



Kingdom of the Netherlands



Palm Oil Warrantage

An Inclusive Financing and Collective Marketing Tool for Improving Actors' Incomes



Consortium members





Key Message

Warrantage allows actors (producers/processors, traders), especially those excluded from formal financial systems, to have easier access to working capital credits and to increase their production capacity. The quality requirement of collective storage leads to an improvement in the quality of the oil produced. The “Do-It-Yourself” approach thus allows for greater accountability on the part of the actors and promotes the sustainability of the system and its generalization to other organizations. Warrantage promotes effective market participation and contributes to improving actors’ incomes.



Challenges

In 2013, the study carried out by the ACMA program on the supply of agricultural products showed, on the basis of CARDER Ouémé-Plateau data, that the volume of palm oil produced in the departments of Ouémé and Plateau was 9,689.69 tons in 2011 and 12,097.84 tons in 2012.

Since 2005, in the oil palm producing communes of Ouémé-Plateau, the actors have been organized into Village Groups of Oil Palm Producers (GVPPH) at village level, into Communal Union of Oil Palm Producers (UCPPH) at communal level, and into Regional Union of Oil Palm Producers (URPPH) at departmental level. This structuring of the actors is based on their willingness to work together to overcome certain difficulties, including the supply of specific fertilizers, the supply of improved quality plant material, and market competition problems.

The oil palm sector has great commercial opportunities both in Benin and abroad. The oil produced in Ouémé and Plateau is marketed in local markets but especially in Nigeria, which offers many opportunities for the marketing of Benin's agricultural production. Many Nigerian agro-industries located in the border areas with these departments obtain palm oil in Benin through local and Nigerian traders.

These opportunities offered by Nigeria are little exploited by Beninese actors despite their level of structure. Indeed, the existing structures are not very functional. There is no (well-structured) organization for the marketing of products and by-products from oil palm processing. Trade relations around palm oil and other by-products are informal in almost all cases. Palm oil producers/processors and traders operate individually with highly fragmented offers to supply these large Nigerian markets. This lack of organization weakens their bargaining power in the market and makes transactions unprofitable for them.

The study carried out by the ACMA program in 2013 first points to the difficulties of access to credit as the main constraint to the marketing of palm oil in Ouémé and Plateau. Despite the existence of Decentralized Financial Systems (SFD) that offer local services at the level of producing municipalities, access to finance remains a major bottleneck for actors in the processing and marketing of palm oil. This raises a problem of accessibility to SFD funding. The lack of information of actors on the possibilities of access to finance at the level of the SFDs, the reluctance of these SFDs to finance agro-businesses due to the high risks associated with agricultural activities, and, above all, the lack of tangible guarantee at the level of actors are among the causes of these problems.

The palm oil Agricultural Business Clusters (ABCs) of Sakété, Adja-Ouèrè, Adjohoun, Ifangni, Bonou, Avrankou, Ouinhi and Pobè have thus seized the opportunity of the warrantage offered by the ACMA program to face the challenges of financial inclusion and the collective marketing of their product to improve members’ incomes.



Approach to the Implementation of Warrantage by ACMA

The approach adopted for the facilitation of warrantage under the ACMA program is based on two principles: the carrying of warrantage by direct actors and the do-it-yourself.

The support of the warrantage operation by the direct actors aims to make them responsible for the practical organization and conduct of warrantage operations by themselves.

Through participatory training, the program strengthens the capacities of direct actors in order to equip them to conduct operations. The advantage of this approach is that it facilitates ownership of the mechanism by direct actors and allows them to become autonomous in its implementation. This approach thus promotes the sustainability of the experiment and its generalization to other territories and other products.

Box 1 | The ACMA Program (2013-2017)

- Overall objective: to improve food security and increase agricultural incomes for economic operators.
- Target groups: producers, processors, and traders, including 40% women, in the 22 communes of three departments bordering Nigeria: Ouémé, Plateau, and Zou.
- Target products: maize, pepper, peanut, soybean, cassava, palm nuts, palm oil, and fish.
- Donor: Embassy of the Kingdom of the Netherlands in Benin.
- Overall Budget: €10 million, of which 40% is for commercial infrastructure under municipal control.
- Duration: November 2013 to November 2017 (4 years).
- Implemented by a consortium composed of the International Fertilizer Development Center (IFDC), CARE International Benin/Togo, Sahel Capital Partners & Advisory Ltd, l'Institut Royal des Tropiques (KIT), and Benin Consulting Group International (BeCG). IFDC leads this consortium.



Target departments



Mapping of Warrantage Actors on Palm Oil

The palm oil warrantage experience facilitated by the ACMA program involved several agricultural development actors in each locality. In the foreground, we have two categories of actors:



- Direct actors are the producers/processors who are members or not of the UCPPHs, women's groups processing nuts into oil and palm oil traders. These actors are organized around the Palm Oil ABCs set up by the ACMA program in each of the beneficiary municipalities. They are at the heart of the warrantage system. They are the ones who voluntarily decide to put part of their production and collected products into this joint palm oil supply management scheme. They are the owners of the warrants. The UCPPH is the Organization within the ABC that is responsible for the mechanism and its management.



Counting Canisters Prior to Warrantage

- The second category of actors is the financial institution ALIDé, which is a SFD, a partner of the ACMA program. IFDC, under the ACMA program and the 2SCALE project, has contracted with this SFD to finance the production, processing, and marketing activities of the actors benefiting from both programs. The financing of warranted inventories is part of this framework. ALIDé finances the actors benefiting from warrantage under the guarantee of their mobilized stock.

In the second plan, we can distinguish the ACMA program, which, in the process of supporting the actors of the ABCs in mobilizing a competitive offer, has led to warrantage on palm oil. The ACMA program plays a facilitating role and ensures the capacity building of actors for the ownership and success of the process. Since it was not possible to be on the ground on a day-to-day basis to monitor the process closely with the beneficiaries and in order to ensure its sustainability, other categories of actors were involved. These are the former Communal Agricultural Development Sectors (ex-SCDA) and the NGOs supporting the ACMA program, including CBDIBA and OPADEB-ONG. The SCDA, through their packaging department, particularly support the actors on the management of the quality of warranted oil. The NGOs facilitate the organization of actors for the success of the warrantage operation. They accompanied the actors on the key aspects of grassroots awareness, business plan development and experience capitalization. The support of these NGOs to the ABC beneficiaries of the warrantage is part of a contract with the ACMA program to support the actors of the ABC in the implementation of their strategic plan. Box 2 provides detailed information on the roles and responsibilities of each actor.

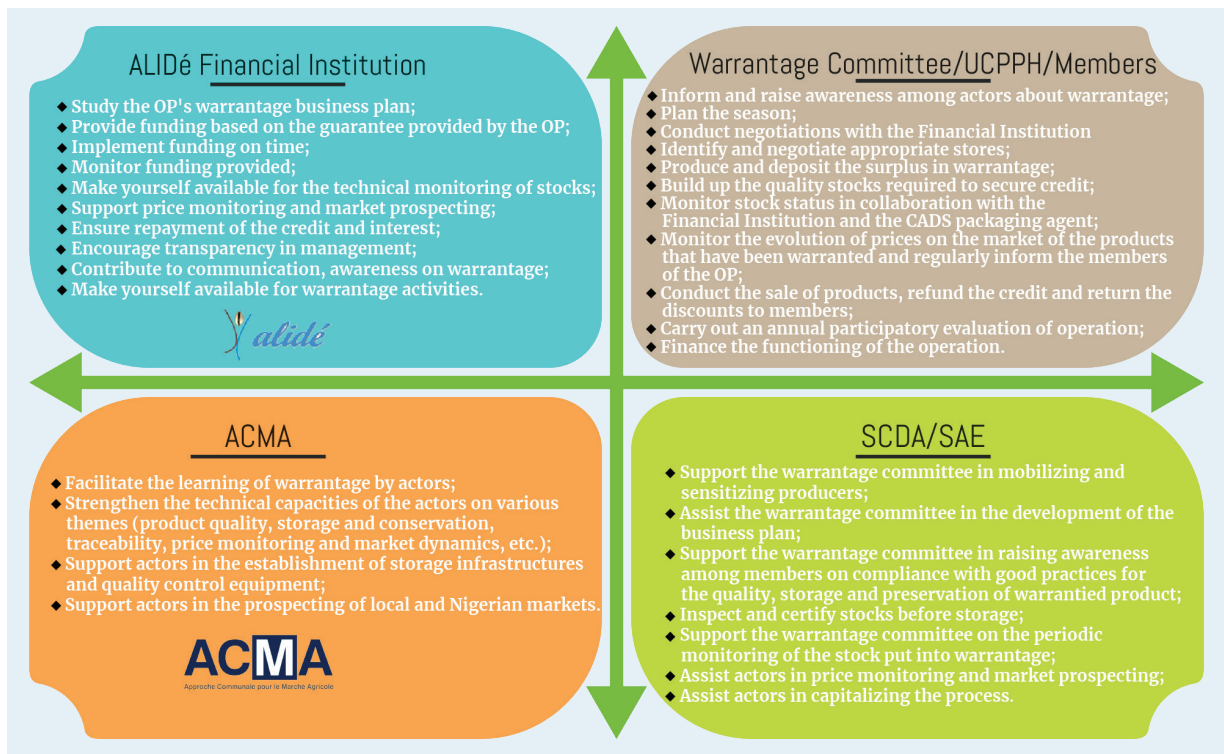
The System for Implementing Warrantage

To carry out the warrantage operation, each ABC has set up structured management bodies at two levels, namely the local committees and the communal warrantage committee. The communal committee is the operational arm of the UCPPH for the conduct of warrantage. It is composed of five members, including a president who is sometimes the president of the UCPPH, a secretary, a treasurer, and two members. It manages all operational activities of warrantage. The local committees are located at the district level and support the communal committee, especially in the mobilization of members, in the mobilization of the warrant in the various localities. These committees are composed of three members.

For a start, the actors opted for a light organization for greater functionality. The members of these committees conduct all stages end to end. It should be noted that the packaging agents support them, especially at the time of stock formation and during the storage period for the technical monitoring of the stock.



Box 2 | Mapping of Warrantage Actors: Roles and Responsibilities of Each Actor Involved



Activities Implemented

Prerequisites Provided by the ACMA Program

The ACMA program has set the necessary guidelines to facilitate the installation and implementation of warrantage by the actors by ensuring certain prerequisites. Among other prerequisites, we can mention

Organization of the Actors Around the ABCs. The program's intervention is carried out through two platforms: the networking of private actors through the ABCs and public-private consultation through the communal and inter-communal consultation frameworks (CCC and CCIC). In this context, the program has facilitated the establishment of ABCs on various value chains, including palm oil. The implementation of warrantage on palm oil is based on the palm oil ABC. Moreover, as mentioned above, the palm oil ABC includes, among others, the UCPPH through its member producers/processors, women processors' groups, and the palm oil traders organization. This approach has therefore facilitated the extension of warrantage to palm oil processors and traders.

Diagnostic Analysis of the Feasibility of Warrantage in the Program Area. The diagnosis was carried out at the level of the ABCs to identify the target products that could be warrantable (products suitable for storage and conservation, products with a significant price evolution between the period of abundance and that of rarity). As a result, the attention of actors was focused on several value chains, including palm oil. Box 3 presents the tools that facilitated this work during the meetings organized for this purpose. The diagnosis also made it possible to analyze with the actors the technical feasibility of collective storage on oil. The points of attention



are mainly focused on storage infrastructures and the quality control of the products to be warranted. The results of this analysis were that there was no ABC with adequate infrastructure to conduct such an experience. However, the actors of the ABCs, motivated by this opportunity for collective sales and access to inclusive financing, have decided to get by as best they can through the rental of metal tanks from certain large processors and the rental of warehouses for storage in cans or drums.

Box 3 | Diagnostic Sheets on the Feasibility of Warrantage

- Identification sheet of the types of products that can be warranted.
- Classification sheet by producers of agricultural products that can be warranted.
- Quotation grid for financing business plans.

Awareness-Raising Among Actors. After the diagnostic analysis that proved the feasibility of warrantage on palm oil, the ACMA program proceeded to raise awareness among palm oil ABC actors. The focus was on the opinion leaders of each category of actors during these sensitizations. In particular, members of the bureau and board of directors of the UCPPHs, leaders of women's processing groups and groups of palm oil traders were impacted. Several radio programs were organized in different languages (French, Nagot and Goun) with the involvement of the committee members. These programs are broadcast on the local radio stations, including Allakétu and Olokiki in Plateau department, la voix de la vallée in Ouémé department, Tonassè in Zou department.

Interrelationship Between Beneficiary Actors and ALIDé. ACMA, within the partnership between IFDC and ALIDé, has negotiated more flexible financing conditions for actors especially those involved in warrantage. The project then put the beneficiary actors in contact with ALIDé. Exchanges continued between actors who had the best control of their activities for better negotiations. It was during the exchanges between direct actors that ALIDé agents were able to understand the particularity of palm oil warrantage compared to what is usually done with cereals. This has allowed warrantage credit to be adapted to the specificity of palm oil. In fact, the production of palm oil has taken place over a period of at least 4 to 5 months during which the oil is abundant. During this period, actors are in need of financial resources to finance the transformation. Thus, the stock of oil for warrantage is built up in a staggered manner over time. The stock built up at a given time is offered as a guarantee to ALIDé to benefit from the credit, which is used as working capital to continue oil production.



Unloading Palm Oil to Pool for Warrantage

Capacity Building of Actors. The ACMA program organizes various training courses for actors to facilitate the conduct of the warrantage operation. These trainings focused on different

themes including:

1. Warrantage: Key steps, implementation tools, roles and responsibilities of actors.
2. Control and establishment of a system for the traceability of warranted products.
3. Development of a business plan and planning of the warrantage campaign.
4. Quality, stocking and conservation of warranted products.
5. Price monitoring, market dynamics, and decision-making on the destocking and commercialization of warranted products.
6. Market prospecting and contractualization.

Despite the involvement of the SCDA, training on quality, storage and conservation is organized at each campaign to enable the actors to better manage the quality dimension, which is one of the main factors determining the success of the operation. This training focuses in particular on the oil processing specifications to enable the actors to improve their processing technique in order to have products of higher quality. Initially, the training was organized at the intercommunal level with the participation of a few representatives of each ABC, then the feedback is carried out at the grassroots level. But later, it became clear that this training should be more practical than theoretical and should also impact the large number of members. This led to its cascading organization at the ABC level with modules deployed in real environments (in production units, oil storage areas). Another theme that attracts attention is that of price monitoring and market dynamics. The modules on this theme take place during each campaign (at least for a start). They aim to better equip actors to control market analysis and market dynamics for sound decision-making.

In general, it should also be noted that these training workshops have contributed to making the actors increasingly autonomous in the organization and management of warrantage for the benefit of the adherent members. They also provide real opportunities for exchange and sharing of experiences between ABCs. This facilitated the networking of the warrantage committees, which remain in constant communication with each other for a good management of their activity.

Support for Sales Market Prospecting. Axis 1 of the ACMA program, which focuses on market intelligence and demand management, has worked to identify markets, especially those in Nigeria, namely agro-industries that process palm oil into derivatives, such as Rom Oil, Comfort Vegetable Oil Ltd. The objective was to accompany the actors for formal commercializations of the oil warrantee as well as no warrantee. The ABC actors had been accompanied for business discussions with these companies in Nigeria. A delegation of Rom Oil from Nigeria also made a field visit at the ABC level to deepen the discussions and see the production potential. Support for the sales markets prospecting for actors is a continuous activity with the identification of local and Nigerian wholesalers to whom the ABCs are regularly connected for the marketing of warranted oil.

Process Monitoring. In addition to all the provisions presented above, the ACMA program is monitoring the process together with the actors. The on-site missions allow to coach and give support and advice that the actors need for the success of the operation. This monitoring is of crucial importance, making it possible to be informed as soon as possible of difficulties or situations of concern for the actors and to work together to find solutions and other necessary support.

Technical Organization of Warrantage by the Actors

The direct actors conducted the technical operations of setting up and operating the warrantage. The following points briefly describe the key steps in the organization of a warrantage campaign by each ABC.





Raising Awareness of Warrantage

Mobilization of Members and Logistical Arrangements. Warrantage committees first work to raise awareness among grassroots members to get them involved. They organize general public awareness sessions at the district level or at the level of specific groups as needed. They also raise targeted awareness by approaching certain major producer actors to get them to join the warrantage. Some committees organize awareness-raising campaigns on local radio stations to reach

as many actors as possible. The members of the committee then proceed to collect the storage intentions of the interested members. At the time of awareness raising, particular emphasis is placed on the quality standards to be respected by members in order to have quality oil in warrantage. At the same time, the identification and negotiations for the rental of tanks and/or storage warehouses are carried out. Committee members benefit from the support of the SCDA for the inspection of identified tanks and stores and, if necessary, to bring them up to standard through repairs and other necessary fitting work. Box 4 presents some communication and trainings tools available to committees to facilitate their work.

Stock Building. Each committee, based on the dates fixed for the oil deposits, receives the stock from the members and checks the weight and quality of the stock before proceeding with the transfer to the tanks or the deposit in the warehouse. In relation to quality, stock control is systematic in view of the sensitivity of collective oil storage. Control is done by the SCDA conditioning agent. For the moment, no ABC has adequate equipment (e.g., moisture meter, pH meter) to carry out quality control, but the expertise of sworn agents makes it possible to detect stocks of questionable quality that are systematically rejected. The quality dimension of storage requires particular attention because it is a major factor in the success of the operation. This is why an effective quality control system is needed.

It should be noted that in the context of storage in warehouse using drums and cans, the committee makes the codification in advance by giving a code to each actor. This coding system allows them to properly trace the stock to be placed in the warehouse.

Following the controls, each depositor is entitled to a certificate of deposit, which allows him to take the corresponding financing. The committees keep the stock sheets and the membership register up to date to facilitate the synthesis of statistical data.

Box 4 | Some Tools for Raising Awareness Among Actors at the Grassroots Level

- Poster on warrantage:



- Synthetic technical sheet on warrantage.
- Documentary film on warrantage.
- Image box on warrantage.



Receipt of Stock by the Warrantage Committee and the Financial Institution



Stock building extends over 4 to 5 months with an average of five deposits per ABC during a season. The first stock builds start in February–March and the last ones in June–July.

Financing of the Warrant. The committee discusses with ALIDé the credit conditions and the operating mode. The conditions adopted in the partnership between ALIDé and IFDC are presented in Box 5.

For the operating mode, warrantage credit is set up as the stock deposits are made. This approach allows beneficiaries to reinvest the first financing obtained in processing to build up subsequent warranted stocks. Warrantage credit therefore appears as a working capital credit that allows actors to finance the processing of palm nuts throughout the oil production season. On the basis of the members' storage intentions, each warrantage committee draws up a business plan that it submits to ALIDé for

Box 5 | Warrantage Credit Terms

- The guarantee: the warranted stock.
- The amount of financing: 80% of the value of the stock.
- Interest: 1% per month.
- The duration of the credit: 1 to 12 months.
- Reimbursement: at the end of the operation.

financing. Once the business plan has been validated, credit arrangements are made gradually within a maximum period of 10 days after each deposit.

Stock Monitoring, Market Prospecting and Marketing. Once the storage and credit facilities have been completed, the members of each committee begin to monitor stocks and prices on a regular basis and prospect the markets in particular. The SCDA's play an important role in the regular inspection of the warranted stock throughout the storage period. On the basis of pre-established planning, the members of the committee and the ALIDé representative with the support of the SCDA, carry out checks at least once a month to check the state of the stock, its quality, and any difficulties that may arise during storage. With regard to price monitoring, the ABC actors rely particularly on the Market Information System (MIS) set up by the program and whose operation they ensure. Through this tool, the members of the warrantage committees monitor the evolution of the oil price on the various markets, in particular the markets on which the oil is marketed in their respective areas. Another aspect to be highlighted is the networking of warrantage committees. Through the various meetings and training that the ACMA program organizes for them, the warrantage committees of the various ABCs have sympathized and initiated a network through which they communicate and share information about their activities. This networking makes it easier for them to negotiate prices at the time of sale, especially since they have almost the same customers who buy their oil from them. Without abandoning formal market prospecting, until now, the oil warranted by the various ABCs is often sold as a group to local and Nigerian traders who frequent their markets.

Season Review. At the end of the sale operations, each committee reimburses the loan received from ALIDé with the inherent interest. The warrantage committees, assisted by the SCDA's and SAEs, review the activity with the members and then refund the rebates. The ACMA program supports actors to make a global capitalization for all ABCs. This overall assessment makes it possible to deepen the results and to make a comparative analysis of the results between the ABCs. It allows each ABC not only to look at itself but also to compare its performance with that of the others. This creates a kind of competition between ABCs as they embark on the challenges of future campaigns to improve their performance and be among the best.





Results

Main Results

Table 1 below summarizes the figures from the warrantage experience facilitated by the ACMA program during Phase 1. After the implementation phase of the mechanism, the actors conducted three warrantage seasons during the implementation period of Phase 1 of the program. As shown in Table 1, there has been a gradual evolution in the number of ABCs that have adopted the mechanism between the first and third year. From three ABCs at the beginning in 2015, it increased to eight in the third year. Virtually all the palm oil ABCs installed by the program have adopted warrantage. These ABCs have been distributed among the three intervention departments: Ouémé (ABC palm oil from Adjohoun, Bonou and Avrankou), Plateau (ABC from Sakété, Adja-Ouère, Ifangni and Pobè) and Zou with ABC palm oil from Ouinhi.

Table 1 | Summary of the Results of the Warrantage Periods, 2015 to 2017

Year	ABC Palm Oil Involved	Warrantied Volume (T)			Impacted Beneficiaries			Amount of Granted Credit (FCFA)
		Total	Women	Men	Total	Women	Men	
2015	Sakété, Adjohoun, Adja-Ouère	190.029	22.80	167.22	42	12	30	69,584,000
2016	Sakété, Adjohoun, Adja-Ouère, Avrankou, Bonou, Ifangni	229.285	36.66	192.62	180	70	110	63,129,600
2017	Sakété, Adjohoun, Adja-Ouère, Avrankou, Bonou, Ifangni, Pobè, Ouinhi	769.98	167.15	602.83	776	407	369	237,042,000
Cumulation		1,189.28	227.61	963.67	998	489	509	3,695,600

In relation to the volume of warranted oil, there is also a growing trend in the figures between the first and third marketing years, from 190.029 tons in 2015 to 769.98 tons in 2017 (Chart 1).

This increase is perfectly consistent with the integration of new ABCs and, above all, the accession of more and more new members. In three years, warrantage enabled the actors to collectively mobilize and market 1,189 tons of palm oil on the market. The volume of granted credit by ALIDÉ also increased considerably during the three years. From **FCFA 69,584,000 in 2015**, the actors' loan increased to **FCFA 237,042,000 in 2017**. The cumulative financing of the three years amounts to **FCFA 369,755,600** (Chart 2).

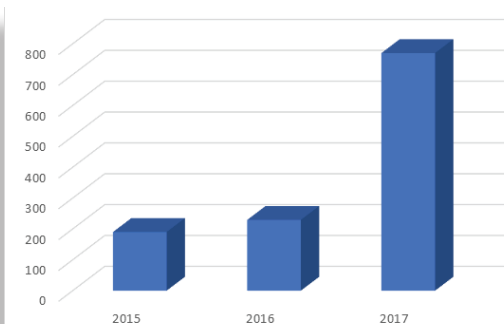


Chart 1 | Evolution of the Warrantied Volume (T)

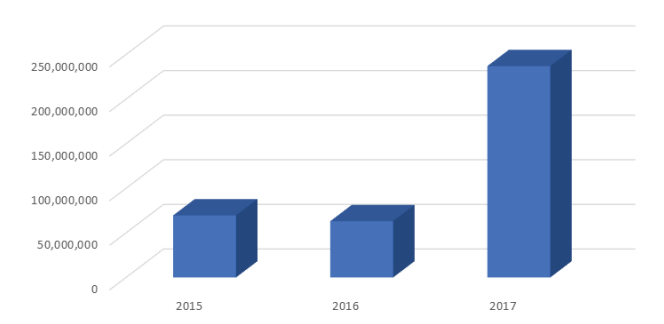


Chart 2 | Development of the Amount of Granted Credit



These funds are used as working capital to continue the transformation but also enable the actors to meet the need for money for social imperatives.

The increase in the number of Registered Members of the mechanism is very instructive in relation to the scope. From 42 actors impacted by the first experiment in 2015, the membership grew to 776 actors at the third experiment in 2017 (Chart 3).

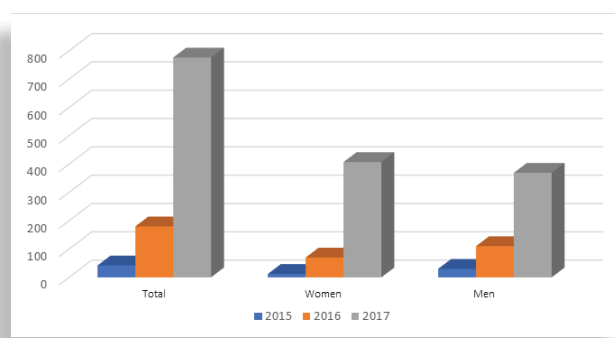


Chart 3 | Evolution of Memberships over the 03 Years

This rapid rise in membership reflects the benefits they have discovered in warrantage through the opportunities it offers them. The number of members of the third year gives an overview of the beneficiaries impacted for all seasons. When we consider these data, we can

note that there are more women impacted than men. The number of women impacted amounts to 407 (or 52%) while the number of men is only 369 (or 48% of beneficiaries) (Chart 4).

The main element that has enabled this strong support of women is the involvement of women’s groups especially at the commune level of the Ouémé Department (Adjohoun, Bonou and Avrankou) where there are Village Savings and Loan Associations (VSLA), mostly composed of women. These associations involved in the processing and marketing of palm oil participate in warrantage with the grouped deposits of their members’ stocks and obtain credits.

Moreover, an analysis of the scope of the warranted volume by gender shows that the women only warranted 19% of the total stored volume. Men (Chart 5) hold most of the stock (81%).

This is easily justified by the involvement of members who do not have large production capacities and make small deposits (1 to 5 cans per person). They are classified as “small actors.”

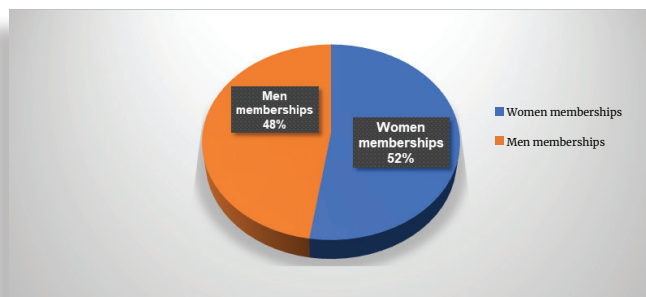


Chart 4 | Distribution of Members by Gender

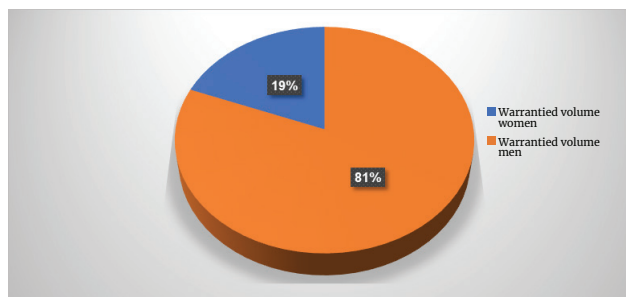


Chart 5 | Warranted Volume by Gender

Warrantage Impacts on Incomes

Table 2 shows the balance of the seasons, especially the first 2 years, which are fully closed.

It can be seen from this table that warrantage has enabled the actors to benefit from higher prices at the time of the sales of the oils warranted during the lean season. This allowed them to realize profit margins at the end of the warrantage operations, as illustrated in the testimony below.

During the 2016 year, the actors earned FCFA 30,137,948 in additional margin due to the warrantage activity. This margin is nothing more than the amount of money they would lose by selling their



- Interview with an actor of the PEA palm oil **Bonou** during a focus group evaluation



Before the warrantage, we had sold the 25-liter drum between FCFA 9,000 and FCFA 10,000 for most of our products. With the warrantage we sold it at FCFA 14,000. Even with the fees removed, we made huge profits.

oil directly at the time of storage. This is the added value that warrantage has brought them compared to sales during the storage period. In 2015, the opportunity cost of the warrantage activity was negative because, apart from the price, which did not increase significantly, the charges were too high. Nevertheless, the net result of the operation remains positive. At the end of the 2015, 2016, and 2017 seasons, the actors released FCFA 19,177,119, FCFA 59,562,552 and FCFA 201,463,163 respectively from rebates, which were returned to members.

These rebates are like savings for members and allow them to start palm nut production for the season or to continue Income Generating Activities (IGAs), especially at the level of processors and traders.

Table 2 | Result of the Years 2015 to 2017

Year	Stored Volume (t)	Credit Volume Benefited	Average Price/ Storage	Loss Rate	Total Expenses	Average Selling Price	Sales Revenue	Net Annual Profit	Opportunity Cost
2015	190	69,584,000	483,340	1.11%	6,533,048	510,000	95,294,467	19,177,119	-2,591,461
2016	229.28	63,129,600	400,000	0.75%	7,644,417	577,417	129,052,400	59,562,552	30,137,948
2017	769.98	237,042,000	480,000	1.5%	25,063,552	602,032	463,568,715	201,463,163	68,914,763
Cumulation	1,189.28	132,713,600	-	-	-	-	687,915,582	280,202,834	96,461,250

In particular at the level of small actors, the survey conducted by the ACMA program’s monitoring and evaluation specialist showed that 25% of these small actors surveyed who took part in the warrantage said they had benefited from a better transfer price for their production. As a result, it can be deduced that their incomes have improved (Chart 6). The survey was conducted on a sample of 85 respondents (44 of whom took part in the warrantage).

The same survey showed that, with the working capital made available through the warrantage loan, the small actors then in the throes of selling and loan-sharking who kept them in the circle of precariousness are taking a step back from these practices. In fact, of the forty or so small actors who worked with this practice, 49% and 42% admitted to having abandoned the sale and loan-sharking respectively (Chart 7).

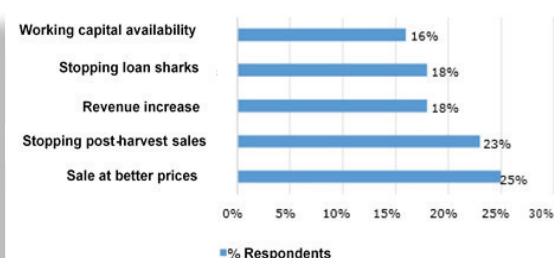


Chart 6 | Impacts of Small Actors' Participation in Warrantage (% Who Cited the Effect)

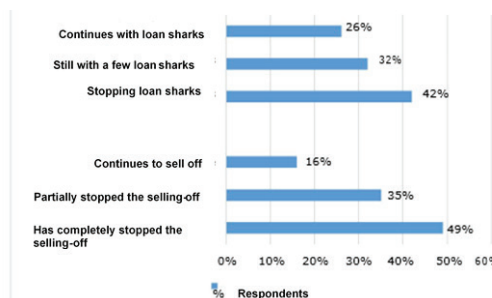


Chart 7 | Impacts of Small Actors' Participation in Warrantage on Loan Sharking and Selling Off Phenomena (% Who Cited the Effect)



Stopping the selling off and loan sharking is a prerequisite for improving the participation of small actors in mobilizing supply for collective marketing and increasing their incomes. Through participation in the warrantage, the (small) actors initiated the shutdown with the informal financing system that negatively affects their incomes.

Warrantage Impacts on Product Quality. The consequence of warrantage on the quality of the oil produced is direct. The control mechanisms put in place when warrantage stocks are built-up and the various capacity-building measures are leading to progressive changes in behavior at the level of the actors.

According to an evaluation survey conducted by the ACMA program, if the actors of the ABCs are increasingly integrating the notion of quality, it is above all the results of the numerous training and coaching sessions provided directly by the program and indirectly by the support services (ex-SCDA) which have contracted with the program to be on a daily basis with the said actors.



- Interview with an actor of the PEA palm oil **Adjohoun** during a focus group assessment

(...) the warrantage has reinforced our apprehensions about the fact that we must have an oil of irreproachable quality. We are obliged to improve the quality of our oil to ensure homogeneity when pooling for warrantage. (...) Mixing the oil with mud or water is harmful to all of us. The control is strict and we have already returned products from some actors here, which has served as a lesson to everyone. (...)

The same survey shows that, on the other hand, the warrantage experiment has enabled the actors of the ABCs to understand that the pooling of their product requires a certain quality in order to have the products accepted for collective storage. In this way, it was noted throughout this warrantage process that at the level of some ABCs, the production provided by some actors was returned for lack of quality.

This means that the actors define quality criteria that are stricter for warrant-based oil than those used at the individual level. This will certainly influence the individual practices of the actors in the future.



- Interview with an actor of the PEA palm oil **Bonou** during a focus group assessment

With warrantage, we were forced to take care of our production process. We take more precautions when producing the oil. For example, sorting the nuts to put aside already damaged nuts that altered the quality of the oil. We also try not to be greedy by scraping in the mud to necessarily have volume because the oil is muddy and can be refused at warrantage or by buyers.

Warrantage Impact on the Actors' Organization. Some UCPPHs were only able to organize General Elective Meetings (AG) following the warrantage operation. This is the case of the Adjohoun UCPPH, which renewed its office at the end of 2016 after two warrantage years. This is also the case for the Avrankou and Ouinhi UCPPHs, which, in order to win the confidence of members for the implementation of warrantage, had to review their governance by renewing



their office in order to entrust management to more dedicated and credible actors. These actions have contributed to improving governance within these organizations. Warrantage activity now gives greater legitimacy to UCPPHs and allows them to offer economic services (access to finance, market access, access to inputs, capacity building on quality, etc.) that members need.

The workshops and training sessions organized for actors at the intercommunal level have brought together actors from different municipalities and encouraged the actors themselves to set up a network of the various warrantage committees. This has encouraged regular exchanges between the actors and reflections at regional level on a better organization of their sector.

The successful collective sales through the warrantage in Bonou in 2016 have led to the dynamization of the network of small actors installed in this commune. Indeed, after the sales at the warrantage store level, the actors no longer sold their oil reserves individually. They group the members' oils and make group sales.



... networking has also helped us. The oil collectors could not find any more and therefore they had to come and buy at the gathering place. We were able to sell up to FCFA 17,000 per can. (...)



Learned Lessons

- ✓ **Calculation of costs and control of expenses of the operation:** Monitoring of the market price and commercial negotiations with buyers requires a good knowledge of the costs and the cost price of the product at the level of storage. It also requires expenditure control to ensure that the estimated cost price is as realistic as possible. During the 2015 crop year, the lack of control of costs led the actors to maintain the storage for a long time without a significant increase in price, while at the same time the charges were increasing. This led to a late decision and a loss of margin. Knowledge of these costs is therefore essential for the proper monitoring of the market and for the decision-making on the removal from storage and marketing of the products concerned.
- ✓ **Setting the sale price (storage price):** During the 2015 crop year, the actors realized that the higher the storage value, the less they gain from the operation. The overvaluation of the storage value allows actors to have more liquidity at the time of deposit but reduces their profit margin as credit charges (interest, file review fees) become relatively important.
- ✓ **Standardization of units of measurement:** Some committees of warrantage that do not have weight-bearing equipment have realized that there is a bias in depositing stocks in 25 L cans that could explain the losses recorded. These drums, due to repeated use no longer have the exact capacity of 25 L but sometimes less or more. Hence, the need to use a single unit of measurement for checking the stock of each depositor in the absence of adequate weight control equipment. Moreover, the actors understood the need to provide an additional quantity on each member's deposit to compensate for possible storage losses.
- ✓ **Appropriate logistics:** The absence of appropriate logistics (adequate tanks, weight control equipment, quality control materials and appropriate modes of transport) exposes people to significant risks of loss in storage and at the time of transactions.
- ✓ **Naira fluctuation:** A priori, it is a risk factor, but it can become an opportunity to make good deals in the marketing of palm oil. Transactions of the first two years illustrate this



lesson. At the beginning of the drop in naira prices in 2015, the price of oil did not increase significantly during the lean season. But in the 2016 crop year, despite the fact that this situation has persisted, the price of oil has experienced an unprecedented increase. Indeed, between the two periods, Nigerian buyers have adapted and have taken mitigating measures by falling back on local markets for their supply instead of the international markets that were coming back to them more expensive.

- ✓ **Existence of management documents strengthens the confidence of the participants to adhere to the system:** The issue of certificates of deposit specifying the volume deposited and certifying the quality at each deposit gives a certain assurance to the depositors who have proof for claims in case of need.
- ✓ **Warrant has encouraged a rise in prices on the market:** The stocks built up under the warrant have limited the abundant supply of oil on the market during the period of production. This has fostered, to some extent, price regulation in the market and has allowed even non-members of the schemes to benefit more from transactions.
- ✓ **Credibility of UCPPH leaders promotes membership:** For membership to be successful, it is essential to have opinion leaders who have a good image in their community.

Risk Factors

Warrantage has proven to be of great economic and social interest. It offers many advantages to both ABC actors and financial institutions. But it also involves important risk factors, the main one being market risk.

- Price fluctuations on the market (the increase during the storage period, the fall after storage) quickly affect the mechanism and can expose actors to discouragement or even abandonment. To this end, the right analysis of prices and market dynamics and the right listening and decision making at the right time can anticipate risks and minimize damage.
- Another important risk factor is that of non-compliance with quality standards. The collective storage of oil requires equally rigorous quality control. A prejudice in quality control can expose the entire stock to the risk of contamination and loss.

Future Prospects

Installation of appropriate logistics to improve storage and product quality: The first challenge to be met for a better organization of the collective management of oil is related to logistics. For these experiments, the infrastructure and equipment used are not such as to ensure irreproachable product quality. Some product was stored in metal tanks and plastic cans that are not recommended in the stock of food products such as palm oil.

Professionalization of the marketing of warranted products: The identification of other formal markets in Benin, Nigeria, and elsewhere deserves to be pursued. This will make it possible to professionalize the transactions of the products warranted through formal production, sales contracts, and sales with precise units of measurement (kg or ton). The volatility of market prices due to the fall of the Naira, which marked the first pilot experiment, immediately drew



attention to the crucial issue of the remunerative market. It would be risky to rely solely on the opportunities of local and Nigerian informal traders to develop collective management of palm oil, even though the cost assessment of formal marketing has shown an additional cost that would make it uneconomic.

Inclusion of more small actors and improvement of the scope of the operation:

Until then, the number of actors remains low compared to the number of ABCs. For example, the Sakété ABC, which had the largest warrantied volume in 2017, has only 48 members out of approximately 250 members who make up this ABC. The same applies to the volumes deposited, which remain low in relation to members' production. The survey of members revealed that the actors surveyed market only 16.1% of their production through the warrantage system. This question deserves to be studied further because, in addition to quality, the size of the stock and the scope of the system determine the positioning of the product on the market, especially formal ones that require large quantities of products.

Professionalization of the accounting and financial management of the warrantage operation:

Increasingly, the warrantage operation is gaining momentum at the level of each ABC, both in terms of the oil warranted volume and credit granted, as well as the number of actors impacted. Management committees composed of actors no longer have the necessary capacity to manage the flows and masses of resources generated by the process. It is becoming necessary for some ABCs (e.g., Sakété, Adjohoun, and Avrankou) that started by brewing large volumes to recruit, even if only on a part-time basis, qualified employees to ensure that the accounts of warrantage periods are properly kept. This will have to be accompanied by the implementation of adequate accounting and financial management tools and the introduction of management systems limiting the handling of money by committee members, such as: account opening by all members, transfer of money to members via accounts, and payments of sales by buyers via accounts.

The reinforcement of warrantage credit by other types of credits such as input credit, equipment credit: Warrantage credit is granted when the product is available. It does not take into account the needs for inputs and labor for palm nut production, particularly among producer-processors. However, the satisfaction of these needs determines production. Other types of complementary financing are therefore needed for more efficient production and supply mobilization.

Publication February 2019

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This publication is the result of the project Communal Approach to the Agricultural Market in Benin (ACMA)

financed by the Embassy of the Netherlands and implemented by a consortium of five institutions - International Fertilizer Development Center (IFDC - Lead Partner), the Royal Tropical Institute (KIT), CARE International, Sahel Capital Partners & Advisory Ltd, and Benin Consulting Group International (BeCG). It has been developed (from november 2013 to 31 december 2017) in three Nigerian border departments with high agricultural potential - Ouémé, Plateau and Zou through seven value chains (VC) initially: palm oil, maize, gari, chilli and fish, then peanuts and soya. The overall objective of the ACMA programme is "the improvement of food security and the increase of agricultural incomes of the direct actors".

Design: Farris Okou (PhD); www.fbhafrica.com

