ANNEX V
INTERIM NARRATIVE REPORT
Year 2 (31/05/2013 – 30/05/2014)

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### 1. Description

| 1.1. Name of beneficiary of grant contract: | Natural resources Institute, University of Greenwich at Medway |
| 1.2. Name and title of the Contact person: | Professor Andrew Westby |
| 1.3. Name of partners in the Action: | University of Agriculture, Abeokuta, Nigeria Council for Scientific and Industrial Research, Food Research Institute, Ghana Tanzania Food and Nutrition Centre, Tanzania Africa Innovations Institute, Uganda University of Malawi, Chancellor College, Malawi Naliendele Agricultural Research Institute, Tanzania |
| 1.4. Title of the Action: | Improving the livelihoods of smallholder cassava farmers through better access to growth markets (CassavaGmarkets) |
| 1.5. Contract number: | DCI-FOOD-2012/290-6 |
| 1.6. Start date and end date of the reporting period: | 13 May 2013 to 12 May 2014 |
| 1.7. Target county (ies) or region(s): | Ghana, Nigeria, Tanzania, Uganda, Malawi |
| 1.8. Final beneficiaries &/or target groups! (if different) (including numbers of women and men): | Final beneficiaries: Small-holder cassava farmers; Processors; Employees of Small and Medium Scale Cassava Processing Enterprises; implementers of cassava value chain development initiatives

Target Groups: Small-holder cassava farmers; Processors; Employees of Small and Medium Scale Cassava Processing Enterprises; Scientists in beneficiary countries, Institutions, Small and Medium Enterprises; Users of cassava flour and related products. |
| 1.9. Country(ies) in which the activities take place (if different from 1.7): | India |
2. Assessment of implementation of Action activities

2.1. Executive summary of the Action

In this reporting period, activities have commenced for all workpackages. During this reporting period there were two annual meetings being at the Federal University of Agriculture, Abeokuta, Nigeria, 2 to 5 August 2013 and the other at the Central Tuber Crops Research Institute (CTCRI), Kerala, India, 14th to 19th May 2014. These meetings were used to assess project progress and plan ahead for the following year. The Project Committee coordinated activities via email at other times.

A ROM mission was undertaken in Tanzania in June 2013. The logframe was revised. A number of minor changes were made (highlighted in red) which reflect the progress of the project. The project is on target to deliver the outputs but some are delayed slightly. This was because some outputs required inputs from the CAVA project and these can add much value to the project. Other delays were due to the need to depend on the harvest times. The project is on track and is adding additional value in a number of instances. The summary for each workpackage is as follows:

Workpackage 1. Assessing the impact of climate change on cassava flour value chains

The project outputs are on track and a number of additional outputs have been achieved. Climate change projections have been identified and potential impacts have been assessed. This is the first time that climate change has been investigated with regard to the post harvest aspects of cassava.

In addition, an MSc study of the impact of climate change and variability on cassava flour value chains in Brong Ahafo, Ghana based on field work has been completed; an MSc study on the impact of climate variability on cassava flour value chains in Nigeria is ongoing.

Workpackage 2. Understanding the impact of cassava brown streak disease in producing HQCF

The main objective of WP2 is to generate new knowledge on the dynamics of cassava brown streak disease that will feed into cassava value chain development in the affected communities. The activities of WP2 were delayed by one cropping season but the three major field experiments started in earnest in 2014 and they are currently progressing well. The laboratory activities to date include testing for virus infections by PCR and multiplication of virus-free cassava lines for research purposes are also progressing well. Together, these activities will generate new knowledge to enable affected communities to benefit from cassava value chain development. We will also identify new sources of resistance for the disease which will be highly useful for developing control strategies for the disease. The above WP2 activities are currently conducted in Tanzania. One of the activities of WP2 included recruiting a PhD student from NARI Tanzania and this has been delayed due to identifying students who can pass the IELTS exam required to study in the UK.

Workpackage 3. Developing specific technologies to improve the efficiency of household/village and SME level processing

WP 3 successfully identified best bet solar drying technologies in Benin Republic, improved and adapted in Nigeria and now under validation in Malawi and Tanzania. A PhD student at FUNAAB is optimising of solar dryer. Early adoption of solar dryer by the project beneficiaries indicates an encouraging trend to improve the efficiency and functionality of household/village and SME level processing that will ensure profitable and sustainable cassava enterprises. The project assessed and improved flash dryer using kerosene, diesel and solid waste that reduced 50% fuel usage during drying. This technology has been adopted in Malawi and currently under installation in 20 SMEs in Nigeria.

The project concluded assessment of bin dryer in Ghana and is about to improve the efficiency of bin dryers in Ghana.
The potential impact emanated from CassavaGmarket project is working with Cassava: Adding value for Africa. Sequel to the continuous research on climate friendly flash dryer, the Federal Government of Nigeria and Bank of Industry commissioned C:AVA-CassavaGmarket Fabricator, Nobextech to deliver 19 Flash dryers to SMEs. There is another indication that World Bank-CORAF/WECARD sponsored project tagged Upscaling flash drying experience in Nigeria is commissioning Nobextech to deliver 4 flash dryers to Nigeria, Ghana, Benin Republic and Sierra Leone.

Workpackage 4: Ensuring the safety and quality of processed cassava products in market orientated production

The objective of workpackage 4 is to ensure the safety and quality of processed cassava products in market orientated production. Results obtained from activities conducted so far clearly show that some processing methods are efficient in producing HQCF which meets required quality and safety products. Work conducted in Malawi, Ghana and Uganda has demonstrated that grating followed by pressing reduces HCN to safe levels of below 10ppm as recommended by WHO. In addition, work conducted in Uganda has demonstrated that chipping followed by soaking for 24 hours also reduces HCN to safe levels. These results have strengthened the strategy taken by C:AVA project to promote HQCF by grating followed by pressing and not through chips. Results from Uganda also indicate chipping followed by soaking for 24hours has potential to generate products that have HCN levels below 10ppm. So far drying methods such as sun drying, hybrid solar dryer and solar seem to be efficient in producing acceptable quality and safe products. Work conducted in Tanzania aimed at assessing the safety and quality of high quality cassava flour prepared from cassava harvested in the evening and that harvested in the morning showed that that there was no significant differences in quality.

Results from evaluation of different approaches to ensuring the quality of HQCF and its products in the value chain has determined critical control points for cassava flour. Two key areas were considered and these included those related to process control quality issues and good manufacturing practices. Based on these findings significant hazard and quality defects were identified and interview question drafted for use during evaluation stage. Therefore activities have generated exciting results which will result in generating best practice guidance to ensure the safety and quality of HQCF.

Workpackage 5. Expanding the range of uses of cassava flour to meet identified market demands

A total of about ten new and innovative uses of high quality cassava flour have been assessed and found very acceptable by consumers. The project required that by month 24 at least three new uses of HQCF be established, but this has been significantly exceeded. Each project country has identified at least one new use and the innovative uses identified in each country can be shared for adoption in other project countries. In Nigeria, chin-Chin from Composite Of Wheat, Mushroom And High Quality Cassava Flour, Crackers from with High Quality Cassava and fish Flour, High Quality Cassava-Cowpea Flour Extrudates, Fibre-Rich Fried Cassava Snack, Doughnut From Wheat – Cassava Composite Flour were developed as well as Deep Fat Fried Yellow Flesched Cassava Root Slices. These new uses when adopted would provide market opportunities for HQCF producers which would contribute significantly to expanding markets for HQCF. This will contribute to creating new market opportunities for HQCF and related products to ensure returns to value chain participants and continued growth in market’; and specifically addresses the work package title which is to expand the range of uses of cassava flour to meet identified market demands.

Workpackage 6: Maximising the gender and livelihood impacts of cassava value chain development

The results of the workpackage are on target and focus primarily on Uganda. The final output of the work package is a paper for publication along with other communication materials. This will not be finalised until Year 3 (as scheduled). The C:AVA Impact Survey which will provide quantitative data for the three case study countries is delayed but data should be available in September. Subsequently, a draft paper was written with the data available from the fieldwork in Uganda and literature review, which is submitted with this report. But it is expected that this paper form part of the final paper which includes results from the quantitative impact survey and other countries.
Workpackage 7: Establish best practices and dissemination of project outcomes
The review of previous studies of value chain development has been useful in identifying critical factors for success which will inform the further learning within the project. The development of the website and the dissemination strategy document have established the framework and mechanisms for effective communications, both internal and external.