



# How to Implement a Broad-Based Approach to Developing the Africa Cashew Market



## PROJECT DATA

### PARTNER ORGANIZATION:

German Development Cooperation:  
GIZ/BMZ

### ORGANIZATION TYPE:

Government

### DELIVERY CHALLENGE:

Stakeholder coordination

### DEVELOPMENT CHALLENGE:

Private sector productivity

### SECTOR:

Private sector development

### COUNTRIES:

Benin, Burkina Faso, Côte d'Ivoire,  
Ghana, and Mozambique

### REGION:

Africa

### PROJECT DURATION:

2009–14

### PROJECT TOTAL COST:

€39.71 million

### ORGANIZATION COMMITMENT:

€13.8 million

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## In Brief

- **Development Problem:** Despite challenges, there is strong growth potential in cashew sector development that represents an opportunity for smallholders in Africa to develop an additional income source.
- **Program Solution:** The African Cashew Initiative (ACi) program identified successful delivery mechanisms to implement a broad-based multistakeholder approach to African cashew market development.
- **Program Results:** Average additional annual net income of the 430,000 trained farmers is projected to increase by 2016; total additional net income generated by the trained farmers was US\$19 million in 2013, US\$34 million in 2014, and targeted at US\$47 million in 2015 and 2016; and within a decade, the cashew value chain profitability and competitiveness in the five selected Sub-Saharan African countries will have improved, with eight selected countries processing 60 percent of their total cashew nut production, and 500,000 smallholders having US\$80 million in added annual income.

## Executive Summary

**What are African Cashew Initiative’s principles and delivery mechanism, how do these lead to general project success, and which can be transferred to other value chains?** How do producers and processors benefit from a changing power relationship in a demand-driven market set-up and how does the project support this? What are the benefits and tradeoffs for private actors in partnering for development, beyond their own core business, and how does the public-private interaction work within the project? “How to Implement a Broad-Based Approach to Developing the Africa Cashew Market” examines these questions in the context of the African Cashew Initiative’s successful implementation.

**The African Cashew Initiative (ACi) presented an opportunity to boost cashew sector production and improve its broad-based income potential in marginal regions throughout Africa’s tropical belt.** In Africa, cashew growing is an emerging business. When the ACi began in 2009, about 1.5 million African smallholder farmers produced roughly 38 percent of the world’s cashews, but Africa represented only 3 percent of cashew shelling and 3 percent of cashew consumption. Farm incomes were low (US\$120–US\$450 per year) as a result of low yields, poor quality nuts, and a lack of business skills. Production was fragmented and disorganized, with weak linkages to processors and buyers. Most of the raw nuts were exported to India and Vietnam, limiting the potential of local markets. Meanwhile, global demand for cashews was increasing even as yields in established production countries stagnated or declined. This demand presented a major opportunity for Africa to tap into international markets, but it required access to the right technologies, better knowledge transfer, and sustainable supply chain linkages.

## Development and Delivery Challenges

ACi’s development and delivery challenges included farmers’ lack of access to: resources, markets, good production practices, training, credit, and inputs. About 72 percent of the estimated 1.5 million cashew farmers in Africa were poor and lived in rural deprived areas. The producers were

fragmented and disconnected from markets, and had poor production practices, along with a lack of access to training, credit, and inputs such as improved planting materials. Furthermore, governments had not prioritized the crop as an additional income source or profitable business venture. Cashews had been introduced as recently as 30 years ago in many countries, primarily for beneficial ecological impacts (that is, reduction of soil erosion and climate risk mitigation). The cashew value chain emphasized returns to traders rather than farmers, who had little quality incentive or end-market visibility.

The key delivery challenge that limits African cashew market development is the lack of business linkages in the value chain to incentivize and equip producers and processors to increase yield, improve processing competitiveness, raise kernel quality, and build value chain cooperation.

In responding to the delivery challenge, the ACi program identified successful delivery mechanisms for implementing a broad-based multistakeholder approach to development. ACi created scalable and sustainable mechanisms along the value chain to enact meaningful impact for all sector actors. The four “forces” of focus were: production (improving yields, management practices, and business skills); processing (building capacity, knowledge transfer, and investments in technology); supply chain linkages (reducing information gaps and strengthening producer-buyer relationships); and sector organization (policy development, industry advocacy, and public-private coalition).

ACi was launched in 2009 with a broad-based multistakeholder partnership approach using a two-phase approach. Phase 1 ran from 2009 to 2012, and focused primarily on direct interventions (in coordination with implementing partners) to improve productivity, build processor capacity, and develop supply chain linkages. Phase 2 used a revised format, with the majority of funding deployed through a matching fund program. The program centered its organizational and financial support on burgeoning national and regional private sector associations formed as part of the African Cashew Alliance (ACA), as well as on stimulating private-public dialogue led by national governments.

From the outset, organizational hurdles arose along with the number of donors involved. Large donors and the innovative format attracted significant attention and required a strong guiding hand to build a coalition of dedicated partners. Early on, the importance of

developing relationships between stakeholders became apparent, and program leadership had to be realigned to address this priority.

The phase 1 effort laid the groundwork and provided a baseline of understanding required for program changes instituted in phase 2. In the course of initial farmer training, it was quickly realized that farmers could double their potential peak yields by using improved planting materials. By defining cashew production economics and developing the business case for processing, ACi was able to influence local banks and financing institutions to fund processors. In addition, it helped convince private partners of the benefits of investing in extension. Financial analysis of processing also highlighted the need for selection criteria to determine which processors to include in the program, since certain capacity and management capabilities were needed for success. In addition, timeframe expectations for organic linkages between producers and buyers were lengthened to reflect field experiences.

Phase 2 underwent a major evolution in approach with the addition of the matching fund. The matching fund was designed as a mechanism to allow private and public organizations to define, co-fund, and implement development projects in the cashew sector, in partnership with ACi. This process engaged cashew sector partners to invest in projects that were beneficial to both producers and their own organizations. Implementing partners remained the same but moved into consulting roles, primarily funded through the matching fund. Another major inflection point in phase 2 was the establishment of a master trainer program that transitioned the staff's role from technical advisors to coaches for stakeholder partners. Sector advocacy also increased in phase 2 as ACi concentrated its organizational, technical, and financial support to build and strengthen national associations. This process was done jointly with national public institutions, thus stimulating a private-public dialogue.

## Lessons Learned

The initial implementation approach provided insights into the field situation and clarified the requirements for achieving scalable and sustainable impact. The agronomic reality necessitated the inclusion of improved planting materials and the development of baseline business-case financials to attract processor financing and private sector support. Focused targets for development impact

led to the selection criteria for processors. The use of the matching fund instrument in building sustainable supply chain linkages allowed ACi to fund farmer training without direct intervention, while simultaneously creating meaningful interaction and lasting links between major actors in the supply chain. Institutional sustainability arose from the inclusion of national agencies and governments in the decision-making process and the alignment of objectives across a broad base of industry stakeholders.

## Introduction to the Case Study

### Introduction to the Development Challenge

In 2009, about 1.5 million smallholder farmers in Africa produced roughly 38 percent of the world's cashews, but Africa represented only 3 percent of cashew shelling and 3 percent of cashew consumption.<sup>1</sup> Most of the raw nuts were exported to Brazil, India, and Vietnam. This situation left opportunities for cashew sector job creation, local value addition, and poverty reduction largely untapped in Africa.

Cashews—typically harvested during the so-called hungry season—helped rural poor households diversify their incomes to manage the period of food insecurity. On average, farmers earned as little as US\$120–450 per year from cashews<sup>2</sup> and about 72 percent of the farmers were poor and living in rural deprived areas.<sup>3</sup>

Yields in Africa lagged behind competing countries, with 250–430 kg/ha<sup>4</sup> in West Africa in 2009/10, compared to as much as 1,000 kg/ha in Asia. However, potential was strong, as since evidenced in a Cashew Development Program in Ghana in which farmers using improved planting material reached yields of more than 800 kg/ha,<sup>5</sup> compared to current international best practices in Asia and Brazil reaching yields around 1,200 kg/ha.

In several Francophone West African countries, cashews had been introduced by forestry services within the last 30 years for the purpose of reducing soil erosion.

1 2010 estimate from ACi private sector investment case (January 2012).

2 GIZ/ACi, NORC baseline studies, 2010–2011.

3 GIZ/ACi proposal–Phase 2, submitted August 2012.

4 Kilograms/hectare; ACi/NORC yield survey, taken from ACi/M&E Mastertool (2009).

5 GIZ/ ACi yield survey (2014).

Hence, the crop was not widely prioritized as a profitable business venture. Technical training for cashew growers in good agricultural practices (GAP), harvest, and post-harvest handlings were rarely integrated in government extension services, as continues to be the case today. Similarly, finance, infrastructure, and skills for research and multiplication of improved planting material were insufficient and remain so.

Supply chain relationships between traders and producers were weak and did not typically create knowledge transfer on quality and marketing issues. The lack of stable business relationships led to high transaction costs and increased the risk of doing business. It also contributed to low levels of farmer cooperation and aggregation, allowing middlemen to play intermediary roles and capture margin. Many of these issues persist today.

Private sector actors—producers, processors, traders, and exporters—were also unorganized in 2009. Even today, their activities do not reinforce one another. Strong industry associations and coalitions of these actors have not evolved. If representations exist, they often work in isolation.

Cashew kernel processing in Africa was—and continues to be—saddled with high costs of US\$350 to US\$450 per metric ton (MT), compared to Asia and Brazil processing costs of US\$250 per MT.<sup>6</sup>

On the consumer side, demand for cashews was increasing, especially in Asia, Europe, and the USA. As yield levels in Brazil, India, and Vietnam stagnated and decreased, all eyes were on Africa to meet the rising global demand. Today, to keep a supply and demand balance and thus stable prices, African cashew-producing countries need to increase current production levels 20 percent by 2019.<sup>7</sup>

These changes in demand and significance for cashews partly explain why the cashew business in Africa has only recently gained the attention of governments and private actors, such as farmers, processors, and traders. Despite challenges, the strong growth potential continues to represent an opportunity for smallholders in Africa to develop an additional income source through cashew sector development.

6 GIZ/ACi/The Cashew Club, “Sensitivity & Multifactor Analysis of Factories; Processing Trends/Growth 2005–2015: Africa and the World,” presentation for Core Partners meeting (March 2015).

7 Jim Fitzpatrick, “Cashew Club Presentation to ACi Core Partners Meeting” (February 2014).

## Introduction to the Delivery Challenge

When the African Cashew initiative (ACi) started in 2009, global cashew demand was growing continuously, while Asia supply sources seemed to be stagnating. International food companies had high interest in entering new markets in Africa to diversify their supply and therefore create competitive advantages. At the same time, market entry risk was perceived as being high, so private sector partners wanted a neutral market facilitator. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), which had existing relationships with private sector partners and experiences in facilitating private-public dialogue and engagement, filled that convener role.

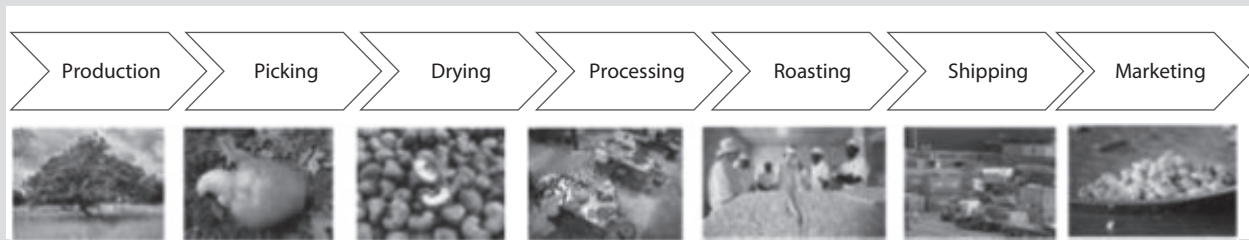
Against this backdrop, the key delivery challenge that limits African cashew market development is the lack of business linkages in the value chain to incentivize and equip producers and processors to increase yield, improve processing competitiveness, raise kernel quality, and build value chain cooperation.

## Overview of ACi’s Approach

ACi was launched in 2009 with a broad-based multistakeholder partnership approach. The initiative was mainly financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Bill & Melinda Gates Foundation (BMGF). GIZ served as lead implementer and worked closely with implementing partners FairMatch Support (FMS), a Dutch-based nongovernmental organization (NGO) working on sustainable supply chain linkages; the US-based NGO TechnoServe (TNS), providing technical assistance to local processors; and the African Cashew Alliance (ACA), aiding in the effort to increase sector organization. The Core Partners were private and public entities that qualified as such with a contribution of US\$1 million in cash or in in-kind services toward the initiative’s objectives. Today there are 13 Core Partners.<sup>8</sup> An additional 60 private and public sector partners continue to complement ACi’s activities.

8 Core Partners are German Federal Ministry for Economic Cooperation and Development (BMZ), Bill & Melinda Gates Foundation (BMGF), African Cashew Alliance (ACA), Conseil du Coton et de l’Anacarde (CCA), Sustainable Trade Initiative (IDH), Instituto de Formento de Caju, Mozambique (INCAJU), Intersnack, Kraft Foods, Olam International, Ministry of Food and Agriculture (MoFA) Ghana, SAP Research, Trade and Development Group (TDG), United States Agency for International Development (USAID). In addition, in phase 1 only: Oltremare.



**Figure 1 Overview of Steps in the Cashew Value Chain**

The program recruited practitioners with extensive experience supporting agricultural value chain development and promotion, as well as the right skill mix for managing private-public sector dialogue and interests. The private companies inserted entrepreneurial skills, innovation, and managerial capacities into the evolving complex governance. The Core Partners' participation in both steering the project and committing US\$1 million cash or in-kind contributions was a new model for public-private participation. An additional factor was that the lead implementing agency (GIZ) was a bilateral development company with strong and formalized relationships with national governments. This factor helped build relationships, attracting national ownership and resources from governments such as tax-free imports, delegated staff, office space, protection of international staff, and so on.

ACi used a structured value chain approach, defining the gaps in the supply linkage from market to production, as indicated in figure 1.

Looking ahead, ACi's specific results to be achieved until April 2016, are as follows:

- In 2016, the average additional annual net income of the 430,000 trained farmers will be at least US\$110 per farmer, compared to the average farmer who did not adopt cashew improvement measures.
- The trained farmers generated total additional net income of US\$19 million in 2013, US\$34 million in 2014, and targeted US\$47 million in 2015 and 2016. Cumulatively, this equals an incremental increase of more than US\$100 million compared to a 2010 baseline.
- Within 10 years, the profitability and competitiveness of the cashew value chain in five selected countries in Sub-Saharan Africa will have improved. Eight selected

countries will be processing 60 percent of their total cashew nut production, and 500,000 smallholders will have US\$80 million in added annual income.

Figure 2 depicts ACi's phase 2 objectives.

Against this background, this case study addresses the following questions:

**Question 1:** What are ACi's principles and delivery mechanism, how do these lead to general project success, and which ones can be transferred to other value chains?

**Question 2:** How do producers and processors benefit from a changing power relationship in a demand-driven market set-up and how does the project support this?

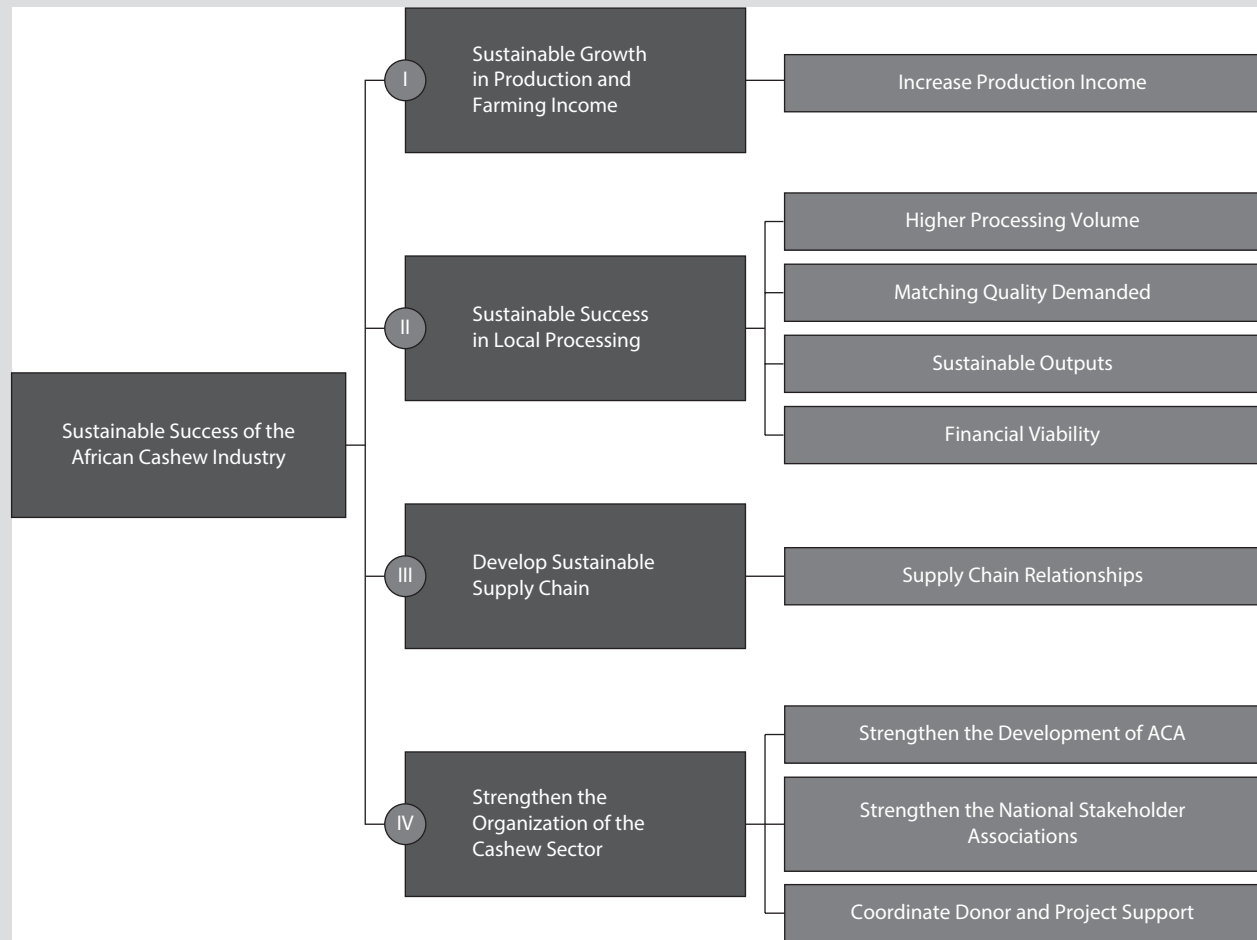
**Question 3:** What are the benefits and tradeoffs for private actors in partnering for development, beyond their own core business, and how does the public-private interaction work within the project?

## Contextual Conditions

At ACi's inception, cashews were already a major cash tree crop in Africa, with approximately 38 percent of worldwide production of raw cashew nut (RCN) coming from the continent in 2010, and likely a similar output in the two to three years preceding the project's start.<sup>9</sup> In the decade leading up to project initiation, RCN production increased steadily at about 7 percent per annum worldwide, with Vietnam and West Africa being the biggest producers. After Vietnam, West Africa was the second largest producer as a result of increased

<sup>9</sup> 2010 estimate from ACi private sector investment case (January 2012).

**Figure 2 ACi Objectives at the Start of Phase 2**



*Note:* GIZ/ACi steering committee meeting presentation, Abidjan, Côte d'Ivoire, (November 24, 2014).

interest in cashews and the tree crop’s environmental suitability. West Africa produced about 30 percent of worldwide production in 2008. ACi estimations for 2014 show a production share of 41 percent for West Africa.

Although cashews were seen as an important value chain in the region in 2009, political acceptance and the commodity’s perceived importance varied among countries.

**Benin**

Benin had very little processing capacity but good production volumes (86,000 MT in 2008<sup>10</sup>), generally strong quality, and a good understanding of farmer

group development. Therefore, Benin exported at strong prices relative to some other West African countries.

**Burkina Faso**

Burkina had the lowest overall production (19,000 MT in 2008).<sup>11</sup> With up to 10 percent of production processed in-country in 2008, Burkina Faso had already reached a relatively high rate of specifically local processing.

**Côte d’Ivoire**

Côte d’Ivoire was the largest cashew producer in West Africa, having grown its annual production to an estimated

<sup>10</sup> ACi proposal: “Competitive Cashew Value Chains for Pro-Poor Growth,” submitted September 2008.

<sup>11</sup> Ibid.

200,000–265,000 MT planted on more than one million hectares in 2008.<sup>12</sup> However, processing was limited.<sup>13</sup>

## **Ghana**

Cashew production area has grown steadily, from 46,000 ha in 2004 to more than 80,000 ha to date. Between 2004 and 2012, the Ministry of Food and Agriculture (MoFA) implemented the multimillion dollar Cashew Development Programme (CDP), focusing on research and extension for producers. CDP's results provided an important basis and learning for ACi overall, especially in regard to research on improved planting material. ACi used the research advantages of Ghana for subregional exchange and learning. Ghana was also unique in its exporting of cashews from neighboring countries abroad, at additional volumes that reached more than 100,000 MT by 2012. This strategy attracted the installation of processing facilities in Ghana whose capacity exceeds national RCN production.

## **Mozambique**

Of the five focus countries, Mozambique had the largest installed processing capacity in 2009. Mozambique was selected for inclusion because of its potential to share experiences and learning on processing.

## **Tracing the Implementation Process**

### **Chronological Sequence of Actions Taken to Address Delivery Challenges**

Phase 1 of the ACi program ran from 2009 to 2012, and was focused on direct interventions to improve farmer yields, post-harvest management, and quality. It also addressed processing through technical assistance and helped structure the supply chain by linking farmer groups to processors and buyers, using niche markets as an entry. Sector organization issues concentrated on organizational and financial support of burgeoning national and regional (ACA) private sector associations, as well as stimulation of private-public dialogue led by national governments.

Phase 2 (2013 to 2015) used the same implementing partners in a different format; a structured matching

fund program was established and accounted for a significant portion of the core donor funding, and other actors funded some discrete portions.

Figure 3 summarizes the sequence of implementation steps, organized around the four objectives plus project management and organization. Many of these steps are elaborated in the following sections.

### **ACi Formation: Building a New Type of Multistakeholder Partnership**

**Delivery Challenge:** Establishing a new type of multistakeholder partnership to promote the structured value chain approach.

**Action:** Identify the appropriate internal leadership and expertise, build a diverse donor coalition with joint vision and strategies, and select strong operational partners.

### **Introduction**

At the outset, GIZ was commissioned to manage the project and facilitate cooperation among the competitive private partners. Partners included TNS to provide processors with consultation on technical issues and FMS to facilitate linkages between farmers, processors, and buyers. Olam, the Trade and Development Group (TDG), and Kraft Foods shared their insights on global trends, how the industry had evolved, and how ACi could make inroads. Other European, Asian, U.S., and African companies (all members of the ACA) contributed their resources and expertise as partners. Their contributions were supplemented by BMGF, BMZ, and the United States Agency for International Development (USAID). ACi still benefits from the diverse commercial and technical expertise of these private and public sector partners.<sup>14</sup>

### **Building Coalitions including the Outreach Size and Scope and Association Dynamics**

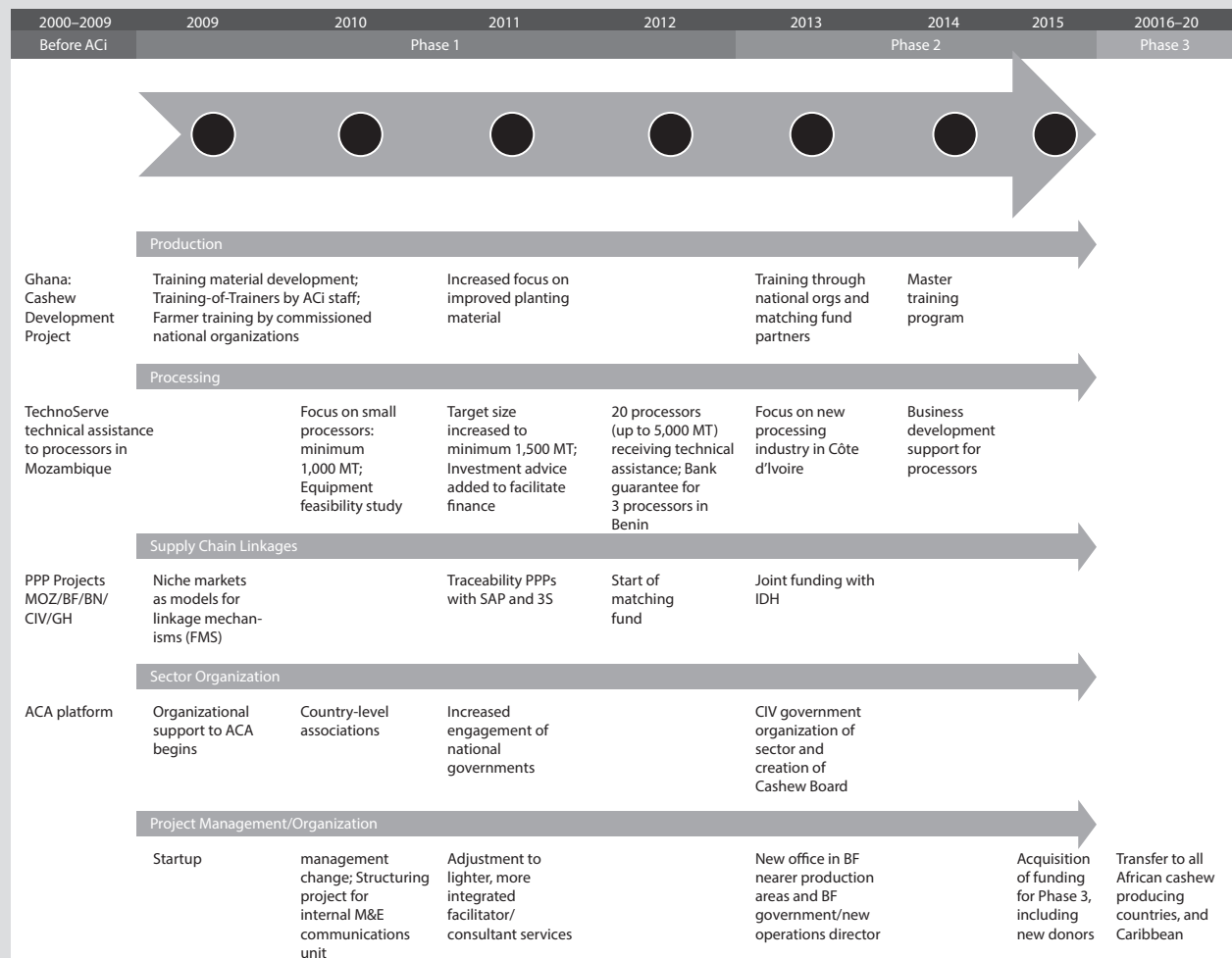
There were immediate management challenges, such as the scope of the effort, how to enter the sector appropriately, how to effect cashew sector structural changes, and the management expertise and capability needed to provide

<sup>12</sup> Ibid.

<sup>13</sup> Analysis of cashew sector value chain in Cote d'Ivoire (April 2010).

<sup>14</sup> ACi website "About Us," viewed March 2015, <http://www.africancashewinitiative.org/index.php?lang=eng&page=4>

**Figure 3 Sequence of Focus in Implementation Steps, Phases 1 and 2**



Source: ACi, author analysis (2015).

Note: BF = Burkina Faso; BN = Benin; CIV = Côte d'Ivoire; GH = Ghana; MOZ = Mozambique; PPP = public-private partnership.

appropriate responses across the five countries. The inclusion of the five focus countries, each with different development levels and multiple stakeholders along the value chain—both public and private—demanded a huge scale of outreach. Coordination with local governments and extension services was a top priority since production improvement was a major element of the initial approach. However, coordination typically began more dynamically at the operational levels, while national directorates only gradually engaged actively in the cashew sector and with ACi. Another key piece of the program revolved around building local processing

capacity through training of domestic processors and the involvement of international buyers.

The project's size and scope caused another layer of complexity, as everyone wanted to be involved. As described by ACi personnel, "there is an over-attention to innovation in development." This desire to be associated with success exacerbated the high-pressure environment that characterized the early stages of coalition building.

During the project startup phase, ACi and its partners gradually structured the discussion, decision, and learning formats with its multiple partners. From April



2009 onward, the project convened a steering committee annually. In 2010, ACi redefined “Core Partners,” leading to the creation of a decision-making board for all companies and actors committing a minimum of US\$1 million during a project phase (either cash or in kind). The partnerships with Core Partners were formalized with memorandums of understanding and annual tracking of financial contributions. Core Partners received relevant management updates in biannual meetings, and they made high-level management decisions. A steering committee was composed of a larger advisory group with government and value chain actors (farmer and processor representatives included) and remains an important consultation body.

In a September 2010 Core Partners meeting, the project’s intervention strategy was revised, along with its focus areas (“road map”). This process enhanced a joint vision and strategy understanding among the partners. It was important to clarify the joint vision, bigger picture, process architecture, and strategy elements for long-term relationship building of multiple partners.

### **Organizational Management Changes Lead to a New Management Approach**

During the startup period, the management of ACi efforts focused on showing fast results demanded by all actors, giving less attention to the continuous relationship building among partners needed at this early project phase. Acknowledging the demand and value of both aspects, ACi established a new management approach—naming a new executive director and an operational director for the project. The leadership change reflected the program requirements and objectives. The right combination of skills and personality, coupled with transparency and open communication principles, were essential for cohesion and management of relationships in this PPP environment.

### **Bridging Institutional Cultures and Behaviors**

Driving sustainable supply chain linkages in the ACi required ongoing communication between public and private partners—parties unaccustomed to interacting with each other, and managing this diverse set of partner relationships became a challenge in its own right. Public entities, private partners, and donor

organizations all had differing communication styles and oversight requirements. Engaging with local officials and governments necessitated a specific approach and behavior, while addressing the internal demands of program partners imposed entirely separate techniques. Juggling these often-conflicting styles and behaviors and learning how to work through the various stakeholder concerns to build consensus became a leadership challenge for ACi.

It was at this point that internal management support was introduced. From 2009 to 2011, two different consulting groups provided another perspective on the communications between ACi and project partners.<sup>15</sup> They were helpful in bringing business or partner languages and presentation skills to bridge the communication gap and effectively demonstrate project objectives and progress. ACi reporting was shifted from *activity* output-based reporting into more private sector expectations, such as key performance and cost indicators, and *achievement* of overall goals.

However, the support was at times too cumbersome, actually hampering the efforts of internal learning and effective steering of ACi management and partners; as a result, the use of external consulting support was realigned, and a more flexible and slimmer arrangement began in late 2011. These efforts transitioned to two international consultants—one based in the USA, one in Ghana<sup>16</sup>—with both private and public sector experience. The two consultants became consistent analytical and communication resources for the project team. The consultants also facilitated Core Partners, steering committee, and learning and team meetings to bridge communication gaps with private and public partners. This process proved to be extremely effective, especially in building capacities and confidence within the ACi team and with partners. It also succeeded in contributing to a manageable level of in-house monitoring, thus helping to build internal accountability and performance measurement. ACi continues to use specific management support for market updates, review loops, and organizational review.

<sup>15</sup> ACi contracted Dalberg and later the Collective Leadership Institute. For a specific task on a review of the ACA organizational set-up, McKinsey also conducted a discrete project consultancy.

<sup>16</sup> Davon Cook and Atta Agyepong.

Different project phases required variations in management support activities. The support transitioned from internal organization and intensive communication structuring at the beginning to high-level coaching and team member development by the end [takeaway].

### **Adjusting to Expectations of Specific Donors**

GIZ's grant from BMGF for ACi occurred in 2009, during the same period that BMGF funded several other cash crop grants, and it produced changes in the ACi coalition. Generally, these grants required that half of overall project costs be funded by private and other public partners. This requirement led to a strong and demanding partnership that provided an impetus to build the ACi coalition and continued to push the envelope of proactive participation by private partners.

BMGF's impact measurement focus also provided a welcome incentive for strong monitoring and evaluation (M&E). Continuous assessment of the return on investment (ROI) provided helpful internal learning but also proved challenging and impractical to measure. The creation of appropriate impact measurement metrics and increasing the use of in-house M&E resources became a key outcome of Steering Committee meetings, aiding in focusing efforts on tangible progress objectives.

The close engagement by BMGF's project manager and the advisory support allowed flexible project management and adjustments. Where there were project aspects that could not be funded under BMGF's guidelines, the joint project established with BMZ funding allowed flexible shifts and vice versa. This adaptability was also used for long-term governance topics as well as for research aspects (in improved planting material).

### **Phase 1, 2009–12: Addressing the Productivity Gap between Asia and West Africa while Developing the Domestic Processing Sector in Focus Countries**

**The Delivery Challenge:** Creating a sustainable increase in high-quality cashew production at a smallholder

farmer level while simultaneously building processor capacity in the target countries; linking the supply chain actors to organize a more competitive, export-oriented cashew sector in Africa.

**Action:** GAP training of farmers through direct interventions in coordination with national extension networks; technical assistance and capacity building for small- to medium-scale processors; linking farmers and processors to buyers via FMS and other service providers.

### **Increasing Productivity through Direct Interventions with Smallholder Farmers**

The first step toward improving Africa's cashew sector was to increase the productivity of cashew farms through GAP training, proper harvest techniques, and post-harvest handling methods to reduce loss. ACi estimated that peak achievable yields were 750 kg/ha using GAP on existing tree stock in focus countries. When the project was originally conceived, ACi did not anticipate pursuing a program to promote improved planting material, other than in Mozambique. This effort was also introduced by ACi in West Africa in 2010, when it was discovered that utilization of improved planting materials from locally-selected elite mother trees resulted in peak yields of 1,500 kg/ha, compared to peak yields of 750 kg/ha with optimal GAP.<sup>17</sup>

ACi's original target was to train 150,000 farmers in GAP focused on cashew cultivation. The execution plan called for the formation of ACi country teams, which in turn cooperated intensively with and developed the capacity of existing extension services (public, NGO, and private). Training was concentrated in the main cashew-producing regions in the five ACi countries and, to the extent possible, around existing processors so that farmers could immediately realize benefits from marketing improved quality. The primary objective of farmer training was to increase productivity of their trees by applying GAP, such as weeding and pruning. During the first two years, significant yield increases were observed in all five project countries (see Figure 7 for annual yields by country).

This intensive direct intervention approach required significant investment and build-up of in-the-field

<sup>17</sup> GIZ/ACi proposal–Phase 2, submitted August 2012.

country teams. In phase I, there were more than 30 in-country staffers focused on production, along with farmer organizations recruited directly by ACi (GIZ and implementing partners). These personnel were trained by ACi and worked in coordination with local extension services to execute the farmer curriculum. ACi technical experts and national extension experts (institutions and experts already active in-country) jointly developed training materials that were tailored to the local environment. For example, in many areas, visual depiction materials were used since illiteracy was high in production zones. Though the preferred method was to team up with public extension services, that was not always possible, and each country approached the organization of training differently.

Initially the focus was on basic technical understanding—farm management, proper harvest, and post-harvest techniques, as well as quality measurement—and as the project advanced, other elements were added. At the start, training was focused on increasing the quality and quantity of the primary production. As the project moved forward, other topics were introduced, such as farm business management and, to a lesser extent, use of byproducts for higher value-added processing.

By early 2012, more than 240,000 farmers had received training—far exceeding the phase 1 initial goal of 150,000 farmers. This success was based on the use of existing institutions with proven expertise in the sector. In all countries, ACi worked with more than one institution to conduct training. Moreover, the training took place in the cashew fields, therefore allowing practical exercises (instead of bringing producers together for training outside their villages). Also, RCN prices in 2011 and 2012 were comparatively better, leading to high adoption rates by trained farmers and spillover effects to farmers not directly trained.

Phase 2 saw a major shift in how training took place. In phase 1, ACi trained local extension services and experts directly, using GIZ-staffed country teams. In phase 2, however, ACi's role transitioned—ACi staff assumed a coaching role with trainers selected from in-country partners. To support this shift, capacities of partner institutions, as well as ACi staff, needed further upgrading. Therefore, a master training program was introduced, with applicants nominated by partner institutions. The master trainers had knowledge across the entire value chain—production, processing, marketing, and so on. During this training, ACi technical staff learned the role

of coaches and facilitators. Master trainers were assisted in designing and implementing training programs, according to their institutions' and countries' needs, using peers and coaches as backup.

It was a huge challenge to build ACi staff capacity as strategically oriented coaches rather than technical trainers. ACi groomed in-country experts (trainers-of-trainers), who now conduct training. This phase 2 strategic shift was only possible because of local competencies and materials developed in phase 1 [**takeaway**].

### **Improving Quality and Traceability**

For cashew selling, quality is key, and this basic element of transactions—knowing the value of quality—was an area in which farmers needed training. Farmers who understood how improved RCN quality translated to better prices increased their negotiating power with buyers. Traditionally, there were two groups of buyers: spot traders (opportunistic seasonal traders) and installed traders (who operate permanently in some producing countries). For spot traders, the informational advantage of understanding how to measure quality through kernel outturn ratio (KOR) allowed them to secure lower prices with fragmented and disorganized producers. They were originally uninterested in building long-term relationships to improve quality while offering fair market value for purchased nuts. These buyers benefited from the status quo. However, ACi was interested in training farmers how to test their own KOR, so that they had the ability to intentionally produce higher-quality output to achieve improved prices.

As part of the effort to build a baseline of research on the African cashew industry, ACi worked with private partners to conduct regional quality mapping studies to identify areas producing especially high-quality RCN and to outline factors causing quality variance. Private partners conducting the study initially disagreed with ACi that the results should be published immediately. These partners, some of whom were installed traders in the focus countries, did not want spot traders who had not contributed to the research to benefit by purchasing high-quality RCN from regions identified in the report. It was agreed that the report publication would be delayed for one year; but eventually, it became a nonissue since government and NGO KOR training and KOR field testing kits had become so prevalent that all sector actors better understood quality. This shift in transparency across the sector obligated processors and traders to

invest in linkages to the farms as the real competitive edge over other players.

### **Developing Processing Business Models**

Local processing efforts needed to be supported to grow. The development of a robust local processing industry was considered vital for the sustainability of the domestic cashew industries in Africa. For companies considering market entry or processors evaluating expansion of their capacity, there was a hesitancy to invest without convincing financial models or projections on which to base their decisions. To successfully generate buy-in from multiple public and private stakeholders, better depth of research on the proposed financial models and delivery mechanisms was needed.

Processing business models were created to help investors assess whether it was viable and if they could get financing. An equipment benchmarking study was also done (in Brazil, India, and Vietnam) to advise on suitable technology. This exercise led to the realization that different business models and technologies for various processor capacity levels were required. The models had to integrate the labor efficiency differences between Africa and India or Vietnam, which boiled down to showing what types of technology were suitable for varying capacity levels (box 1).

It became clear that, without certain technologies at a particular capacity (medium and large scale), processing efforts were not viable. Subsequently, this drove a shift toward viable medium-scale processors or export-oriented, larger-scale processors with better technologies. This, in turn, led to the development of the

selection criteria for what types of enterprises to support and why. A scientific method was needed so that there was a strict screening method.

### **Scaling Up Processing Capacity**

At the program outset, interventions were focused on developing processor capacity in the selected countries, and TNS provided support with technical assistance for processors, but there was a realization that management training was often critical. Processors needed training on finance, recordkeeping, business planning and review, human resources management, incentives mechanisms, communication processes, legal documentation, and much more. While ACi's original objectives focused on technical assistance and financing support, this moved to management training over the course of the project.

As the processor training and support adapted to the complexities of developing the local sector, it grew apparent that the initiative had to be more selective in choosing processors for program inclusion. In 2011 and 2012, the project partners grappled with the concern that some processors receiving technical assistance were not viable or could not meaningfully contribute to the scale needed to service export markets. This was a difficult topic to discuss among donors and partners with different goals and ideologies.

The original project goal was to support 24 medium-scale processing units with minimum installed capacity of 1,500 MT, but this goal had to be adjusted over the project life. After ACi evaluated about 80 potential investors (by 2011), most could not meet the selection criteria. Therefore, in November 2011, the Core Partners

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#### **Box 1 Processing Differences between Africa and Asia: Lower African Competitiveness**

- **Labor Productivity:** Output per person is two to three times higher in Vietnam than in Africa (leads to higher comparative labor costs).
  - **Byproduct Processing:** Little to no byproduct processing is done in Africa, while in Asia, everything is used. Sometimes the byproduct processing revenues represent the entire profit margin during periods of poor pricing.
  - **Cost of Finance:** There is a net 4 percent increase in the cost of financing for African countries as a result of the differences in their production and stocking practices compared to Asian companies. (African companies buy nuts for 3 months to carry for 12 months, while Asian companies are running year-round and therefore realize revenue more quickly on purchased inventory—leading to lower carrying costs, and ultimately, reduced financing costs.)
  - **Minimal Skilled Labor:** African processing businesses are transitioning toward mechanization and technology adoption, yet there are few laborers (if any) that know how to operate and service machines. Lack of technicians or spare parts means that after a large investment, one breakdown could lead to a factory shutdown for weeks.
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agreed that ACi concentrate on working with 20 units of up to 5,000 MT capacity apiece to ensure that capacity utilization reached at least 75 percent.<sup>18</sup>

To achieve the increased capacity utilization goal, better management skills were required. Phase 1 investment training was aimed at financial institutions to learn about special requirements in cashew processing (described below). In phase 2, new training on business development services for 10 processing units was included to support better capacity utilization, among other goals.

As the project progressed, it was evident that RCN traders were the most ready to invest in processing as they had processing experience and knowledge and also had the financial means to install new units. However, some traders/processors were slow to change their mindsets regarding liquidity management requirements for trading as compared to liquidity management for manufacturing.

Of the 20 companies that finally participated in the program and built local processing facilities, roughly 60 percent were traders and 40 percent were international buyers. To assuage initial concerns, ACi developed models showing that the processing business was more profitable than trading (specifically high-quality, value-added processing). ACi also had to prove there was a market for the processed cashews by linking participants to international buyers. This process was very difficult to achieve, and it did not happen in the first year.

Financing was a vital enabling factor for processors. Each 1,000 MT of processing that was built required capital expenditures of US\$750,000 and US\$1 million for raw materials. If processors opted for financing, 50 percent had to be contributed up front as a down payment. This process made it difficult to find investors with the financial capability to invest in factory installation and capacity building.

Initially, sensitization and information dissemination was needed in the financing sector to support cashew processing. ACi introduced a guarantee program in Benin and Ghana to encourage funding from local banks. The guarantee facility was structured as risk sharing with the banks rather than a portfolio guarantee (that is, ACi would take a 50 percent share in any loss beyond the “first loss”). For example, if the historic default rate of similar

agro-processing loans was established as 10 percent, and 15 percent of loans for cashew players later defaulted, then the ACi guarantee facility would pay 2.5 percent of the defaulted amount (50 percent of the 5 percent increase over historic rates). ACi also trained and supported the banks on financial mechanisms that could lower historic default rates even further. But this was not the only financing hurdle. In West Africa, banks typically only made loans for capital expenditures based on heavy collateral requirements (usually landed property). This strategy often led to enterprises taking loans or using personal funds to build a facility and then not having the working capital to purchase the RCN required for processing. ACi helped convince banks to offer working capital loans, in addition to their capital expenditure financing option. The ACi guarantee facility, as part of the exit strategy, was handed over to an Economic Community of West African States (ECOWAS)-funded guarantee institution known as the GARI Fund, which continues to guarantee loans for the sector.

When ACi started operating in 2009, there were hardly any large- and medium-scale processors established in West Africa,<sup>19</sup> but this changed with ACi’s help. As a result of ACi support, 13 medium-size cashew processing units became functional, delivering more than 3,000 MT of kernels to European and U.S. markets by 2012. Seven new factories went operational in 2012, bringing the total to 20 processing factories that the project supported. The 2012 installed capacity for these processors was 23,000 MT of fully exportable product.<sup>20</sup>

### **Linking Farmers to Processors and Buyers through a Supply Chain**

When the program began, ACi knew it would be important to establish stable linkages between farmers and processors, as well as buyers. Processors desire a consistent supply to ensure they are operating at sufficient utilization, but they also need to remain partly flexible to respond to prices and markets. On the other hand, farmers benefit from a more direct relationship with processors because it bypasses middlemen who extract value from the chain. ACi built a base of in-country staff for farmer training and brought in TNS to conduct technical assistance for processors.

<sup>18</sup> At this point, 20 units were supported; no units were actually dropped, but no new ones were enlisted.

<sup>19</sup> In 2009, total installed capacity in four West African ACi countries was 8,500 MT between eight processors.

<sup>20</sup> GIZ/ACi proposal—Phase 2, submitted August 2012.



Partner FMS led an initial effort to link farmers and buyers in the niche fair trade and organic markets. The niche areas would also inform conventional market interventions. The linkage effort was also supported with software-based traceability systems. Two systems were piloted: 1) one by SAP and 2) one by IDH and FMS called “3S” (Securing Sustainable Supply). Both systems use software to track the quality and quantity of cashew through the supply chain. The SAP program is focused on farmer-level data aggregating up to a warehouse or processor, whereas the IDH system aggregates data across multiple processors and downstream through the value chain to retailers that use the product. These systems enabled management of production and trading information by all sector actors.

FMS also supported the initiative in the organization of farmer groups and cooperative training. The project recognized farmer-based organizations (FBOs) as a mechanism for raising bargaining power and thus income for farmers. ACi supported existing and new FBOs in building organizational and management capacities through training and coaching of executives. The direct linkage of farmers to local processors and final markets (buyers) eliminated the middlemen and resulted in a more efficient supply chain, which translated to a higher share for the farmer of the FOB price. ACi calculations showed that organized farmers supplying conventional RCN achieved 5 percent higher prices than individual farmers, by reducing the involvement of local buying agents and through negotiation power for providing improved quality. If farmers are closer to the factory, processors can pass on more savings, but if they are farther away, they pay more for transport—a 5 percent price increase for farmers and 10 percent reduction for processors.

In addition to the 20,000 farmers linked through the specialty (fair trade) markets, ACi also entered collaborative (cost and resource sharing) agreements with processors to reach another 30,000 farmers in groups. In Benin and Ghana, ACi facilitated bulk selling arrangements with another 15,000 farmers. In totality in phase 1, 75,000 farmers were directly linked to sell RCN in bulk to factories.<sup>21</sup> In phase 2, through matching fund projects as of date, 60,000 farmers are selling directly to factories. However, these are not yet fully stable linkages, as price competition of traders creates a high risk of “side selling.” The incentive mechanisms between

farmers and processors needs to be further extended and intensified to include other elements such as inputs, financing, and logistics.

Expectations were that once productivity gains began to be realized, farmers and processors would link naturally, but in reality, it took more than three years to gain traction in the linkage of farmers and processors. Both groups needed to find the best incentive mechanisms to stabilize the linkages long term. These “loyalty packages” can be training, access to market information, inputs (jute bags, improved planting material), warehousing, certification and traceability systems, or financing mechanisms.

Farmer organizations are a key to linkage relationships, and capacity building in FBO leadership and business skills often requires 7 to 10 years. Starting with an extremely low degree of farmer organizations, ACi underestimated the effort and time it would take to build such relationships. Figure 4 illustrates the importance of market linkages.

## **Phase 2, 2013–15: Building Public-Private Partnerships to Accelerate Investments in and to Develop the Cashew Industry**

**The Delivery Challenge:** Organizational shift from direct ACi implementation to implementation through partner organizations (private and public) resulted in confusion on both sides.

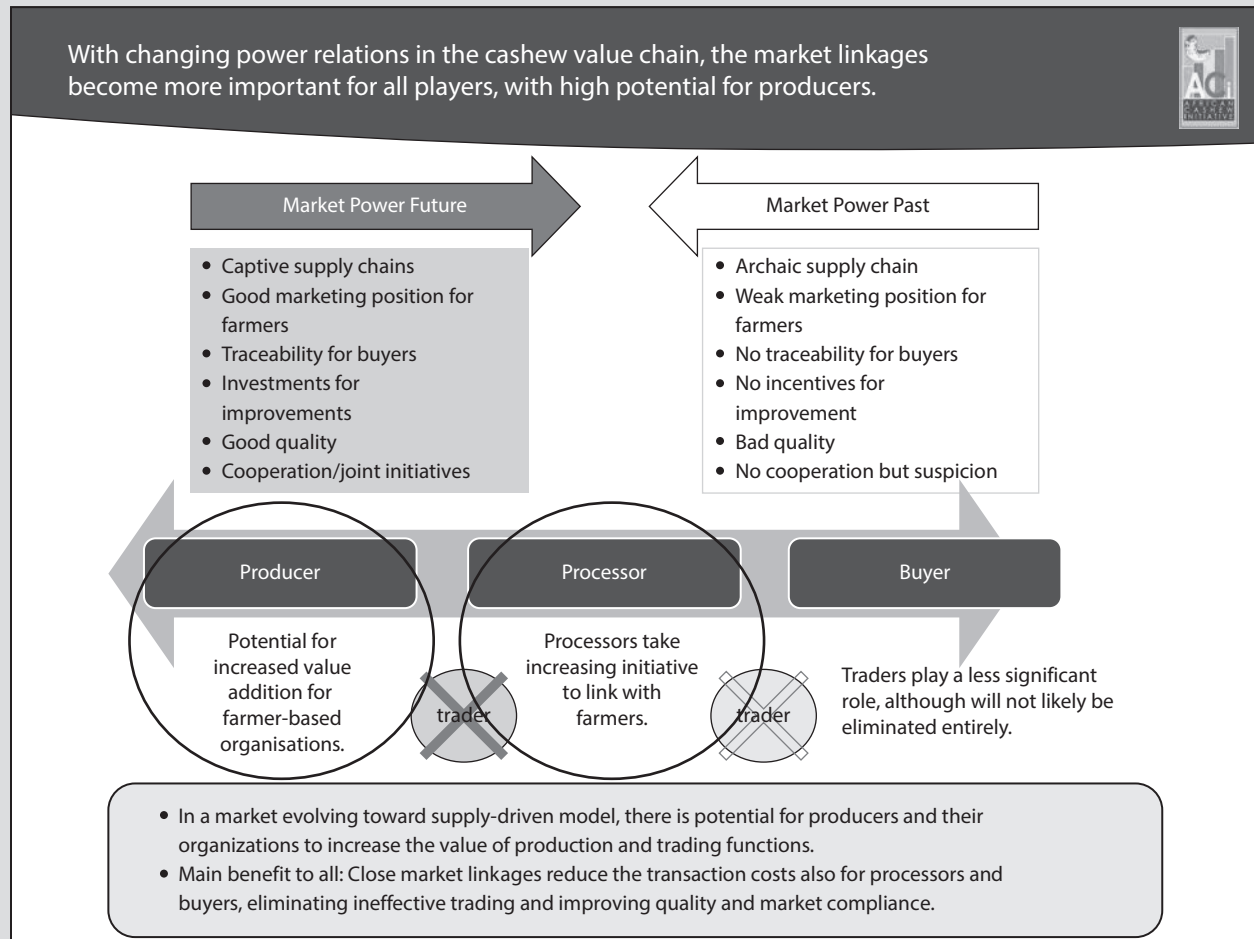
**Action:** Evolution of the broad-based multistakeholder partnership into the more proactive format of the Cashew Matching Fund; required internal and external capacity development, reinforcing communication and monitoring capacities within ACi.

### **Initiating the Matching Fund: Joint Projects with Private and Public Partners**

Phase 2’s biggest structural change was the implementation of joint projects with private and public partners through the matching fund instrument. The fund was designed as a mechanism to allow private and public organizations to define and roll out development projects that supported ACi’s overall goal (to increase income for cashew producers), as well as to support their own business goals in a sustainable manner. Market players who wanted to participate in the fund underwent a selection process and then developed a

21 GIZ/ACi proposal—Phase 2, submitted August 2012.

**Figure 4 Importance of Market Linkages**



Source: ACi (GIZ/FairMatch Support) steering committee PPT on farmer linkages (January 2012).

business plan that included elements that addressed program objectives.

Public partner funds were leveraged 1:1 by the ACi project to jointly invest in the identification, multiplication, and distribution of improved planting material to close the yield gap. Activities that ACi previously performed, such as building linkages for the sustainable flow of RCN from producers to processors, and kernels from roasters to consumers, were now performed by private partners, with ACi covering up to 40 percent of related costs. The direct participation of public and private partners in activity implementation with ACi and their own goals greatly enhanced their visibility as well as ownership of program outcomes. It also strengthened the partners' own organizations in

relation to competing budgetary demands. Within the private sector, at least two private partners operating at various levels of the cashew value chain were required to partner and apply jointly. This process allowed for the linkage of value chain actors in joint visioning beyond the exchange of goods and services.

To assure quality in activity delivery and enhance M&E, as well as improve project administration capacities of private partners, the use of ACi pre-accredited service providers was made mandatory, while ACi also offered accompanying technical assistance estimated at about 25 percent of the overall project costs.

A high level of peer learning was one of the key elements that ensured the successful delivery of interventions through the matching fund instrument. The fund design

was based on learning and experiences from successful public-private partnerships (PPPs) in German and international development communities. A peer learning platform was established for the public and private network to exchange knowledge on approaches, results, and challenges during the fund's project implementation. The ACi project also offered extensive support to two GIZ projects—CARI<sup>22</sup> and a CAADP support project<sup>23</sup>—to design and implement similar matching fund instruments for other crops. In addition, peer reviews were conducted during the intersessions of the master trainer program, offering partners the opportunity for knowledge validation and further learning.

The use of the matching fund instrument in building sustainable supply chain linkages and engagement with governments was a successful way of structuring the project's shift from direct implementation to a coaching role. Ownership by national and private sector actors increased drastically. The fund also allowed ACi to finance farmer training without direct intervention while simultaneously creating meaningful interaction and lasting links between major actors in the supply chain. Strong direct technical assistance for matching fund project partners was key for quality delivery and impact.

To date, 17 projects with a total investment of €8.08 million, with a grant component of €3.11 million, are being implemented in Ghana, Benin, Burkina Faso, and Mozambique, targeting more than 123,000 farmers. Four additional projects facilitated by the ACi matching fund instrument, with a total investment of €1.50 million and a grant amount of €0.5 million, are financed through the Dutch Sustainable Trade Institute (IDH).

### **Evolution of the Program Approach**

Phase 2 took the opportunity to pivot the implementation structure to align with lessons learned in phase 1. During phase 1, ACi was implemented jointly with GIZ (the lead grantee), TNS, FMS, and ACA (implementing partners). The majority of work (outreach to farmers on production issues) was completed by ACi's own country teams (employed by GIZ) in cooperation with local extension services and research institutions. While direct intervention was originally necessary to ensure uptake and create

adaptive training methodologies for each focus country, in phase 2, ACi scaled back the in-the-field training personnel and restructured the implementation partnership.

Instead of using its own country teams to drive production objectives, ACi used established relationships with local extension agencies much more intensively, in addition to ACi trainers who were trained in phase 1. To further embed knowledge into national structures, a master trainer program, which began in 2013, built a regional pool of expertise and resources from project countries, plus individuals from three more countries. By July 2013, 58 master trainers (24 percent female) from seven West African countries mandated by their organizations across the value chain, had completed eight months of intensive training and coaching.<sup>24</sup> These trainers are currently deployed by national extension services, consulting organizations, and private processors and traders in the industry (also within the implementation of matching fund projects). They are building a pool of technical and managerial expertise and facilitating regional knowledge exchange.

While the implementing partners remained the same in phase 2, contractual relationships were changed to reduce costs and time-consuming coordination efforts. Under objective 2 (processing), ACi hired TNS to provide consulting support to train the 13 processors that had not yet graduated and required further technical and management assistance. TNS also began training local graduates as business consultants for larger outreach. FMS was engaged for objective 3 (supply chain linkages), at the discretion of some private partners through use of the matching fund, rather than being hired directly by ACi. And rather than being directly funded by ACi, ACA received further organizational support in the form of training, coaching, technical assistance, and budgetary support around specific positions.

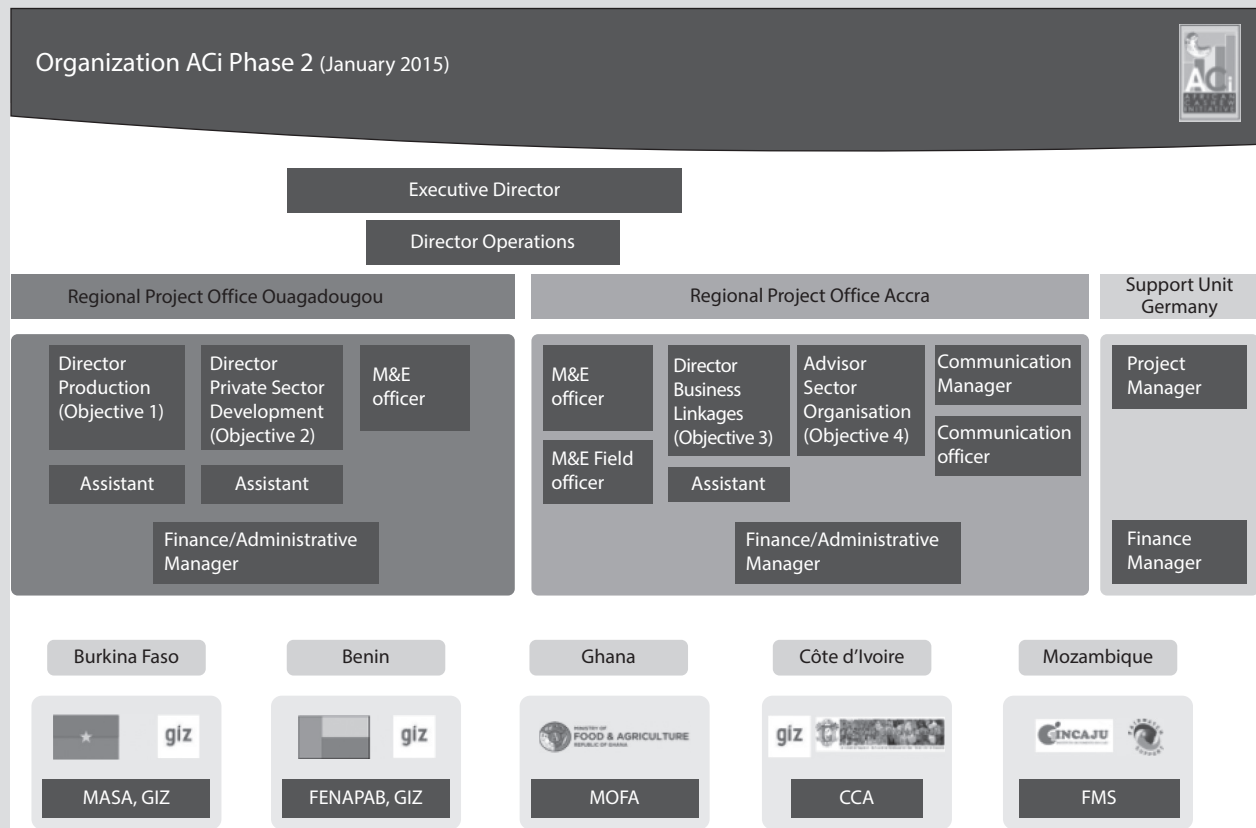
Staff were also realigned geographically to reflect the phase 1 experiences. The matching fund unit for sector information and management was based in Accra, Ghana, to ensure coordination with the ACA, benefiting from the "Anglophone entry into West Africa" for private sector actors. The development operations team was based in Ouagadougou, Burkina Faso, to be closer to production and processing intervention areas. An overview of this new structure is included in figure 5.

<sup>22</sup> Competitive African Rice Initiative, a BMZ-BMGF funded regional value chain project led by GIZ, launched in 2014.

<sup>23</sup> Comprehensive African Agricultural Development Program, a BMZ-funded support program, led by GIZ.

<sup>24</sup> GIZ, Global Delivery Initiative Rollup.

**Figure 5 ACi's Organizational Structure in Phase 2**



Source: ACi internal presentation for the Core Partners meeting (March 2015).

### **Mobilizing for Government Advocacy and Industry Support to Build a Sector Organization**

Beyond the value chain approach, there was a need to mobilize actors in the sector. For this reason, ACi brought industry associations on board. The national-level private sector actors (producers, processors, and traders) were not well organized. Even before ACi began in 2009, there was a regional stakeholder platform, the ACA. ACA itself needed to build capacities to better understand and serve core clients and transform into an industry association. However, ACA had a conflict of mandate, as it needed direct funding for its operations. This structure led ACA to become involved in the direct implementation of development activities instead of focusing on its primary functions of advocacy and industry representation. Its involvement resulted in duplicating the efforts of service providers like FMS,

TNS, and others. To date, the polarity of ACA's reality remains unchanged.

In phase 1, ACi collaborated with ACA as an implementing partner for market information and organizational support to national associations, as well as for government advocacy, and provided ACA with organizational, technical, and financial support. As a basis for supporting ACA's delivery capacity, the project contracted with a consulting team to identify ACA's core functions. Core activities were identified as the ACA conference, market information provision, and processor support.

In phase 2, ACi concentrated its organizational, technical, and financial support on building up and strengthening national associations. This work was done jointly with national public institutions, thus stimulating a private-public dialogue. In addition, the public sector provided resources and presence for ACi's key activities, including conferences, extension, and research. In phase 2, the

relationship between ACi and some public actors was further strengthened through the use of the matching fund instrument.

### **Making Organizational Adaptations: From Direct Implementation to Working through Partner Structures**

The shift toward more implementation with partners already trained in ACi concepts and the matching fund were project evolutions that led to more effective delivery, but they would not have been possible at the project’s outset. The matching fund required core partners to participate in a more proactive manner, proposing and managing a specific project to develop their own supply chain linkages and planting material deployment. During phase 1, it took several years for the core partners to become comfortable working in this PPP environment and to build trust among themselves and with project administration. Since the cashew sector was so underdeveloped, the cooperation and support structures did not exist to administer a matching fund, nor did the buy-in and development understanding to participate in one as a private partner. Phase 1 prepared the actors for a different implementation in phase 2.

Even with the phase 1 preamble, however, there were insecurity and confusion among staff and partners alike on how to effectively shift from direct implementation by ACi to working through partner structures at the beginning of phase 2. Both parties realized the adjustment required time, different skills, and different communication modes. There was an unanticipated need for technical and soft skills. Project staff needed to identify the right partners, assess their capacities, and build trustful relationships. Matching fund partners, especially private companies, had to learn how to design and implement development-oriented projects, and how to monitor farmer-level impact. Private partners also worried about how to procure and engage the training experts they needed. At the same time, there was a need for effective knowledge transfer.

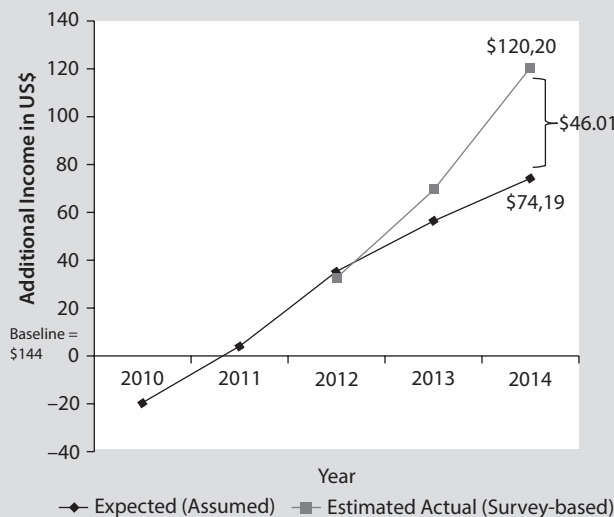
The project addressed the challenges through joint planning and investment in more partner and staff training. ACi staff supported matching fund applicants and partners from the proposal stage onward to develop realistic projects in line with fundable goals (improved planting material and farmer linkages). Communication and M&E units were reinforced with staff and consulting support.

### **Growing Evidence of Development Outcome for Farmers**

ACi interventions strengthened the cashew value chain in Benin, Burkina Faso, Côte d’Ivoire, Ghana, and Mozambique. Through January 2015, ACi and its partners have trained more than 330,000 farmers,<sup>25</sup> 22 percent of them women, to double their income from cashew sales alone.<sup>26</sup> On the processing side, more than 5,000 jobs were created in factories (75 percent female)<sup>27</sup> and capacities have increased from 8,150 MT in 2008 to 48,200 MT in 2014.<sup>28</sup> With each year of higher yields, better quality nuts, and local processing facilities in place, Africa improves its competitiveness in the global cashew market.

The ACi program performance and outcomes are summarized in figures 6 through 9. The figures show the impact on farmer incomes, cashew yield improvements, the number of farmers trained in GAP and post-harvest

**Figure 6 Farmer Net Income Estimates**



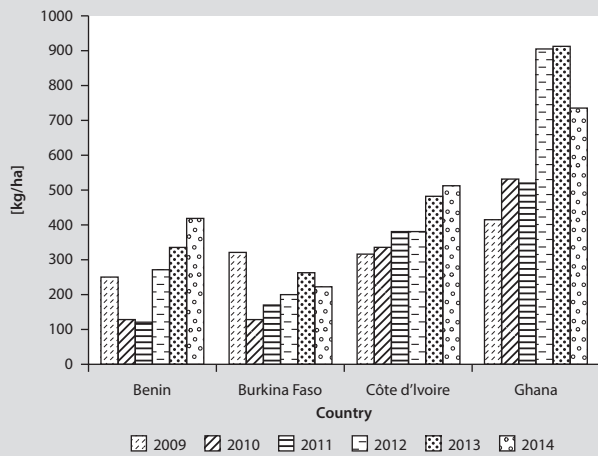
Source: ACi Steering Committee Meeting Presentation, Abidjan, Côte d’Ivoire (November 24, 2014).

Note: The rapid increase in income largely results from significant yield increases due to GAP application in West Africa, particularly with a very good season (climatic conditions) in Benin in 2014. ACi developed the economic impact model and updated it with new information from surveys and farmer case studies as available. Assumptions were provided by ACi experts, field teams, and a mini-survey by ACi country offices. “Net income” includes net income after deducting opportunity cost of family labor as a production expense. Labor on family plantations less than 2.5 ha is typically performed by family members and the opportunity cost of that labor would not be considered an expense by some families, depending on other work opportunities.

25 Farmers trained by ACi twice; more farmers (385,000) were trained at least once.  
 26 GIZ, Global Delivery Initiative Rollup.  
 27 Ibid.  
 28 GIZ/ACi Annual Report 2014, data from ACi and TechnoServe.



**Figure 7 Annual Cashew Yield per Hectare**



**Source:** ACi Steering Committee Meeting Presentation, Abidjan, Côte d'Ivoire (November 24, 2014).

**Note:** Good comparable baseline yield information across countries was hardly available in 2009. Sources used were: Benin: Service Statistiques du Port Autonome de Cotonou (PAC); Burkina Faso: ACi country coordinator; Côte d'Ivoire: CCA; Ghana: GCNET and the Cashew Development Board. Once the project began, ACi largely drove the data collection process through field surveys generated in coordination with NORC. By 2013, ACi was working with national institutions (MOFA, INRAB, INERA, and CCA) that were trained to build this research.

**Figure 8 Cumulative Farmers Trained Twice in Phase 1 and 2, with Gender Distinction**

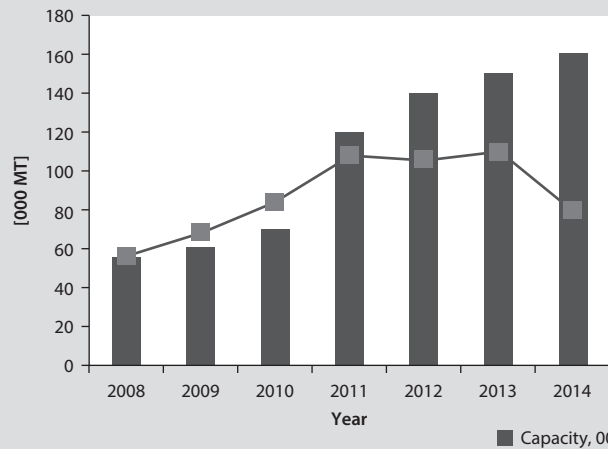


**Source:** ACi Steering Committee Meeting Presentation, Abidjan, Côte d'Ivoire (November 24, 2014).

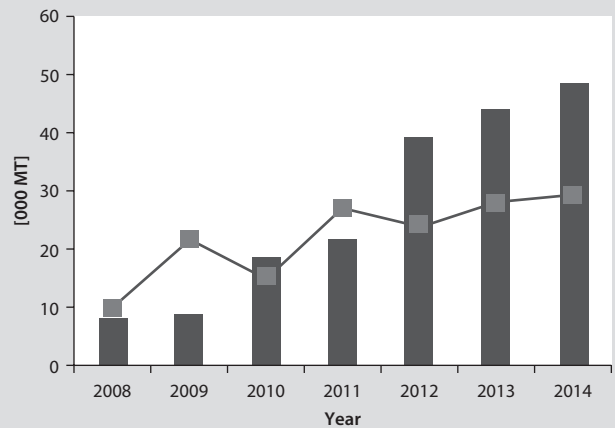
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**Figure 9 Growth of Cashew Processing Capacity in Focus Countries**

**a. ACi countries (including Mozambique)**



**b. ACi-assisted processors**



**Source:** ACi Steering Committee Meeting Presentation, Abidjan, Côte d'Ivoire (November 24, 2014).

handling techniques, and the level of processing capacity in each focus country. Significant improvement was made in the primary objective of improving farmer incomes as, on average, incomes grew more than 60 percent. Inconsistent data sources on 2009 yield figures led to swings in year-to-year changes, but overall, there was a shift toward much

higher yields in the focus countries. ACi also exceeded targets for farmers trained through the program, reaching 335,000 farmers at least twice, 22 percent of whom were women.<sup>29</sup>

<sup>29</sup> ACi Monitoring Tool (January 2015).

## Lessons Learned

***Question 1: What are the ACi project principles and delivery mechanism, how do these lead to general project success, and which can be transferred to other value chains?***

The project's four principles can be summarized as follows:

1. Oriented toward impact on increasing farmer income and adding value via growing African processing
2. Organized as a PPP with strong input and investment by the private sector
3. Stressed a value chain approach that required improving supply chain linkages between farmers, buyers, and processors to be successful and sustainable
4. Emphasized advocacy and alignment with national governments, industry associations, and supporting sector actors to ensure sustainability

Delivery mechanisms were organized around the four forces of: production, processing, supply chain linkages, and sector organization.

A combination of direct interventions (phase 1) and interventions implemented more by public and private partners (phase 2) were used. Recognizing the need to drive improvements along the value chain in parallel, ACi geared phase 1 production interventions toward building good agricultural and post-harvest management practices. Processing interventions focused on providing technical assistance and financing options to small to medium-scale processors. As a result, production in ACi's target countries rose between 2008 and 2012, while exports of processed nuts grew as well.

Several key phase 1 challenges became inflection points in the delivery mechanism during phase 2. There was a major shift from phase 1 to phase 2 in how training took place. Delivery of farmer training transitioned from being driven by project staff directly in cooperation with extension service to ACi staff serving as coaches for trainers selected from in-country partners. A master training program further developed the capability of these dispersed training leads.

In addition to the introduction of GAP, the ACi leadership acknowledged the need for expanding resources devoted to the research and distribution of improved planting material for cashew. Efforts to build and use capacity with local processors encountered slow progress until viability analysis revealed the need to have selection criteria for the

inclusion of processors in training programs. Subsequently, capacity minimums and management ability levels became critical factors for processor selection, and participants were limited to 20 mid-size companies.

It also became apparent that the establishment of stronger farmer-processor relationships and other downstream supply chain linkages were needed. To this end, ACi tested incentive models in niche markets during phase 1 and commissioned the matching fund in phase 2. This unique PPP model incentivizes investments that ultimately benefit farm productivity and farmer income via one of two paths: 1) closer and more effective supply chain linkages that include farmer training, or 2) development and distribution of improved planting material. Thereby, ACi was able to drive results toward stated project objectives with less direct in-the-field involvement in interventions and a lower proportional stake in required investments.

ACi increased its relationship-building efforts with national governments as the cashew sector gained importance and attracted attention at the policy and decision-making levels. ACA, which started as a stakeholder platform, was supported in its focus as a business association. For effective sector organization, a development initiative needs clarity in its purpose (joint vision), a transparent engagement process, entry points for influence, and a definition of achievements and impacts. While industry associations can be strategic entry points, an umbrella organization survives on vibrant grassroots organization and interest. Therefore, development support needs to pay attention to strengthening local level associations and supporting them to migrate and develop into national and regional organizations that are able to represent their own interests. This process needs to be done in close collaboration with national governments.

Many of the lessons are relevant to other development areas where PPPs have been introduced, as follows:

- Given the number of players and stakeholder groups involved and the industry's infancy, expectations need to be realistic for the execution timeframe. Most of the inflection points that ACi realized at the conclusion of phase 1 were not flaws in the original implementation structure, but rather a consequence of the challenges in organizing such a fragmented and disorganized industry. Innovative approaches adopted in phase 2 could not have been implemented at the project outset without the progress achieved through initial efforts.
- Consensus building within the partner coalition is critical to ensure ongoing buy-in for the scale and

timeframe of the program's objectives, as well as to uncover competing objectives.

- Lessons learned about proactive relationship-building and appropriate communication styles in the context of PPP interactions are certainly applicable in other value chains.

***Question 2: How do producers and processors benefit from a changing power relationship in a demand-driven market set-up and how does the project support this?***

Under the original market circumstances, producers had low average outputs (250–430 kg/ha) and poor quality. Consequently, realized incomes from cashew farming were low. Local processors were small-scale and had little incentive to ramp up capacity or improve processing practices since they only had access to limited quantities of lower quality nuts. Spot traders would sporadically capture the best portion of seasonal production for export to Asian processing plants, paying poor market prices that benefited neither producers nor local processors.

Streamlining the path to the market allowed both producers and processors to realize increased value by aggregating and improving quality. A robust local processing sector drove price competition with international traders and ultimately benefited producers who participated in training programs to raise yields and quality. Similarly, processors gained a steady supply channel to support higher factory capacity to capture price premiums from value-added processing. In addition, organizing farmers into cooperatives and training them to sell through aggregators simultaneously drove increases in traceability and reduced the steps in the value chain.

The matching fund's PPP model for shared contribution to development objectives reduced the investment risk for private partners and the program cost for public entities. Other fund requirements included multistakeholder agreements for working on supply chain linkages or selecting a service provider to conduct farmer training. These rules ensured the tangible buy-in of partners, alignment of outcome objectives, and interaction of frequently disconnected supply chain actors. As a result, efforts became self-reinforcing and derived funding from parties who were economically invested in successful outcomes, which increased the whole cashew sector's sustainability.

Ultimately, the vision of significantly improving farmer income from cashews is illustrated in figure 10, using an example from Ghana. Improved yields (achieved through multiple methods) in coordination with technical training and motivated by *demand* from an improved processing sector significantly impacted livelihoods.

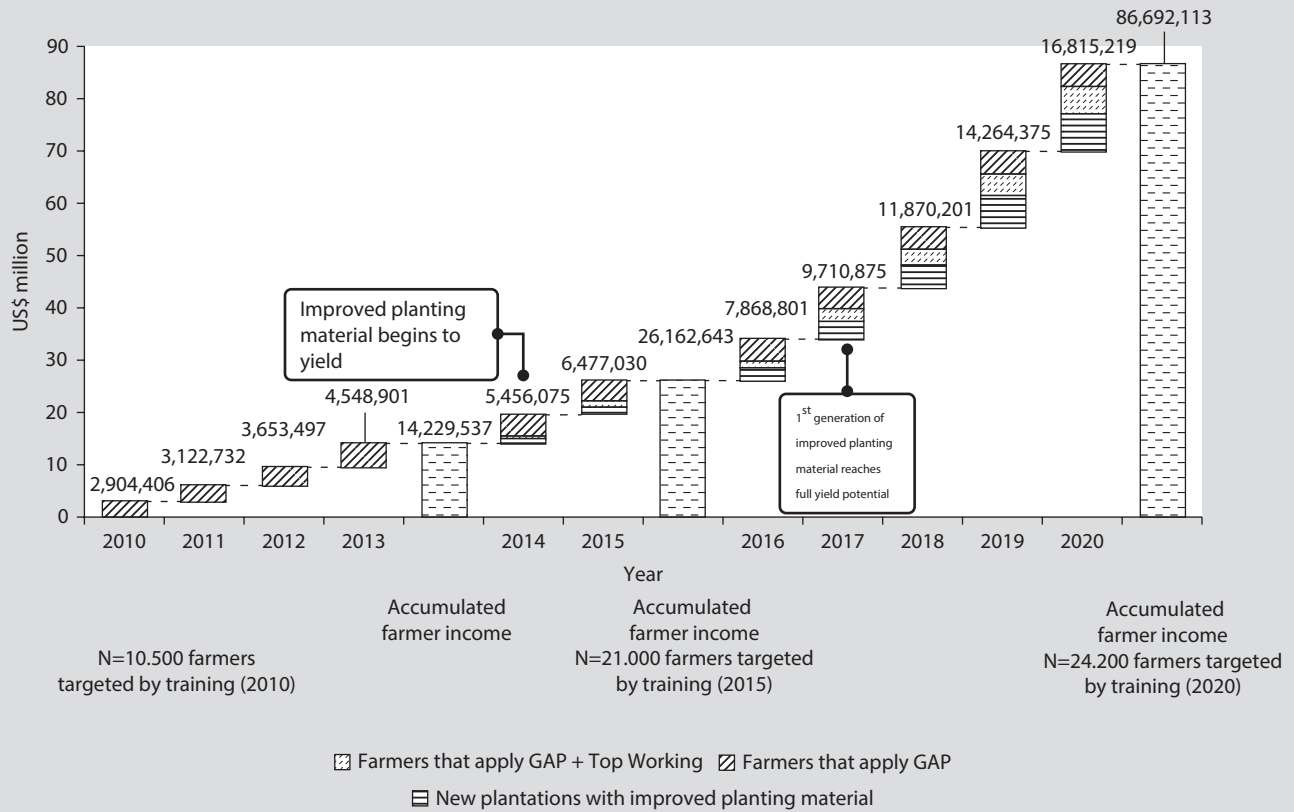
***Question 3: What are the benefits and tradeoffs for private actors in partnering for development, beyond their own core business, and how does the public-private interaction work within the project?***

As the saying goes, "A rising tide lifts all ships," and for cashew industry players, programs such as ACi bring attention and focus to the income potential for producers, processors, and governments alike. When managed properly, this attention has the power to move the needle by aligning government interests with those of private enterprise. The hope is that this will ultimately lead to beneficial regulation, supportive policy, and increased access to financing. However, these benefits can often be limited to particular countries. For example, when Côte d'Ivoire banned crossborder RCN trade, it had unintended consequences for their landlocked neighbor, Burkina Faso. It also had repercussions for companies that opened large processing factories in the region with the expectation of sourcing from Côte d'Ivoire (such as the 40,000 MT factory of USIBRAS in Ghana).

Another positive result from ACi is its focus on farmers and creating sustainable supply chains. For international players who often invest heavily in a particular region, ensuring the ongoing viability of local supply sources is fundamental to success, since as one partner put it, "They are the core of our business." Furthermore, it creates an environment where private partners can invest in developing loyalty with local producers. Organizing farmers and traders offers the additional advantage of traceability—an attribute of cashew supply that contributes value to processors and end users. For processors, traceability assists in mapping quality regionally, while end users can leverage it to help build a brand.

ACi partners drew a distinction between investing in a project that helped their company directly and investing in something that benefited the sector as a whole. As for-profit companies, it is not in their best interest to pay for projects that are not guaranteed to reward their

**Figure 10 Vision for Accumulated Farmer Net Income in Ghana, 2011–20**



Source: ACi Core Partners PPT (November 2011).

business. Research programs that benefit everyone, such as those ACi ran to identify and distribute better planting material, are considered to be a public benefit that should be funded by public partners.

Beyond direct supply chain improvement, ACi's cashew PPP initiatives promoted knowledge sharing and transparency among market actors. On the plus side, the business case for extension investment was built, as well as for research on quality mapping and a host of other baseline studies. These metrics provide market players with some measure of certainty that their efforts will result in a payoff and help catalyze sector investment. In addition, transparency can be very beneficial for farmers by allowing them to benefit from higher levels of competition from buyers, but it is initially detrimental to traders and processors. Historically, these players benefited from an information gap that gave them more negotiation power with producers and allowed for the realization of lower product prices. However, as producers gained

the ability to measure quality and better understood the value for processors, there was a shift in negotiation power. Through training and interaction with private partners, ACi was able to demonstrate sectorwide benefits of increasing farmer-level productivity and quality. Rather than getting better prices for low quality nuts, there was more achievable value in paying fair market prices for improved KOR.

There was a dichotomy between the interest of large players versus those of smaller one, and the partners had different interests as well. Large players want to capitalize on an increasingly open interchange of research and traceability since they are integrated in the market and financially capable of rapidly taking advantage of market shifts. Smaller players are more hesitant to forgo their informational advantage since they are relatively less efficient at adapting to the new market reality. They are more susceptible to price volatility, poorly positioned to compete against international buyers, and dependent on key regions or relationships for profitability. Partners

that could capitalize on the new dynamic, in which competitive advantage is achieved through strong supplier relationships rather than informational leverage, were more accepting of program objectives.

Public players, NGOs, and private enterprises each had their own goals for the project as well. Public players and NGOs are interested in spreading the benefits of research and interventions across a wide base of stakeholders, with a primary focus on rural smallholder farmers. Private enterprises want to realize a return on their investment and direct benefit to their companies. When objectives are properly aligned, however, these groups can coordinate efforts to achieve impact that positively affects both parties. However, partners are dissatisfied when their investments benefit competitors who have not participated in the program. In the case of quality (KOR) mapping, for example, partners were reluctant to share reports on regions with the highest quality production since it would allow traders who had not invested in ACi to determine the best production sources without investing time and effort into the development efforts. As a result, it was agreed that partners would be permitted a one-year window of exclusive access to the information. This delay did not end up being important because training on KOR measurement and new field kits for rapid KOR testing became available around this time. This example shows that while the entire sector benefits from better information and transparency, competitive dynamics create challenges in managing differing objectives in a PPP.

From an industry macroeconomic standpoint, buyers and retailers are facing a long-term potential shortage of supply globally. This shortage poses a risk of price increase and resulting dampening of demand. The retail cashew trade benefits from macro efforts to increase supply capabilities, particularly from an underutilized supply base in Africa with huge growth potential.

Finally, it is critical to be cognizant and proactive about the type and frequency of communication needed when combining stakeholders from the public and private sector. ACi adapted through time to adjust its communication style to private sector emphasis on key performance and cost indicators and to calibrate the frequency of communication to be adequate, but not overwhelming. Perhaps most importantly, investing in relationship building among stakeholders and in relation to project staff led to trust and momentum of the Core Partners and steering committee groups.

## How the Case Study Informs the Science of Delivery

The emerging framework for Science of Delivery identifies five approaches seen as important elements in the learning process for practitioners. This case study informs those approaches as follows:

### Focus on Measurable Improvements to Rural Cashew Farmers' Incomes

- a) A primary objective of the ACi was to improve cashew farmer incomes in focus countries.
- b) Important criteria for interventions were the number of farmers trained, the resulting impact on net income, and the percent of farmers reached who were female.
- c) Ongoing monitoring of outcomes ensured that as interventions were implemented, positive income outcomes were achieved.
- d) Additional interventions addressed other value chain challenges (such as processing) that helped drive increased employment among women.
- e) Better cashew quality and quantity through research and distribution of improved planting material was a key effort, resulting in higher farmer incomes.

### Broad-Based Multistakeholder Approach to Public-Private Partnerships

- a) International development organizations assembled a broad coalition of international partners, including the local governments of focus countries, donor communities, industry associations, multinational traders and buyers, processing companies, local communities, farmer groups and cooperatives, and other development associations to deliver on the stated program objectives.
- b) ACi staff worked in coordination with local extension services to develop training materials and disseminate GAP to farmers.
- c) The matching fund presented a unique mechanism for linking private sector partners with training and technical assistance service providers to raise farmer productivity while building capacity in the local processing sector.
- d) Industry expertise and research institutes in the focus countries were effectively organized in the effort to



identify, select, and distribute improved planting materials for cashew farmers.

- e) National governments were incorporated into the approach to drive improvements in the regulatory environment and research for the cashew sector.

### **Creation of Baseline Research and New Business Models to Drive Partner Participation**

- a) The program developed a set of information that was previously nonexistent in Africa. Business cases were created for processing models and used to incentivize banks to participate in financing schemes. Traceability initiatives with processors and producers helped to record and map high-quality output regions, which were later made available to all market players.
- b) Technical training materials were created by ACi staff, local partners, and the implementing agencies FMS and TNS that catered to the local environment—sometimes via visual depiction to address the low literacy rates among target farmers.
- c) Ongoing impact monitoring allowed for the program leadership to adapt to new learning as key inflection points arose. Viability assessments led to the creation of selection criteria for processors who were included in the program.
- d) Tracking of progress toward major objectives (such as yield increases and farmer incomes) led to shifts in project approach, namely, the incorporation of improved planting material development as a critical requirement to high-yield realization.

### **Technical Advisory Leadership to Leverage Partner Buy-In and Contribution**

- a) GAP and post-harvest management training for farmers incorporated lessons on the benefits of high-quality production as well as aggregation and collective action. This initiative helped align producer and processor interests, leading to a more robust and sustainable supply chain.
- b) ACi was a major catalyst and technical leader in initiating and supporting efforts to develop improved planting material, which involved public and private partners.

- c) Identifying and proving the business case for private partner funding of interventions allowed for leverage of project impact through the matching fund.
- d) Understanding the need to create change in the enabling environment, ACi stressed developing a public and private sector dialogue and enhancing the capacities of sector actors and their representative bodies. Government ownership was crucial to create alignment on key project outcomes with policy and regulatory environments.

### **Using a Flexible and Adaptive Approach to Implementation**

- a) The matching fund's process for accepting business plans on partnering to implement supply chain linkages allowed for flexible financing of high-value ideas and provided the opportunity for iterative learning on possible approaches.
- b) Stage-gate project phases set structured junctures for shifting objectives and implementation approaches based on prior learning. Ongoing organizational consulting created a framework for feedback that allowed the recognition of, and adaptation to, major changes in understanding the development environment.
- c) Joint strategy reflection and decision making with the Core Partners team, as well as regular internal and external evaluations of progress, formed recommended new approaches and tactical shifts. Complementary donor foci and requirements (BMZ and BMGF) allowed flexible adjustments regarding budget allocations and alignment with internal priorities.

## **ANNEX A Interviewees and Editorial Team**

### Interviewees

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- Gerard Klijn, TDG
- Sanogo Malamine, Conseil du Coton et de l'Anacarde, Côte d'Ivoire
- Ernest Mintah, GIZ, ACi
- Richard Rogers, BMGF
- Judith Steffens, GIZ, ACi
- Partheeban Theodore, Olam
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- Helene Widmer, GIZ, ACi
- Jörg Freiberg, GIZ

## ANNEX B Funding, Contributing, and Implementing Partners



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