Greener Journal of Social Sciences

ISSN: 2276-7800

ICV: 5.99

Submitted: 18/05/2015

Accepted: 20/05/2015

Published: 16/01/2016

DOI: <http://doi.org/10.15580/GJSS.2016.1.051815073>

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Research Article (DOI <http://doi.org/10.15580/GJSS.2016.1.051815073>)

Improving Cocoa Processing and Marketing for Conservation in the Mount Cameroon National Park Communities: Challenges and Way Forward

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ABSTRACT

Although the cocoa sector has a long standing history as a key income generating activity (IGA) that contribute to the improvement of the livelihoods of communities within the Mount Cameroon National Park (MCNP), it is faced with a number of challenges especially with respect to processing (fermentation and drying) and marketing. These stand as a constraint to conservation (increased wood usage and low incomes). Using focus group discussions (FGDs) within 10 farmer field schools (FFS) consisting of ten participants each (7 male 3 female), we assessed the current processing and marketing situation within the MCNP and their implications for conservation, identified key areas of intervention to improve on cocoa fermentation, drying, marketing and cooperative formation, including training and certification. In addition, we assessed the challenges involved in improving the cocoa sector by enhancing the adoption of modern methods of processing and marketing to guarantee conservation within the MCNP. We established that a majority of the farmers in the MCNP make use of local methods of cocoa fermentation and drying. Furthermore, more than 80% of the farmers depend on the informal marketing while less than 20% of the cocoa farming populations have successfully gone through training and certification at FFS, and approximately 20-30% of the farmers are affiliated to cooperatives. The study recommended a number of interventions at the level of cocoa fermentation and drying, the elimination of the informal market chain, the intensification and harmonization of training and certification programs, and the institution of possible synergies.

Key words: Cocoa Processing, Marketing, IGAs, MCNP, Conservation, Challenges, Synergy.

INTRODUCTION

As a result of the decline in wildlife populations (Nomsa, 1992), the management approach adopted by most African countries for biodiversity conservation have been the development of protected areas with one of the forms being national parks. The popular word *en vogue* today as far as the management of protected areas is concerned is the call to include local participation' and 'community development' as part of a comprehensive strategy for biodiversity protection. Therefore, the need to encourage context-specific income generating and environmentally friendly economic opportunities which conform with the socio-economic and cultural realities of the communities in question remains a logical way forward (Lambi *et al*, 2012). This is particularly true for the cocoa sector within the MCNP target communities.

Cocoa production remains the main cash crop to more than 75% of the population in Cameroon (Bakala and Kone, 1998). Though they are the main producers, they do not earn sufficient income to meet their basic needs and maintain a moderate standard of living. They are vulnerable with the lack of production resources to improve the sector; farmers are confronted with problems of reduced income, increase poverty, deforestation, loss of biodiversity, food insecurity and vulnerability of farmers (Bakala and Kone, 1998). This endangers the cocoa sector and the entire livelihood of the farmers (Nfinn, 2005). Consistent price fluctuation is one of the greatest problems facing the cocoa sector. This is coupled to the fact that producers who predominantly are small holders have no say over the prices of their produce in Cameroon (Huller *et al*, 2010). Furthermore, with the collapse of the National produce Marketing

Board, farmers still face the problem of organizing themselves into strong cooperatives to ensure collective bargaining (UNCTAD, 2004). The numerous problems plaguing the sector continue to threaten biodiversity. This could be viewed from the persistent encroachment into protected areas for fuel wood, farm extension and other park degrading activities, all in a bid to augment their income situation at the detriment of forest and wildlife species (Kimengsi, 2012).

The Core Problem Model for the Development of the Cocoa Sector which was put forward in a final report for the Ministry of Agriculture and Rural Development (MARD)-government of Vietnam by Agrifood Consulting International (INC, 2008) reveal the problems that hinder the successive development of the cocoa sector. Of importance in this model is the fact that the numerous pre and post harvest problems result in low aggregated employment of the sector, low income, little diversification of the rural economy and little contribution to improving the environment and biodiversity and no scope for the development of a significant commercial and processing industry.

THE PROBLEM

One of the key challenges involving the successful conservation of the Mount Cameroon National Park (MCNP) is the increasing human activities, particularly unsustainable agricultural practices which continue to degrade the park and its resources. It is evident therefore that the successful management of the MCNP will rest, in a large part, on the extent to which human activities are made to co-exist and not to degrade the park. Therefore in a bid to enhance conservation, efforts have been directed towards assisting the communities with IGAs and one of the key sectors considered in cocoa. This activity which has a long historical root in the area, flourishes due to the favourable natural environment of the MCNP; it is one of the key economic activities that contribute to the livelihood of communities around the MCNP. However, the current methods of fermentation and drying of cocoa has so far been identified as one of the factors responsible for the low quality of cocoa beans. This, perhaps, partly accounted for the recent refusal of Cameroonian cocoa beans by the European Union in 2013. Therefore, an identification of the existing techniques of fermentation and drying within communities in the MCNP is necessary. There is a need to assess the local and modern methods of cocoa fermentation and drying within the MCNP target communities, the cocoa market chain, the level of farmers organization into cooperatives, the scale and outreach of training and certification, the current support programmes in the area of cocoa fermentation, drying and marketing and the possible areas of synergy.

STUDY SITES, MATERIALS AND METHODS

The MCNP (Figure 1) was created December 18th 2009 and covers a total surface area of about 58,178 ha. It is surrounded by 41 communities grouped in 4 clusters (Buea, Muyuka, Bomboko, West Coast).

The study involved the following target communities – Bafia, and Munyenge (Muyuka Cluster), Bova-Bomboko and Ebie (Bomboko Cluster). The choice is based on a number of criteria, some of which include their potentials for cocoa production, methods of cocoa fermentation and drying, the existence of support programs as well as their nexus with the main markets (urban centres). In addition, other urban centres (Kumba, Muyuka, Buea, Limbe and Douala) were considered for the study since some of the partners, support programs and institutions are lodged by these urban centres.

The study was conducted between August and September. This period coincides with the period during which cocoa harvesting, processing and marketing is taking place. Consequently, it gave the researchers the opportunity to make pertinent observations to complement other data sources. The study adopted the use of participatory methodologies such as Focus Group Discussions (FGDs), interviews and field observations to generate primary data. The choice of FGDs was considered appropriate for this study given the clarity of the target groups and the timeframe of the survey. Furthermore, it gave the investigators ample time for face-to-face interactions, including the generation of possible follow-up questions. In addition, the chosen technique could adequately accommodate the literacy level of the target groups. The key targets were local cocoa farmers, licensed produce buyers, authorities of cocoa support programmes and other stakeholders. Within the target communities, the research team took the opportunity to participate in a number of on-going Farmer Field Schools (FFS) within the communities concerned. This gave the opportunity for 10 FGDs to be held with the participants (local farmers) of FFS. Furthermore, with the aid of some research assistants, a number of participants who took part in Farmer Business Schools (FBS) training were also contacted and the research team held some interactive sessions with them. The interaction gave room for the identification of the current level of intervention of support programs, the current cocoa processing methods (fermentation and drying), processing needs, possible areas of need and synergy, and the level of cooperative formation.

Figure 1: Map of the MCNP

Source: Mount Cameroon National Park Project, 2011 (cited in Bokwe, 2014)

This was complemented by secondary data which are related to the subject area of cocoa fermentation, drying and marketing, including protected area conservation. The key institutions targeted include Ministry of Agriculture and Rural Development (MINADER), TELCAR, National Cocoa and Coffee Board (NCCB) Kumba Branch, Cameroon Marketing Commodities (CAMACO), South West Farmers' Cooperative Union Limited (SOWEFCU), Muyuka Area Farmers Cooperative Union Limited (MAFCUL), Programme for the Improvement of Competitiveness of Family Agro pastoral Farms (ACEFA), South West Development Authority (SOWEDA) Hephzibah Handicapped and Orphanage Training Production and Ecstasy Center (HOTPEC) and Cargill. In each of these institutions, both primary and secondary sources of data were generated. Primary data were obtained through interviews of key resource persons while secondary data were obtained from documented activities and reports of the institutions related to cocoa fermentation, drying and marketing. The data were analysed basically using qualitative tools in which the content of expressed opinions in the series of FGDs and interviews were analyzed. This approach was considered appropriate

given the nature of data generated from the field. In addition, data were also presented using tables, graphs, pie charts and percentages to reflect the existing situation. The study also made use of photographs to depict some relevant situations which were observed in the field. In addition, some relevant discussions were culled from an October 2013 Restitution Meeting organized by the Programme for the Sustainable Management of Natural Resources – South West Region of Cameroon which was a follow-up of an executed consultancy on Cocoa Processing and Marketing in the MCNP.

RESULTS AND DISCUSSION

Methods of cocoa processing (fermentation and drying) and Implications for Conservation

Methods of cocoa fermentation

Cocoa fermentation within the MCNP is done using both the indigenous (local) and modern methods.

A majority of the cocoa farmers in the MCNP target communities still rely on indigenous methods of fermentation. In most cases, the fermentation does not go up to 6 days as recommended. The indigenous fermentation practices range from the adoption of the wood ash method (farmers sprinkle wood ash on fresh cocoa to dehydrate it and then set it on ovens for immediate drying), the bag method (fresh cocoa is put and squeezed in bags) and “broke enter” method (breaking the cocoa pod and immediately taking the cocoa beans to the oven for drying). The reasons identified for the over reliance on local methods of cocoa fermentation include; inadequate support on modern fermentation, the high incidence of theft in farms, the need to take care of urgent financial needs, the lack of adequate financing from existing cooperatives, and the unwillingness of farmers to change their farming practices (Figure 1).

Fig. 1: Reasons for the over reliance on local fermentation methods (Fied Survey, 2013)

Fig 2: Usage of Local and Modern Fermentation Methods (field Survey 2013)

The effects of such a practice include the fact that the cocoa beans take a longer time and demands much wood to get dry implying that much of the natural vegetal cover which ought to be protected is cut down for cocoa drying. In addition, much of the cocoa is released and sold with high humidity content (above 8%), and the poor quality beans does not exhibit the expected chocolate flavor, neither does it attract a favourable price.

About 20% of the farmers make use of modern methods of cocoa fermentation (heap and box methods) exist in this area but in very limited proportions (Figure 2). In the heap method, cocoa beans are stored in heaps on banana leaves and the heaps are then covered with banana leaves where they undergo the recommended five to six days fermentation process. The use of banana leaves is recommended by agricultural technicians since it accelerates the rate of cocoa fermentation. The cocoa beans are mixed after every two days to ensure homogenous fermentation in order to produce the brown cocoa bean colour and the chocolate flavor after drying. The key challenge in this method is the issue of theft. Since most farms are located far away from the residential areas, farmers find it difficult to risk their produce in their farms by allowing it to ferment there for six days since cases of theft are always noted. This forces them to subscribe to the short term fermentation options to avoid losses arising from rampant theft.

The box method which is considered as the best method is employed by putting in place at least two perforated wood boxes to be used. The cocoa bean is filled in one of the boxes and allowed to ferment for two days. After the two days period, it is turned into the other box and the process continues for a period of six days. This mixing process ensures homogenous fermentation. The advantages associated with the heap and box method are that the cocoa beans requires a shorter drying period and less wood consumption; there is a high possibility of obtaining the desired 8% humidity content, the cocoa bean is free from foreign debris, the cocoa beans give brownish colour with high chocolate flavor which are established characteristics of good cocoa bean quality.

The difficulties farmers face with regards to implementing the box method include the issue of inadequate fermentation boxes (especially for those with high tonnage production). In addition, not all farmers in this area have fully embraced these modern methods of fermenting cocoa since most of them are yet to accept the idea of the Farmers Field School where most of these modern methods of cocoa fermentation are encouraged. Even in cases where farmers have gone through Farmer Field Schools and Farmer Business Schools, they complain of their inability to afford for the fermentation boxes.

Furthermore, the few fermentation boxes that are available in some modern ovens are not sufficient to meet the fermentation needs of farmers who in turn have to rely on alternative and indigenous strategies for fermentation. Therefore, most of them still rely on rudimentary methods of cocoa fermentation.

The key implications for the modern fermentation methods is that it leads to little or no wood usage and this guarantees the conservation of the MCNP. Given that it is eco-friendly it could be encouraged as much as possible. Furthermore, good fermentation guarantees good bean quality which attracts high prices; this could reduce the phenomenon of poverty which is a prime factor for the degradation of the park.

Cocoa Beans Drying Techniques

The two most commonly used means of drying fermented cocoa beans are the sun drying and the oven drying techniques. **The sun drying technique** (the spread of fermented cocoa beans on mats, bags, tad and tarpaulins and their exposure to sunlight) is considered as the most reliable to achieving conservation through zero wood usage the desired high cocoa bean quality. However, less than 2% of the farming population successfully makes use of this method due to the prolonged rainy season in this area which coincides with the period of cocoa harvesting. **Oven drying technique** predominantly done using local ovens (Figure 3) which are made up of drums with open double ends and are less heat generating; they require much wood input during drying and they often develop holes or cracks that allow smoke to infiltrate and adulterate the quality of the cocoa.

Fig 3: Partial View of a Local Oven in Bafia

Fig 4: Partial View of the EU Oven in Muyuka

The modern ovens identified in this area are the Samoan Oven (commonly called the European Union (EU) Oven since it was introduced in this area thanks to support from the EU). The EU oven (Figure 4) is costly steel made with one open end and a chimney which controls smoke exit and ensures a smoke-free drying process. It is very durable with a live span of more than ten years, more heat generating with less wood consumption and it is free from cracks and holes associated with local ovens. However, less than 10% of the cocoa farming populations have access to this reliable oven type due to its costly nature.

More than 90% of farmers rely on the local ovens for the drying of cocoa. The key factors advanced for the heavy reliance on local ovens is acute inadequacy of modern ovens, limited support and maintenance of the long established modern ovens, distance involved in accessing modern ovens and the absence of enough space to accommodate the farmers fermentation needs in ovens (Figure 5).

**Figure 5: Reasons for over reliance on local Ovens
Field Survey, August 2013**

Marketing Chain and Implications

The two forms of marketing chains that exist in this area are the formal (Figure 6) and the informal marketing chains. The formal marketing chain involves three main players - farmers through cooperatives to the exporters. This marketing chain implies that farmers deposit their dried cocoa beans to their affiliated cooperatives. The cooperatives in turn search for exporters who can pay the highest price. The advantage associated with this marketing chain is that prices per kilogram often sold are high and this improves on the income situation of cocoa farmers.

Figure 6: The formal cocoa market Chain

The drawback that results from this chain is that farmers most often do not get their expected money at the required time since most cooperatives do not have ready cash to purchase the produce and/or to supply them with the necessary farm inputs; they therefore end up in the hands of license buyers who take advantage of their situation to exploit them.

Figure 7: The formal cocoa market Chain

The informal marketing chain (Figure 7) which is the most dominant form gained grounds following the liberalisation of the cocoa sector. This chain involves about three to four actors which include farmers, primary agents, the license buying agents (LBAs) and exporters. The farmers sell their produce to cocoa agents (primary agents) who in turn sell to license buying agents (LBAs). The LBA could either be an exporter or has to sell the produce to an exporter. While this market chain involves pre-financing either in cash or in kind (farming inputs), it impoverishes farmers since they are compelled to sell their produce only to the same agents who determine the price per kilogram of cocoa beans; prices are often set below the minimum market price by agents.

From field evidence, it is established that approximately 85% of the farmers are involved in the informal cocoa marketing chain. The cardinal issue that keep them there is the fact that they receive pre-financing from LBAs; this traps them to sell only to the LBAs. Furthermore, the fact that most of the farmers do not belong to cooperatives

and even in cases where they belong, due to the inability of cooperatives to address their pressing financial needs, they still end up in the hands of LBAs.

Cooperative Formation

The 2013 OHADA LAW makes provision for all existing CIGs to be transformed into Cooperative Societies (either Quasi Cooperatives or full cooperatives). The rate of this transformation is slow and the level of organization of farmers into cooperatives is still a big challenge. The survey established that approximately 2-3 out of every 10 farmers belongs to a cooperative within the MCNP. The low turnout is as a result of the misconceptions that farmers have about cooperative management coupled with sad experiences of the past following the collapse of the then National Produce Marketing Board (NPMB). In addition, the inability of most cooperatives to assist farmers with financial and farm inputs in times of need also accounts for this slow organization of farmers into cooperatives as testified by most farmers; farmers are not motivated to join cooperatives because they complain of the fact that cooperatives do not render pre-financing services, neither do they have sufficient resources to cater for their needs before harvesting and sales period.

Training and certification

Capacity development packages for cocoa farmers have been implemented in this area by various stakeholders. These packages include Farmers Field Schools (FFS), Farmers Business Schools (FBS) and other sensitization programs. The stakeholders involved in this FFS campaign are TELCAR Cocoa Ltd. and its partners (Cargill, SOCODEVI, Rain Forest Alliance and UTZ) and MINADER. Two key programs were identified in this area as far as FFS training is concerned. They include the Government (through MINADER) organized FFS which runs for 6 months and trains farmers on good cocoa farming practices, and the FFS program introduced by TELCAR which runs for 9 months and apart from training farmers on good cocoa farming practices, it runs modules on certification. This certification training program is only done by TELCAR in collaboration with other stakeholders like UTZ, SOCODEVI, Cargill, Rain Forest Alliance and the World Cocoa Foundation through which cocoa farmers go through a 9 months training program in FFS organized by TELCAR Cocoa Ltd exclusively to her costumers. Less than 20% of the cocoa farming population has successfully gone through the FFS as confirmed by the supervisors for the 10 FFS visited within the MCNP target communities and approximately less than 5% of the farmers have been certified in this area.

In addition, farmers complain that even after certification, they do not gain financial autonomy as their products are still sold at the same prices as those who are not certified. Other challenges associated with these programs are the fact that most cocoa farmers are yet to accept the benefits of such programs. Some farmers consider the programs as a complete waste of ample farming time. For instance, Boviongo community has not yet welcomed the idea of FFS and FBS as testified by some FFS facilitators. Little benefits seem to be derived from the FFS training because even after the training of farmers on good agricultural practices particularly with respect to fermentation and drying, they find it difficult to implement what they have learned in the FFS because of the shortage of fermentation and drying facilities and the issue of pre-financing by LBAs which still exposes the farmers to the whims and caprices of the LBAs.

A farmer who has undergone the 6 months MINADER organized FFS is still expected to go through a nine months training program organized by TELCAR Cocoa Ltd in order to become certified irrespective of whether he or she has previously attended a FFS. This situation discourages most farmers who have previously attended FFS to go in for another 9 months certification program as they would have expected to undertake just the 3 months certification training module. Furthermore, there is no price difference per kilo gram of cocoa bean between a certified farmer and a non certified farmer. This acts as a disincentive to farmers. Although TELCAR Cocoa presented a situation in which certified farmers receive a premium and higher prices, farmers complain of a situation of no price differentials. The above reasons account for the small percentage of certified farmers in the area.

CONCLUSION AND RECOMMENDATION

Based on the results of the survey, the following conclusions could be drawn:

A majority of the farmers in the MCNP target communities still make use of local methods of cocoa fermentation and drying. This factor is blamed on a number of issues including low level of sensitization, inadequate support in the provision of modern fermentation and drying facilities, the high incidence of theft in farms, the need to take care of urgent financial needs, the lack of adequate financing from existing cooperatives, and the unwillingness of farmers to change their farming practices.

The market picture shows a situation wherein due to the issue of pre-financing by LBAs, more than 80% of the farmers are involved in the informal marketing chain which gives LBAs the opportunity to further exploit the farmers.

Two training and certification programmes which are run by MINADER and TELCAR are on-going. The level of training and certification within the MCNP shows that less than 20% of the cocoa farming populations have successfully gone through FFS. The level of cocoa farmers organization into cooperatives is low with just approximately 20-30% of the farmers being involved.

The following recommendations are proposed:

In order to achieve the desired fermentation process, access to fermentation boxes for farmers should be increased. This will reduce the quantity of wood and time required for the cocoa beans to get dry. ACEFA and SOWEDA could be major partners in this respect.

Support to standard ovens establishment have to be initiated. This will reduce the frequent incidence of smoky dry cocoa beans in this area and less wood consumption for drying fermented cocoa beans. ACEFA are key stakeholders in this domain.

Possibilities for improved techniques (reducing wood input) could be guaranteed first by the encouragement of modern fermentation methods and the institution of EU, solar and electrical ovens where possible. Furthermore, there is a need to intensify the current experimentation process towards the introduction of solar ovens in the MCNP. This is being experimented by HOTPEC and other stakeholders could assist in this initiative.

There is a need for certified farmers to receive higher prices for their cocoa, including a premium. This will encourage others to subscribe to the certification training courses. In addition, programmes to educate and encourage farmers to affiliate to cooperative organization should be promoted. This will go a long way to improve on the marketing conditions of cocoa beans thus boosting farmers' income level. Key players in this sphere are National Cocoa and Coffee Board, ACEFA, MINADER and SOWEDA.

Furthermore, these stakeholders could collectively work together to develop a strategic cocoa marketing plan which will serve as a guiding framework for cocoa farmers.

Initiatives that promote the restructuring of existing cooperatives and technical capacity development of cooperative staff should be supported. Consulting partners in this area include MINADER, SOWEDA and ACEFA.

There is a need for the NCCB to intensify its awareness campaign on the current market price of cocoa. This information has a very low dissemination rate at the moment (below 10%). It could serve as a guide to farmers during negotiation and sale of cocoa. This could be done in collaboration with trainers of FFS and FBS in the target communities since they have frequent contacts with their trainees.

As chocolate companies have taken a commitment to purchase only certified cocoa by 2020, it is suggested that there should be the intensification of the sensitization campaign to promote the ideology of FFS. This can be done through meetings with various groups (like tribal groups, youth and women groups). In this case, the communities will have a clear understanding of the relevance of FFS training and more farmers will be encouraged to attend.

There is also a need to ensure the provision of adequate training materials to FFS. These include flip charts, pens, Note pad and bold markers. There is also a need for the trainers to frequently undertake refresher courses on the current methods of fermentation and drying.

Apart from Training farmers in FFSs, there is a need to back this up with the necessary resources that can encourage them to employ good fermentation and drying practices. In this respect, interventions are required in the area of the provision of fermentation boxes, the increase in the number of modern ovens and the frequent rehabilitation of existing ones. This will reduce the issue of congestion in the few available modern ovens which pushes the farmers to make use of the local ones.

In addition, even farmers who have learnt the practice of doing farming as a business through FBS still find it difficult to implement the lessons learnt because of the lack of sufficient resources to keep them away from the clutches of LBAs. There is a need to encourage and empower cooperatives with the necessary financial and material resource to cater for the needs of affiliated farmers who are continually exposed to the whims and caprices of LBAs through pre-financing.

Access to farmers' certification should be increased. This can be achieved by integrating certification modules in all FFS. In addition, farmers who have successfully gone through the FFS should be granted the opportunity to pursue only the certification modules without having to go through another 9 months period of FFS in order to be certified as is presently the case. This can be done in consultation with TELCAR Cocoa Ltd and its partners (SOCODEVI, Cargill, UTZ and CLP).

A number of possibilities for synergy (Table 1) could be exploited by stakeholders in the MCNP to improve on this IGA and ensure the conservation of the park, within the framework of the collaborative management approach between the PSMNR and the park dwellers.

Table 1: Possibilities for Synergy

Domain	Programs	Institutions	How?
Cocoa bean Fermentation	FFS and FBS	MINADER, Cooperatives, GLZ, TELCAR and its partners (Cargill, SOCODEVI, UTZ, Rain Forest Alliance and CLP)	Intensify Training Programs in FFS and FBS Introduce certification Modules in all Training Programs Provide certification training to the 6 months FFS trainees Increase the number of trainers and training equipments
	Training workshops and Seminars	MINADER, Cooperatives, TELCAR and its partners NCCB, FFS and FBS Authorities.	These seminars should be organized before the start of the cocoa harvest season to refresh the minds of farmers. Cooperatives, FFS and FBS facilitators could play a key role to mobilize the farmers. Provide finance to extend the outreach of this program
	Fermentation Boxes	MINADER and other concerned institutions through Cooperatives	Provide fermentation boxes at affordable prices to farmers Increase the number of fermentation boxes in modern ovens
Cocoa Drying	Modern Oven support program	SOWEDA, ACEFA, MINFOF, CLP	Could be provided to farmers through cooperatives. This will serve as motivation for farmers to join cooperatives.
	Sensitization programs through FFS and FBS	MINADER, NCCB, Cooperatives, TELCAR and its partners	Most farmers are still ignorant about the modern drying standards.
	Ovens rehabilitation program	SOWEDA, ACEFA, CLP and CCIC	CLP could partner with ACEFA, SOWEDA and CCIC in this initiative
	Solar Oven	TELCAR, SOWEDA, ACEFA, CLP, CCIC and HOTPEC	CLP could partner with HOTPEC, ACEFA, SOWEDA and CCIC to complete the experimentation phase and introduce it where possible.
	Electric Oven	Cooperatives, TELCAR and partners, MINFOD and MINADER	A cost benefit analysis should be done to establish its feasibility. These institutions should partner to provide technical assistance for its implementation to farmers through cooperatives should it be found as a feasible option
Certification of Farmers	Farmers certification program	MINADER, TELCAR and partners, cooperatives and NCCB	FFS modules should be harmonized to incorporate certification modules at ones Partnerships could be established in which trainees from 6 months MINADER-sponsored FFS could enroll for 3 months into TELCAR certification training. Cooperatives could partner with both actors to receive and encourage certified farmers and their products NCCB could provide awareness campaigns on the necessity of certification
Organization of farmers into Cooperatives.	Sensitization program	ACEFA, SOWEDA, FFS and FBS	These actors could frequently organize sensitization campaigns to motivate farmers
Marketing of cocoa	Creation of periodic market	MINADER, Cooperatives, NCCB and CCIC	MINADER Cooperatives and CCIC could organize these markets while NCCB provides current market information.

Source: Field work, 2013

ACKNOWLEDGMENT:

This article drew inspiration from an executed consultancy on “Cocoa Processing and Marketing in the Mount Cameroon National Park (MCNP) Target Communities” offered by the Programme for the Sustainable Management of Natural Resources in the South West Region of Cameroon (PSMNR-SWR) of Cameroon’s Ministry of Forestry and Wildlife (MINFOF) with the technical assistance of GIZ (September 2013).

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Cite this Article: Kimengsi JN, Azibo BR and Ngong JT (2016). Improving Cocoa Processing and Marketing for Conservation in the Mount Cameroon National Park Communities: Challenges and Way Forward. *Greener Journal of Social Sciences*, 6(1):001-010, <http://doi.org/10.15580/GJSS.2016.1.051815073>.