals and status of the ARF are well built on the foundations of the Dutch policy.



## 4. PRESENTATIONS BY ARF PROJECTS

The representatives of the various project teams presented their projects and were sub-divided to focus on their preliminary research findings, how they deal with the process from output to outcome, and what approaches they use to reach the (ultimate) target group.

### Research results:

#### 4.1 Presentation by Daniel Asamoah Kyei ([click to view presentation in PDF](#))

**Project title:** Development of Automated solar powered fruit drying technology for smallholder farmers in Ghana.

**Institute:** Eucharía Farms

Brong-Ahafo region of Ghana is being characterised by mango farming in smallholder proportions. There is a huge pre and post-harvest loss recorded annually of about 50%. This project sought to create a small scale fruit processing at the farm level using low-cost technology to reduce post-harvest losses of fruits. This thereby improves household income and nutritional status. After critical research study on existing fruit dryers from other African countries, a hybrid fruit automated drying technology was developed with the involvement of local artisans. With more test processing on mangoes, the dried fruits met the required safety standards for human consumption. The next steps include a business model and connecting farmers to markets, to reach sustainability in commercialization.



Figure 1: Daniel A. Kyei during his presentation

### From output to outcome:

#### 4.2 Presentation by Richard Yeboah ([click to view presentation in PDF](#))

**Project title:** Utilisation of organic waste to improve agricultural productivity in Ga west municipality, greater Accra, Ghana.

**Institute:** MDF training and consultancy

This project aims to improve food security and livelihood through improved agricultural and sustainable organic waste management in the Ga West Municipal Assembly. It thrives on youth engagement in the organic waste collection and compost production and on upgrading farmers' output through organic waste. The organic recycling process is broken into three main sections, which are segregation/ collection, composting and sales of this fine-tuned fertilizer. The aim is to both curtail youth unemployment and improve agricultural productivity. This is evident over the last



Figure 2: Richard Yeboah during his presentation



few months. Various benefitting farmers have expressed exciting feedback due to increased yields. The youth category had to be enlarged, to the age group 20-40 years, as these were more interested to become engaged in productive employment which has improved their monthly income. Market access and inclusion of private partners are among the next steps.

### **Approaches to reach ultimate target groups:**

#### **4.3 Presentation by Wolarli Senyo and Ellen Van Andel ([click to view presentation in PDF](#))**

**Project title:** Water and weather monitoring services in Ghana's Cocoa region: Innovative weather censoring and information services for local farmers.

**Institute:** FarmLine Limited and Delft University of Technology

The weather of a location can largely influence the outcome of a farmer's yield. The project aims to use information on weather records as a tool for cocoa farmers to make accurate and informed decisions for efficient production. Cost effective and robust weather instruments such as weather station were established in the areas to provide farmers with accurate information. Unlike the general satellite meteorological monitoring of weather patterns and predictions with information that is too broad, the project collects precise information from specific locations spanning for over 30 data collection installed stations. The detailed collected data is then available via mobile for a low rate to the cocoa farmers for effective decision making to increase cocoa production. The next step is to apply this to other cases and to develop a manual.



*Figure 3: Ellen Van Andel during her presentation*

#### **4.4 Presentation by Valerie Fumey Nissah ([click to view presentation in PDF](#))**

**Project title:** Improving smallholders' food and income security by introducing non-timber forest products in reforestation schemes and tree-crop farms: A collaborative learning process in Ghana.

**Institute:** Forestry Commission of Ghana, University of Amsterdam

This project focuses on the increase in food and income of tree-crop farmers in the Modified Taungya System (MTS) and in off-reserve areas. Specifically to build farmers knowledge and capacity on the production of Non-Timber Forest Products



*Figure 4: Valerie Fumey Nissah during her presentation*



(NTFPs) such as black pepper, grains of paradise and honey. The project relates to the Forest and Wildlife policy of 2012. A major issue is how to enhance the collaborative learning processes on sustainable NTFP production and marketing by involving farmers and policy makers. The stepwise collaborative learning approach framework and other approaches were adopted to state some ways to reach various target groups to achieve the objectives of the project. In conclusion, several approaches such as farmer-to-farmer and study tours were a useful medium to transfer knowledge. Farmers' incomes and livelihoods of 150 farmers in 3 communities were improved as well as their capacity to increase the production of black pepper and honey yields. The projects will work on marketing in the next period.

#### 4.5 General discussion on cross-cutting issues

After the presentation trending issues that run through all projects were identified. Participants engaged the presenter on the questions below.

##### **What role does Sustainability play in a research project?**

The sustainability of project results and implementation is key to solving the problems of society and achieving positive results. These research outputs in forms of implemented policies must be highly competitive and result orientated to attract the target audience. Furthermore, given the African setting, a low cost of these research results utilisation enhances affordability to the primary stakeholders particularly, the youth and farmers.

##### **Is there a need to market research results?**

Marketing of research results and its implementation presents attractiveness through awareness creation. The heights of such research policies should be used as a bargaining tool to lure stakeholders, especially policy implementers.

##### **How effective are research partnership?**

The fortification of a research to encompass key areas is best done by knowledge acquisition, financial sponsorship and data collection through teamwork. Partnering with various research institutes and consultancy groups enhances and builds a cleaner picture into solving this societal, environment and economic issues as well as building a more comprehensive research policy. Private enterprise involvement stimulates innovative ideas and entrepreneurship, hence job creation.

##### **How relevant are Safety standards in research visibility?**

Procedures of the research project and outcomes are required to meet safety standards suitable to society and human health. This broadens the scope of acceptability of research policy and further ensures its sustainability.

##### **Technology Adoption and its essence?**

The involvement of locally adapted technology is highly crucial in achieving positive results and actualising the objectives of research projects. Technology bridges the



gap of delays, knowledge accuracy, distance, information processing and delivery.

## 5. ENHANCING POLICY RELEVANCE OF THE PROJECTS by Wilhemina Quaye

**Institute:** Council for Scientific and Industrial Research- Science and Technology Policy Research Institute (CSIR-STEPRI)

To establish policies to address the sustainability of projects, strong research guidelines need to be addressed to solidify the policies. The policy relevance of the projects on food & nutrition security is connected to Ghanaian policy as well as to the global agenda. These projects must be long-lasting to test a project's quality and the creation of green jobs. Understanding the target audience and tailoring these policies into more relatable formats is encouraged. All these have a positive impact on the implementation of research policies. Communication strategies can be largely pursued from three main angles. These angles are: Use of policy briefs; Policy symposiums; Engagement of advocacy groups.

Factors that influence the formation of policies are:

- Information sharing of evidence and interaction at the local governance level before the project starts.
- Use of existing learning platforms to create awareness of research results.
- Influence discussion model.
- Making the project product sellable to existing policy initiatives.
- Explore networks that can be developed.
- Documentation of guidelines/manuals to help adaption.
- Linking up with broader networks that could have a positive influence.
- Engage in issues that come up.
- Identification of key stakeholders and clearly outlining the agenda.



## 6. THEMATIC SESSIONS FOLLOWED BY PLENARY

Three ideas for a parallel session were identified, and the audience could participate in the session of their choice. The themes relate to issues that are relevant for the ARF projects in Ghana. After the parallel sessions, a presentation was given by each group of their main conclusions.

### 6.1 Sessions: Making project results visible

The scope of project results cuts across all research projects, both in general and specific ways. In order to tease out various ways to make project results visible, various categories of groups need to be considered to enable the use of diverse approaches and methodologies. The group identified two perspectives which could be addressed to make project results visible to everyone.

Avenues which could be considered to make projects in ARF generally visible are:

- Through organised workshops.
- Websites/ information sheets/ social media/Brochure/fliers.
- Agricultural related exhibitions during events such as farmers' day.
- Study tours and cross farm visits.
- Demonstration fields.
- Radio/ TV programs (adverts and discussions).
- Publications of results/reports and disseminate to all stakeholders.

The more specific visibility of projects under ARF can be facilitated through the identification of relevant stakeholders at the local, regional/district and national level. By carrying the projects with these stakeholders along the implementation process and during the execution of the project, the results will be more readily available to them.



The group then discussed in detail some specific ways to make the project results visible to the local, regional/district and national level.

LOCAL	REGIONAL/DISTRICT	NATIONAL
Community radio/information centre.	Workshops	Publications and dissemination of results
Engagement of chiefs/opinion leaders	Platforms/meetings (assembly men)	Policy briefs
Making results readily available to product associations.		Mainstreaming the results into the national plan.
Consumers having a taste or real feel of products.		

Some points such as consumers having a taste or real feel of products and publications and dissemination of results could be applicable to all three sections.

## 6.2 Session: Ensuring collaboration among on-going initiatives and aligning with new policies

To ensure collaboration among existing initiatives, the development of a policy directional document was put forward by the six-member panel. This is to be done with the involvement of policy makers and the local authority in order to move the policy from the national to the local level. Creation of a platform for knowledge and concept sharing among key actors was also seen as another avenue to enhance the collaboration. Information about on-going projects can and may lead to research collaboration or induced partnership where needed. However, the availability and accessibility of such information were seen as a challenge.

## 6.3 Sessions: Is there a need for special communication skills for dealing with community stakeholders in research projects?

A general form of communication format and medium is used to address every stakeholder within the developmental stages of a project. This, however, yields substandard results. There is the need to have a more effective communication approach to address varying stakeholders.



## **Factors that should influence our communication**

- Cultural beliefs.
- Level of education.

## **Ways of communication**

Given the African context, oral means of communication should be exploited e.g. Radio talk shows, community discussions (farmer meetings, field visits) and informal interactions.

- Audience specific approach.
- Tailoring of messages to particular audience groups.
- Identification of community and understanding their background and culture, and exploring communication channels.
- Bridging the void between the rural and district leaders and the government.
- Build up interest by discussing and propagating the benefits of a project to ensure participation.
- Face to face experience.
- Targeting civil groups, governmental organisations, private agencies and other relevant stakeholders that can influence positive change by enacting favourable policies and practices.

### **6.4 Presentation of session results and general discussion**

After the presentations of each session, as mentioned above, the general discussion concluded that the development of a strong network of various project coordinators is necessary to sustain research platforms. This will enable coordinators to gain and share knowledge or models which will ensure the sustainability of individual projects. To achieve the relevance of a policy from research projects, the evidence policies supported by research should be communicated on a solid basis to reach target groups. For this it is necessary to include non-scientific actors to partner in the projects and to implement results.



## 7.0 CONCLUSION

Cora Govers of NWO-WOTRO presented some of the main observations of the day. The approach of ARF rests on transdisciplinary applied research, which means that various kinds of actors – from knowledge institutes, private sector, civil society and government - work together to develop and execute research that will lead to applicable results. The ARF projects in Benin show how well such an approach reaches the target groups that need support to enhance their food and nutrition security. Using organic waste provides jobs for collectors and increases yields as well, dried fruit processing to increase small-farmer's incomes, precise weather and water monitoring becomes available for small farmers, and shade-tolerant non-timber forest products are introduced to tree-crop farmers. The projects show very interesting results. The challenge now is how to take the next steps: to look at market opportunities and to influence policy. Many ideas came up this day that can be used. The participants mentioned the need for projects to work together, to involve policy makers more and to reach out to beneficiaries. An important way to move forward is, as mentioned, to discuss and reflect upon our own assumptions, and to this end the Theories of Change and Impact Pathways could be exchanged and revisited. This way the projects can together work on: How does what we do influence impact, and how can we improve this? A national workshop with stakeholders and a virtual platform were activities that will hopefully be picked up between the projects. This would enable the wish expressed by many to draw out lessons, to write policy documents, to tailor communication to specific target groups and to engage in issues that come up. Today could be the start for joint activities that extend the projects to other stakeholders on local, regional and national level.

She profoundly thanked all the participants, presenters, organisers for their active participation and highlighted the local support, provided by Dr Mercy Derkyi and her team, which resulted in a very smooth running and lively day.





## **Annex 1 LIST OF ABBREVIATIONS**

ARF	Food & Business Applied Research Fund
CSIR-STEPRI	Council for Scientific and Industrial Research - Science and Technology Policy Research Institute
F&BKP	Food & Business Knowledge Platform
GCP	Food & Business Global Challenges Programme
MTS	Modified Taungya System
NGO	Non-Governmental Organisation
NTFP	Non-Timber Forest Products
NWO	Netherlands Organization for Scientific Research
WOTRO	WOTRO Science for Global Development