The ComCashew News Bulletin

15th Edition on

“Innovation and Technologies in the cashew sector”

For a shared understanding of the cashew sector!
Dear readers,

Innovation and technology are the driving force behind the sustainable development of any industry, moreover for the young and segregated cashew sector. Innovation and technology assures to fully harvest the potentials that the African cashew sector offers. What innovations are currently present in the sector globally? How have technology evolved and what are the current trends? How does technology ensure gender equality or help mitigate the impacts of climate change? In this edition, we invite you to discover with us the exciting new trends in and impact of innovations and technologies in the cashew sector. We also invite you to share any innovations and technologies that can benefit the sector.

Africa, particularly because of its position as producer of more than half of the world’s raw nuts (58% in 2018) can benefit through innovations to increase its production and essentially revolutionize its processing industry. This calls for tailor-made solutions to suit its environment and needs, and for more collaboration among African scientists to develop cutting edge technologies and improved varieties. We congratulate Ghana on leading Africa in improved variety development and for supporting neighbouring countries with 7,100 kg of polyclonal seeds and capacity building. The decision to locally manufacture processing equipment in Africa, particularly in Côte d’Ivoire, also deserves special attention and support, to see to its realization.

A lot more can be achieved through joint approaches, such as in the implementation of regional policies, the establishment of continental interaction bodies such as the International Cashew Consultative Council (CICC), the development and strengthening of exchange network and experience sharing. The inclusion of Cameroon in July 2019 to the CICC, bringing the number of countries member to ten, demonstrates the willingness of the producing countries to combine their efforts towards their common goal: a competitive African cashew sector.

Inclusion or consideration of cross-cutting issues, namely climate change, and gender also gives a new facet to the market and employment dynamics in the sector. Digitalization has without a doubt become part of our everyday life and the cashew chains are not an exception. This edition also looks at digitalization in traceability and data management. Impacts are seen from decision-making authorities to processing industries and farmers.

As part of ComCashew’s capacity building activities, 276 participants 41% being women just completed the second sessions of MTP editions 7, 8 and 9 focusing on production issues. As a reminder, there are three editions of the MTP that are organized this year 2019 responding to the large demand.

Also, 250 participants from 9 cashew-producing countries in West-Africa participated in the successful 2nd edition of the Sahelian Cashew Forum (FOCAS) organized by the African Cashew Alliance (ACA) held in Bamako (Mali). This exchange and learning format came to stay, as Guinea Bissau has been designated to host the next edition of FOCAS in 2020.

Special thanks to all who contributed to this edition including: Oltremare, GI Technologies, Meyer Optoelectronic Technology, Mekong Technology Investment and Development, Amara Idara Sheriff, Jim Fitzpatrick, Dr Vianney Windpouiré Tarpaga, Dr Ouali N’Gor San-Whouly Mauricette, Ella Dorcas Wama Mara, Salma Seetaroo, Teodora Carlos, Shakti Pal, Caroline Moraza and Ernestina Amponsah.

Wishing you a pleasant and fruitful reading of this newsletter, and hope to see you in 2 months in Tanzania on 6th November to celebrate 10 years ComCashew/A4SD; day before the ACA Conference.

Rita Weidinger

Executive Director GIZ /ComCashew
In cooperation with:

SAVE the date: **6th November in Dar-es-Salaam**

8-3pm — ComCashew Board meeting  maria.schmidt@giz.de

9-4pm — ACA Board meeting

8-3pm — Meeting of Master Trainers Editions 1 to 9, by Atta Agyepong; al-da.benon@giz.de

4-10pm — Celebrating **10** years ComCashew/A4SD, maria.schmidt@giz.de
Cashew which was originally introduced to combat desertification in Africa has within the last 10 years proven to possess great economic benefits for the continent. The share of African cashews already exceeds half of the global production and this trend keeps rising while Production in Southeast Asia and in Brazil continues to dwindle. Nevertheless, this increase is still far from meeting the demand for cashew nuts on the world market, which is increasing by around 6-7% annually. Most African countries today, face the challenge of making the cashew sector sustainable. However, in order to make the cashew sector and agriculture in general fit for the future, several African governments have committed to making agricultural transformation through digital solutions and technical innovations an important policy priority in order to meet the challenges of food and nutrition insecurity, climate change, youth unemployment and overall economic growth.

Digitalisation of agriculture can be a game changer in supporting and accelerating agricultural transformation across the continent. Digital solutions in Agriculture involves advisory services, market linkages, financial access, supply chain management, and macro agricultural intelligence.

According to the Head of Unit at the European Commission, DG for International Cooperation and Development, Leonard Mizzi “Technologies can help stimulate innovation for sustainable agri-food systems and produce better and safer food while preserving natural resources and biodiversity. But we need to be conscious and support solutions that are sustainable and that are tailored to countries’ needs and embedded into conducive and broader innovation systems.” (1)

Digital innovations help to trace produce across the value chain

In relation to the cashew sector, so far technical and digital innovations have contributed to change the way cashew is traced, analysed and communicated. New technologies have contributed to digitize knowledge on and within the sector, to make information available and to ensure transparent sourcing and supply. A competitive value chain is characterized by fair supply chains and ensuring traceability of cashew nuts is one of the drivers that will keep the cashew sector viable globally. In this context innovative technologies have been tried, developed and offer a lot of potential to help agribusinesses onboard farmers, document farm compliance with standards, and trace produce across the value chain.

1. „The Digitalisation of African Agriculture Report 2018-19”, CTA
For instance in 2010, SAP partnered GIZ/ComCashew (then known as ACi) to develop an innovative mobile application for the digital inclusion of small-scale farmers.

The initial project saw a Rural Sourcing Management prototype implemented in Ghana and Burkina Faso. This sort to improve farmer incomes and livelihoods, advancing African cashew nut quality and production, increasing local processing capacity while improving market linkages along the value chain. SAP Rural Sourcing Management is a solution that is made to support the connection of smallholder farmers in developing countries with global producers; providing transparency, accountability, and access to financial services. This rural sourcing management tool has been further developed and is currently in use in Uganda and offers further prospects in the tree crops sector.

Ten years on, ComCashew still focuses on sustainable supply and wants to contribute to development of new innovative approaches. Among this is an ongoing collaboration with the Sustainable Nut Initiative (SNI). With regards to the cashew value chain, SNI focuses on improving transparency in order to achieve security of supply, reach higher quality and work towards sustainability. This has resulted in the creation of the Securing Sustainable Supply software system (3S). This system allows buying companies to make informed decisions about their supply base and facilitates the exchange of data between links in the supply chain.

An important benefit of the use of digital solutions in the sector is to improve access to market information. Therefore, ComCashew partners strongly with the African Cashew Alliance (ACA) which has since 2006 been the umbrella association for farmers, processors, traders and cashew associations across Africa and throughout the world. The association has developed the ACA Market Information System which was introduced to provide information on market trends in cashew producing countries. Seasonal updates on production, raw cashew nut and kernel prices are shared through an online database and weekly market analysis.

Today, there are broader innovative digital solutions that go further than just facilitating market information and communication – there is a shift from just using digital solutions to communicate or disseminate information to true digitalization. Such digital solutions among other things make it possible to digitize and to conserve existing technical and institutional knowledge. A pioneer work is done under the GIZ/ComCashew EU project Resilience Against Climate Change in Savanah ecological zones in Ghana. In this context, the project intends to establish a Digital Library that will provide a database for the management of project data, research and agricultural data, held by local partners to support planning and coordination. This Technical instrument will serve as a repository of documents for saving physical and digital documents and making it accessible to the public. According to the lead Technical Consultant Karl Tiller, this “represents a unique chance to preserve existing knowledge”.

Communicate and conserve: how to manage increasing quantity and quality of cashew data
Outlook for the future
As demonstrated, digital innovations can be a game changer for the cashew sector and the presented examples show how digital solutions were and are used by ComCashew and its partners. In the cashew sector, the quantity and quality of data is growing and new digital tools make it possible to capture data from individual farms to international traders, combine data on macro levels and use this to improve the overall value chain. The above experiences are but a few examples of how digital solutions can be used. Opportunities in data management systems, GPS Mapping and geotracking, drone use (for farm monitoring, pest and disease management etc.), digital financial services such as mobile payment systems, digital advisory and information services (for example on GAP or harvest and post-harvest practices) and many more still remain unexploited in the cashew sector.

The Technical Center for Agricultural and Rural Cooperation (CTA) reiterates in its Report on Digitalisation of Agriculture in Africa 2018-19 that “an inclusive, digitally-enabled agricultural transformation could help achieve meaningful livelihood improvements for Africa’s 250 million smallholder farmers and pastoralists”. In order to fully benefit from these prospects particularly in the cashew producing countries, investments in research and dissemination of new digital innovations need to be scaled up. This includes a focus on human capacity development, in order to improve digital literacy and make sure that stakeholders in the value chain understand how to best use and deploy digital solutions.

Authors: Maria Schmidt, Advisor, Sector Organization and Julius Abila Abagi, Communication Officer (GIZ/ComCashew)

Views Corner

Name: Dr Vianney Windpourié TARPAGA
Position: Agronomist Engineer, Varietal Improvement Researcher Coordinator of the National Centre for Fruit and Vegetable Specialization (CNS-FL)
Organisation: Institute of Environment and Agricultural Research (INERA)

In 2018, nearly 3.5 million tonnes of raw cashew nuts were produced worldwide, of which 58% were produced in Africa. Can you tell us some of the major innovations that can improve and support the production of cashew nuts in quantity and quality (irrigation, mechanization, overgrafting, plant material improved, etc.)

Indeed, we are seeing an increase in Africa’s contribution to global cashew production year after year, and this is related to a number of factors. For countries who were involved in the production and use of improved planting material, the positive effect of this material on yields and overall production is very significant. On the other hand, for countries that have only recently started, higher production rate can be attributed to good farm maintenance and harvesting practices.

What do you think the impact of the above innovations has on the income of producers?

These innovations have a direct effect on improving the producer’s income since they contribute to the increase in the production of raw cashew nuts.

With recent developments, are there new technologies in cashew production - including harvesting, post-harvest and storage in Africa? Or in Asia that can be adapted for cashew production in
Africa?
I don’t know much about developments in harvesting, post-harvest and cashew storage in Africa. However, I think the current interest in the continent is still more focused on the embryonic transformation, which urgently needs small or medium-sized complete chains to be boosted. Technologies for adding value to by-products of cashew including the Cashew Nut Shell Liquid (CNSL), pellicule, etc. are also desirable.

Traceability remains an essential element for global competition. Farmers’ associations in cashew-producing countries are trying to comply with this rule. How do you rate it? Do you have any suggestions for improvement?

One of the major requirements for a globalized world is unequivocally traceability in all sectors including agriculture. Thus, any initiative by producers to build traceable chains should be encouraged as it will increase trade and strengthen partnerships in the sector.

Many African producers want to secure their orchards and crops. In your opinion, will an adequate insurance system solve this problem? If so, what key elements should be reflected in this innovation? If not, what alternative solution do you propose?

An insurance system will ensure that farms and crops are secured. This should however take into account the risks involved in agriculture especially climate change. To this end, a fund can be created, financed by the cashew sector itself, which will serve as a guarantee to access credit from financial institutions. This type of mechanism can be designed to provide more assurance to the producer who are generally left on their own in Africa.

Drones are used in health, education, etc. Is there a possible application in the production of cashews in Africa?

The use of drones today no longer has any borders, so the cashew sector can also benefit from it. They can help on the one hand to map and monitor orchard dynamics, to monitor production through phytosanitary surveillance, to help manage irrigation, and on the other hand by early detection and control of forest fires that are fatal to cashew farms.

The earth is facing climate change. Does this trigger an innovation in cashew production?

For the moment, I don’t think so, but it will happen very quickly. Indeed, in the face of climate change, the innovation that must be considered in cashew production is the use of localized irrigation technologies in certain areas to counter rainfall deficits that affect yields. In the medium to long term, genetic improvement of planting material is foreseen. Indeed, varietal selection now takes into account climatic predictions on certain factors such as diseases and pests, temperature trends or variations in rainfall, etc. Thus, the varieties selected will have an increased tolerance to these constraints, in order to always maintain an acceptable level of production.

Information technology is present in many areas, including agriculture. Will electronic extension, for example through the mobile phones of producers, be useful in Africa?

E-extension will be beneficial in agricultural sectors in Africa, for the simple reason that the number of technical supervisory agents is very small and "endangered species" in some countries. E-extension is an innovation that is quite contemporary, given the desire of African producers today to professionalize agriculture. As such they require more technical information and support in their agricultural activities. It will also have the advantage of being less expensive, and therefore more accessible.

In this digital age, what would be the digitization of cashew production?

The digitization of cashew production in this era in my opinion is the ability at any time to give with more precision, the quantities of raw cashew nut production expected according to the areas covered, the varieties planted and the climatic predictions. It can also involve the power to determine the main climatic factors that will affect production at the beginning of each season, and therefore anticipate the necessary interventions.
Is there a regional system already in place for digitizing cashew production, including a data collection and storage system?

Yes, such a system exists, even if it is currently focused on a specific area. I am referring to the digitized database for the phytosanitary monitoring of cashew farms in Côte d’Ivoire. This tool was commissioned by the Cotton and Cashew Council (CCA) to strengthen the capacity of actors in the cashew value chain. Thanks to this database, it is possible to obtain regular information on cashew pests in a given area and to trigger early warnings if necessary.

In your opinion, what interaction between African producing countries will guarantee their competitiveness and benefit the entire African sector?

As the saying goes, “unity is strength”. In the cashew sector, I think that the African cashew-producing countries demonstrated this by taking the lead in setting up the International Cashew Advisory Council (CICC) in 2016, to better defend their interests. It’s a big step. In addition, the pooling of financial and human resources to conduct research on major constraints in the sector and to cooperate in other areas is also a way to achieve greater competitiveness.

Do you have one last word for readers?

I would like to commend you for addressing the topic of Innovations and Technologies in the Cashew Sector. I would also like to thank the GIZ/ComCashew, which has been working for more than a decade to improve the cashew sector in Africa and its contribution to the economy. In recent years, GIZ/ComCashew has been committed to fighting for the competitiveness of this sector. Achieving this objective requires enormous human resources, but above all financial resources, and I would like to commend all the efforts already made through the Cashew Matching Fund and the Master Training Programme (MTP), which have enabled us to achieve significant results in the field.

Interviewed by Nunana Addo, Communication Officer and Management Assistant, GIZ/ComCashew

Women contribution to cashew production is valuable

Source: GIZ/ComCashew
Innovations and technologies for cashew production

In addition, the recent use of drones in agriculture in various developed countries and even in Africa is a highlight. Drones play a decisive role in agricultural production thanks to their ultra-precise analysis capability in real time and in three dimensions. They can measure the overall health of plants, develop planting schemes and provide crucial data for timely and appropriate decision-making. The problem of these tools for African countries remains their high cost, especially for cashew farmers who are usually smallholders.

« Compliance with the requirements of traceability is a commendable effort on the part of African producers. To reinforce this traceability, they must be better organized to benefit from a training to master the GAP from farm establishment to harvest and trading. »

A wide range of innovations still possible ... some few ideas as sneak peek

Securing farms and crops is a fervent desire of cashew farmers. An adequate insurance system would help a lot. This insurance must take into account land issues, risks in agriculture such as natural disasters (floods, drought ...), training and capacity building of farmers to manage these risks in agronomy, compliance with GAP ...

The crop calendar is very disrupted nowadays because of climate change. Innovations in this area would be to make predictions to limit negative impacts on the ecology of cashew tree and associated fauna, such as pollinators that depend on cashew to increase yields and quality of raw cashew nut.

Digital in cashew, why not? A digitization approach would be to provide farmers with tools that would allow them easy access to new information and communication technologies. This is the use of tools such as mobile phones. These phones can be equipped with mobile money SIM cards for digital payments. This will make financial transactions from producers to processors. There is also another utility component through electronic extension (e-extension) conditioned by a good training of producers in the use of these devices. Mobile phones and tablets can help farmers collect data and report real-time difficulties in their farms to resource persons. The latter can also send their feedback in

Cashew production over time has experienced several changes in terms of irrigation, mechanization, top-working, improved planting material to enhance and support quantity and quality. Healthy efforts have yielded convincing results in agroecological management systems, associated cropping systems, agropastoralism with the association of beekeeping with cashew production. The use of brushcutters has reduced the use of herbicides and the risk of accumulation of pesticide residues in fruits, meeting the requirements of sustainable development. Without doubt, the effectiveness of above-mentioned innovations has been proven, training and sensitization of producers on Good Agricultural Practices (GAP) and the adoption of these innovations will allow them to better maintain their farms, to master the harvesting techniques and post-harvest management of nuts until trading.

The above-mentioned innovations will increase the income of producers if they are well mastered and properly used. They already make it possible to produce a quantity of quality nuts. For example, grafted trees come into production within one to two years, while trees that grow from seed take up to five years to mature. The top-working and improved planting material have provided producers with high yielding material that is resistant to disease and insect pests. Producers invest less in the purchase of phytosanitary maintenance equipment. This has a dual economic and environmental benefit.
real time when possible remotely or schedule a visit diligently already equipped with the necessary background information. In addition, mobile phones or information technology can enable farmers to directly discuss the cost of their nuts with potential buyers without an intermediary. The farmer can also find out about fluctuations in the price of nuts on the international and national markets.

Thanks to a continental vision, the implementation of innovations as well as their exploitation are more optimal in a favorable interactive climate. The interaction between African producing countries that would guarantee competitiveness will be solidarity and good coordination of activities throughout the cashew value chain, from production to trading. In particular, pest management is cross-border ... The development and specialization of country activities following a concomitant calendar is an example of a relevant suggestion in this respect. This will allow controlled and secure production of cashew nuts. African countries will have a greater impact on cashew prices and standardization to avoid leakage of products from one country to another. Another challenge is to be able to process almost all local production while ensuring a sound export market and simultaneously increasing local consumption.

**Quick look at technological evolution in processing**

Processing being an added value, there are salutary technological developments in the continent but the modernization and performance of equipment are to be improved comparing to countries such as India and Brazil. In Africa, new technologies currently available on the market are related to cutting, shelling, kernels peeling. There is also a variety of options for product packaging and transportation. The specificities of each piece of equipment are as follows:

- Manual cutting machines. The shell of the nut is cut without touching the kernel to keep it intact. In African factories, a non-breaking rate of 90% to 97% is recorded at the cut. Current suppliers in Africa: Muskaan, Gayathri.

- The automatic shelling machine of Buddhi. The available capacity of these machines is from 20kg to 150 kg per hour. They are used according to the functionalities implemented in India and Vietnam. They are, in many cases, used to treat small nuts in order to reduce breakage. Current suppliers in Africa: Buddhi.

- The automatic peeling machine of Oltremare. They have a capacity of up to 250kg per hour. However, these machines do not manage to peel all the shell in a first round. Thus, the nuts will have to be often poured 2 or 3 times in the machine. The rate of break varies from one factory to another depending on the type of nuts and the machine adjustments. Current suppliers in Africa: Oltremare, Cao Thanh Phat.

- Vacuum packaging machines. Often filled manually from a hopper, this machine aerates and cleans the kernels, weighs them and conveys them to the required batch size. The batch is thus formed and loaded manually before being placed on the vacuum packaging machine where it is closed. The batches are stored until the shipping process finalization date before being stored in cartons.
labeled and closed. Current suppliers in Africa: Oltremare, Multivac, Muskaan

The technology in India and Vietnam is favorable to "steam cutting" instead of barrel roasting / oil bath peeling and roasting in processing.

Oltremare's system for post-harvest treatment and packaging allows vacuum cleaning of raw nuts from heavy and light foreign materials. It allows them to be dried inside the warehouse by controlling infestation, preventing the loss of quality during transit and storage. This system also promotes complete tracking of traceability, prevention of theft, mixing of nuts, etc. The packaging fully protects against moisture, air, dust, insects, condensation, and facilitates disposal during transport.

Innovations and technologies in the cashew sector as in other agricultural sectors are unavoidable. They are therefore to encourage, support and channel. The training and ownership of these innovations by African countries is not an option but a necessity imposed by competitiveness on international markets.

Author: Dr OUALI N’GORAN San-Whouly Mauricette,

Dr. OUALI is a Teacher-researcher, lecturer at Félix HOUPHOUËT-BOIGNY University (Côte d'Ivoire), entomologist, specialization in crop protection and defense / integrated management of crops’ diseases and pests

Participatory Validation of ACA’s Environmental Study of Waste Management in Cashew Processing

ACA has contracted Away4Africa, a company based in the Netherlands, who have collaborated with Fünteni Installations et Conseil, a company based in Burkina Faso, to conduct the “Environmental Study of Waste Management in Cashew Processing”. The study presents current and potential characteristics of cashew by-products in 8 African countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea-Bissau, Kenya, Mozambique and Tanzania). It assesses the negative effects of processing on the environment, the current waste management practices and business approaches of cashew nut processors in some West and East African countries, the untapped economic, energy and environmental potential, and finally an analysis of stakeholders dealing in cashew by-products.

There is an untapped potential for cashew by-products with a total production of raw cashew nuts close to 1.4 million tons against an average of only 10% processed in these countries. In terms of the main outcomes of the study, it concluded that processing of cashew in Africa is still confronted with low competitiveness. The main concerns of processors are focused on the supply of raw cashew nuts: price stability, restrictions and cashew nut...
export regulations, quality and finances. Overall, in the 8 countries examined, the priority given to by-products is not very high. Though the shells account for 70% of the biomass of raw cashew nuts, most factories dump or dispose of the waste products meaning value addition through shells is not part of their usual practice. Nevertheless, those processing plants who indeed process the shells use them for thermal energy, mostly as fuel for boilers. Yet, the use of shells to generate thermal energy varies between 5-25% of a huge amount of shells resulting from raw cashew nut cracking. In fact, the most effective overall strategy for by-product value addition is the extraction of cashew nut shell liquid (CNSL) and the co-generation of de-oiled shells. The overall conclusion of the study is that there is an untapped potential in developing cashew by-products, especially cashew shells for the processing industry and thermal energy, while this can contribute to energy productivity and offset carbon emissions.

Recently, as part of the implementation of the study, country workshops for restitution and validation of the results and recommendations were held in 3 out of the 8 African countries studied: Côte d’Ivoire, Burkina Faso and Tanzania. Part of the workshops was also a training based on the outcomes of the environmental study on cashew by-products. The purpose of this training program was to address environmental issues in the cashew processing sector. Factory supervisors and managers present were equipped with skills to better manage cashew waste by-products.

The Côte d’Ivoire edition of the workshop was held in Bouaké on June 26 and one highlight of this workshop edition was CCA’s presence resulting in their recognition of the importance of the study leading to their wish to integrate the recommendations into the nation’s Cashew Value-Chain Competitiveness Project (2018-2023). Following Côte d’Ivoire, the training moved on to Burkina Faso and was held in Bobo Dioulasso on July 2. The turnout of participants in Burkina Faso was very high and well distributed among private and public actors. Specifically, in this edition the potential of using a High Calorific Cashew Pyrolyser (H2CP) to produce not only thermal energy, but also biochar (which can be used like normal charcoal), were thoroughly discussed in the context of the Burkinabe processing sector. Finally, the last edition held in Mtwara, Tanzania on July 17 saw discussions on how to best disseminate the findings to the government, on potentials to access financing for investment in by-product processing and also on further cashew by-product uses for example in the area of fertilizers, leather tanning, soap production and animal feed.


Upcoming ACA events
Access to Finance (A2F) Forum for Cashew Processors
September 24 – Cotonou, Benin

TechnoServe (TNS) and ACA are partnering with support from the Interprofession de la Filiere Anacarde (IFA) to bring together cashew processors and financial institutions in Benin and beyond for one-on-one discussions, sector knowledge sharing, financial product reviews, addressing processor needs and the provision of detailed information on conditions for accessing adequate financing services.

The platform for this is currently envisioned to be a 1-day access to finance (A2F) workshop in Cotonou, Benin on September 24, 2019. In addition to a forum for discussion, stakeholders will have the opportunity to engage directly with banks and financial institutions to network and establish a dialogue. The A2F Benin is targeted at cashew processors operating in Benin, with an invitation also to those operating throughout the West African region, who seek suitable financing schemes for their operations. The financial investment counterparts are made up of three tiers of potential investors for the cashew processing business, these are: 1) International development institutions, 2) Social lenders and equity investors and 3) Traditional local
banks.

The overall goal of this workshop is to narrow the gap of understanding between the demand and supply of financing for West African cashew processors. There are no participation fees for this workshop. Interested individuals are requested to contact aca@africancashewalliance.com to register.

ACA Annual Cashew Conference
November 7-9 – Dar es Salaam, Tanzania

The next ACA Annual Cashew Conference will be held in Tanzania and will be hosted at the Julius Nyerere International Convention Centre from 7th -8th of November, 2019. On the final day, the 9th, there will be optional leisure and learning events happening in the Dar-es-Salaam area and in Zanzibar. This year's conference is themed "Fostering Synergies, Influencing Market Dynamics" and will create a unique platform for cashew industry stakeholders from around the world to share experiences, learn, deliberate on the future of the industry, and do business. The ACA Annual Cashew Conference has become the largest annual cashew event in Africa with over 350 participants every year. Since the founding of ACA in 2006, the conference has been held all over Africa and has drawn participants from across the world to engage in knowledge sharing, expositions, and business linkages. This year's conference will offer forum sessions discussing current topics in the industry, an exhibition, business-to-business meetings as well as leisure and learning field trips in both Dar-es-Salaam and Zanzibar. Register today at http://www.africancashewalliance.com/en/conference/dar-es-salaam-2019/register or via email to aca@africancashewalliance.com to secure your spot!

Author: Caroline Moraza, Manager, Communications & Member Services- ACA

The frontier of cashew processing

Up until 1960, all steps in cashew processing were manual. Due to high labor costs, processing in Italy was therefore practically impossible. Countries such as India were more competitive offering lower labor costs but unfavorable working conditions. To solve this issue, Oltremare engineered and manufactured the first mechanical cashew processing system in 1960. Oltremare was thus able to start processing in Bologna, Italy and at the same time introduced what has been considered an innovative and unique approach to cashew processing.

Since then, mechanical solutions for cleaning and calibrating raw material, for roasting, cooling, peeling and sorting it have been developed as well as semiautomatic solutions for shelling (machines with manual feeding and mechanical cutting).

From manual to mechanical to digitization processing

In the beginning, Oltremare sought mechanical solutions for the two main processing steps: shelling and peeling. The pressure to find automated solutions for these processing steps led to the mechanical preparation of the nut for shelling.
(calibration, roasting) and the kernel for peeling (drying, re-humidification). However, the main changes in the last 10-20 years have been in electronic grading of the kernel. Machines may thus substitute labor in the final grading process.

The implication of electronic grading is significant. First and foremost fewer kernels are touched by hand thus ensuring the highest level of food safety. Secondly, the grading is more accurate, thus reducing the risk of complaints and allowing to expand the sales mix.

Automated preparation for shelling and peeling as well as electronic grading systems made more efficient processing possible. However, the most impactful innovations so far have taken place in the shelling and the peeling process themselves. These two tasks were considered the bottleneck of the process due to the low productivity of labor and the related challenge of managing a large number of employees. The cost reduction in these two areas has thus been impressive.

The newly gained flexibility allowed a progressive increase of the processing units, thus reducing the impact of fixed costs. Although mechanical shelling and peeling have been possible since the 1960s, the industry was held back by psychological constraints. It was not until the cost pressure of manual processing became unbearable that the industry adopted these automated solutions.

This was especially the case with India and Vietnam where most innovations have been adopted. The direct cost of processing was reduced and the scale of processing units increased. Through mechanization, the capacity of processing units in India and Vietnam could be doubled or tripled. While quantities were increased, it is noteworthy that the quality of the final product generally rather decreased. Overall, there is a little attention to the quality of the finished product. Not only as compliance with specifications but in general. It seems that the widespread technology introduction of recent years mainly focused on cost reduction and capacity increase, neglecting the general conditions of the final product. Only a few processors now offer quality products. They are the ones who invest more in technology and process. As cashew technology innovator we feel we have the duty to propose solutions that combine efficiency with quality of the finished product and this introduces the second aspect.

Digitization – The next step

An example of digitization is our forthcoming new turnkey installation in Côte d’Ivoire which will be ready by the end of 2020. It will be equipped with process data collection systems and controls which will make it possible for the production manager and the general management to have the basic processing indexes in real-time. This includes, for example, the production...
per hour or day, the percentages of wholes, the stock position of the various grades and other indicators.

Mechanization for sustainability
Subsequently, the equipment manufacturing industry and the context in which the cashew industry operates have changed dramatically. As in the case of other agro sectors, the industry is seeking solutions to lower processing costs and increase product quality. In other words, “sustainability” has now become a major factor.

The economic impact of environmentally friendly technology is substantial in terms of investment. Technology for clean emission is available but it comes at a price. Processors, therefore, find themselves in a dilemma of investing more eco-friendly or adhering to the status quo. Most of the times they choose the latter. Plants can, for example, reuse the shell cake to produce electric and thermal power for their operation. Using this technology medium and large plants can become self-sufficient and if equipped with the proper technology, more eco-friendly. Another sustainable initiative could be the use of the cashew apple. For its processing, a cold chain for its preservation from harvest in remote areas to the processing unit is necessary. The locations for and manner of cultivation usually lack the adequate infrastructure and pose a challenge to the establishment of a proper cold chain.

Implications of mechanization for the labor market
Technologies are already available; it is only a matter to find the right applicability to the industry. Progressively peeling, sorting and grading will be automated. These are also the processing steps that employ predominantly women. Research and development are concentrated in those areas as they are most cost-sensitive. While these jobs might be lost in the short term, the challenge is to make the industry sustainable in the future. This will happen through the gain of efficiencies in the entire process, especially in those areas. such gain of efficiency may allow, especially in Africa, to dramatically increase the number of units and the portion of RCN processed locally, thus creating employment opportunities.

Looking forward the industry thus needs educated personnel. Both the youth and women can access the industry in positions promising a better salary and career perspective. Some areas that are mostly overlooked today will play a vital role in future processing: quality assurance and control, process control, IT at service of the processing, maintenance management, and many others. This is where many young men and women may find job opportunities.

Trained personnel is needed for the manufacturing of machinery as well. As of now, African countries do not have a suitable environment for the strong development of machinery manufacturing. Especially in the future where electronics will more and more overcome or assist the mechanics. It will take a lot of time and investment for any African country to reach the level of efficiency of Europe or even India or Vietnam. It is better to source the technology where it is best produced, in terms of quality and costs and concentrate the attention and the investments on improving the agricultural sector, the formation, and training of personnel, on building up a suitable environment for investment, reducing the risk of the investment. It is advisable to concentrate on improving the policy environment, infrastructure such as roads, electricity, internet and again, on training people- from policymakers to potential investors, cooperative managers, factory managers, and personnel, to the farmer.

The new frontier of cashew processing
Process and Process control. Many believe that the simple introduction of machinery reducing manpower is the solution to a better processing industry. Actually, I believe that more attention has to be given to the process first so that the right machinery solution for the process conditions can be identified accordingly. Very few processors give attention to or even know about the correct process for and handling of cashew. For example, many are unaware of moisture profiles and their importance
for the various processing steps. Many do not even have a moisture tester in their factory.

All the processing steps, 7 at least, (Steaming, Drying, Shelling, Humidification/ Thermal shock, Peeling, Classification and Packaging) are interconnected. The result of one determines the result of the following. In order to combine efficiency with quality, it is extremely important to put a real process into place and to have machines that allow to apply and control it. To sum it up: “process and process control” versus “blind processing”. This, in my opinion, will be the new frontiers of the cashew industry.

Author: Stefano Massari, Managing Director and Owner of Oltremare Srl of Italy

Views Corner

Name: Salma Seetaroo
Position: Chief Executive Officer
Organisation: Ivoirienne de Noix de Cajou (INCajou)

Please tell us about the Ivoirienne de Noix de Cajou. You started the operations of this factory barely a year ago.

INCajou is a 9,000t cashew processing facility in Côte d’Ivoire. What we do is simple. Why we do it is much more exciting.

Cashews are faceless today. One in two raw cashew nuts are grown in Africa, exported to Vietnam for processing and finally shipped back to the EU/US for consumption. INCajou seeks to give cashews an identity, and that identity is African. Our business model is simple: we buy raw cashew nuts from local farmers, we process them into cashew kernels by employing youth and women from nearby communities and we export our kernels to Europe and the US. Our HACCP certified plant is located in Azaguie, near Abidjan. We are currently processing 4,000t of raw cashew nuts and have more than 450 employees, of which two thirds are women. We will double production to 8,000t (which is our installed capacity) in 2020 and aim to export more than 100 containers next year, with a focus on a fair trade and organic.

Our vision is to become a profitable African business showing measurable social, economic and environmental impact by integrating fragmented farmers with disconnected end consumers into one sustainable value chain.

What motivated you to invest into cashew processing in Côte d’Ivoire?

I am a former investment banker, having structured and raised finance for mining and telecoms assets across Africa. I personally believe agricultural processing and food sustenance represent Africa’s
biggest potential – when the opportunity of consolidating a value chain in Africa where value leakage was being captured back on the continent came about, it was a no-brainer to invest time and effort understanding the sector and making the investment case - with nut consumption on the rise, cashews being poorly publicized and representing a potential staple for vegan cheese and milk.

You got HACCP in less than 5 months: Congratulations! How did you do that? What were the driving forces?

I think it starts with accountability – I felt the company was at risk of producing kernels that were not safe to eat and I truly believe that as an edible food producer, our first obligation to our customers is food safety. Second, it was about proving a point – it is not because we are an African food producer that it is difficult for us to reach certification and so within an acceptable timeframe – I became very annoyed from hearing potential European buyers with little experience of Africa visiting the plant and not understanding why we could not get an “easy” certification such as HACCP. I also wanted my peers to see that it is possible.

What was the most exciting occurrence of the certification process? Could you please highlight the most challenging part of the process?

The most exciting part of the process and also the most challenging part (!) was to make every staff member understand why this was important. And the moment they understood, everything changed at the factory. The place became spotless. It took significant effort from all my quality team (Landry, Prudent and Djanil!). We also had support from Caronuts, our kernel buyer, who invested in supporting us through certification, in particular Miguel Zavonon who assisted us as an integral part of our team. I also invested a lot of my personal time doing small circles of 20 employees every day and explaining to them myself why this was key for the sustainability of the company and that it was a common exam we were all sitting on our ability to be food safe producers.

In your opinion, what are the 3-5 most important things a processor should do to be HACCP certified within the shortest possible time?

In terms of tips, as Miguel would say, it starts with management commitment – little did I know what he meant when we started the process... I actually can explain what it means today. It is about being relentless on hygiene, educating your staff but also sanctioning those who do not abide by food safety rules – the true meaning of zero-tolerance for habits that foster unsafe food. It is also about investing time as the CEO of the business into this sphere and not delegating. You have to believe it is core to your business strategy and not add-on and your staff will follow your vision. The rest is implementation and repetition..

Anything else you would like to add?

The challenge for us is to now maintain the food safety standards we have reached going forward and not lapse into old habits that hopefully have died.
Interviewed by: Barbara Adu Nyarko, Advisor, Supply Chain Linkage, GIZ/ComCashew

IN Cajou - Ivoirienne de Noix de Cajou is a HACCP certified cashew processing company based in Ivory Coast, with an installed raw nut processing capacity of up to 9,000t per year and a current employee count of over 450.

Views Corner

Names: Mr. Barathy & Mr. Sharathi
Organisation: Gayathri Industries

How long have your company been in the cashew processing technology business?
We are into manufacturing of cashew processing machinery since 1994.

The journey began with offering of energy efficient cashew dryers with various heating options: cashew shell fired, wood fired, electrical heated, Liquified Petroleum Gas (LPG)/diesel fired & steam heated to customers' requirement.

Hands on experience & expertise gained helped us to venture into production of entire range of cashew processing machinery with state-of-the-art technology.

Gayathri Industry took a new avatar in April 2015 with its name befitting its contribution to technology upgraded as GI Technologies.

The insight gained in machinery manufacturing with a team of multi-disciplinary professionals and in house design & development division unfolded an opportunity to upgrade cashew processing technology and offer unlimited innovation in its offering of RCN sizing machine, manual/mechanized shelling machine, online shelling system up to scooping system, peeling machine & automatic kernel grading machine tailor made for cashew kernel and an array of in process material handling systems.

We have recently setup a world class mechanized cashew processing plant- 20 MT per shift on turnkey basis in West Africa setting a bench mark for the industry.

We are now fully equipped to offer cashew processors around the globe, customized plant machinery layout & modernization of existing plant, project consultancy, turn- Key projects and mechanized material handling systems.

GI Technologies is committed to continuously innovate & upgrade its offering of machinery to meet the growing demands for appropriate technology to cashew processors, from time to time to help them grow globally.

What was the state of technologies at the time you went into cashew processing equipment manufacture? What was your motivation?
In the early nineties major cashew processing operations were done manually, shelling of cashew nuts, peeling of cashew kernel skins and grading of cashew kernel involving large amounts of work force and job was time consuming and hazardous / tedious.

What has changed for you since you started manufacturing cashew processing machines?
We pioneered introductions of tray dryers for uniform heating of Cashew kernel for peeling without discoloring kernel- provided various heating options like electrical, LPG, , wood firing and steam heating with precise heat and temperature control systems for uniform and proper heat treatment of kernel for peeling.

Also kernel bulk packing in pouches with racemizing and inert gas infusion for longer shelf life replaced traditional cumbersome tin packing which was a less inefficient packing method.

Pneumatic Peeling systems were introduced replacing manual kernel Peeling.

Hazardous and manual cashew nut shelling system was replaced with mechanized shelling machines enabling safe and higher productivity.
Optical mechanized colour sorting machines ensuring efficient and fast sorting of cashew kernel in terms of shape, size and colour mimicking human skills were introduced.

In a nutshell, mechanization helped processors confront growing workers’ shortage due to migration from villages where cashew industry predominantly existed. It also brought down processing cost considerably enabling at the same time higher productivity.

Mechanization has helped promotion of cashew processing industry in India and the importation of cashew nut from African countries.

What has been the historical evolution of cashew processing machines and equipment? What would you say are the main changes and innovations in cashew processing and processing equipment development in the past 20 to 10 years?

Historical evolution of cashew processing machine touch all the three processing stages namely shelling, peeling & grading. Mechanisation in cashew kernel grading equals human efficiency with higher speed. Shelling & peeling mechanisation is yet to achieve expected process efficiency – efforts by machinery manufacturer for a continuous improvement is still ongoing – the achievement is significant though incremental.

Which implications do these changes have on the process and their impacts on products’ quality?

Mechanization has helped reduce cost of production and enables faster production capability. Consistent and reliable product quality is achieved.

Where has the most innovations taken place? What are the factors driving these innovations?

Innovation is happening all round in Sri Lanka, Vietnam and India. Increasing world demand for cashew kernel and therefore the need for cost reduction in processing is a key factor for innovation. Competition among kernel exporting countries drive innovation.

What would you say contributed to the changes/innovations/improvements in cashew processing technology?

The need to reduce cost of processing and the increasing demand for quality by buyers have fuelled innovations and improvement.

Also the entry of Multi-National Companies (MNCs) in Cashew processing had an impact; expectations for higher/consistent quality in line with their company requirements/specifications. Brand image has helped continuous improvements through innovations from time to time.

The environmental friendliness is an important aspect in cashew processing. Which environmentally friendly innovations occurred?

Cashew processing itself is environmentally friendly, mechanisation has not changed its processing character.

What would you say are the economic impacts for cashew processing factories?

Cashew processing factories after mechanisation offer job opportunities to skilled engineers and trained mechanics, and additional foreign exchange earning opportunities through value addition to RCN in African countries.

Are there any innovations with regards to packaging and storage of cashew kernels and by products?

Cashew kernel packing is perfected in flexi pouch packing and fully mechanized; it ensures increased shelf life.

What are the key innovations in cashew shell and apple processing?

No new innovation in shell processing noticed to date. Apple processing is seasonal, technology exists for adoption.

Youth and women represent at least 90% of factories’ workforce. In your view, are the current and foreseen innovations targeting gender mainstreaming. If yes at which extend and level? If not, what can we do differently to better address Gender issue in processing units?

Even after mechanization there are jobs that are exclusively best suited for women. Technical skilled jobs in mechanized cashew processing units are open to
women equally in processing as they are free from physically exerting work.

In this digital era, what would digitization in cashew processing involve? Is there any digitization system already in place in cashew processing including data collection and storage system?

Digitization is in nascent stage in cashew industry- good scope exists in near future as opportunities are rather emerging.

The young African processing sector is a little behind. An alternative option is to manufacture some equipment locally. In your view, which factors and collaboration is required to ensure the success of local manufacturing in Africa and address the competitiveness of its cashew products worldwide.

Establishing a cashew machinery manufacturing need to match continuous demand, availability of all engineering inputs locally and availability of skilled engineering graduates and diploma holders – a long way to go before manufacturing hubs are established in Africa. Processing and machinery maintenance training centre can be precursor.

Any additional comments?

Efforts put forth in the recent years by the African Cashew Alliance (ACA) and its members is flowerful will soon bear fruits!!

*Gayathri Industries (Chennai, India) was founded in 1994 by Mr. Barathy & Mr. Sharathi, twin brothers with the passion for excellence to offer cashew processors quality machinery incorporating latest innovation to meet the growing demands of the industry.*

*Interviewed by: Mary Adzanyo, Director Private Sector Development, GIZ/ComCashew*

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**Views Corner**

**Name:** Joey Liao  
**Position:** Sales Manager  
**Organisation:** MEYER Optoelectronic Technology Inc.

**How long have your company been in the cashew processing technology business? What was the state of technologies at the time you went into cashew processing equipment manufacture?**

More than 14 years, we’ve been involved in the cashew sector in Vietnam, India, Africa, Europe, Indonesia, China, etc. Initially we provided sorting machine for rice, nuts, beans, and then we realized that our machines could be used for cashew sorting, this began a new era in our product focus.

At the time, cashew kernel were sorted by hands in almost all the cashew factories and this was mainly done by skilled women, Now that has greatly changed.

**What has changed for you since you started manufacturing cashew processing machines?**

For us, our network has grown and we have business partners from all over the world unlike before. This can be attributed to our increased knowledge of the cashew nut sector and its prospects and also in processing machinery and trade. We therefore receive more orders than before.

Also we know more about cashew processing machinery from other countries, which are very impressive. I believe, we need to learn from each other and advance together.

**What has been the historical evolution of cashew processing machines and equipment? What would you say are the main changes and innovations in cashew processing and processing equipment development in the past 20 to 10 years?**

One is MEYER. I think cashew processing machines for
shelling and peeling mostly from Asia (Vietnam, India, China) have evolved significantly. At Meyer, our cashew sorting machine solutions have evolved to include functions such as shell and kernel separation, and X-ray detection.

**Which implications do these changes have on the process and their impacts on products’ quality?**

In my opinion, the evolutions contributed to making cashew processing much more efficient, easier and providing higher value for the cashew processing industry. It has also helped in improving status of processing in Africa, with an increase in cashew processing businesses on the continent.

**Where has the most innovations taken place? What are the factors driving these innovations?**

I noticed that people’s desire for efficiency has triggered innovations moving from manual to mechanization. This requires a lot of research and hence high investments in Research and Development. Meyer’s optical sorters for example have been lauded as an innovative equipment and subsequently gaining for Meyer the recognition of an innovation-driven organization. However, this has been as a result of the organization’s commitment to research and its investment into the research and development department, where over 35% of its employees work.

The future for us and for the processing industry, in my opinion, is Artificial Intelligence (AI), hence our focus on AI optical sorting and X-ray inspection.

**What would you say are the economic impacts for cashew processing factories?**

In my view the employment opportunities offered in cashew processing factories contribute in boosting countries’ economy and therefore has an impact in national development.

**Are there any innovations with regards to packaging and storage of cashew kernels and by products?**

In terms of packaging, the introduction of vacuum packing machine enhanced the preservation of kernel quality and improving their shelf life.

**What are the key innovations in cashew shell and apple processing?**

Nowadays, there is a lot of cashew by-products available for consumption. Oil and soap can be produced from the shell; apple can be processed in juice to name just a few.

**In this digital era, what would digitization in cashew processing involve?**

The digitalization in cashew processing especially with regards to data management will ensure accuracy, timeliness and easy accessibility.

**The young African processing sector is a little behind. An alternative option is to manufacture some equipment locally. In your view, which factors and collaboration is required to ensure the success of local manufacturing in Africa and address the competitiveness of its cashew products worldwide**

The overall level of mechanization in the continent remains low, and most African are more involved in the marketing of RCN rather than in the processing of kernels. countries prefer doing RCN business. The recent goal of increasing local processing faces the constraint of scarcity of local equipment manufacturers. Most of the equipment used are imported from Asia. My suggestion is to first focus on learnings from Asia and then try to build technologies that are best suited for the continent.

On the other hand, a conducive environment is key in achieving this goal: political and social stability of the country, stable government policy, clear tax policy and benefits protection. Each of these elements is important and can’t stand alone.

**Meyer Optoelectronic Technology INC (Stock code: 002690) is a high & new tech company focused on the research and solutions development in the field of optical sorting and X-ray inspection technologies. In the past 20 years, Meyer had been dedicated to the progress of food safety and quality of industrial products by consistently keeping faith with our value - always pursuit for product quality and customer satisfaction. So far, Meyer’s high quality solutions for**
optical sorting and nondestructive inspection have been delivered to over 30,000 customers covering more than 100 countries.

Interviewed by: Nana Yaa Agyepong, Communication Officer, GIZ/ComCashew

Views on processing equipment evolution by Mekong

MEKONG CASHEW MACHINE established in 1996, is now widely used in many cashew processing factories in Vietnam, India and also in Africa. For 13 years we have focused on researching and manufacturing cashew processing machine in Vietnam. We also manufacture equipment for processing pepper, coffee, and other agro-products.

At the beginning, especially in Vietnam, cashews were largely processed manually. Today most factories are highly mechanized with high processing capacity and minimal manual labour. We are motivated by our customers’ feedback for improved and innovative processing technologies, and this we achieve by focusing on research.

Overall, there is a great improvement in terms of time saving. With regards to cashew shelling for instance, 10 years ago it involved a lot of labour and time. It took at least 5 days to process cashews from RCN to kernels. Today all that can be done in a day.

Author: Dang Van Tuyen, MEKONG MACHINE

Speakers’ Corner—
Gender Mainstreaming: The Realities, Innovations and Perspectives

The recurring question of gender is at the heart of many debates. Due to its transversal nature, which implies a change in mentality and behaviour, its integration requires clear attention and a sustained will to overcome stereotypes, including in the cashew sector. We take you to Benin to learn from an experienced woman who makes gender integration her daily battle.

Name: Ella Dorcas WAMA MARA
Occupation: Agricultural Finance and Gender Expert.
Manager Access to agricultural financing on the Benincajú project led by the international NGO TECHNOSERVE

Gender mainstreaming remains an essential element for the sustainable development of the cashew sector as a whole. In several cashew-producing countries, the role of women is more pronounced in harvesting and post-harvest activities. This, of course, constitutes an underutilization of their capacities and a restriction of their financial autonomy. In your opinion, what innovations have been made to overcome this situation?

From the onset, I can say that several gender analyses in the cashew value chain reveal that women’s work is not valued. Women's difficult and limited access to resources for production (land, financial resources, information, training) reduces the income that women and the community earn from cashew production.

At the nursery level, women are recognized as very talented grafters; however, their work as grafters is not paid for at its true value. Also, training in grafting techniques is provided first to nursery promoters.
With regards to women's activities related to plantation maintenance, harvesting and post-harvest work, their contributions are simply not included in the estimates of tasks to be remunerated. Women's work is often considered "normal" within the family farm.

To compensate for this situation, several innovative actions have been initiated, some of which are in the process of being implemented:

- Raising awareness among actors in the cashew sector of the need to value women's work, not only as an equity issue but also as a tool for economic development and wealth creation, and for making full use of opportunities in the cashew value chain.

- Specialization and numerical quantification of women's work in grafting, harvesting and post-harvest. In my country, Benin, the determination of the cost of production of a certified cashew seedling has made it possible to define the margin of work of the female grafter and thus to determine the cost of her service.

- It is also now accepted that training on harvesting and post-harvest activities should include more women beneficiaries, with a minimum quota of 60%;

- The organisation of annual events (award ceremony, conference and debate) to promote women's work is also a commendable innovation. During this ceremony, involving both State authorities and technical and financial partners supporting the cashew value chain, the best initiatives and innovations in promoting women's work are rewarded and the value of women's work in the various links of the cashew value chain is highlighted. These events are the subject of a communication campaign in French and local language: pre-event media coverage, media coverage during the event and archiving for later use.

In your opinion, what additional suggestions do you have to optimize gender integration in cashew production (policies, laws, change in mentality and behaviour)?

For a better integration of gender in cashew production, it is important to act on essential levels, in particular:

- The institutionalization of gender at the level of the authorities involved in cashew production:
  - Definition of a strategy to accelerate gender mainstreaming;
  - Development of innovative and realistic gender mainstreaming action plans;
  - Designation and motivation of gender focal points at all levels within production organizations and cashew production support structures;
  - Adoption or revision of the statutory and regulatory framework for greater gender integration.

"Any dynamic of change leads to corollaries of deviance..... Women equipped with the tools to integrate gender will have the role of monitoring and proposing corrective measures whenever a problem arises".

- Capacity building of actors (operational or institutional) on the challenges and tools of gender integration in cashew production:
  - Cascading or tailor-made trainings/retraining; particular emphasis should be placed on "financial education" for women to strengthen their capacity to manage funds and calculate savings
  - Monitoring the implementation of the roadmaps resulting from the training;
  - Implementation of a monitoring and evaluation system for gender mainstreaming. Any dynamic of change leads to corollaries of deviance. One recommendation would be the designation of "cashew women leaders" in each village; designation made according to the sociogram method. It is these women who will therefore later be equipped with the tools to integrate gender. Their role will be to ensure that this is done and to propose corrective measures whenever the problem arises.
  - With regards to peer to peer sensitization, opinion leaders and other religious and traditional leaders who are the pillars of community dialogue are in the position to change negative attitudes.
  - Advocacy and lobbying for the adoption and strict application of a legal means to facilitate women's access to key resources:
    - Development of a sub-regional advocacy strategy;
• Establishment of a steering and support committee for national advocacy cells to promote the value of women's work in cashew production.

- Sharing successful experiences in empowering women cashew producers:
  • Establishment of an international platform for gender mainstreaming in production;
  • Organization of national and international meetings to promote the best initiatives for gender integration in cashew production.

"The silent work of women in cashew family plantations deserves recognition and remuneration".

Women and young people constitute at least 90% of the workforce in processing plants. However, it must be noted that their presence becomes more limited when the analysis is extended to the decision-making level. Are there any innovative measures to strike a balance?

The objective of increasing the processing rate in Africa should not overshadow or underestimate the importance of gender mainstreaming. Currently, the gender specification of tasks in the cashew value chain is very remarkable at the transformation level. The professions within cashew processing require a low-skilled workforce, with mechanized shelling. Women generally represent this type of labour force because of the low level of education and training due to socio-cultural reasons.

In addition, women everywhere are victims of the "glass ceiling" effect. This is more pronounced in the cashew processing sector because businesspersons, obsessed with the performance of their units, are reluctant to position women in decision-making positions. Women are victims of prejudices about gender roles.

It is imperative to lobby for social performance and gender integration to become key criteria for evaluating cashew processing units. We could also consider classifying factories according to these two criteria and make this criterion a determining point for access to subsidies or financing or other support from technical and financial partners involved in the cashew sector.

It will also be necessary to sensitize students to move towards the cashew processing professions.

In your opinion, what pragmatic solutions can improve female leadership in cashew nut and by product processing?

I see this component through a multi-stakeholder and strategic valorization of women's contribution to boost women's leadership in processing. Women, in processing jobs or in any other sector, need to feel valued through their work. This unleashes the potential within them. At the more specific level of processing, the following are necessary:

• Valuing women's work and according it the right value;
• Provide technical and financial support to women involved in the artisanal processing of cashew and cashew by products;
• Primer the transformation units according to the rate of women in the company's management;
• Direct training on women's leadership both to the promoters of processing units and to the women working in the sector;
• Disseminate the success stories of processing units employing women at the management level;
• Encourage initiatives to support women cashew processors.

There has been progress in terms of regulation, although there are still some adjustments to be made. What are the major obstacles to their implementation, behavioural changes and how can they be addressed?

The legal and regulatory framework for gender mainstreaming has improved significantly both nationally and internationally. However, women's access to resources in the cashew value chain remains dependent on several factors, including:

- The still persistent sociological burdens in our societies where phallocracy is blatantly rampant;
- Obstacles to gender integration (denial, subversion, inversion, reduction, selection, etc.);
- The lack of a citizen monitoring system for the implementation of gender mainstreaming measures;
- The patriarchal system conveying heavy prejudices towards gender integration.

Education of girls and boys on gender equity, women's access to technical training oriented towards the sector, awareness-raising among opinion leaders on the
importance of gender integration, effective repression of acts of violation of rights, greater political will translated into concrete, realistic and pragmatic actions; gender integration in all activities and projects in the cashew sector, and the enhancement of women’s work are all actions that help to improve gender integration.

Women’s access to land, the main factor in cashew production, requires more bold actions, in particular the dissemination of the provisions of the Land and State Code and the effective implementation of the said Code, the effective implementation of the various methods of access to land (direct, indirect and mixed) for the benefit of women.

In a constantly changing market dynamic, what strategy and/or technique can you propose for a better integration of gender in the different links of the cashew value chain and by which category of actor (women beneficiaries, governments, Cashew Value Chain actors, technical partners, associations, etc.)

Gender mainstreaming is a legal, contractual, economic and moral obligation. Each actor at each level must play its part in achieving the objectives of gender mainstreaming in the cashew value chain.

- The government must show a clear and determined political will in favour of gender integration and translate this will into a clean-up of the legal and regulatory framework governing the cashew nut sector;

Producer associations must make gender institutionalization a reality at all levels, and ban regulatory provisions that constitute exclusion of women.

- The technical and financial partners should make it their duty to support initiatives to promote greater gender integration in the various links of the cashew value chain and make it a contractual requirement with the providers and beneficiaries of their support;

- Women working in the different links of the cashew value chain must organize themselves to better see their leadership skills strengthened in order to have full access to all the resources of this value chain;

In any case, all actors must take into account the triple role of women: productive-reproductive and community in order to succeed in any strategy for gender integration in the cashew value chain.

Do you have one last word for readers?

In short, gender mainstreaming is not just a "women’s issue". It is a key economic and social development issue. This integration is vital since inequalities in access to resources and opportunities hinder economic growth and its maintenance. It must be based on determined institutional action and support, with clear indicators and objectives, because it does not happen overnight. It is an ongoing process that requires a partnership between men and women. Our communities have everything to gain by taking gender equity into account, particularly in the cashew value chain.

That’s what I say to everyone: We can do it, we must do it. Thank you!

Interviewed by: Alima Viviane M’Boutiki
Gender and Training Officer, GIZ/ComCashew

Learning Through Cooperation – Sierra Leone Delegation’s study visit to Ghana

A delegation from Sierra Leone led by the Deputy Minister of the Ministry of Agriculture and Forestry, Mr. Sam-King Braimah, visited Ghana from the 23rd to 25th of July to among other things learn about the Ghanaian Cocoa and Cashew sectors. This visit followed a similar one undertaken in Ivory Coast.

Beginning in the early nineties, Sierra Leone implemented a structural program recommended by the World Bank to liberalise the Sierra Leonean Cocoa market. In effect, the Sierra Leone cocoa marketing board which was responsible for determining prices before the harvesting season and for export marketing was dissolved. This means that the country currently does not gain any revenue or forex from the cocoa sector. The situation is not very different in the cashew sector which is a relatively younger one.
Consequently, the Trade and the Agriculture Ministries have realised the need for policies to improve the welfare and development of the cocoa, cashew and coffee sectors. Hence, the study trip to Ghana and Ivory Coast. This is also in line with the government’s crop diversification program to prioritise the 3 crops, also known as the 3 Cs.

The trip offered the delegation the opportunity to learn about the sector strategies of both countries and the important role of research in ensuring higher productivity.

On 23rd July, the group took part in the first meeting of the Cashew learning platform jointly organised by the Ministry of Food and Agriculture of Ghana (MoFA), the African Cashew Alliance (ACA) and the Competitive Cashew initiative (GIZ/ComCashew) at the MoFA office in Accra.

While there, implementation agreement between GIZ/ComCashew and the Ministry of Agriculture and Forestry, Sierra Leone was signed in the presence of the Director of Crop Services of MoFA.

The following day, they visited the Cocoa Processing Company in Tema and the Winker Cashew Processing plant in Afienya, where they were taken through the various steps of processing of cocoa and cashew respectively.

As next steps, the Ministry of Agriculture and Forestry of Sierra Leone will sign a Memorandum of Understanding with Ghana Cocobod, MoFA and GIZ/ComCashew to learn from their experiences. This year alone, Sierra Leone has so far benefitted from 6,500kg worth of polyclonal seeds from MoFA through GIZ/ComCashew and is looking forward to increased support in this regard. These seeds have been sent to research institutes and universities for further studies and as basis to develop more varieties and subsequently distribute to farmers.

The country also hopes to strengthen its research institute by liaising with the Cocoa Research Institute of Ghana (CRIG). Through cooperation between their scientists, research protocols will be developed to improve cocoa and cashew production in Sierra Leone. Also, both countries can benefit from exchange of knowledge and planting materials and species.

Furthermore, given the lessons learnt, there will either be the creation of a produce marketing board such as COCOBOD, in the case of Ghana or reinforcement of the current produce monitoring board with an additional marketing task. It is also expedient for the government to dedicate increased funding towards research.

Finally, regional cooperation will be further stressed to ensure that instead of reinventing the wheel, the various countries build on lessons learnt from one another.

Author: Amara Idara Shderiff (Chief Agriculture Officer/Director-General), Ministry of Agriculture and Forestry, Sierra Leone
Leading the cashew way –

Teodora Carlos, the female cashew promoter

We meet Teodora Carlos in her garden where she has gathered chairmen of her groups. Teodora is a cashew farmer in Naheiro in the Larde district. She is 45 years old, married with 6 children and with only 7 years of formal education.

“I am responsible for 7 groups and each group has 7 members and a chairman. The groups comprise men and women and I like to get more women to join the groups. Being a woman, I hope to inspire other women. The groups are strong, our finances are better now because we sell the cashew in groups”, she says.

“I teach cashew farmers in the area about the importance of early weeding and how to make a fire-guard between the trees to prevent bushfire. I also teach them how to properly spray the trees to avoid Cashew Mildew”, Theodora says, describing her job as a promoter. She also teaches how to make molasses (a syrup) from cashew apples. She stresses the fact that working together in groups is good for farming.

Teodora started paying more attention to her cashew trees in 2012. She has 2 machambas with 150 trees in one, and 70 younger trees in the other. She proudly shows her farm records; 4 hectares with a yield of 805 kg of cashew nuts. “I calculated that each tree gave me a profit of 48 Mzn (0,80 US$). I will get more when the small trees really start producing.” Cashew is her main source of income, supplemented by the sale of sweet potato, bananas, groundnuts, oranges and fried chicken. Cassava, beans and rice are grown mainly for household consumption.

Teodora’s house is big with brick walls and roofing sheets. “Our previous house was thatched with grass and it burnt down in 2015. We bought the roofing sheets from the cashew earnings”.

Away from the group, she tells us her motivation for being a cashew farmer. “It is difficult to earn enough money to give the children a good education. Education is very expensive, and the prices have gone up this year. We have to work very hard because we want to give our children an education so that they have better possibilities in life.”

Author: Else-Marie Fogtmann, Emalink Mozambique
Digitization: Recent Innovations in GIZ/ComCashew Data Collection

The monitoring and evaluation unit of GIZ/ComCashew has, since 2010, conducted different surveys to facilitate the provision of accurate data and information on cashew productivity and farmers’ agricultural enterprise, among others. The surveys are carried out in partnership with the Fédération Nationale des Producteurs d’Anacarde du Bénin (FENAPAB) in Benin, Direction Générale de la Promotion de l’Economie Rurale (DGPER) in Burkina Faso, the Conseil du Coton et de l’Anacarde (CCA) in Côte d’Ivoire, the Ministry of Food & Agriculture (MOFA) in Ghana, the Instituto de Fomento do Caju (INCAJU) and EmaLink in Mozambique and, recently, the Ministry of Agriculture and Forestry (MAF) in Sierra Leone. GIZ/ComCashew technical experts support country partners to train selected enumerators in questionnaire administration and the use of GPS for farm mapping.

Until this year, the survey process had involved designing and printing questionnaires for data collection, gathering responses, doing manual data entry, cleaning, analyses, and reporting of findings.

For the 2019 cashew yield survey, an innovative survey tool – the Open Data Kit (ODK) – was introduced.

The Open Data Kit (ODK) is a suite of tools that allows data collection and data submission to an online server, using mobile devices, even without internet connection or mobile carrier service at the time of data collection. Data can be collected remotely without internet connection or cell carrier access, and then hosted online.

The ODK was successfully installed, tested and is currently in use for data collection across all partner countries. This initiative has been useful for the enumerators as they, with the help of mobile tablets, now spend less time interviewing farmers.

The GIZ/ComCashew M&E team can access and download data from the ODK cloud-based server anytime enumerators upload complete data forms while on the field. This has by far, been a more efficient approach, as compared with previous manual data collection methods where enumerators filled in responses with a pen, and then transported completed questionnaires to a central point for manual data entry. It saves a lot of time and minimizes human errors which happen in the process of entering data from paper, and also allows data to be monitored in real time during collection, rather than waiting for the tail end of the survey process.

At every phase of using the ODK, we faced some technical challenges such as designing questions in a table format, issues with French accented words changing into irregular characters, enumerator not able to upload data unto ODK server, among others. All these challenges and more were resolved through ODK forums where the developers provided remote technical support. GIZ/ComCashew, through training and technical capacity building, is progressing on its vision to give country partners complete ownership of data.

Global Positioning System (GPS Mapping)

A Garmin BaseCamp map showing a cashew farm in the Bondoukou
Another digital innovation useful for the annual yield survey is the Global Positioning System (GPS).

Since 2012, trained enumerators have been equipped with GPS devices to undertake cashew farm surveys by measuring and mapping out the location, sizes, tree population, and boundaries of areas of cashew plantations.

Spatial data from GPS devices are analyzed using BaseCamp and ArcGIS mapping tools for informed decision making by GIZ/ComCashew and its partners.

A Cashew productivity map created with ArcGIS

Author: Derrick Dappah, Field Officer (Monitoring & Evaluation), GIZ/ComCashew

Processing at Origin: Caro’s support for a competitive African Cashew Sector

Cashews are central to Caro’s ensemble of nut products. Before being roasted in Caro’s state-of-the-art facility in California and sent to markets worldwide, the majority of Caro cashews are harvested in Africa, some part of it processed in Africa and the other in Vietnam. However, this is changing.

Caro is committed to the sustainable and inclusive growth of Africa’s cashew producing regions, increased traceability of the nut supply, sustainable production capacity, and the livelihood of those participating in the cashew sector.

African Cashew Farming has Surged: Is Local Cashew Processing Next?

A staggering 57% of the world’s raw cashew supply is grown within Africa, and 44% of that comes from farmers in West Africa. Yet, less than 8% of this African production is processed within the continent. Africa’s dependency on Asia for processing causes unnecessary supply gluts and harmful volatility in prices. African processing is at a critical turning point. With cooperative efforts between local farmers, businesses, non-governmental organizations, along with international donor organizations and foreign firms, the African cashew processing sector stands to become a competitive, direct supplier of quality, traceable nuts for American and European markets. Such a transformation is estimated to create a significant beneficial impact on the farmers, communities and natural environments where these nuts are produced and processed.

However, for this shift to take place, multiple challenges need to be overcome. Among them are:

- the low quality of Raw Cashew Nut (RCN)
- capital scarcity and limited understanding of nut processing procedures and technologies by investors
- undeveloped revenue streams from cashew by-products and
- insufficient policy incentives from governments

Many international development organizations ranging from the World Bank, to the Dutch, German, and American national aid agencies have identified Africa’s cashew sector—and the development of local processing in particular—as a high-potential opportunity to improve livelihoods, income, employment, skills-development, and infrastructure. Projects and collaborations have spread rapidly across cashew-
to growers, processors, and local government agencies focused on agribusiness. Important among the transnational organizations and groups are: the Competitive Cashew initiative (GIZ/ComCashew), known as the African Cashew initiative prior to 2015; the African Cashew Alliance (ACA); and the Consultative International Cashew Council (CICC), which consists of ten member states and growing. TechnoServe and many other Caro partners play a role in providing demand for the new processing capacity supported by these international efforts and those of local governments and entrepreneurs.

**Caro’s Role in Supporting the Next Chapter**

Caro’s A-Team engages with nut providers and their support networks on a continual basis. The A-Team provides ongoing technical assistance to improve growing and processing along with coaching for food safety compliance, investment planning, business projections, start-up needs, technology solutions, management and work-force capacity building, day-to-day operational inefficiencies, quality control, and code of conduct. Currently, the technical assistance program supports five processors in three countries, Nigeria, Côte d’Ivoire and Burkina Faso. We plan to cover seven countries in the next three years.

**Caro’s Support for Food Safety Certification**

Food safety and compliance with a range of certifications will be increasingly important as Africa exports more nuts and as global attention to food safety grows. With this in mind, Caro organizes training sessions for our partners and others on the preventive controls for human food, a requirement of the United States Food and Drug Administration (FDA) for all foods imported into the US.

Ensuring that food products are free from harmful levels of bacteria, viruses, parasites, and chemical substances is critical. Such food contamination has been estimated to have contributed to more than 200 diseases and illness, and has impacted one out of every ten people worldwide. While, food contamination is spontaneous and can occur at any point in the food supply chain, it is most likely to occur during production and distribution. Food producers consequently carry the burden of responsibility.

Caro is committed to creating a rigorous food safety culture amongst suppliers. We achieve this through collaborative, solution-oriented procedures, and by simplifying complex food safety principles and programs in accessible training formats. Our key priority is to integrate food safety into all operational processes, instead of presenting them as stand-alone procedures. This allows food safety tasks to be completed as everyday operational routines instead of as separate tasks.

**Key Elements of Food Safety for Cashew Processing**

The Food Safety Modernization Act (FSMA) requires Food and Drug Authority (FDA)-regulated food and beverage facilities to have at least one Preventive Controls Qualified Individual (PCQI). A FSMA PCQI must have successfully completed the FDA-recognized training program offered by the Food Safety Preventive Controls Alliance (FSPCA). Or, the individual must have ample job experience to qualify. Though the list of FSMA’s new requirements is comprehensive, and varies greatly for some types of facilities, a key change that applies to nearly all food companies is the universal induction of PCQIs. Not only does the FSMA require facilities to have a food safety plan implemented by the deadline date, but the plan must also be prepared and applied by a properly trained PCQI. In Africa less than forty percent of food processors have met this qualification in order to continue exporting to US markets. This deficit is due to a scarcity of local know-how and underdeveloped training facilities.

In collaboration with six processors and two institutions from four countries (Ghana, Nigeria, Côte d’Ivoire and Burkina Faso) Caro organized PCQI training programs in Abidjan during the summer of 2019, with a total of fifteen participants being certified. This training was jointly funded by the participants themselves and Caro, and it can hopefully be a model for other educational courses.

Additionally, a new and emerging processor—Ivoirienne de Noix de Cajou (INCajou) S.A.—was recently certified for Hazard Analysis and Critical Control Point (HACCP) compliance. Miguel Marcel Zavonon, a Caro food
safety expert, expressed his confidence in this new INCajou model and its commitment to a rigorous culture of food safety, saying “I think that success lies in having a dedicated investor who is committed to upgrading facilities to the mandated standards. Knowledge alone is not enough. Mrs. Salma Seetaroo, with her passion to become a world-class processor, carried out the certification process within a short span of less than 5 months—a rare accomplishment in such a short time.”

**Recommendations for processors seeking a certification**

If you are a foreign (non-US) food supplier, your US importer is likely to be governed by the Foreign Supplier Verification Program (FSVP) rule. The rule ensures that imported foods meet the same level of food safety standards that are required for food produced in the U.S. The rule gives the U.S. importer the responsibility of verifying that its foreign suppliers are doing what they need to do to meet those requirements. Since foreign suppliers governed by the regulation are expected to comply with the Preventive Controls rules, it is advisable that these foreign suppliers get expert training on FSMA Preventive Controls. This helps foreign facilities achieve three main objectives:

- The development of in-house resource(s) such as a PCQI
- The know-how to help foreign companies develop a food safety system that complies with a US importer’s requests
- Ease in undergoing an FSMA audit

**PCQI Training:** Facilities governed by FDA standards are required to have a PCQI, though the presence of such a person does not alone satisfy the FDA’s terms. Such an individual is crucial for the management and preparation of the food safety plan, for validation of preventive controls and more. It is fairly inexpensive to become a PCQI, so I recommend that all processors take the course. It’s 2.5 days (20hrs), but well worth it, since it will greatly increase an organization’s chance of meeting FDA standards.

* « Domestic and foreign food facilities that are required to register with section 415 of the Food, Drug, & Cosmetic Act must comply with the requirements for risk-based preventive controls mandated by the FDA Food Safety Modernization Act (FSMA) as well as the modernized Current Good Manufacturing Practices (CGMPs) of this rule. The primary requirement is to have a food safety plan that includes an analysis of hazards and risk-based preventive controls to minimize or prevent the identified hazards. This is required for every facility supplying food to the US. I recently participated in the course on Preventive Controls for Human Food and I am glad that I did. Every Food Safety Manager working with clients in the USA should understand these regulations. I encourage processing factories to educate themselves on emerging food safety issues such as this.»

Mary Adzanyo, Director Private Sector Development, PCQI; GIZ/ComCashew

“This morning, I was talking to a prospective Saudi client and he asked: Is there someone in your plant who is qualified and certified to justify that you are authorized to produce and distribute food? I comfortably showed him my PCQI certificate. He replied: We can work together We have a duty to be trained and to add value to our quality of service."

Daouda Sangaré, Consultant- Director, PCQI

“The recent FSPCA / PCQI training is of great importance to me considering that it has brought together several experienced industrialists. I learned a lot about risk management, including hazard analysis and related preventive measures. Although the trainer used English language more than 60% of the time, the well-developed group exercises allowed me to acquire relevant knowledge. The trainer could organize a post-training follow-up to evaluate the impact of training in the workplace”

Roamba Issa, Plant Manager SOTRIAB Banfora, Burkina Faso

**Author:** Mr. Shakti Pal, Origin Development Manager, Caro
The Cashew Market update
(August 2019)

By Jim Fitzpatrick

Unfortunately, it seems that the 2019 cashew season has provided a “reality check” for farmers and regulatory authorities in African countries. The prices at the farm gate, the quality decline caused by lack of infrastructure and the late arrival of fewer buyers with fewer orders all provided a reminder of the bad old days when surplus led to price falls beyond the related kernels levels and stocks were left unsold at the farms and in the village warehouses.

But there was no surplus. In fact, supply and demand look fairly well balanced. By the end of the year it is likely that most RCN produced will be needed. However, there was a major reaction to the debacle of 2018. Processors became much more cautious in their approach. They bought smaller orders over longer time periods. The number of traders engaged in the international trade was reduced and probably will be again reduced by the end of 2019. This should not have come as a surprise to regulators. Perhaps we should not criticise too harshly given the immense strides made in recent years but guide prices and minimum prices were set too high slowing the movement of RCN further and eventually contributing to a loss of quality which means a lower price and a loss of income.

After a slow start by the end of July RCN import into India and Vietnam had recovered. Vietnamese imports were up by a remarkable 28% on the same period last year to 940,000 tonnes which, together with own production is enough for 9 months processing at current levels of exports. The increase has been spread around different origins. Imports from Cambodia were up by 67,000 t a huge 64% on the same period last year. Imports from Cote D’Ivoire were up 31%. Ghana increased by a remarkable 74% although no doubt this includes product sourced in surrounding countries. Nigeria was up a more modest but creditable 25%. The increase from West African countries was mainly in June and July and from Cambodia in February-April. By the end of July, the chances of a problem of supply for Vietnamese processors had been removed.

Indian imports too had recovered by the end of June (latest statistics) when imports at 350,000 tonnes are just 4.6% below the same period last year and ahead of 2016 Jan-July imports. This a very narrow margin given that India had virtually no imports from Tanzania in early 2019. Indian may still have a significant volume to import. July is an important month for imports from Guinea Bissau and other later cropping countries of West Africa. We will get a better picture once July figures are released.

In some ways we could say that order has been restored, if we can ever think of the RCN market as “ordered”. The bill for this was paid by farmers but lets not forget that the farmers benefitted in the anarchic trading conditions of 2017 and 2018. That is likely of little consolation to them now. Trading companies who struggled in 2018 have by now taken their losses and withdrawn from or reduced activity in RCN trading. Processors are back on track but must be concerned by the low values for broken cashews (except in Indian domestic sales).

Kernels markets have had a mixed year. Current prices ranging US$3.15 for a small/medium processor for prompt shipment to US$3.35 per lb for a certified processor for forward, are attractive for roasters. US imports to the end of June are down 7.4%. The month of June imports were down a remarkable 23% compared to June 2018.

High cost forward cover taken last year has caused US roasters dearly and the high prices of 2017 and 2018 have impacted on the new uses for cashew kernels. Some speculators profited by “shorting” the market in late 2018 but there is always a price to pay for volatility. European buyers seem to have fared better. EU imports to the end of May are up by 15%. Although we should remind ourselves that in 2018 Europe also started very strongly only to fade later it does appear that lower prices have impacted European demand. Perhaps the direct sourcing strategies more prevalent in Europe may have yielded dividends in 2019. There has also been strong growth in Vietnamese exports to China with 58%
growth to end July. We need to be careful with this figure as it may simply reflect better recording of trade. It may also reflect an impact of the import duties on tree nuts such as almonds and pistachio in China.

India, the main driver of demand growth for cashews seems to be having another positive year for growth. Overall the US decline is exceeded by European growth and with positive reports from India, China and a little more optimism from the Middle East it looks as if cashew demand in 2019 will improve on last year. If prices remain stable at or close to current levels the outlook for 2020 should be good to very good.

What does the rest of the year hold? Good crops just about everywhere mean that processors are well covered. They still need to import as at end July about another 980,000 tonnes until 2020 crop if you accept that Vietnamese exports will continue at current levels despite a sluggish USA market. Of this, more than half could come from Tanzania (250,000 tonnes of 2018 crop and 300,000 tonnes 2019 crop). It is no surprise that processors are watching the news of a major sale of 2018 crop from Tanzania carefully. The rest will come from the remaining stock/afloat material from West Africa, Indonesia and a little from early 2020 Mozambique shipments. As we said at the beginning cashews are not in surplus.

There is a new factor. A recent entrant Vietnamese company has signed an MOU for 176,000 tonnes of old crop Tanzanian material to add to purchases from Cote D’Ivoire and Guinea Bissau. In theory that would give them control of about 30% of the remaining RCN for 2019. African governments may have, in order to solve short term problems, handed even more control to Vietnam and reduced the competitiveness of their own processing sectors. It must be a worrying thought for African processors that the Vietnamese share of the US market was 88% in June 2019 whilst all African countries together accounted for less than 3% and a fall of 20% per cent year on year.

It could be tight by the end of the year. Could RCN prices start to run up again toward the end of the year? It is possible but it seems more likely to us that processors would reduce processing volumes impacting kernels prices first. It also seems unlikely that the tactics that worked so well for RCN buyers in the first half would change to more aggressive buying. Nonetheless the waters remain choppy even though the storm has passed.

**Staff Profile**

My name is Ernestina Amponsah and I am a quality and food safety professional. I am a highly motivated, result oriented with a practical approach to problem solving and a drive to see things through to its final conclusion. Thus, I am engaged and working hard with full determination and dedication to achieve organizational as well as personal goals. Anyone who aspires to be like me should be ready to work very hard, challenge him or herself and accept constructive criticisms in order to improve for the better. Faith is something that I hold dearly as a Christian.

I joined the ComCashew team in April 2018 as Advisor, private sector development for the processing component.

In terms of education, I have a Bachelors in Food Science and Technology and a Master’s in public Health. I have six years’ experience in food processing establishments, having gained experience in Quality management, Food safety and Environment health and safety. I am also a lead auditor for ISO 22000: 2005. Prior to joining GIZ/ComCashew, I had worked as a Quality Assurance/Food safety team leader with GB foods, Quality Analyst at GN Foods, Project Assistant with the Ghana Essential Health Intervention Project (GEHIP) at the School of Public Health, Legon and National service personnel at Food and Drugs Authority. I have also undertaken a couple of trainings in Lean six
sigma, Quality management and Hazard Analysis and Critical Control Points (HACCP).

My current work supports institutional strengthening of business linkage component as well as enhancement of synergies and private sector engagement in business linkage. Processing activities create a traceable path for production component to assess continuity of their component activities as well as analysis of value addition. Moreover, the production component is also able to assess how their component feeds into processing by the value chain concept. One thing that is particularly meaningfully to me is to see processors actively processing in larger quantities under good food safety conditions.

Working with GIZ/ComCashew includes a lot of exciting and challenging time. I particularly like the strategic career enhancement of employees. For instance, I have had the opportunity of attending training programmes, as well as learning French at workplace. I could travel to new places and meet new people. Not forgetting about bonding activities like the Easter egg hunt, occasional parties, strategic meetings among others.

In terms of project, five years down the line I see myself as an accomplished person in my field of work mentoring other younger persons preferably ladies.

Usually, when I am not working I am either singing, designing hats or fascinators, occasionally sewing even though I am yet to master this skill, or crocheting.

Finally, It has been wonderful working with ComCashew and I hope to contribute my quota in helping the project achieve its objectives. So help me God!

**Along the Cashew Value Chain**

**Production**

The production component has been undertaking activities in conjunction with partners in the areas of training and capacity building of farmers on Good Agricultural Practices (GAPs); facilitation and distribution of Improved Planting Materials (IPMs) to farmers; and the development of production models for gross margin analysis. Since the beginning of 2019, the component has tailored its efforts in the area of introducing technology and innovation in cashew production geared towards improving the productivity and efficiency of cashew farmers.

For this year planting season, the project facilitated the procurement of 7,100 kg of cashew polyclonal seeds from Ghana for project partners in Benin, Burkina Faso and Sierra Leone. With the polyclonal seeds, more than 60 nurseries were established in those countries for production and distribution of about 1,065,000 seedlings to farmers. 15 Scion Banks are under establishment in Ghana, Benin and Sierra Leone in order to make quality planting material easily accessible to nursery operators and farmers.

Paramount to achieve higher productivity is the incorporation of mechanization in the cashew production system. Areas of increased drudgery for farmers are identified as for instance weeding, digging of holes, spraying and pruning. The most singular aim is the attraction of especially the youth who perceive cashew production as a labor-intensive activity to revise their thinking and approach whilst enhancing productivity.

Furthermore, the modelling and incorporation of Farmer Business School (FBS) in cashew production with the singular aim of aiding farmers to further appreciate
farming as a business is an innovative way of upscaling farming systems in a more productive way. With this approach, farmers are able to maximize their business potentials and increase their incomes through adoption of Good Agricultural Practices (GAPs) and business skills.

With the insurgence of climate change and its impact on agriculture, the production component is working on the development of agroforestry systems that would be climate sensitive whilst raking in some considerable income from the secondary crops. Crops under consideration especially in the light of North-Ghana are naturally growing tree crops such as shea, termarind, dawadawa, moringa, acacia and other income food crops.

In the light of environmental sustainability and climate resilience, the ComCashew/REACH project embarked on a tree planting exercise in 10 schools of the Upper West region of Ghana cutting across 5 districts. In all about 800 trees of different species were planted ranging from fruit trees, shade-oriented trees, wind brakes and ornamentals. School pupils were also sensitized on the role of trees on the environment and some nurturing practices for the smooth transition of the seedlings to becoming trees.

Authors: Prosper Wie, Advisor Production and Mohamed Issaka Salifou Regional Advisor, Production - GIZ/ComCashew

Processing

Training on Quality Management with respect to sourcing and storage of RCN

Quality is one of the highest priorities during the cashew season. Bad practices like inefficient sourcing, as well as inappropriate warehousing by actors (farmers and processors), have the potential of affecting the outturn and reducing the quality of processed kernels. It is with this backdrop, that a training programme on quality management in RCN sourcing and storage was organized by GIZ/ComCashew, from May 22 to 24 2019, at Techiman. The main objective of the training was to expose participants to practical and theoretical knowledge in good RCN sourcing and warehousing practices.

There were twenty-two participants at the training, comprising thirteen processors and nine farmers. The training incorporated theory, discussions, demonstrations and hands-on activities. Participants were taken though supply chain management, cashew post-harvest management, good storage and warehousing practices, quality of RCN and KOR analysis.

The climax of the training was visiting visit to the Olam Ghana warehouse, where participants were exposed to warehousing principles and practices. We hope that participants will put the lessons learnt into good use, to improve their quality of cashew nuts. We also take this opportunity to thank the management of Olam Ghana for their continuous partnership and strong commitment.
Factory visit to Agro King Limited

The GIZ/ComCashew team visited Agro King on July 11, 2019, at Afienya. Formerly located at Drobo, Agro King is a primary processing company for Winker Limited, a cashew roasting company. The company relocated to Afienya this year. The relocation shall help Agro King work on both RCN shelling and kernel roasting for the domestic market in Ghana. We wish Agro King and Winker Investments well. Similar visits are planned to other nut and apple processing units in August 2019.

Presentations during the Master Training Program for Cashew Value Chain Promotion

The component contributed to the organization of the 3 editions of the Master Training Programme through some presentations made to strengthen participants’ knowledge on:
- Cashew market dynamics
- Trade negotiation techniques, and
- Value Chain Concept

Forum du Cajou Sahélien - FOCAS

The Sahelian Cashew Forum (FOCAS) is a new regional event concept on the cashew sector in the West African sub-region. Initiated by the African Cashew Alliance (ACA) in collaboration with cashew stakeholders and various technical partners, FOCAS offers a meeting and exchanging platform to actors from Sahelian countries on subjects of common interest in cashew production, processing and trading. After its first edition in Bobo-Dioulasso (Burkina Faso) in 2018, the second one took place from 5th to 7th August 2019 in Bamako (Mali) on the theme ‘Improving the competitiveness of the cashew nut value chain’. The 9 participating countries were Benin, Burkina Faso, Côte d’Ivoire, Ghana, Guinea-Conakry, Guinea-Bissau, Mali, Senegal and Sierra Leone. GIZ/ComCashew was involved in the organization by providing technical support and moderation of panels on state, potential and market trends in cashew production, KOR and top-working.

Authours: Mary Adzanyo, Director, Private Development Sector, Youssoufou Sore, Technical Advisor, Processing, Ernestina Ampomah, Advisor, Private sector development and Adjei Gyamfi Gyimah Advisor, Access to finance

Sustainable Supply Chain Linkage

Matching Fund Call 6

The implementation of projects by the 13 partners in 5 ComCashew countries namely Ghana, Benin, Burkina Faso, Côte d’Ivoire, and Mozambique are still ongoing, and partners are making significant progress in achieving their objectives. We will like to encourage our partners to keep on with their good work.

The technical team of GIZ/ComCashew shall be paying visits to matching fund partners to monitor and report on activities of projects for the second quarter. This is to help keep track of the implementations of partners Key Performance Indicators’ (KPI) and provide needed support on time.

The technical team is also available for your questions. Please feel free to contact us individually or at cashewfund@giz.de

Matching Fund Call 7

Call for concept notes

A 7th call for matching grant was made in June 2019 for concept notes from private and public actors who were interested in promoting and developing the cashew sector. The call was being financed by two organisations with expected results as follows:

German Federal Ministry for Economic Development and Cooperation (BMZ) and the Swiss State Secretariat for Economic Affairs (SECO) funding for all countries

1. Improved planting material multiplied, distributed and planted by smallholder farmers
2. Enhanced knowledge transfer to cashew farmers
3. Strong linkages and ties between processors/buyers and farmers (Effective Business linkages with farmers)
4. Improved market access (access to price and production information, etc.) Improved cashew value/supply chain
5. Diversification
6. Climate smart agriculture

Additionally, SECO funds the following projects
specifically for Ghana.

Fostering of business linkages among cashew actors along the value chain specifically for Ghana

7. Fostering of business linkages among cashew actors along the value chain

8. Business models for supply chain linkages,

9. Enhancement of cashew processing (nut, apples, shells and other by-products comprised)

The call was made to the 6 project countries. Partners were very responsive to this call resulting in 25 concept notes received from the six above-mentioned countries plus 1 international, breakdown as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of concept notes received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>3</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>5</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>5</td>
</tr>
<tr>
<td>Ghana</td>
<td>7</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>3</td>
</tr>
<tr>
<td>Mozambique</td>
<td>1</td>
</tr>
<tr>
<td>International</td>
<td>1</td>
</tr>
</tbody>
</table>

The concept notes are still being evaluated and final decisions by the Matching Fund Board shall be communicated to applicants soon. After the Board decision, recommended priority projects will further develop their concept notes into full proposals. Contracting of successful projects will be done thereafter. Implementation of projects should commence by the end of October 2019. Applicants of second priority and postponed projects would be contacted by ComCashew staff for next steps.

Access to Finance

- Access to Finance Steps

Following the access to finance forum in March 2019, preliminary talks have been initiated for funding for selected processing companies. A profiled list of about 10 suitable regional agricultural funds are compiled for internal as well as external reference.

- CARI Agricultural Value Chain Finance Training for Financial Service Providers

Inspired by the Access to Finance forum organized by ComCashew in March in Ghana, the Competitive African Rice Initiative, in collaboration with ComCashew organized in July 2019 an Agriculture Value Chain Finance Training for Financial Service Providers. Key lesson learnt is that, such value chain project and financial institution workshops should be continued. This would help decision makers to support agricultural value chains in more practical and meaningful ways.

- Côte d’Ivoire Mission

A month-long mission to Côte d’Ivoire provided insights through a visit to a mechanised processor, a synergy identification meeting with a partner institution, a meeting to promote energy efficient cashew production with an energy focused GIZ project and working spells in Sector Organisation, M&E and F&A.

Holistically, the mission provided rich knowledge as follows: insight into the regulatory workings of the cashew sector in Côte d’Ivoire as well as the operational workings of the value chain actors. Audit insight was also gained through the spell with F&A; while spells with M&E and Sector Organisation afforded insights into yield surveys and Sector Organisation operations respectively. The mission was very productive, educative and a substantial value addition.

Hospitation with Red River Foods: Barbara Adu Nyarko shares her experience

Red River Foods is a leading U.S. importer of a wide variety of tree nuts, dried fruits, seeds, and specialty snack products. They supply the bakery, confectionery, cereal, dairy, and snack food industries with the finest quality product ingredients. In Ghana, Red River Foods works closely with farmers in the Bono, Bono East and Ahafo regions (formerly Brong Ahafo region) of Ghana, by offering training on post-harvest handling, pruning and thinning, record keeping, organizing them into farmer associations and providing farmers with a reliable market by buying their cashew nuts. In addition to this, Red River Foods also gives expert market
updates to farmers and their customers to build strong sustainable supply chains around the world.

GIZ/ComCashew employs young experts with the view of grooming them for the cashew industry. As part of its strategies, every year, ComCashew trains at least ten (10) youth as interns and young and dynamic staff. In July 2019, Barbara Adu Nyarko, Advisor for Business Linkages at GIZ/ComCashew, partook in a learning and collaboration program with Red River Foods in Sunyani. The objective of this integrative work with Red River Foods was for Barbara to support the farmer linkage program of Red River and experience the work of Red River. Below, Barbara shares insights from her stay with Red River Foods.

**Pruning and Thinning**

In 2015, Red River Foods together with the United States Peace Corps Volunteers conducted pruning and thinning trainings in six cashew communities in Ghana. In the initial stage, Red River conducted this training while purchasing cashews through agents. However, in 2017, Red River Foods extended the trainings to more communities and began directly sourcing raw cashew nuts (RCN) from farmers in 20 cashew communities in the Brong Ahafo region.

Currently, Red River Foods is working with over 1,000 farmers, of which some have had their farms pruned and thinned through the Pruning and Thinning program. Pruning and thinning start during the rainy season; from early July to September. During this period, trainings are held for farmers on the importance of thinning and pruning, drying of RCN, bee-keeping, and record-keeping, while chain saw operators are trained on proper personal protective equipment usage, chain saw techniques and maintenance, pruning techniques, proper felling techniques and hazard analysis.

Aside this training, Red River Foods provides cashew communities with chain saw machines and protective wear for operators. For the sustainability of the program, operational costs of pruning is paid for by farmers, whiles Red River maintains the machines.

**Farmer Bonuses and Awards**

Red River Foods introduced a bonus scheme in 2018, to foster a sustainable linkage with farmers. The bonuses are given during the production season and serves as funds for input for farmers. Red River Foods buys cashews from farmers at the farm gate price, and also pays bonuses based on volume purchased. Farmers are also encouraged to form associations and an additional bonus is given to each association. Associations use the money as soft loans to members and for community development.

For 2 weeks in July 2019, Red River Foods visited 20 communities to disburse bonuses to farmers. Farmers used their passbooks with sales records to confirm expected bonuses.

An end-of-season festival and award ceremony for the farmers was organized, during which the Director of Operations, Africa, Mr. Wayne David Tilton, appreciated farmers for supplying to Red River Foods.

Awards were given to the top three farmers who supplied Red River Foods with the highest quantity of RCN.
18th Edition of the AGOA Forum held in Abidjan

The African Growth and Opportunity Act, (AGOA) is a legislation that was approved by the United States Congress in May 2000. The purpose of this legislation was to improve economic relations between the United States and African countries. After the initial 15-year period of validity, the AGOA legislation was, on June 29 2015, extended by a further 10 years, to 2025. The AGOA is a key component of U.S.-Africa strategy, with a focus on increasing trade and investment with the continent as a mechanism for growing Africa’s prosperity. Since its creation, AGOA has expanded access to the U.S. market for textile and apparel goods from 41 eligible countries. The United States government provided technical assistance to eligible countries through trade hub until 2010.

Every year, an AGOA Forum is held, bringing together government leaders and private sector stakeholders from Africa and the United States. The Forum is held in Washington every other year, and in an AGOA-eligible African country in the other years. The 18th Edition of the AGOA forum took place in Abidjan, Cote d’Ivoire from the 3rd – 6th August 2019. Several panel discussions were held to assess the achievements to date as well as the key lessons learnt. GIZ/ComCashew and partners; Ivorienne de Noix de Cajou, Red River Foods and Caronut, were among participants at the forum.

Authors: Mary Adzanyo , Director, Private Development Sector, Barbara Adu Nyarko, Advisor Supply Chain Linkage and Adjei Gyamfi Gyimah Advisor, Access to finance

Sector Organisation

1. Support to regional cashew events: FOCAS 2 in Bamako Mali

Forum on Sahelian Cashew (FOCAS) is an initiative of the African Cashew Alliance (ACA) in collaboration with cashew stakeholders, including the various technical and financial partners, ministries in charge of trade, agriculture and finance to address issues of common interest to the development of the cashew sector in Sahelian countries. Thus, ACA in close collaboration with the cashew nut industry in Mali, organized the 2nd edition FOCAS . The forum held from 5-7 August at Hotel Azalai Ex Salam in Bamako, Mali was financially and technically supported by GIZ/ComCashew, who played a major role in its preparation and holding.

Under the theme: "Improving the competitiveness of the cashew nut value chain in Sahelian countries", the 2nd edition of the FOCAS forum brought together about 250 public and private sector actors from 9 countries namely Benin, Burkina Faso, Côte d’Ivoire, Ghana,
Guinea-Conakry, Guinea-Bissau, Mali, Senegal and Sierra Leone. Several development partners in the sub-region were also present among which Spanish Cooperation and the European Union supporting the Project for promotion of the cashew sector in Mali (PAFAM), United States Department of Agriculture (USDA) supporting Technoserve (TNS) Benincaju project in Benin, African Development Bank (AfDB) from Côte d’Ivoire.

During the forum, several sessions were held with experts in the cashew value chain, particularly from the Sahel region, who made presentations and panel discussions on the following key topics:

- The evolution of cashew production in the Sahel region: current situation, prospects and market trends
- Seizing the economic opportunities of local cashew nut processing: how to make processing more competitive in the Sahel?
- The cashew sector - a political sector? How to organize the private-public dialogue and create a common framework for good governance?

In addition, participants had the opportunity for B2B meetings, visit about 10 stands of cashew products and services, and engage in the various networks for a two-day period. The third day was reserved for a field visit to a commercial plantation of 1800 ha, in Dialokoroba on the outskirts of Bamako. The farm owner -Mr. Tidiane Traoré, is a former migrant who lived in the USA and France and decided to return to his home country and invest in cashew.

In view of the potential for cashew development, especially in the production, Mali stakeholders through their interprofession (IPROFAM) expressed their interest to participate in future editions of the GIZ/ComCashew MTP.

The Minister of Agriculture, host of the forum, showed particular interest in the sector and was informed of the CICC platform and the upcoming ministerial meeting to be held in Ouagadougou in October.

The next FOCAS will take place in Guinea Bissau in 2020, on a date to be determined in consultation with the authorities and stakeholders of Guinea Bissau.

A side meeting was held during FOCAS between ACA and cashew Interprofessions from Benin, Burkina, Mali with representants from Senegal and Guinea that brought out the need to support interprofessions in their discussion with the government to get their share from the export RCN taxes. Each country will send soon a list of key actions to ACA to be addressed.

2. Country Updates

Benin

The national public agency for the cashew value chain promotion in Benin (ATDA4) organized on March 15 2019, a meeting for the establishment of the framework of consultation of the Technical and Financial Partners (PTFs) of the cashew sector in Benin. Participants of the meeting adopted the creation of a broader group, gathering all public and private stakeholders promoting or developing the cashew sector in Benin. A subgroup of DP concertation could be envisaged under this platform. DG ATDA 4 is the chair of the group and meeting will occur every six months with extraordinary meeting if needed.

A rapid appraisal of the major activities of year 2019 undertaken by the different partners pointed out the risks of overlapping of activities, especially in the field of nursery promotion and seedling distribution. ATDA4 has
ATDA4 has informed the participants to the meeting that the government has decided to support 2 million certified seedlings using improved material from local scions’ gardens and imported polyclonal seeds from Ghana. 40 nursery operators have been selected and will be supported to supply 50,000 seedlings each, which will be purchased by the government at a price of 600 FCFA and distributed at a subsided farm gate price of 100 FCFA per seedling. Other nursery operators could also have their seedlings purchased if they are certified by the accredited service “Direction de la Production Vegetale” under the Ministry in charge of Agriculture. This policy will hamper the efforts of FENAPAB to promote a pool of private nursery operators supplying the demand of their members and attracting new members in the farmers’ association.

The next DPs concertation meeting under the ATDA4 coordination will be held the 20th August in Parakou, Benin.

**Burkina-Faso**

Taking example from the Ivorian cashew sector, the Burkinabe Cashew Council (CBA) was created in March 2019. As a public establishment of the State with an economic character (Epec), the CBA aims to promote the cashew nut sector through the implementation of actions of regulation, organization, coordination and development of the activities of this sector throughout the national territory. The CBA is placed under the technical supervision of the Ministry of Trade and under the financial supervision of the Ministry of Finance.

Although its main mission is to organize and promote a competitive cashew nut sector in Burkina Faso, the creation of the CBA may lead to the loss of certain prerogatives of the young cashew nut interprofession in this country.

It is therefore essential to conduct a frank and sincere dialogue in order to take into account the interests of the direct actors and to consolidate the achievements made by the private sector in recent years.

Substantial representation of stakeholders in CBA bodies and a fair distribution of resources from nut export levies to the benefit of the Burkina Interprofessional Cashew Council (CIAB) are essential conditions for good governance of the cashew sector in Burkina Faso. Discussions are ongoing between the ministries in charge of the sector and the CIAB to this end.

**Mozambique**

The GIZ/ProEcon private sector development project has taken steps in starting the inception phase in the framework of the EU co-financing project for cashew promotion in Mozambique. The update of the value chain mapping for the cashew sector is ongoing, in order to determine the areas of action implementation.

GIZ/ComCashew is still working in Mozambique with two major interventions in 2019:

The rehabilitation of plantations and trees in close coordination with EMALINK is going to continue until December 2019. This activity is underway in an international context to assess the economy of the cashew rehabilitation. A collaboration with Stihl in Germany has been initiated to explore the development and provision of appropriate technologies and equipment for smallholders in this area.

The support provided to INCAJU about cashew apple processing until 2020, under the regional matching grant fund. The main idea is to expand the experience of the trilateral cooperation scheme between Ghana, Brazil and Germany. The objective of this initiative is to develop business models for use of the cashew apple.

**Ghana**

In Ghana, GIZ/ComCashew supports the process of the establishment of a Tree Crop Development Authority. This support is a joint effort together with other development partners, such as the Swiss Cooperation, Solidaridad and the World Bank.

The Ghana Tree Crop Development Authority (GTCDA) will be the statutory body that will regulate the country’s tree crops sub-sector. Besides the cashew sector, 4 other tree crops, such as rubber, oil palm coconut and shea will be regulated by the new authority. GTCDA would also assist to carry out scientific and technological research to improve the respective tree crop sectors. The process of establishing the
Authority is led by Ministry of Food and Agriculture and Ministry of Local Government and Rural Development. Stakeholder engagement forums have been held for all subsectors and ComCashew has been actively supporting the deliberations for the cashew sector.

At this stage, a draft regulation to operationalize the implementation of the Ghana Tree Crop Authority Act has been validated. The bill has been approved by Cabinet and is expected to be passed by the end of the year.

**Sierra Leone**

In Sierra Leone, GIZ/ComCashew, jointly with Boosting Agriculture and Food Security (BAFS), funded by the European Union, has supported the formulation of a national cashew policy document. This policy document, which includes a sector analysis and a set of policy recommendations has already been validated by the Cashew Stakeholder Committee of Sierra Leone in June 2018. One year later, the process has been brought to another level with the elaboration of a policy implementation plan. This plan has been developed by a consultant with the support of GIZ/ComCashew for the Ministry of Agriculture and defines milestones for the cashew value chain development until 2024.

On 28.06.2019, this policy implementation plan together with the policy document have been officially handed over to the Ministry of Agriculture. GIZ/ComCashew has been part of the handing over workshop, which included also other tree crop subsectors, such as cocoa and coffee.

**Authors:** Bernard Agbo, Director, Sector Organisation and Maria Schmidt, Advisor, Sector Organization – GIZ/ComCashew

**Human Capacity Development and Gender**

276 Cashew Value Chain actors from 14 countries being trained through the Master Training Programme (MTP)

Capacity building for Cashew Value Chain (CVC) actors remains a central focus of the activities through the Master Trainer Training Program (MTP). Organised by GIZ/ComCashew and its partners, this year 2019 recorded the effective organization of three editions with a total of 276 participants including 114 women, a female participation rate of 41%.

Participants are coming from Benin, Burkina Faso, Côte d’Ivoire, Ghana, Mozambique, Sierra Leone, Mali, Nigeria, Guinea Conakry, Madagascar, Senegal, Kenya, Germany and Vietnam. They are selected along CVC and
are from different background namely: producers, processors, traders, marketing, government & ministry, development & extension projects & programs, university & research, finance, NGOs agents and strategy advisers. The first sessions of editions 7, 8 and 9 were successfully held in March, April and May respectively in Aburi, Ghana. The training provided focused on the concept of the cashew value chain, the market dynamics and the development of training materials. Combining theory with practice, participants conducted a field visit to USIBRAS processing company located in Prampran. This exposure to a large-scale transformation was beneficial for the participants, allowing them, among other things, to understand the role of the private sector in the development of the cashew industry.

Sunyani, in the Bono region of Ghana, was the focal point for the second successive sessions in June, July and August. Focused on production including improved planting material development and Good Agricultural Practices, a visit to the Wenchi Agricultural Station allowed participants to understand the importance of cashew research and development.

Promoting the position of the disadvantaged gender and challenging the imbalance distribution of resources

As part of Gender implementation activities, GIZ/ComCashew identified women with distinguished pathways in the Cashew Value Chain to publish their stories in the 4th issue of the Women Entrepreneurs book. These publications highlight the women commitment at work and promote the valorization for a better competitiveness of the Cashew Value Chain (CVC). Other forms of gender mainstreaming are also carried out by GIZ/ComCashew. Also working on capacity building, a gender training module was delivered at the second sessions of the Master Trainer Training Program, editions 7, 8 & 9. The aim is first of all to raise awareness and reflection on the benefits of gender mainstreaming and ultimately change behaviors. This in turn allows them to train other people to maximize the dissemination of behaviors and practices that integrate gender and to propose innovative and pragmatic methods to address gender issues. Encouraging encounters are held during the women entrepreneur meetings alongside cashew international events (together with Cashewinfo). A Whatsapp platform serves for business exchange worldwide amongst these CasheWomen.

Gloria Mariama Gariba owns a 10 Acres (4Ha) cashew farm. The visit of her plantation attracted the admiration of the participants. The respect of the Good Agricultural Practices, her yield quantity and her hardwork have highlighted the benefit of gender mainstreaming in the development of cashew sector.

Authors: Cynthia Al-Da Benon, Head of Human Capacity Development Unit & Alima Viviane M’Boutiki, Gender and Training Officer, GIZ/ComCashew

**Grafting session in Wenchi, edition 7**

Source: GIZ/ComCashew
Meetings and Events

Access to Finance (A2F) Forum for Cashew Processors
24 September 2019; Cotonou, Benin

Anuga 2019; https://www.anuga.com
5 - 9 October 2019; Cologne, Germany

Primer Congreso nacional de Marañón
16-17 October 2019; Puerto Carreño—Vichada, Columbia

13th African Cashew Alliance (ACA) Annual Conference
7 - 9 November 2019; Dar-es-Salaam, Tanzania

Brazil Africa Forum
12-13 November 2019; São Paolo, Brasil

Edition 5 SARA 2019
Salon Int. de l’Agriculture et des Ressources Animales
22 Nov – 1 Dec 2019; Abidjan, Côte d’Ivoire

International Peanut Forum 2020
22 – 24 April 2020; Budapest, Hungary

GIZ/ComCashew Events:
6 November 2019; Dar-es-Salaam, Tanzania
- ComCashew Board meeting
- Meeting of Master Trainers Editions 1-9
- 10 years ComCashew/A4SD

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<th>Edition 3 of Master Training Programme in Abidjan-2019</th>
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Delicious & Nutritious

Vegan Cashew Sour Cream

Innovations and technologies from the field to our plates ... in our bowls! Enjoy this surprising dessert.

Ingredients
• 1 cup cashew nuts
• 1/3 cup water
• ½ teaspoon Salt
• 2 teaspoons Apple cider vinegar
• 2 tablespoons freshly squeezed lemon juice

Directions
• Soak cashew nuts in hot water for about 15 minutes
• Drain hot water and rinse with cold water
• Place soaked cashews in a high-speed blender along with the lemon juice, vinegar, 1/2 teaspoon salt, and water.
• Blend on max speed until completely smooth, 1-2 minutes.
• Taste and add additional salt if desired.

Tip: Keep refrigerated in an airtight container for 4-5 days, or frozen.

Source: kitchentreaty.com

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The sixteenth edition will be published in December 2019. If you are interested in contributing or would like to send your comments, please send a mail to sylvia.pobee@giz.de