

PROSPECTS OF WIDENING THE CASHEW VALUE CHAIN THROUGH THE USE OF CASHEW APPLE PULP: WOMEN'S ROLE IN NIGERIA AND GUINEA-BISSAU.

Oyebiodun Longe G. and Kehinde I. Yisa

*Department of Animal Science, Faculty of Agriculture and Forestry,
University of Ibadan, Ibadan, Nigeria.*

oglonge@yahoo.com, longegog@gmail.com.

INTRODUCTION



- Nigeria and Guinea-Bissau are among the top 10 world cashew producers
- 220,000MT cashew nuts produced in Guinea-Bissau in 2014 (Ecowas report 2015)
- 155,000MT cashew nuts produced in 2014 (Ecowas report 2015)

INTRODUCTION



- The cashew apple is at least five times more than the nut
- About 1,875,000MT cashew apple produced between Guinea-Bissau and Nigeria in 2014
- More than 6,110,780 of cashew apple in Africa in 2012

Adapted from Trade Hub and African Partners Network, 2014. “Value chain assessment report: cashew value chain”

INTRODUCTION



- Women produce two thirds of the world's food
- 78% of about 170,500 people employed in cashew nuts processing in Africa are female

CASHEW NUT HARVEST



- From Mozambique to Ghana, Burkina-Faso, Nigeria and Guinea- Bissau, women dominate the harvest,(Polmann 2012, Vijfhuizen *et al.*2003, Nugwela and Oroch ,2005 and Catarino *et al.*2015)
- Provides up to 50% of most women's annual income in Guinea-Bissau (Catarino *et al.*2015).

CASHEW NUT SALES



- In Nigeria, sales or buying for export is largely handled by men
- In Guinea-Bissau, supply from farmsteads to exportation is mostly done by men
- Managerial positions of exporting companies often occupied by male

CASHEW NUT PROCESSING



- Only about 10% production is processed locally
- Up to 80.4% female involvement in Anambra State, Nigeria
- Women assisted by their children are major processors in Guinea Bissau

CASHEW APPLE PROCESSING



- Cashew apple can be processed into jam, pickles, alcoholic drinks, beverages, syrup, candied products, chutney and several others
- Cashew apple has been processed in Brazil, Goa in India, other parts of Asia and the Caribbean

CASHEW APPLE PROCESSING



- Guinea-Bissau champions most African countries in its usage making fresh and fermented beverages from the apple
- Even in Guinea-Bissau little or no use is made of the cashew pulp after juice extraction.

USES OF CASHEW APPLE IN BRAZIL



Juice	125,000MT
Cajuina	2,000MT
Candy	5,000MT
Fresh fruit	20,000MT
Animal feed	45,000MT

THE TURNING POINT



- Cashew pulp is a by-product left after juice extraction from the apple
- Cashew pulp forms about 32-40% of the weight of the apple (Olife *et al.*, 2013)
- Over 750,000MT cashew pulp being left to rot annually in Guinea-Bissau and Nigeria

DRYING OF CASHEW APPLE PULP



- Cashew apple pulp could be dried as a waste from juice or liquor processing
- Drying could be deliberate effort beyond cashew nut removal to avoid waste
- Also as a value addition in the cashew value chain

METHODS OF DRYING



- This could be by sun drying which though requires man hour input could be practiced by small farm holders and women
- Use of mechanical dryers will result in drying faster and larger quantities which could be scaled up for export

USES OF DRIED CASHEW APPLE PULP



- Use as dietary fibre in burgers for a healthy product of acceptable texture Pinho *et al.* 2011
- For re-constitution into wine
- Inclusion in livestock feed for dairy cows, small ruminants and micro-livestock (rabbit and poultry)

EXPECTED OUTCOME OF THE USE OF DRIED CASHEW PULP



- Wider value chain for cashew
- Alleviation of poverty through increased income to farmer and women involved in cashew harvest
- Enhanced livestock production and increase in supply of animal protein to population

EXPECTED OUTCOME OF DRIED CASHEW PULP



- Lower cost of production for livestock products such as meat, milk, egg, hides and skin
- Supplementary source of income for women already involved in cashew harvest
- Food security and improved nutrition for population
- Prevention of environmental pollution

FACTORS LIMITING CASHEW APPLE'S ROLE IN CASHEW APPLE CHAIN



- Highly perishable nature of the fruit
- Lack of appropriate technology for its preservation
- Lack of government policy in respect of cashew apple

CONCLUSION



- Government and stakeholders in cashew value chain need to pay more attention to cashew apple
- Favourable policies to enhance processing should be put in place
- There is need to encourage research into its use

CONCLUSION



- No barrier to involvement of women in its processing
- Hence an opportunity to women empowerment and employment
- This will lead to better family life thus improving health and nutrition of the populations involved
- All these done will be a **TURNING POINT**

REFERENCES



Ajani, E.N. and Igbokwe, E.M. 2011. Implication of Feminization of Agriculture on women farmers in Anambra State, Nigeria. *Journal of Agricultural Extension* Vol. 15(1), June 2011

31 <http://dx.doi.org/10.4314/jae.v15i1.4>

Catarino L., Menezes Y., Sardinha R., 2015 Cashew Cultivation in Guinea- Bissau- risks and challenges of a cash crop. *Scientia Agricola* <http://dx.doi.org/10.1590/0103-9016-2014-0369>

Enwelu I.A., Ugwu S.T. and Irohibe I. Gender Roles and Challenges of Small Scale Processed

Cashew Nut Marketers in Enugu North, Nigeria *Journal of Educational and Social Research* 2013

REFERENCES



Gaye M. and Moreau O. 2008. Sustainable Cashew Production in Guinea

Lea, J.D.; Hugo, C.; Cardoso, C. 1990. A Review of the Cashew Sub-Sector in Guinea-Bissau. Food and Feed Grains Institute, Manhattan, KS, USA. (Report, 119).

Morton, J. 1987. Cashew apple. *Fruits of Warm Climates*. P.239-240. Miami, Florida: Julia Morton, distributed by Creative Resource Systems, Inc

Nugawela P. and Oroch R. (2005). Cashew Sub-sector Strategic Framework. Using Cashew Sector for Pro-poor growth in Nigeria

REFERENCES



Pohlmann, K. 2012. Gender Transformation in the African Cashew Value Chain (African Cashew initiative (ACi))

Oduwole O.O., Akinwale T.O and Olubamiwa O. (2001). Economic evaluation of a locally fabricated extraction machine for a cottage cashew juice factory. *The Journal of Food Technology in Africa*

Olife I.C., Jolaoso M.A. and Onwualu A.P. (2012) Cashew Processing for Economic Development in Nigeria *Agricultural Journal* (1)45-50, *Medwell Journals* 2013

REFERENCES

Oluyole, K.A., Yahaya, A.T., Uwagboe, E.O., Mokuwunye, I.U., Agbeniyi, SO., Orisajo S.B., Otunoye, A.H., Ndagi, I., Shittu, T.R & Aderolu I.A. 2015 Constraints in Cashew Production Among Cashew Farmers in Southwestern Nigeria. *I. J.S.N.*, VOL.6(3)2015: 329-333 ISSN 2229-6441

Pinho, L.X., Alfonso, M.R.A, Carioca, J.B., da Costa, C. and Ramos, A.M.(2011). The use of cashew apple residue as source of fibre in low fat hamburgers. *Food Science and Technology*, 31, (4).<http://dx.doi.org/10.1590/SO-2061201100>

Suganya P. and Dharshini R.2011. Value added products from Cashew apple- An alternative Nutritional Resource. *International Journal of Current Research Vol.3, Issue 7, pp 177-180*

REFERENCES



Surendra G.B.B. 1998. Integrated Production Practices of Cashew in Sri Lanka: FAO 1998 Publication (Integrated Production Practices of Cashew in Asia).

Trade Hub and African Partners Network. “Value Chain Assessment Report: Cashew Value Chain.” Prepared for the Trade Hub and African Partners Network by Abt Associates Inc., Bethesda, MD, in collaboration with J.E. Austin Associates, Arlington, VA, May 2014

Vijfhuizen, C., Braga C., Artur, L. and Kanji, N. 2003. Liberisation, Gender and Livelihoods: the cashew nut case. Working Paper 1 (English), Mozambique.

REFERENCES



World Bank 2007: World Development Report 2008
["Major Food And Agricultural Commodities And Producers – Countries By Commodity"](#). Fao.org.
2011. Retrieved 2015-02-02



THANKS FOR LISTENING