



Expanding sesame seed and shea nut butter exports

This project aimed to develop an effective aflatoxin control system for sesame seeds and Shea nut exports as well as an effective free fatty acid (FFA) and impurities control system for Shea butter. The system established is expected to provide quality control for all stored cereals and pulses both for local consumption and export.

A result story on the project is available [here](#).

STDF/PG/172

Status

Completed

Start Date

01/10/2010

End Date

30/09/2013

Project Value (US\$)

\$545,040

STDF Contribution (US\$)

\$364,240

Beneficiaries

Nigeria

Implementing Entities

Nigeria Export Promotion Council (NEPC)

Partners

Federal Ministry of Commerce and Industry (FMCI), Nigeria

Federal Produce Inspection Service (FPIS), Nigeria

International Institute of Tropical Agriculture (IITA)

International Trade Centre (ITC)

National Agency for Food and Drug Administration and Control (NAFDAC), Nigeria

National Cereals Research Institute (NCRI), Nigeria

Nigerian Stored Products Research Institute (NSPRI)

Standards Organisation of Nigeria (SON)

Background

Sesame seeds and shea nut/butter are priority agricultural export products in Nigeria with a potential for growth and international market penetration. Both crops are frequently produced by smallholder farmers and require specific conditions to

ensure product safety and reduce contamination. The main challenge was a high aflatoxin content in the kernels caused by poor in-storage conditions, and impurities. Before the project started, there was no national strategy to promote these products. Therefore, this project was the first step in prioritizing the production of high quality products ready to be exported internationally which meet international SPS requirements.

Nigeria is the second largest producer in Africa of sesame seed, producing about 120,000 tonnes per year (FAO 2012). A significant part of the local population, largely represented by women, is directly or indirectly dependant on the production of sesame seeds for local and export markets. Development of this sector reduces poverty and improves the standard of living, while reducing rural migration of people towards urban areas. It is estimated that with the improved quality control, Nigeria could increase its exports by 50% to the Far East and the EU.

Furthermore, Nigeria is the world's largest producer of shea nut with 325,610 tonnes per year (FAO 2012). The shea nut collection and butter extraction employs an important number of local people. Over the past five years, demand for shea nut products has grown in the EU and the US requiring shea nut producing countries to increase their exports. Shea nut butter is now commonly used in the production of cocoa butter, and equivalently in other confectionaries and margarine.

Results

Updated documentation on quality control practices for sesame seeds and Shea products for export

One of the main objectives was to improve documentation and existing manuals on current practices of quality control of sesame seeds and shea nut products for exports. It focused on field level production, processing, storage, producing areas and transport to ports of export. Reports on socio-economic characterisation of sesame seed and shea but/butter production in Nigeria were elaborated based on field surveys. The study concluded that commercial production of shea nut butter is concentrated in twelve Nigerian states, and the majority of the collectors are women. To process nuts into butter, they use basic techniques often resulting in high losses and low quantities of extracted butter. A Hazard Analysis to identify the critical control points (HACCP) within the production chain helped to develop a simple predictive model for both aflatoxin and fungi control in the sesame seeds and shea nut production chain. Collecting the physico-chemical characteristics of sesame seeds and shea nut with regards to their aflatoxin content enabled to publish laboratory reports.

Upgraded food quality control practices and product traceability to ensure international market access

A field quality control system as well as traceability plans for both products were developed. The equipment procured by the project included processing machines for sesame and shea butter. Eight modern processing sites were established to improve the production capacity and compliance of shea nut butter and sesame seed with international SPS measures. A cost-sharing partnership between the private sector, cooperatives and NEPC manages the sites providing job opportunities and higher incomes, particularly for women. Moreover, improving contractual laboratory analysis and certification for quality control systems for sesame seeds and shea products helped to ensure compliance with food safety standards prior to export in order to meet importing country import requirements. NAFDAC was assigned to create a traceability system (TS) in order to evaluate corrective actions, verifications, documentations and good record keeping for both products.

Enhanced skills of stakeholders within the value chain

Extension officers, traders, exporters and standards enforcement officers received training on best practices for production and control, as well as on how to implement newly established HACCP and traceability systems (TS) within the production and supply chains. Furthermore, the stakeholders had also an opportunity to build synergies and establish linkages for better trade. The training was organized in two categories: (i) Training to extension workers, farmers, processors (including over 1,000 women) on best practices for ensuring safe and quality production of sesame and shea butter, as well as on new propagation methods for sesame seed; (ii) Training to traders, exporters and standards enforcement officers to ensure safety and quality in the production and trade through capacity-building.

Enhanced information sharing and strengthened public-private partnership

In order to raise awareness on the project and on the improvement of the qualities of traded Nigerian sesame seeds and shea butter, the NEPC fostered project information sharing and transparency by creating a project specific [website](#). Moreover, brochures, posters, reports and guidelines were nation-wide circulated. Information about improved food safety and quality systems was also disseminated by radio and TV. Public-private dialogue and partnership in the Nigerian shea butter and sesame seed sectors were strengthened by establishing various start-up meetings, a mid-term progress meeting, and a project completion meeting. Key stakeholders were given the opportunity to understand each other's activities better, and to network with one another in order to boost the development of the sesame seed and shea butter value chains.

Recommendations

Ensure continuous monitoring and evaluation

After having built various processing facilities and having purchased processing machines, it is essential to regularly monitor and evaluate the performance of the operators. The monitoring process aims to ensure compliance and implementation of the developed quality and safety control systems towards increasing sesame seeds and shea nut butter yields.

Promote outreach and advocacy and strengthen public-private partnerships

Awareness raising and advocacy activities should be frequent and ongoing to help sustain and scale-up project activities and results. Increased publicity through mass media and brochures, posters or reports can help share the project's results with a wider audience within the country. A dedicated project website provides detailed information about the project's process in a transparent and detailed manner. Emphasizing the importance of having a stable public-private partnership can help increasing goods producing centres in other regions of the country. This implies as well to seek for further development, collaboration and engagement of appropriate international/regional marketing channels.

Ensure ongoing sector-specific training and capacity building

Continuous training and capacity building by the regulatory agencies (NAFDAC, NCRI, SON, IITA) to the operators and other stakeholders ensured the correct implementation of the developed quality and safety systems. This goes hand in hand with mobilising support to the producing operatives in order to strengthen their competences and skills on management, production, packaging, branding, marketing, sales, or record keeping with ITC and other partner international agencies.

Explore further product and sector development

Ensuring continuous progress implies to keep exploring further product development and certification opportunities for sesame seeds and shea butter, for instance, possible organic certification to increase their marketability. Moreover, developing a sector strategy for shea nut butter and sesame seeds would drive the sectors' agenda.