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MINISTERE DE L'AGRICULTURE, DE L'ELEVAGE ET DE LA PECHE

SECRETARIAT GENERAL DU MINISTERE

Institut National des Recherches Agricoles du Bénin

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STDF-48 Project

Progress Report June - December 2009

STDF	STDF – 48
Approval Date	February 2006
Start date of project	The contract between STDF and CRA-Agonkanmey was signed on 15. July 2008, but activities have started since February 2008 pre-financed by both IITA and PTAA due to agricultural season

BROAD PROGRESS ACHIEVED DURING THE PERIOD JUNE – DECEMBER 2009:

- Influence of packaging on microbiological and physicochemical qualities of shea butter in the northern part of Benin. Master thesis has been written and defended.
- Effect of shea nuts drying and storage systems on physicochemical qualities of shea butter performed.
- Tests on technologies for improving cashew and shea products quality performed such as:
  - Study on drying and storage technologies of cashew nuts and kernels;

Broad Work achieved during the period of June – December 2009: Research highlights (in attached files)

- Influence of packaging on microbiological and physicochemical qualities of shea butter in the northern part of Benin. Master thesis has been written and defended.

abstract MSc thesis on shea butter.doc

The main results show that the number of total germs, yeasts and mould vary according to packaging materials and storage duration. After two months of storage, the moisture content of butter remains constant (5%) whereas acid value increases from 3.32 mgKOH/g to 5.43 mgKOH/g, the peroxide value increases from 8 meqO2/kg to 10 meqO2/kg and the iodine value changes from 48 mgI2/100g to 51 mgI2/100g in the basket papered with jute bag. Among these materials of storage, the basket papered with jute bag is the less effective in ensuring the quality of shea butter during the storage. Shea butter stored in plastic containers and plastic bags maintain their sanitary and biochemical quality, even though some limited variations of the studied parameters were measured. An article has been submitted to Journal of Food Processing and Preservation for peer review.

- Effect of shea nuts drying and storage systems on physicochemical qualities of shea butter performed.

Présentation test sur modes de séchage nc

- Tests on technologies for improving cashew and shea products quality performed such as:
  - Study on drying and storage technologies of cashew nuts and kernels;

The main results of this study were:

- All (100%) farmers agreed to accommodate the drying system that will help to reduce the moisture content of cashew nut to the acceptable level (5%);
- The drying system that will be promoted is sundry with frequent turnover of the nut;
- The farmers wish that the government to put standard price and organise the cashew chain.

BROAD WORK REMAINING FOR NEXT PERIOD (JANUARY-JUNE 2010):

- Pursue microbiological and mycotoxin analyses on cashew and shea nuts;
- Start with capacity building of stakeholders on good production and processing practices and on available norms and standards for cashew and shea.
- Improve the capacity of stakeholders in the value chain to respond to quality

requirements of local, regional and international markets for the two commodities.	
Impact	A student from a private national university has completed her research work in the project for a BSc degree

Deliverable / Targets Table *(Log-frame)*

Item ID	Item Description	Target Finish Date	Actual or Forecast Finish Date	Status: (% Complete)	Comments *(Agency responsible)*
1	Contract signed	15.07.08		Completed	WTO
2	Perception study on cashew and sheanut quality, quality characteristics and factors that influence them.	1.5.09		Completed	IITA
3	Identification of critical control points along the production to sale continuum to for the improvement of microbiological quality and other physicochemical parameters for cashew.	1.5.09		Completed	IITA
4	Identification of critical control points along the production to sale continuum to for the improvement of microbiological quality and other physicochemical parameters for sheanut	31.5.09		Completed	PTAA
5	Test of technological options to improve the quality of shea and cashew products	15.10.09		In progress (70%)	PTAA
6	Organise information session in villages with all the stakeholders on quality approach, Good agricultural practices (GAP) and Good Processing Practices for shea and cashew	15.5.10		In 2010	PTAA
7	Train farmers and members of inter-professional organizations on GAP and technology options to improve quality	15.5.10		In 2010	PTAA
8	Design and diffuse to stakeholders document on GAP and Good Processing practices, quality approach and critical control points for cashew and sheanut quality in 2 local languages and French	15.05.10		In 2010	PTAA/IITA
9	Inform stakeholders especially private sector on the services offered by the quality control services and national and international certification schemes	15.05.10		In 2010	Cebenor

Item ID	Item Description	Target Finish Date	Actual or Forecast Finish Date	Status: (% Complete)	Comments *(Agency responsible)*
10	Impact of environmental factors on storage and conservation of cashew and shea products (microbiological quality and other physicochemical parameters and nutritional quality).	1.5.09		Completed	IITA/PTAA
11	A study on the improvement of traditional process for the processing of shea nut into shea butter to stabilize quality characteristics including cost/benefit	15.9.09		In progress (70%)	PTAA/IITA
12	Establish a map that shows the different shea tree populations based on the chemical characteristics of the nuts and butter destined for the different market segments	15.3.10		In progress (30%)	PTAA
14	Establish a steering committee and facilitate six-monthly meetings of the steering committee.	15.9.08		Completed	IITA
15	Establish internal indicators and a monitoring system.	15.9.09		In Progress (30%)	IITA
16	Execute an ex-ante impact assessment of the project impact.	31.05.10		In Progress (40%)	IITA
17	Project Conclusion with final workshop	31.5.10		In 2010	PTAA/IITA
18	Project external evaluation	15.9.10		In 2010	PTAA/IITA
End of Project	14.7.2010				

Budget overview

	STDF contribution ($)	In-kind contribution ($)	Total ($)	% of Total project cost
Projected Total Project Budget	455,575	36,080	491,655	
Total sum received from STDF	273,345.0			
Total expenditure from inception to 31th December 2009	247,768.2			
Unspent funds ($)	25,576.8			