USAID | BURUNDI
FROM THE AMERICAN PEOPLE

Burundi Agribusiness Program: PY 4 Semester 1 Report

1 Oct 2010 – 31 March 2011

Under Contract # EDH-I-00-05-00004-00 Task Order # 10

Prepared for: Alice Nibitanga, Cognizant Technical Officer, USAID/Burundi
James M Anderson Country Representative, USAID/Burundi

Prepared by: Benjamin E Lentz, Chief of Party DAI/BAP
17 Rue de Coton, Qtr. GATOKE
BP 1643 Bujumbura, Burundi
Ben_Lentz@dai.com

Submitted: April 2011

Table of Contents

Acronyms and Abbreviations

ADC	Agent de Développement Communautaire
AFAB	The Burundi Association of Women Entrepreneurs
ARFIC	Agence Régulateur de la Filière Café
ASBL	Association sans but Lucratif
AVEDEC	L'Association Villageoise d'Entraide et de Développement Communautaire
BAP	Burundi Agribusiness Program
BBIN	Burundi Business Incubator
BBN	Burundi Bureau of Normalization
CAPAD	The Confederation of Agricultural Producer Associations for Development
CECM	Caisse d'Epargne et Crédit Mutuelle
CERADER	Centre de Recherche Agronomique et du Développement Rurale (U Ngozi)
CNAC	Confédération National des Caféiculteurs
CNTA	Centre Nationale de Technologie Agro-Alimentaire
COP	Chief of Party
COTR	Contracting Officer's Technical Representative
CQI	Coffee Quality Institute
CTO	Cognizant Technical Officer
CURDES	Centre Universitaire de Recherche sur le Développement Socio-économique
CWS	Coffee Washing Station
DCA	Development Credit Authority
DCOP	Deputy Chief of Party
DG	Directeur Général (Managing Director)
DPAE	Direction Préfectorale de l'Agriculture et Elevage
EAFCA	East African Fine Coffee Association
EAWEExN	East African Women Entrepreneurs Exchange Network
ESF	Economic Support Funds
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FBU	Francs Burundais
GAP	Good Agronomic Practices
GDP	Gross Domestic Product
GMP	Good Management Practices
GOB	Government of Burundi
HACCP	Hazard Analysis and Critical Control Point
HVC	Horticultural Value Chain
IAB	Industrie Agro-alimentaire de Buterere (dairy)
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
INADES	Institut Africain du Développement Economique et Sociale
IQC	Indefinite Quantity Contract
IRAZ	Institut de la Recherche Agronomique en Zootechnie
ISABU	Institut de Recherche Agronomique du Burundi
KIST	Kigali Institute of Science and Technology
KTBH	Kenyan Top Bar Hive
LOE	Level of Effort

LOL	Land O'Lakes
MFI	Micro-Finance Institution
MINAGRIE	Ministère de l'Agriculture
MCC	Milk Collection Center
MOU	Memorandum of Understanding
MSU	Michigan State University
NGO	Non-Governmental Organization
OTF	On the Frontier
OCIBU	Office du Café de Burundi (Coffee Board)
PAGE	Projet d'Appui à la Gestion Economique
PHAST	Participatory Hygiene and Sanitation Transformation
PRASAB	World Bank Funded Development Program in Burundi
PO	Producer Organization
PP/S	Participants per Session
SCAA	Specialty Coffee Association of America
SCAE	Specialty Coffee Association of Europe
SCEP	Service Conseil aux Efforts de Privatisation
SCP	Soil Conservation Practices
SIVCA	Société pour la Valorisation Industrielle du Café
SODECO	Société de déparchage du Café
SOGESTAL	Société de Gestion des Stations de Lavage
STTA	Short Term Technical Assistance
UHT	Ultra-High Temperature
USD	US Dollar
USG	US Government
VC	Value Chain
WB	World Bank

Introduction

The first semester of this, BAP's fourth, Project Year has been characterized by an intense period of administrative activity in end of the year reporting, data quality assessment, work planning and budget negotiations with USAID. We would have preferred that guidance arrive earlier in the cycle and that it be fully consistent so consensus could be reached allowing us to sign our contract modification and move forward, focusing on technical implementation. However, this said, there has been a lot of activity, results and impacts of which we are proud.

During this reporting period the Technical Convention between BAP and the MINAGRIE was finally formalized, negotiated and signed. MOU were signed with the University of Ngozi and CNTA and one with ISABU is pending. New rules and procedures at OBR are hanging up importation of goods and equipment and it is unclear at the end of this reporting period whether and to what extent we, as a USAID implementing partner will continue to benefit from customs exonerations and whether potential VAT reimbursement will ever be agreed by the Burundian authorities. We continue to solicit USG assistance to ensure that the terms of the bi-lateral assistance agreement between the United States and the Government of Burundi are respected but have come to expect long wait times and inconsistent application and interpretation of the texts by the authorities.

In coffee things moved forward accelerating as the coffee campaign and harvest drew ever closer. In addition to focusing more intensely than in the past on coffee productivity, we have been modeling coffee production and processing costs, interpreting the data, and discussing the implication with sector actors. Meanwhile, we have continued to reinforce the management and technical capacity of our farmer clients, promote best agronomic practices for growing coffee and reinforce their institutions structurally and functionally. We worked with farmer's association representatives and processors on improved techniques to maintain coffee quality and facilitated informational sessions by the Coffee reform committee and SCEP of communal administrators and public administration personnel so that they could understand better the reforms underway in the coffee industry as it transforms through liberalization to full privatization of the industrial infrastructure (coffee washing stations, SODECO dry mills) currently being managed for the Government by the SOGESTAL and SODECO. We collaborated with three cooperatives in the development of grant requests for the setting up of mini-coffee washing stations to be owned and operated by the cooperatives for the benefit of their members. Further, BAP continued to emphasize the importance of cupping and developing local Burundian capacities for cupping to ensure an empowered local negotiating stance before international buyers. This reporting season we integrated into the cupping activity 15 young , unemployed, agricultural trade school graduates in the hopes that as they develop their capacities and cupping skills the transition to privatization will open up opportunities for them with the private sector. BAP moved forward as well with preparations for the Burundi Prestige Cup (a trial run for a 2012 Cup of Excellence competition) and strengthened its collaboration with InterCafe assisting them on questions of certification, implementation of demonstration protocols designed to increase coffee productivity, and in the promotion and marketing of Burundi Coffee. BAP facilitated a Trade visit for coffee sector actors to meet industry counterparts in the US and assisted the Burundi delegation in participating fully at the East African Specialty Coffee Conference. BAP has continued its support to the Burundi chapter of the International Woman's Coffee Alliance, sponsoring two of its officers to attend symposia held in conjunction

with EAFCA. During this period BAP hosted numerous incoming international buyers and roasters, facilitating for them contacts with key industry players, upcountry visits and discussions with farmers in the hopes of facilitating the creation of future sustainable partnering relations.

In dairy our attention was focused on assisting in the finalization of the Milk Collection Center (MCC) Business Plans getting grant concurrence and ordering the equipment to get these up and running as tangible concerns by Q3. In addition BAP continued to promote improved forage and monitoring survival rates, growth rates, preparing for cutting and evaluating the land area under erosion control because of transplanting of forage legumes to hillside hedgerows to retain soil and create a favorable environment for crop production on the intervening terraces. The lead farmer/community veterinary agents have done us proud, using their training and the basic veterinary tool kit provided by BAP to treat a number of external and internal parasites, dehorn cattle, and assist in birthing. Several have set up village boutiques with veterinary medicines in stock and the most active seem to be diversifying their revenue streams by treating neighbor's cattle or reducing their own costs by treating their own- leading to more disposable income for family first needs and, increasingly, garnering them respect in their communities. Large dairy farmers have invested in mechanizing their operations and dairy processors have benefitted from BAP technical assistance individually and as a group. BAP facilitated a first of its kind workshop on East African Community fresh milk norms and standards ; bringing together private and public sector actors to look at the legislation, discuss roles, responsibilities, compliance and constraints to becoming compliant in the allotted time frame. Beyond Muramvya province, BAP's dairy activities have expanded to Bururi province, and, to a lesser extent Ngozi. An assessment of the St Ferdinand cheese operation was undertaken in Ngozi to assist them in improving quality, diversifying production and improving volume. We note that as a result of BAP advising the Ntazimba Dairy has opened a milk bar on its premises which sells up to 1000 liters of natural yoghurt and 50 liters of strawberry yoghurt per day in addition to an unspecified quantity of fresh, pasteurized milk.

In horticulture, we are starting to see the impact of Best Agronomic practices training on productivity with clients. Also, noting that many of our clients are land applying compost to their horticultural crops with impressive results, the horticulture team has expanded the outreach of the coffee team by training farmers in producing compost from organic substrate available on their farms. The recruitment of our field coordinator and the setting up of demonstration plots is generating new interest among the DPAE, our ADC and our rural clients in the field. Continued work with improved nurseries should improve the survival rate for transplantation to the field resulting in reduced production costs. While working still to increase productivity and product quality, the horticulture team has also started focusing its efforts on reducing post harvest loss and promoting appropriate technologies, affordable to our farmers and supported by the infrastructure currently in place. During this reporting period MOU have been signed with the University of Ngozi and with CNTA. An MOU with ISABU is currently pending. The horticulture team continues its policy of mentoring interns with the arrival of M. Freddy NISHIMWE in place of Remy Sibomana, who, after a year, has left BAP to work on finishing his thesis. BAP has developed a number of demonstration protocols and is finalizing a field demonstration handbook that will be published in Kirundi and French and disseminated to ADC, cooperatives and MINAGRIE extension personnel in the project zone. Many of the horticultural activities are undertaken by women's associations and we are seeing great overlap between activities in gender and literacy and those in horticulture. Further, crop diversification by coffee farmers in horticulture and cross training of ADC is finally beginning to show the impact of an integrated approach.

In Micro-Enterprise and Gender, capacity reinforcement of women leaders continued throughout the reporting period with modules related to the creation, organization and management of producer associations, roles and responsibilities of leaders,simplified accounting (petty cash management) and the planning of income generating activities engendering the greatest participation. In literacy of the 122 centers opened in 10 provinces during Q1, 34 remained open in 6 provinces during Q2. By the end of Q2 15 literacy centers in 4 provinces had completed the literacy cycle with 318 neo-literates. These neo-literate women are applying their knowledge in all sorts of ways from improved record keeping of milk production and sales to recording market purchases to keeping petty cash records to working part time as village animators to taking positions of leadership in their communities.

Three grants were approved during this reporting period- 2 for horticulture and one for a milk collection center. Many other grants are pending resolution and should be financed during Q3. One loan was financed through the DCA facility for equipping of a new environmentally friendly washing station. Through the reporting period BAP has sought to streamline our grant production and review process. Challenges remain in receiving coherent financial projections and developing streamlined business plans and there is a need to reinforce our pre-award due diligence and post award monitoring of achievements under grants.

In Community Water, Hygiene and Effluent Control, BAP finished and took reception of all nine effluent control systems at coffee washing stations. Three community water systems have been provisionally received, leaving one system outstanding for completion. Pre-season water analyses of washing stations where environmental mitigation of effluents is underway, as well as samples from control washing stations for baseline, have been performed. Samples will be taken again, mid season and at the end of processing so that we can note differences between the systems and hopefully use the results to convince the sector to invest further in this type of mitigation, necessary for certification, and, increasingly, required by international buyers.

The BBIN is open for business, dynamic, and has become a preferred meeting and networking ground for Burundi businessmen and women. The training curriculum offered receives favorable reviews and participants have proven themselves willing to pay for the services they are receiving. Commercial space rental is almost at threshold, a number of pre-incubatees are on-board and we expect to in process our first incubates ij the near future. The BBIN is a year old. It has received its grant and is operating as a Burundian ASBL under the mentoring, tutelage and monitoring provided by DAI, NBIA and BAP.

It has been a full and very busy first semester to our fourth project year. Technical activities are moving forward on multiple fronts and the impacts of our efforts in the field are becoming increasingly visible. With the major share of our administrative paperwork (end of the year reporting, work planning and budgeting) behind us we look forward to an intense period of technical implementation over the coming months.

Value Chains

Coffee

Introduction

This has been a busy semester for BAP's coffee team as we re-tooled to place greater emphasis on coffee productivity than in the past. The team has been actively identifying lead farmers, setting up demonstration plots and implementing a curriculum designed to promote the use of best agronomic practices for coffee with farmers, association and cooperative members, personnel of the DPAE, the SOGESTAL and our private sector partners. Further effort has been focused on producing and processing quality coffee, in evaluating production costs of washing stations and the implications of cost structures and coffee productivity on overall sector profitability.

This semester a greater emphasis was placed on collaboration with InterCafe – on developing a strategy for certification, on cupping, on improving coffee productivity and on assisting in improving the promotion and marketing of Burundi's coffee. BAP is also working on a database and the setting up of a dynamic updated website for Burundi Coffee.

BAP participated in the East Africa Specialty Coffee Meetings and Exposition in Arusha Tanzania and has continued to train young Burundian cuppers in the hopes of having a qualified national jury by July. A number of new buyers and roasters have visited the program, our pilot washing stations and started to develop foundational relationships with our client farmers.

BAP facilitated a very successful trade visit for representatives of Burundi's coffee sector to Portland Oregon, Boston Massachusetts and Waterbury Vermont. We also sponsored a number of workshops around the country for newly elected communal administrators to discuss coffee sector reforms and privatization efforts.

We note that our pilot efforts in producing compost from coffee pulp is beginning to show tangible results and that clients who have attended exchange visits outside of Burundi are assisting the program in bringing the message back home. Due to policy shifts, there is now an opportunity for expanded placement of mini-washing stations owned, operated and managed by farmer's cooperatives and BAP is assisting in the development of three pilot activities.

Burundi's coffee industry is changing and evolving. There is much appreciation for the tangible nature of BAP assistance to the sector and our retained focus on improving productivity, quality, and the promotion of Burundi's coffee to the outside world. Our cost models have generated much discussion and debate among industry leaders and a renewed interest in mastering fixed costs and improving productivity and efficiencies. We have learned the next round of tenders to privatize the operational industrial infrastructure of the sector (washing stations and dry mills) is due to occur this summer. The industry remains in transition. It is engaging the outside world more effectively, though greater emphasis still needs to be placed on communications, best business practices and continued improvement of and attention to quality. It is a learning process and we are pleased to be able to continue our efforts in support of the industry.

Private Sector/Private Enterprise Development

Analysis of Production Costs at Coffee Washing Stations

In October BAP facilitated a workshop for 14 coffee sector actors, including two women to present the results of an analysis performed on the production costs of processing coffee at five washing stations over a four year time horizon. A list of participants is given in the table below. A White paper presenting detailed discussion of the results of this analysis is presented in Annex 1.

The study focused on calculating the breakeven price for coffee, by washing station at different volumes of coffee and for differing variable and fixed cost structures. An interactive model was developed that permitted workshop participants to vary assumptions and see the impact of variation on their bottom line profitability.

	Men	Women	Total
ARFIC	1		1
InterCafe	2		2
Comite Reformes	1		1
Sogestal Kayanza	2		2
Sogestal Kirimiro	1	1	2
Sogestal Kirundo-Muyinga	1		1
Sogestal Mumirwa	2		2
Sogestal Ngozi	1	1	2
Autres	1		1
Total =14	12	2	14

Overall observations derived from the study by workshop participants are:

- Fixed charges dominate the cost structure. They are very high and difficult to compress, especially charges related to capital depreciation and headquarters overhead.
- Operational costs at the washing stations are reasonable and in line with similar infrastructures in other East African countries. Economies are possible if washing stations were to shift to newer, more efficient processing technologies and methods – ecopulpers, single fermentation, etc..
- Revenue variability at individual washing stations is primarily driven by a) price variability and b) cherry volume variability
- Profitability at a washing station varies widely depending on whether the SOGESTAL is owner/operator or merely a service provider renting the station from the government.

At the end of this workshop participants formulated the following technical recommendations

- All SOGESTAL should adopt an analytical accounting system
- All costs should be put on a per washing station basis, each washing station thus becomes either a revenue generator or cost center for the enterprise
- Fixed costs need to be reduced, mastered, and/or transformed, where possible, into variable costs

- All SOGESTAL need to urgently begin actively researching ways to increase the volume of cherry inflows to their washing stations- this can happen in two ways: a) increase the production of coffee or b)divert coffee from the washed value chain to the fully washed value chain
- It is in the enterprise's best economic interest to develop long term relationships with buyers
- And, finally, investments made in the acquisition of new, more efficient technologies, have impressive downstream impacts on profitability in the medium/long term.

Meetings facilitated with elected provincial and communal officials, concerning coffee sector reforms and the road to privatization

In October BAP received a request from the Governor of Ngozi to facilitate a workshop for newly elected provincial and communal authorities concerning coffee sector reforms and the road to privatization. After much thought BAP approached the President of the Coffee Reform Committee and agreed to support a series of workshops on this subject and to ensure media coverage for them as well under the terms of our contract with Radio Isanganiro. To this effect the Reform Committee together with representatives of SCEP, including the new Commissaire General, facilitated 6 workshops during the month of March in the provinces of Ngozi, Kayanza, Muyinga, Bubanza, Gitega and Kirundo. Many questions were asked by the administrators and the workshop facilitators responded to the extent possible, but also took note of general tendencies and reservations which were expressed. A process verbal of the latest reform committee meeting, giving highlights of these workshops is presented in Annex 2.

Training by ADC of Lead Farmers at Washing Stations

During Q1, BAP field agents held 93 capacity reinforcement sessions with lead farmers in the coffee growing zones of our target area. On average 29.61 farmers attended each session of whom 26% were women. The three most widespread themes facilitated by ADC this quarter were: Pest Management (39 sessions), PO organization and management (25 sessions) and Fertilization (10 sessions). The themes which captured farmer's attention as judged by mean participation were: Agronomic maintenance of coffee plantations (47.5 pp/s) followed by Composting (38.5 pp/s), PO organization and management (29.88 pp/s) and pest management (27.33 pp/s). Women's participation was highest during sessions related to agronomic maintenance of coffee plantations (20 women pp/s) and lowest during sessions related to the development of revenue generating activities and business plans (2.8 women pp/s). We note that the sessions facilitated on composting also retained the attention of women lead farmers.

	Theme	Men	Women	Total	# Sessions	x pp/s
1	Organization and management of Producer Associations	532	215	747	25	29.88
2	Revenue Generating Activity Project Development and Business Planning	71	14	85	5	17.00
3	Agronomic maintenance of coffee plantations	55	40	95	2	47.50
4	Composting	104	50	154	4	38.50
5	Fertilization	197	70	267	10	26.70
7	Nursery Production of Coffee	114	49	163	8	20.38
8	Pest Management of Coffee Plantations	827	239	1066	39	27.33
	TOTAL	1900	677	2577	93	29.61

During Q2, ADC in the five SOGESTAL facilitated a total of 73 sessions with Lead farmers on technical themes related to coffee. A total of 1,944 lead farmers participated of whom 20.3% were women. The most sessions occurred in the provinces of Kirundo and Muyinga (25) while the fewest sessions occurred in Bubanza and

Cibatoke (5). Lead farmers in the SOGESTAL Kirundo-Muyinga and Kayanza received four themes: while lead farmers in the SOGESTAL Mumirwa only received two technical themes. The most popular themes this quarter were Agronomic maintenance of coffee plantations (27 sessions), improved coffee processing techniques (19 sessions) and Pest Management (14 sessions). Average participation in the training sessions was 22.68 pp/s. Participation was greatest at sessions on Fertilization (32.75 pp/s), agronomic maintenance of coffee plantations (31.52 pp/s) and Improved Coffee Processing Techniques (30.79 pp/s). Women's participation was highest in sessions related to agronomic maintenance of coffee plantations (7.48 pp/s), improved coffee processing (7.21 pp/s) and fertilization (7 pp/s). Women showed the least interest in the session on nursery production of coffee trees.

	Theme	Men	Women	Total	#Sessions	x pp/s	x women/s	% women
1	Agronomic maintenance of coffee plantations	649	202	851	27	31.52	7.48	23.7%
2	Pest Management	211	62	273	14	19.50	4.43	22.7%
3	Fertilization	103	28	131	4	32.75	7.00	21.4%
4	Composting	61	18	79	6	13.17	3.00	22.8%
5	Nursery production of coffee plants	23	2	25	3	8.33	0.67	8.0%
6	Improved Coffee Processing Techniques	448	137	585	19	30.79	7.21	23.4%
	Total	1,495	449	1,944	73	22.68	4.96	20.3%

In addition to these agronomically related training sessions ADC facilitated an additional 31 sessions for lead farmers in the organization, structure, operation and management of their producer associations and the development of income generating activities and business plans. As can be seen in the table below a total of 954 lead farmers participated in these sessions of whom 22.8% were women. The most popular themes during this quarter were creation/organization of producer associations (16 s), Managing association resources (6 s) and roles and responsibilities of association leaders (6 s). More sessions were held in provinces of the Sogestal Mumriwa (13 sessions covering all four themes) than elsewhere. Leaders in the province of Kayanza were second with 8 sessions but only 2 themes. Highest participation was registered for training sessions on roles and responsibilities of association leaders (56.3pp/s), while income generating activities and business plans were the least subscribed (15.3 pp/s). Women's participation followed this same tendency when we look at actual numbers of participants. However, when we take the average percentage of women participants as our variable, the dynamic shifts somewhat, with sessions on managing association resources having the fewest percentage of women participants (12.4%).

	Theme	Men	Women	Total	#Sessions	x pp/s	x women/s	% women
1	Creation/Organization of Producers Associations	306	135	441	16	27.56	8.44	30.6%
2	Managing an Association's resources	113	16	129	6	21.50	2.67	12.4%
3	Income Generating Activities and Business Plans	39	7	46	3	15.33	2.33	15.2%
4	Roles and Responsibilities of Association Leaders	226	112	338	6	56.33	18.67	33.1%
	Total	684	270	954	31	30.18	8.03	22.8%

Training facilitated by Lead Coffee Farmers for association members on their hillsides

During Q 1 Lead coffee farmers offered a total of 285 training sessions at the sub-hillside level for members of their associations and communities. Six themes were developed. Average overall participation was 32.27. Female participation at these training sessions averaged 11.57 or (34.5%). Six technical themes were developed during the Q1 reporting period. The most facilitated themes were Pest Management (126 s on 94

sub-hillsides), followed by agronomic maintenance of coffee plantations (113 sessions on 89 hillsides) and, in third position, fertilization (31 sessions on 27 sub-hillsides) . Themes attracting the greatest overall mean participation are: improved processing techniques (40.5 pp/s) followed by coffee pest management (39.63 pp/s) , agronomic maintenance of coffee (37.82 pp/s) and fertilization (37.65 pp/s). Women's average participation was highest during sessions on agronomic maintenance (15.25 w/s), followed by pest management (15.24 w/s) and improved processing techniques (14,83 w/s). While we register a total of 10,975 participants at training sessions during Q1, the number of discrete participants (calculated # of sub-collines X mean number of total participants/session) was only 7,260.

	Men	Women	Total	# sessions	# s/collines	xpp/s	x wom/s
Agronomic maintenance of coffee plantations	2,551	1,723	4,274	113	89	37.82	15.25
Composting	17	4	21	1	1	21.00	4.00
Fertilization	729	438	1,167	31	27	37.65	14.13
Nursery Production of Coffee	22	12	34	2	2	17.00	6.00
Pest Management of Coffee Plantations	3,073	1,920	4,993	126	94	39.63	15.24
Improved Processing Techniques	308	178	486	12	12	40.50	14.83
Total	6,700	4,275	10,975	285	225	32.27	11.57

In addition to these technical themes, lead coffee farmers also facilitated capacity reinforcement sessions for producer's associations in organization, management and legal structuring of their organizations. During Q1 a total of 44 sessions were held on 34 sub-hillsides. In total 813 persons attended the training sessions of whom 265 (32.6%) were women. Effective discrete participation at these training sessions was 628 of whom 205 were women.

During Q2, Lead Coffee farmers facilitated training sessions both for technical (agronomically related) themes and, to a much lesser extent, themes related to organizational structure and operations. The following table shows that during this quarter a total of 13,378 farmers (41.3% women) participated in 400 training sessions related to six technical themes facilitated by lead farmers on 288 sub-hillsides in the project zone. The most popular themes overall facilitated during this reporting period were: agronomic maintenance of coffee plantations (177 sessions on 120 sub-hillsides with a total participation of 5,817 farmers and a mean participation of 32.86 pp/s) followed by Pest Management in coffee (111 sessions on 75 sub-hillsides with a total participation of 3,854 farmers and an average participation of 34.72 pp/s). In third position came fertilization (2,604 farmers on 61 sub-hillsides in 74 different sessions with an average participation of 35.19 pp/s). we note that the training sessions facilitated on composting, though relatively few (6 sessions on 6 sub-hillsides) registered the highest mean participation of any session (70.17 pp/s) and also the highest interest among women who represented over 50 % of the participants. Women's participation was greatest at sessions related to: a) composting (36 pp/s), b) fertilization (15.12 pp/s), c) pest management (14.14 pp/s) and d) agronomic maintenance of coffee (13.27 pp/s). Women were least interested in nursery production (5 pp/s) followed by improved coffee processing techniques (8.5 pp/s). Effective Total participation in technical training facilitated by lead coffee farmers on their hillsides was 10,066 of whom 4,418 were women.

		Men	Women	Total	# sessions	# s/colline	xpp/s	x wom/s	% women
1	Agronomic maintenance of coffee plantations	3,469	2,348	5,817	177	120	32.86	13.27	40.4%
2	Composting	205	216	421	6	6	70.17	36.00	51.3%
3	Fertilization	1,485	1,119	2,604	74	61	35.19	15.12	43.0%
4	Nursery Production of Coffee	20	10	30	2	2	15.00	5.00	33.3%
5	Pest Management of Coffee Plantations	2,284	1,570	3,854	111	75	34.72	14.14	40.7%
6	Improved Processing Techniques	397	255	652	30	24	21.73	8.50	39.1%
	Total	7,860	5,518	13,378	400	288	34.95	15.34	41.3%

We note that the highest participation was registered in the province of Kayanza, the lowest in the Province of Ngozi, while farmers in the Provinces of Kirundo and Muyinga covered the broadest spread of topics during the reporting period.

During Q2 lead coffee farmers in three provinces (Kayanza, Kirundo and Muyinga) facilitated organizational capacity building sessions on their hillsides for members of their communities seeking to organize, better manage or legally agree their associations. A total of 31 sessions were held on 28 sub-hillsides. Total presence was 733, an average of 21.9 pp/s of whom 27.2% were women. Effective participation was 679 of whom 171 were women.

	H	F	T	#s	#s/c	xpp/s	x wom/s	% women
Organization and management of Producer Associations	**407**	**179**	**586**	**23**	**21**	25.5	7.8	30.5%
Legal Texts for Producer Associations	**112**	**35**	**147**	**8**	**7**	18.4	4.4	23.8%
Total	**519**	**214**	**733**	**31**	**28**	21.9	6.1	27.2%

Productivity

At the end of PY 3 BAP recruited and trained three coffee agronomists who were assigned to the provinces of Kayanza, Ngozi and Kirundo-Muyinga. Their mission is to work with client coffee farmers and farmer associations to introduce new technologies destined to improve coffee productivity. They are responsible for developing and maintaining fruitful relationships with the DPAE and ISABU as well as the farmer's federations, SOGESTAL and our different private owner/operators investing in the coffee sector.

Initial meetings held with provincial, communal and hillside authorities, including producers, extension personnel, elected and appointed officials were very productive and showed that efforts were underway to restructure the manner in which coffee extension is being offered as improved productivity for coffee has risen in priority.

A number of issues were raised during these initial meetings including:

- There is an insufficient supply of equipment available for applying pesticides and insecticides
- Phytosanitary products are misused, stolen, or diverted to other crops than coffee. This means that the dose, and thus the effectiveness of the product, is diluted and the agronomic impact from application is not translated into higher production.
- Insufficient knowledge of on-going reforms, both agronomic and political, in the coffee sector by DPAE personnel.
- Insufficient coordination between the DPAE and other extension workers focusing on coffee (particularly in Kayanza and Ngozi). WebCor has developed its own extension service and no DPAE personnel participated in previous BAP exchange visits to Rwanda and Tanzania. Thus they did not see firsthand the agronomic innovations being promoted in countries adjacent to Burundi. An example cited was that farmers who participated in these visits have begun intercropping bananas with coffee, a practice not currently recommended by government extension workers in Burundi.

DPAE agents, confronted with these innovations by farmers, have attempted to block further replication of innovations of this sort until they receive "authorization" from the MINAGRIE.

- WebCor provides fertilizer "free" to farmers who accept to bring their coffee to WebCor washing stations and facilitates access for farmers in their draw zones to pulp from the washing stations.

Trials using manure and/or Chemical fertilizer

By the end of Q 1 the agronomists had identified 102 lead farmers at 12 different sites for partnerships in operational research through demonstration plots. The following table gives details.

Province	# Site	# of producers visited	Lead farmers retained for demonstrations
KAYANZA		**53**	**38**
4 Sites	**Bwayi** **Butegana** **Ruhororo** **Kinyovu** **Kirema**	**14** **12** **14** **12** **1**	**10** **9** **10** **8** **1**
NGOZI		**54**	**33**
4 sites	**Rugabo** **Murambi** **Nkaka** **Rutanga**	**10** **16** **15** **13**	**6** **10** **10** **7**
KIRUNDO		**15**	**15**
1 Site	**Gasura**	**15**	**15**
MUYINGA		**28**	**16**
2 sites	**Rugerero** **Ngogomo**	**13** **15**	**8** **8**
Total	**12**	**150**	**102**

During Q2 the BAP coffee agronomists continued their identification of client lead farmers interested in collaborating with the program on demonstration plots. At the same time these agronomists began fertilization demonstrations and monitored farmer's application of demonstration protocols. We note that agronomists from both the DPAE and WebCor (in Kayanza and Ngozi Provinces) also collaborated in this activity. BAP demonstration protocols were developed by ISABU at the request of InterCafe. They are designed based on historic research data of Burundi's coffee production, with the intent of increasing Burundi smallholder productivity. The fertilizer's BAP coffee agronomists are using in their trials were donated by InterCafe and results of the trials will be shared with ISABU, the DPAE, and InterCafe. Farmers participating in this activity donate their land, their labor and the organic fertilizer or compost to be used in the demonstrations. On demonstration day the agronomist invites the lead farmer's neighbors to attend the activities. First there is a discussion of the technique being demonstrated and presentation of the inputs to be applied as well as a discussion about dosage. The demonstration plot is measured and the trees within are counted. Then the agronomist, together with the lead farmer applies the treatment to the trees. After application, the agronomist continues to discuss with the farmers best practices for coffee production. Monitoring of the demonstrations is done on a continual basis by the participating farmer and the "moniteur agricole" on the hillside with BAP's agronomist making regular visits as well during the month.

Treatments being demonstrated in addition to traditional control plots include treatments of 10 kg/tree organic compost (or manure) only; 10 kg compost plus either 100 gr or 150 gr NPK (22-6-12)

w/micronutrients Sulfur, Magnesium, Calcium Boron and Zinc)/tree, and 100 or 150 gr/tree of NPK w/micronutrients only. In addition, there are two demonstrations intercropping beans and coffee by lead farmers in the Rugerero washing station draw zone.

By the end of this reporting period 33 of 38 farmers identified in Kayanza province had installed their demonstration plots. These farmers are in the draw zones of the following partner washing stations:

Washing Station	Number of Lead Farmers w/ Demonstrations
Butegana	9
Bwayi	9
Kinyovu	5
Ruhororo	9
Private in Kayanza	1
Total	33

In Ngozi, of the 33 lead farmers identified and retained during Q1, 28 have already applied treatments to their plantations, ten other lead farmers will be following suit in April. The number of demonstrations by washing station is presented below.

Washing Station	Number of Lead Farmers w/Demonstrations
Murambi	11
Nkaka	6
Rutanga	2
Rugabo	9
Total	28

In Kirundo 11 of 15 lead farmers identified and retained in the Gasura Washing Station draw zone have applied treatments to their demonstration plots. In Muyinga 7 of 8 lead farmers in the Rugerero washing station draw zone have established their demonstrations. The eighth lead farmer was not retained because, in violation of demonstration protocol, he applied urea to all of the trees in his plantations. Lead farmers, participating in demonstrations in the Ngogomo washing station draw zone will apply their treatments during the first week of April. We note that the president of the coffee farmer's federation of Kirundo Muyinga has intercropped bananas with his new (newly planted) plantation of coffee and we will monitor the evolution of this experiment in addition to the demonstrations underway.

Summary Table for Lead farmers with demonstration plots by Province and treatment

Zone	# of Lead farmers	# of Coffee trees in demonstrations	# Trees under NPK only	Kg of fertilizer applied (total)	# of trees receiving compost or manure	Total kg of compost/manure applied	# of trees receiving both NPK and compost/manure	# of trees in Control plots
Kayanza	33	3.700	925	277,5	925	18.500	925	925
Ngozi	29	4.462	1.191	212,5	915	11.230	915	1.041
Kirundo	11	1.640	360	30	520	5.200	520	240
Muyinga	7	730	350	40,5	80	800	80	220
Total	79	10.532	3.751	560,5	3.365	35.730	3.365	2.426

Dose appliquée	NPK en gr/pied	Fumure organique en kg
Kayanza :	150	10
Ngozi :	100	10
Kirundo et Muyinga :	100	10

Composting

Communal agronomists, collaborating with BAP began composting demonstrations using coffee pulp with the above mentioned lead farmers during Q1. In general this technique was favorably received by the farmers who plan to install their own compost piles in early 2011. Farmers in Kayanza and Ngozi however, noted that no pulp is currently available at their washing stations as it was removed and land applied traditionally at the end of the last processing season.

In Kayanza, by the end of Q2 only four farmers had produced compost using coffee pulp and had applied it to their coffee trees. Other Lead farmers used compost fabricated from other organic substrate or pure manure in their demonstration plots.

In Ngozi 19 lead farmers have produced compost using coffee pulp as the primary organic substrate. Ten of these have applied this compost to their coffee plantations while the other nine used it on crops other than coffee. We note that the decomposition time for compost production varies depending on the substrate used (from 2 to 3 months). In addition to coffee, compost has been applied with positive results to cabbage, potatoes, bananas and beans.

In Gasikanwa Commune, the communal administrator was so impressed by compost produced by Marie AHASHAKIYE of the Rutanga hillside that he invited BAP's coffee agronomist to explain the technique to his entire administrative staff. The session, held in presence of the communal administrator, his advisor for community development, a representative of Twitezebere micro-finance, the communal veterinarian and communal agronomist as well as 24 hillside chiefs was favorably received and a commitment was made to replicate the experience with other producers in the commune via the hillside chiefs and their "moniteurs agricoles".

In Kirundo and Muyinga provinces, farmers appear more hesitant to adopt composting for two major reasons a) the distance from the washing station to their farms is too great and transporting pulp will be costly and b) this year's coffee season is too far advanced for the application of the compost to have much effect on their yields. However, farmers in the area who have piloted the activity and have applied their compost have begun to note physiological differences in plants where the compost was applied vs those where it was not. Plants are visibly greener, healthier looking and more robust.

Farmers have found that application of compost to their crops makes good economic sense as with the rise in the price of chemical fertilizer it now costs 10,000 FBU (appx $8.30) to fertilize 50 coffee plants. With compost, the farmers can produce a minimum of 4 batches per year and can reduce their dependence on chemical fertilizer and manure (both of which they need to purchase.

Preliminary results from the application of compost are presented below.

1) **Enselme Binyogoto** is a member of the Mutsinda farmer's cooperative of Kayanza but resides in the Commune of Busiga in Ngozi Province. He learned about composting during an exchange visit hosted by BAP to Kigoma in Tanzania. Upon his return he started two compost piles- one measuring 8m x 3m x 0,8m deep and a second 3m x 3m x 0,8 m deep. After 3 months and an investment cost of approximately 120.000 FBU ($100) for manure, he produced 26.4m^3 of compost with a calculated value of more than 300.000 FBU ($250). One part of his compost was land applied to 100 banana trees. These trees are visibly more vigorous than those which did not receive compost. Further they also have produced a greater number of rejects. The first regimes of bananas harvested from his plantation are selling for between 3 and 5000 FBU each. Another portion of his compost was applied to his 1600 m^2 potato field. For 60 kg of seed used, he harvested 600 kg of potatoes but better than this, M. Binyogoto uses this field in rotation with his beans. Normally when beans follow potatoes, they require fertilization either as manure or compost. This year, noting that the soil retained its fertility after the harvesting of the potatoes he planted his beans directly without additional fertilization. The beans are vigorous with lots of leaves and he expects the harvest to be twice what he normally produces on this parcel. The third portion of his compost was applied to a portion of his coffee plantation (100 trees) at a rate of 10 kg/tree. When compared with the other half of his plantation he notes that those trees which received the compost are healthier with larger cherries and should produce more coffee than the control group.

2) **Emmanuel Manirakiza** is a member of the Kinyovu farmer's cooperative in Matongo Commune of Kayanza province. He did not participate in an exchange visit but learned composting from a BAP agent. He started his own compost pit measuring 5m x 4m x 0,8 m in depth. He used wet coffee pulp and green straw as his organic substrates. After 3 months he noticed that decomposition was complete and proceeded to apply the 16 m^3 of compost to his potatoes, cabbage and onion (red and white) fields. He split his onion field of 800 m^2 into two equal parts and applied the compost to one half. He also applied compost to his cabbage which grew healthier, more robust and bigger than those in areas which had not received the compost. He sold his red onions for 100.000 FBU and his white onions produced appx 600 Kg which he sold for 300 FBU/kg or 180.000 FBU. Emmanuel calculates that it cost him 32.000 FBU to produce his compost which, if he had sold it to others was worth 75.000 FBU. He this saved 43.000 FBU in production costs. Because of the results he obtained from his initial trial with compost, Emmanuel is ready to double the size of his compost pits this next season. He notes that coffee pulp degrades quicker than manure because the straw used as bedding for the animals decomposes very slowly.

3) **Idelphonse Misago** is also a member of the Kinyovu Coffee farmer's cooperative in Matongo Commune of Kayanza province. He too produced 16 m^3 of compost in 3 months using residual coffee pulp from the washing station following a training session with BAP agents. He applied the compost to his potato field of 500m^2 to his 800 m^2 maize field and to 16 of his banana trees. Idelphonse harvested 540 kg of potatoes from his field (a yield of 10.8 mT/ha) of which his family consumed approximately 420 kg valued at 168.000 FBU (@400FBU/kg).He notes that based on the number of months his family ate potatoes from their field this year vs last year his production was much greater with the compost than without. Further, the potatoes were greener with more leaves and the potatoes he harvested were larger than in the past. Finally he has stored 120 kg of potato for seed (a value of appx 98.000FBU) to plant in the 2012 A season. The money he saved, which otherwise would have served to purchase potatoes to feed his family, was used to purchase clothing for his family, to purchase other foodstuffs, and to reimburse a debt he contracted in previous campaigns. Following the harvest of his potatoes Idelphonse planted beans to the same field without additional fertilizer. Given its current vegetative state he expects to have a bumper crop at the end of this B season. In his maize field, Idelphonse noted that many of his plants produced 2 ears, whereas in the past they would only produce one ear. The bananas where he used compost are stronger than those where he didn't apply compost. Given the results of the compost on his food crops he is now applying the remaining compost to 50 trees in his coffee plantation. He figures it cost him 50.000 FBU to produce this compost but its value as a fertilizer equivalent can be evaluated at 200.000 FBU- a fourfold reduction in production costs, if he actually had the resources to purchase fertilizer and it was available to him in the area.

Improved Coffee Quality

Certification

The 7th and 8th of December 2010 BAP and InterCafe hosted a workshop on coffee certification in collaboration with representatives of UTZ/Solidaridad from Kenya. Thirty four participants, including 2 women from 12 different organizations participated in this workshop. The objective of this seminar was to inform the coffee sector of the advantages of certification, define the necessary preconditions for certification, detail the steps necessary to be undertaken to become certified and to cite the advantages accruing to small farmers through certification. Throughout the training emphasis was placed on improved agronomic practices, the importance of traceability, the contribution certification makes to environmental protection and remediation and the manner in which improved prices for certified coffee translate into increased farmer motivation to grow volumes of quality coffee.

Organization	Number of Participants
ARFIC	3
CNAC	5
Reform Committee	1
Coop Kawa Nziza of Kagombe	2
DPAE	4
Exporters	1
InterCafe	3
ISABU	1
PAIR (Agronomists)	3
SODECO	2
SOGESTALS	5
WebCor	4
Total	34

During the workshop the case study of certification at the Kagombe Washing Station in Muyinga province was presented. During discussions the following observations made by participants:

1. There is a firm, positive partnership that has developed between farmers and the Kagombe washing station to produce high quality coffee. SOGESTALs recognize that there are few, if any, other washing stations capable of processing 2000 mT of cherry, year on year at the same level of efficiency and quality as Kagombe.
2. The members of the Kagombe farmer's cooperative have invested heavily to inform farmers in Kagombe's draw zone of the UTZ certification's conduct code and further have trained them in the adoption of best agronomic practices needed to stay certified. All field operations performed by farmers on their plantations are written down in notebooks that are regularly monitored. Because of their adoption of best agronomic practices for coffee farmers have become increasingly more professional and produce high volumes of coffee even in off production years.
3. The SOGESTAL and SODECO have invested money to improve environmental and sanitary conditions at their processing factories, to improve traceability, and to improve quality from the cherry reception through the sale of their coffee to international buyers
4. For the past three years the Kagombe farmers have received price premiums for their coffee varying from 5 to 13 cents a pound.
5. The UTZ certified coffee is sought after by international buyers. This year four buyers purchased the entire production of Kagombe, these were Paragon Coffee, Armajaro Coffee, Luis Dreyfus Commodities and CA&B Coffee.

Cupping (Training of Trainers)

This program was part of an ongoing training program for previously identified cuppers with good communication skills who have committed to training cuppers in Burundi for discrimination of specialty and exemplary coffee.

The training is taking place to prepare more cuppers for the upcoming Prestige Cup coffee competition. Most cuppers need a higher level of sensory training that will allow them to distinguish the best coffees from many arguably good coffees, as well as discern poor or defective coffees from reasonably good coffees.

As identified in the report, Development of Coffee Cupper Training Program for Burundi issued November 23, 2010, the procedure for training cuppers is: (1) to present the basic training, (2) to provide them with practice sessions, (3) to follow up with a week-long intermediate cupping program, and (4) to assist them in finding practice positions during the harvest from April to July. At the end of the harvest in July, the cuppers are to take the National Jury Test given by the Alliance for Coffee Excellence.

Early on it was noted that there was good general agreement among panelists as to the relative quality of samples and there were some good samples to choose from (this had been a concern due to the time of year, with most harvest coffees having already been exported).

The trainers had some problems with performing the sample roasting to the necessary standard. Many of the samples were too darkly roasted to be properly evaluated. Besides lack of practice, it was observed that the light provided for roasters was mainly natural light, which changed often (especially due to the rainy season alternation between cloudiness and full sun). For the roasters to maintain a good standard, they will need a more consistent light source.

All other sample preparation aspects were much improved, including measurement and water pouring. At one point, there was some miscommunication about how many cups would need to be produced for the amount of cuppers coming to the seminar, but this was corrected. During the second beginning cupping session with more participants, hot water ran out, indicating a need for greater boiling capacity.

The challenge for new trainers came in evaluating panelists responses to coffees being cupped. They need practice in how to view the data as a set of responses, rather than as individual answers that are right or wrong. The trainers had some specific questions about the use of certain mathematical techniques, such as correlation and standard deviation, which is to be expected.

Participants were able to determine the following:

The samples that were found to be the worst and the best

The samples about which the panelists disagreed the most and which they agreed upon

The trainers were asked about specific panelist scoring styles and what suggestions could be made to train them better. In most cases, they recommended that the samples be re-cupped by participants so they could review the different qualities.

The main outcome of this was the trainer's practice in viewing the results in both tabular and graphic fashion and orienting their minds to view their trainees' perceptions and how they communicate them. While these seven Burundians are all good cuppers, they must also learn to be in tune with what their students are experiencing. In some cases, they were somewhat intimidated by the data and analysis. However, giving appropriate feedback to new cuppers is necessary to develop their skills.

Giving the First Seminar and Evaluation

The group was organized according to the following Table for Day's 1 and 2

	Main presenter	Coordinator/ roaster	Discussion leader
Day 1, morning	Domitien Bizimana	Joselyne Nineza	Reginal Uwineza
Day 1, afternoon	Ephrem	Jeremie	Eliane
Day 2, morning	Jeremie	Domitien	Nestor
Day 2, afternoon	Nestor	Eliane	Ephrem

This group included the strongest presenters in the position of main presenters. They involved the participants from the start by asking questions and requesting conclusions. The group discussed how the seminar could be improved. These were the results:

Aromatics test: It appeared that some of the students did not fully understand how to use the aromatic vials, especially the exercise of pairing up with another student and blindly identifying the aroma. It was suggested that (1) fewer aromas be submitted, (2) that the aromas be limited to those found most often in coffee (a list was selected), (3) that there be more time scheduled for the exercise, and (4) that participants be allowed to review the aromas the following day.

Tastes test: Participants did not clearly perceive the difference between the sweet and astringent solutions. When this observation was made, a review exercise had been prepared for students on the second day where they directly compared the acid solution with sweetness to the acid solution with astringency, immediately followed by a sweet coffee compared to an astringent coffee. Unfortunately, the astringent coffee also had a fermented defect, which may have led to confusion. It was suggested that the concentration of the astringent solution be increased to be more apparent.

It was suggested that the “body” solutions be discussed separately and treated as a separate exercise to make the difference between tactile and taste sensations more apparent.

Calculators: It was noticed that a lot of time was spent adding up the scores and suggested that calculators be provided.

Management of cupping sessions: Some of the cupping sessions took longer than planned. Some of this was due to timing of preparation, but beginning students often take more time, retesting the samples again and again before making scoring decisions. It was decided to put a time limit on the cupping and announce 10 minutes and 5 minutes before the end of the exercise.

The point of the first cupping is purely technique, getting new students used to breaking the crust and slurping. It was suggested that a step-by-step demonstration be incorporatedtable by table, with direct supervision, evaluation, and questions. Unfortunately, this is possible only when there is at least one trainer per table and would not be possible with a large group.

It was also noticed that some samples were slightly over-roasted, confusing the students, and some sample choices were revised.

Presentation: It was suggested that handouts be printed in the style that would allow students to take notes. Presenters have differing viewpoints on this; some feel that it focuses the participants, while others believe it distracts from following the actual presentation since students tend to read ahead.
One presenter had gone into some detail (not present on the slides) about the chemistry behind roasting; a lively discussion was had on whether such information is beneficial to beginning cuppers (it was argued by the ACE representative that it is not needed at this level). It was decided to do a "stages of roast" cupping, with one sample presented at three different (though fairly close) roasts to demonstrate how roast can affect coffee flavor.

The French translation on the slides was generally good, though the trainers suggested that the term for "aftertaste" be revised.

Selection of coffees: In demonstrating the difference between a "sweet" coffee and an immature "astringent" coffee, a defective coffee was used. It was pointed out that use of a defective coffee is not a good choice in this case, since students may confuse the effect of the defect with astringency. However, the main problem was the slightly over-roasted quality of some of the samples, which make the differences between them less apparent; overall, the sample selections were appropriate.

Discussion: The focus of the discussion during the different cupping was discussed. On the first day, the emphasis of the first cupping is technique and the second is the basic tastes, including "clean", "sweet", and "acidity". The next day, the emphasis is on combined attributes (flavor, finish, balance, and overall) and scoring. During these discussions, students should be drawn out on their scores for individual attributes and why they gave them; what they perceived that resulted in that score.

Following the first training iteration, the trainers held a second two day training, for new participants and as a reinforcement for the initial crop of participants. Roles and responsibilities were shuffled among the neophyte trainers, things ran smoother and there was indication of increased comprehension among participants, especially those who attended both sessions.

Final Days: Preparation for Practice Sessions

It can be seen from the remarks made and the jury results, that more practice is needed and it is not likely that all of the information given in the seminar will be retained by the participants the first time out. Some practice sessions focusing on specific aspects of the cupping process and making the connection to what is being perceived and how that perception is to be scored, is needed.

At least 3-4 practice sessions are planned, some to be given in different labs around the country. Trainers requested that the ACE representative design an outline for a practice session.

The cupping exercises done were (1) a triangle test and (2) a difference-from-control test. These are useful in training as the triangle test can be used to focus upon a particular difference between samples and the difference-from-control test allow panelists to do direct comparisons with a known standard, rather than abstract scoring, which requires that a cupper have developed their own scoring standards.

The triangle test was performed using two samples from the same washing station. The roast levels were very close (the importance of this was emphasized) and many panelists felt like they did not do very well; they could tell little difference between the samples.

However, most panelists were able to distinguish 6 out of 12 sets, which indicates an ability to discriminate 80% of the time.

The final exercise of the training was a challenge for cuppers to use the difference-from-control test along with their taste memory. It was emphasized that this was too advanced an exercise for beginning cuppers, but as they develop their skills it helps them to build an internal standard and taste memory. Cuppers were asked to first cup a sample, making whatever scores or notes they wish. Two tables of 6 samples each were then prepared. They were to use their notes and taste memory to find the sample at the table (there were two, one on each table). All of the cuppers were able to correctly select at least one and 4 were able to correctly select both samples.

Conclusions

The selected trainers did an excellent job overall of dealing with the details of training. Some mistakes were made, but these were quickly corrected. An ongoing challenge is consistency of roast. Roasting, like cupping, requires a level of practice and repetition as well as good equipment and a consistent light source. It was suggested that a seminar specific to roasting be given. Such a seminar would have to be limited to a few people (4-6 at most) since considerable practice would be needed as well as theory.

It works best if roasters are at least familiar with cupping (this is rarely the case in Burundi at this point) so they can realize the effects that their work is having on the samples. Likewise, cuppers should know enough about roasting to make concrete suggestions to the roasters about how they want the samples to be handled.

Those who were trained obviously need more practice and review of the concepts presented. The practice sessions will be important. It would be more important that they be able to cup on a regular basis during the harvest with existing trained cuppers. There was some discussion about financing such positions at different labs and this is highly recommended if it is financially feasible.

Due to adding the stages-of-roast cupping and additional time for the aromatics exercise, it may be advisable to extend the training another day (making it a 3-day program) to allow more exercise time and less presentation time per day. Student responses indicate that there is quite a lot of information to take in and that they would welcome more practice time. This is the nature of sensory training: the basic concepts are presented reasonably quickly (though perhaps difficult to grasp within a short period of time), while development of greater sensitivity and a personal standard of scoring occurs only with practice over time. However, though the trainees were challenged, most seemed to understand the basic concepts.

Prestige Cup Preparations

The Burundi Prestige cup is a trial run for the Cup of Excellence competition. It takes place one year before the Cup of Excellence and is used by the Alliance for the Cup of Excellence (ACE) to test that systems and an enabling environment are in place for a successful COE competition. An orientation meeting was held during the third week of November for Coffee Sector actors. This meeting, facilitated by Paul Songer was designed to explain the benefits that can accrue to Burundi through its participation in this process. He went on to explain the roles and responsibilities of the host country and of ACE. Some hesitation was expressed on the part of ARFIC, but a decision was made to move forward with the event.

When Paul came back to Burundi in January/February for the TOT with the Burundian cuppers a portion of his time was spent assessing the readiness of Burundi to hold the Prestige Cup. His notes, derived from his trip report are given below

Readiness for Prestige Competition

The main issues specified in the previous report on readiness for the competition included:

- Engendering a broad base of support throughout the Burundi coffee industry
- Establishing an organizing committee to formulate policy, develop a budget, design a public relations plan, and make other executive decisions
- Hiring of a coordinator to handle the day-to-day planning and communicate directly with the ACE office
- Ability to prepare samples to COE specifications
- Development of cupper skill through training
- Getting farms and washing stations ready to provide COE quality coffee for entry into the competition
- Finding adequate facilities in which to hold the competition

Engendering a broad base of support and establishing an organizing committee: Emile Kamwenubusa had sent out invitations to those who were identified as interested in serving on the committee on a previous visit, but had not received any responses. A meeting was held with Adrien Sibomana, head of Intercafe, who was to chair the committee on Friday, January 28. The outcome of the meeting was that a committee would be formed by February 15, 2011. It is highly recommended that this timeline be followed, since there are preparations for trade shows and then harvest activities which may limit the participation time of some committee members.

Hiring of a coordinator: Lyse Kaneza Ndabambalire was hired to be Coffee Promotion and Marketing Specialist for the Burundi Agri-business Program (BAP) and one of her main duties will be to coordinate COE. A meeting was held with her on the evening of February 26 in which the previous report on readiness was reviewed and the basics of a competition outlined. A selection of documents, including the readiness report, progression of competition, job descriptions for key personnel (auditors and sample preparation personnel), and necessary facilities was presented at that meeting.

Ability to prepare samples to COE specifications: More water boiling capacity and cupping room equipment will be needed, but this is being ordered by Emile Kamwenubusa from a list prepared for the last visit. The main challenge at this point is roasting samples. It is unlikely that uniform results can be obtained with the sample roasters and technicians presently operating without further training and facilities upgrade.

Development of cupper skill: This has increased to a great degree among the 7 trainers and it is likely that they will form the basis for a national jury. An intermediate training session is to be given in early April that will be for the newly trained cuppers and other interested cuppers. All cuppers will then be invited to the National Jury Test in late July-early August. It is the policy of ACE that all national cuppers must take and pass the National Jury Test.

Getting farms and washing stations ready: This will be handled by Erwin Mierisch, an ACE head judge who is also a coffee farmer and familiar with the details of harvesting and processing. Chain-of-custody issues tracing each lot back to the producing farmer(s) is necessary, but this requirement may need to be waived for this initial competition. Also needed is the creation of a system so that cuppers can evaluate lots from the different stations since few washing stations have their own cupping labs.

Finding adequate facilities: In the evening of Tuesday, January 25 the Hotel Club du Lac Tanganyika was toured. They are one of the best hotels in Burundi and located on Lake Tanganyika. The room facilities for jurors are very good and adequate meal and competition facilities are also present. This would be a good choice and a bid is to be provided, but other facilities will also be evaluated, including some in the coffee growing regions.

Conclusions

The major challenge in this area is the organization of an overseeing committee. A coordinator has been hired, but she will require direction from the committee.

Roasting continues to be a challenge in the sample preparation area. It is assumed that enough water boiling capacity and cupping room equipment will be available after being ordered.

Cupper skills among the 7 trainers selected have developed to the point that they can form an adequate basis for a national jury. Others, including those recently trained, are likely to have developed a reasonable skill level if provided with further training and practice opportunities.

In order to have enough samples of exemplary quality to have a competition, it is anticipated that Erwin Mierisch will provide adequate training. Organizing cuppers to cup the samples and make choices between samples will also be necessary.

The evaluation of the Hotel Club du Lac Tanganyika indicates that there are adequate facilities for a competition available. The budget and choice will be up to the organizing committee.

Final Analysis

A great deal of progress has been made in preparation on several fronts, though the major task of forming an organizing committee should be made the top priority. There is still a great deal of work to be done to ensure a successful event.

Training in coffee quality and its relationship to price

During March, BAP's Coffee team held training sessions for producers and washing station managers in all five SOGESTALS. Private operators from COPROTRA, CPC, Ubwiza Bw'Ikawa, Gatukuzwa, Karinzi, Bwayi and Korane also attended. In total 31 washing station managers and 101 farmer representatives (34.5% of whom were women) attended these sessions.

Training on the Relationship between Coffee Quality and Price

DATE	Province	E N T I T E								
		Producers			Sogestal			Total General		
		H	F	Total	H	F	Total	H	F	Total
15-03-11	Kirundo-Muyinga	9	7	16	6	1	7	15	8	23
17-03-11	Ngozi	17	5	22	5	0	5	22	5	27
22-03-11	Kayanza	15	11	26	10	0	10	25	11	36
24-03-11	Gitega	13	7	20	6	0	6	19	7	26
29-03-11	Bubanza	12	5	17	3	0	3	15	5	20
TOTAL		66	35	101	30	1	31	96	36	132

The objective of these sessions was to show farmers and washing station managers, with tangible examples, the role each actor could play in maximizing quality and through this quality maximizing price, revenues and net benefits. The methodology used was to:

1) Estimate based on farmer's participation, actual per tree production in the zone. Multiply this average production by an estimated 300 trees/producer and 2000 producers per washing station.
2) Estimate, based on washing station manager's historical references, the average transformation ratio of cherry to parchment at washing stations in a given zone.
3) Inform participants of the session of sales prices realized during the 2010 coffee campaign
4) Ask participants to calculate coffee revenues based on different levels of production and different transformation ratios at the prices varying with the quality of the parchment produced
5) Engender discussion among the participants on lessons learned and develop an action plan to maximize profitability for all actors.

We learned that farmer's productivity varies from less than 1 kg per tree to 3 kg per tree in the following ratio in the draw zone of any one washing station:

< 1 kg/tree	20%
1-2kg/tree	35%
2-3kg/tree	25%
>3kg/tree	20%

Processing efficiencies of cherry to parchment vary from 4.5 to 5.5 depending on the quality of the cherry and the competency of the technical team at the washing station

Green coffee sales during 2010 varied in price from 3.5 to 5 dollars per kilogram depending on quality (primarily determined through cupping scores)

From this information a model was developed as shown below.

Criteres mis en jeu				
Cerises	Groupe 1 (0,5 kg par pied)	Groupe 2(1 kg/pied)	Groupe 3(1kg par pied)	Groupe 4(3 kg par pied)
Quantité kg cerises	300.00	600.00	600.00	1,800.00
Rendement Cerises/Parche	5.00	5.00	5.50	4.50
Parche				
Production Totale Parche SOGESTAL (kg)	60.00	120.00	109.09	400.00
Rendement Parche/Vert	78%	78%	78%	78%
Production Café Vert (kg)	46.80	93.60	85.09	312.00
Vert				
Prix moyen de vente du vert (US)	4.00	4.50	4.00	4.00
Prix moyen de vente du vert (FBI)	4,880.00	5,490.00	4,880.00	4,880.00
Clef de Répartition	72.00%	72.00%	72.00%	72.00%
Revenus/kg vert Clef de Répartition	228,384	513,864	415,244	1,522,560
Taux de Change	1,220.00	1,220.00	1,220.00	1,220.00

From the discussions came the following recommendations and observations

- Application of best agronomic practices for coffee by farmers will yield positive results. The best practices are those being promoted by BAP ADC in training with lead farmers and include composting and fertilization, pruning, mulching, and pest control, harvesting ripe cherries, and efficient processing of coffee all yield the highest prices, direct sales contracts and quality premiums accruing to farmers and the industry
- In Kirundo/Muyinga the participants suggested that farmers and station managers from Ngogomo and Rugerero washing stations could train their counterparts at Mbasi and Butihinda to expand outreach of the technologies and practices promoted by BAP beyond what the ADC are capable of doing
- Washing station managers recommend that cooperatives take an active role in mobilizing their members to adopt the best agronomic practices in order to augment both the production and the productivity of their coffee plantations

- Few participants were aware of current price information and market trends for green coffee
- A majority of participants were ignorant of per station profitability and of the dynamic of how profitability is affected by production, processing and management practices as shown in the model
- Using the model and seeing the tangible figures for the first time brought home the realization that productivity and profitability are linked. Participants were surprised to see that a farmer who produces 3 kg of cherry per tree is fully capable of hiring a neighboring producer who only harvests 1 kg/tree to work in their fields as day labor with the supplemental earnings generated from the increased productivity.

Training in productivity and cooperative management

Using farmers and others from the coffee industry who had participated in BAP sponsored exchange visits to Tanzania, sessions were held for the Sogestal Kirundo-Muyinga and in the provinces of Ngozi, Kayanza, Gitega and Bubanza. Participation is as given below:

Training on productivity and cooperative management

DATE	Province	ENTITE											
		Producers			Sogestal			DPAE			TOTAL		
		H	F	Total	H	F	Total	H	F	Total	H	F	Total
16-03-11	Kirundo-Muyinga	13	10	23	1	0	1	1	0	1	15	10	25
18-03-11	Ngozi	12	6	18	1	0	1	0	0	0	13	6	19
23-03-11	Kayanza	15	5	20	0	0	0	1	0	1	16	5	21
25-03-11	Gitega	18	1	19	2	0	2	2	0	2	22	1	23
29-03-11	Bubanza	12	5	17	3	0	3	0	0	0	15	5	20
TOTAL		70	27	97	7	0	7	4	0	4	81	27	108

The sessions were opened by BAP, but facilitation was accomplished by the sector actors who explained what they had seen and the differences with Burundi. They stated that Tanzanian cooperatives are well organized and that those they visited each managed its own depulper purchased with deferred earnings from the cooperative members. Members of these cooperatives had decided to group together in a union and contribute a percentage of their earnings from the sale of coffee to build a collective dry mill. The cooperatives and the union note the cost of their inputs and other production costs in real time which assists them in negotiations on the price of their coffee with interested buyers. Contrary to this, in Burundi cooperatives are not yet well structured or well managed. They exist on paper but rarely undertake any economic activity of interest to their members. According to the facilitators this is due to:

- Burundian farmers are highly individualistic
- Farmers still perceive cooperatives like those state run entities of the first republic under Prince Rwangasore which went bankrupt. They perceive cooperatives as risky enterprises and thus are hesitant to invest resources in the cooperative for fear of losing these resources
- Burundian cooperatives lack vision, they take their assets and hold them in savings accounts rather than using them to finance income generating activities for their members and diversifying their revenue streams.
- When cooperatives undertake revenue generating activities it is often the leaders who benefit while the membership only receives crumbs
- Burundi cooperative members lack mastery of the texts which govern them and their operations. They rarely perform any self analysis with the intention of correcting weaknesses

In Tanzania, the cooperatives take responsibility for enforcing the use of good agronomic practices among their members. Those who choose not to follow these practices are excluded from the cooperative and may not sell their coffee to the cooperative nor receive dividends from the sale of the cooperative's coffee.

The Tanzanian farmers treat disease and pest problems with locally produced products at the first sign of disease or infestation. Burundian wait until the "campaign" has been announced then rely on imported products which are not always readily available in sufficient quantity when they are needed.

Tanzanian farmers principally use compost produced from coffee pulp to fertilize their plantations which reduces environmental contamination, returns to the soil a percentage of the nutrients exported by the coffee and reduces the production cost for the farmer.

As a result, Tanzanian coffee farmers are achieving yields of 7 to 15 kg/tree whereas Burundian farmers rarely surpass 2 kg/tree. It is better to have fewer properly managed trees than many trees which are abandoned or ignored because the farmer can't afford their upkeep.

In Tanzania, farmers often intercrop bananas with their coffee which gives both material for green manuring and mulching (banana leaves) and produces revenues for farmers even in the off years for coffee production.

Following this presentation the following recommendations were made:

- Burundian cooperatives need to work on their imperfections. Members need to have a collective vision. Sessions need to be organized to explain the governing texts to ensure all understand their rights, roles and responsibilities. Income generating activities should be undertaken with revenues generated by the cooperative and its members rather than waiting for a donor to come along. Members need to be motivated to adopt best management practices and increase their productivity, otherwise the idea of constructing and managing a mini-washing station makes no sense.
- Participants at this training session need to take the message of what they learned back "home" to their hillsides to positively influence the behavior of their neighbors
- It is imperative that Burundian farmers adopt the best management practices for coffee. If they are hesitant about one technology or another they should split their plantation is two and test the technology on part of the plantation to compare the results with the other half.
- For farmers considering planting new fields- they need to ensure that the respect the recommended norms for soil type, planting density, depth of holes, fertilization, etc..
- Farmers need to start taking note of their production costs.
- In addition to increasing their productivity, farmers need to keep a sharp eye on the quality of the coffee they produce.

The DPAE representatives appreciated the quality of the training but recommended that the training be extended to all DPAE staff and that they be associated on future exchange visits. Further, they requested further information on the best practices and new technologies being promoted under BAP so they can harmonize their interventions and better monitor progress being made. The DPAE representatives noted

that the farmers are surpassing them in technical knowledge and experience and that they need to catch up quickly or risk becoming supernumerary to the sector.

Promotion and Marketing

Visit to Burundi by Dunn Brother's Coffee executives and franchisees

Dunn Brothers coffee of Minneapolis was one of the first purchasers through direct sales negotiations, of Bwayi Coffee following participation of two executives from the company Chris Eilers and Scott Kee in our first Burundi Coffee Buyer's Tour. Following EAFCA, Scott Kee contacted BAP about a potential origin visit by franchisees of Dunn Brothers. After SCAA in April 2010, Dunn Brother's hosted a Burundi Coffee delegation composed of Emile Kamwenubusa of BAP and Adrien Sibomana of InterCafe.

Fourteen Dunn Brothers Franchisees and executives visited Burundi from Nov 13-14, 2011. Two days were spent upcountry in Kayanza, Ngozi and Muramvya provinces, meeting farmers, visiting washing stations and cupping coffee. A dinner was hosted by WebCor and a cocktail party with key coffee sector actors and Ministry officials was hosted by US Ambassador Pamela Slutz.

The businessmen and women of Dunn brothers were impressed by the infrastructure in place and the potential of Burundi to produce excellent coffee. They suggested that all washing stations should have effluent control systems and latrines and they left a contribution of $400 to assist the coffee cooperative in realizing one of their development priorities.

Creation of Sustainable Market Linkages

In January 2011 BAP Coffee Marketing and Promotion Consultant Anne Ottaway visited Burundi. Her trip had the following objectives in support of coffee promotion activities with InterCafe:

- Facilitating prerequisite steps needed for international cupping internship
- Assist with organization of 2011 EAFCA, SCAA and SCAE trade show and associated forums
- Assist InterCafe in developing standardized methods for collecting, sealing, labeling, storing and transmitting coffee samples for buyers and coffee competitions
- Commence development of priority promotional content for internet platform
- Planning of presentation and participation in US trade visit by InterCafe delegation
- Preparatory activities for 2011 Cup of Excellence event and development of timeline

Accomplishments, by task are given below

1) Strategy of Building Image and Relationship Building

Specialty coffee roasters and importers in the US have become increasingly aware of Burundi and the notable improvement in the quality of their coffee. This has contributed to a heightened interest in learning more about coffee growing origins of Burundi as well as opportunities to create direct trade sustainable relationships with coffee producers. As a way to begin a dialogue with large coffee roasters in the US a Burundi Trade Visit was proposed for early 2011. Selected US roasters were requested to host a five member coffee delegation traveling on behalf of InterCafe, Burundi's newly created trade association. Delegates selected to participate in this US Trade mission were:

Mr. Adrien SIBOMANA
Mr. Ephrem SEBATIGITA

Ms. Jocelyne NINEZA
Ms. Lyse NDABAMBALIRE
Mr. Tharcisse NIYUNGEKO

Once companies and organizations agreed to host the delegates, the fundamental role and responsibilities of the coffee marketing specialist were presented by way of the following next steps:

- Creating an agenda for meetings/presentations and cupping with:
    1. Boyd Coffee (Randy Layton)-Portland, OR
    2. Coffee Bean International (Chris Wade)-Portland, OR
    3. Portland Roasting (Mark Stell), -Portland, OR
    4. Sustainable Harvest (Libby Evans)-Portland, OR
    5. Northwest Roasters Winter Gathering (Connie Blumhardt)-Portland, OR
    6. Dunkin Brands (Jim Cleaves)-Boston, MA
    7. Green Mountain Coffee (Winston Roast)-Waterbury, VT
- Assisting InterCafe President, Adrien SIBOMANA and Burundi Quality Control and Cupper Trainer, Ephrem SEBATIGITA in the preparation of PowerPoint presentations.
- Interviews with each Burundi delegate for the purpose of developing biographical sketches for transmittal and publication among employees, customers and supporters of companies visited. (See Attached Exhibit B).
- Communication with representatives at host companies to create and confirm agenda for meetings/presentations.
- Prepare day by day itinerary for US Trade Visit February 1-10, 2011
- Coordinate all travel/hotel/ground transportations arrangements for trade visit.
- Securing appropriate coffee samples in the correct quantities for all planned cuppings during the US trade mission.
- Organizing relevant maps, fact sheets, brochures and folders for delivery to each host roaster.
- Selection of Burundi gifts for presentation to US host companies

2) Strategy of Building Image and Information Communication Technology

In order to be an effective trade organization InterCafe Burundi recognizes that the single best mechanism for reporting and showcasing the dynamic nature of Burundi's specialty coffee evolution is through a well designed website. Efforts are underway to professionally communicate all facets of the specialty coffee industry in Burundi through development of the InterCafe website. Though first steps have been taken by InterCafe to create its website, content needs to be greatly expanded. Priority content for its internet platform should include: information about individual washing stations, coffee production trends and stocks, Cup of Excellence competition developments, contact information for coffee purchases and exports and promotional information to support specialty coffee trade. In addition InterCafe requires the development and maintenance of a comprehensive database of relevant specialty coffee roasters/importers buyers and organizations.

After an initial review (web research, accumulated business cards) of specialty coffee roasters, importers and organizations with interest in Burundi specialty coffee a list of over 100 companies was prepared. As the

new Coffee Promotion Specialist working on behalf of InterCafe, Lyse NDABAMBALIRE began the process of setting forth relevant information about each company in an excel spreadsheet. Additional companies (generated from 2010 SCAA trade show) can be easily added to what will be a growing database of Burundi specialty coffee industry buyers and supporters.

At a meeting with Intercafe President Adrien Sibomana a decision was made to build the database for the trade organization at the same time the website was undergoing its expansion. Once the first phase of website development is complete a communication from InterCafe Burundi will be sent to its database of buyers and supporters announcing the important role of Burundi's new trade organization to: 1) promote Burundi coffee exports and 2) describe the capacities for greater linkages between buyers and sellers. Ideally this communication will be sent to the specialty coffee industry prior to the 2011 SCAA Conference. Buyers will be encouraged to preview the InterCafe website, and invited to visit the Burundi Specialty Coffee Booth at the George R. Brown Expo Hall in Houston, TX during the Trade Show April 29-May 2, 2011.

3) Strategy of Trade Shows

Looking toward the upcoming East Africa Fine Coffee Association (EAFCA) Conference in Arusha, Tanzania (Feb 16-19, 2011) steps were taken to support the ARFIC/ InterCafe exhibit booth. Though unable to attend the conference Lyse NDABAMBALIRE engaged in the preparation for it. Brochures, banners, maps and visuals (DVD's) were organized for BAP team members to bring to the conference. Professional signature tablecloths were ordered for the EAFCA exhibit booth. ARFIC supplied confirmation that properly sealed samples were submitted for the EAFCA coffee competition. A series of 3 trade show handouts titled: *What is a Trade Show and Why Participate, Preparation for Trade Shows* and *Principles for Etiquette for Trade Show Booths* were formerly prepared in English. They were given to Lyse for translation in French before distributing to Burundi EAFCA delegates.

Among the pre-arranged meetings needing to be scheduled at EAFCA were those involving members of the new International Women's Coffee Alliance (IWCA) chapter in Burundi and the Chairperson on Chapter Development, Phyllis Johnson. Isabelle Sinamenye, President of the Burundi Chapter, de-briefed Lyse and other BAP team members about IWCA Burundi. Now in the process of obtaining their legal status Isabelle reported that there are over 70 women, mostly coffee farmers, who have joined the chapter. According to Isabelle the chapter will support business and cupper training and mentoring. As a first step a needs assessment will be conducted among women in Burundi's coffee communities. BAP Assistant Director, Allison Williams described potential availability of activity and/or capacity building grants and the prerequisite for securing each. It was decided that these topics needed to be explored further with IWCA members at EAFCA.

At the request of Phyllis Johnson, both in writing to Evariste Ngayempore, Director General at AFFIC, and to BAP, both Isabelle Sinamenye and Euphrasie Nashwabure were sponsored to attend EAFCA.

4) Strategy of Differentiation/Building Image/Cupper Training

At the center of marketing activities during Year 4 for BAP is the Alliance for Coffee Excellence (ACE) Cup of Excellence (COE) trial competition. With the support of BAP ACE launched its cupper training program in 2009 and continues to prepare a professional team of national cuppers for their role in the August 2010 specialty coffee competition. Joining them will be an international jury of 12 of specialty coffee roasters and

importers. Representatives from ARFIC and InterCafe, together with Burundi cuppers and representatives from BAP, were asked for suggested names for the competition. There was unanimous approval for Burundi Prestige Cup. At the helm of the in country Coordinating Committee Lyse NDABAMBALIRE will secure a venue for the competition as well as hotel space for jurors, oversee acquisition of equipment and supplies, arrange advertising and publicity, solicit sponsorships and coordinate all peripheral events. A timeline for these activities was reviewed. ACE Head Judge Paul Songer shared information and photos of COE events in other countries to illustrate the lay out and set up required at competitions, as well as representative banners and posters created to promote the event.

A brief meeting to discuss requirements of the Burundi Prestige Cup was conducted with the Manager of Hotel Du Lac in Bujumbura. Lyse will follow up with the hotel to investigate its capacity to meet the various requirements for this weeklong event.

5) Strategy of Cupper Training and Relationship Building

Burundi has made great strides in developing trade linkages with formidable buyers of specialty coffee. Among these large buyers is the California company, Peet's Coffee and Tea. Peet's adheres to strict cupping protocols in making coffee buying decisions. The company underscores the importance of cupping calibration with those producers supplying coffee to Peet's. With encouragement from Paul Songer the BAP team approved a decision to request that Peet's coffee buyer, Shirin Moayyad, consider hosting/training a cupper intern at the company's headquarters in Emeryville, CA. In 2009 Peet's signed contracts for 14 containers of Burundi coffee. The expectation was strong that the company would be receptive to the opportunity of teaching a Burundi cupper about their coffee profiles and flavors and conducting cupping calibrations.

6) Strategy of Buyers Tours

Under the guidance of the BAP Project the Burundi coffee sector has supported and facilitated a numbers of buyers tours through the specialty coffee regions of Burundi. Whether the tours are highly structured, consisting of groups of specialty rosters and importers participating in programs that are planned with emphasis on extensive cupping and formal presentations or informal, with one or two coffee buyers representing a single company to survey the potential for direct trade of Burundi specialty coffee, Burundi has demonstrated its proficiency to well support the needs of visiting coffee buyers.

In the context of this trip, initial communication was made with Rogers Family Coffee, a CA company and large US buyer of specialty coffee. Next steps were taken to arrange the visit on the dates requested by the buyer and an itinerary was developed among BAP team members to conform to the buyers' requirements. Lyse was shown the various materials (maps, brochures, fact sheets for coffee washing stations to be visited, and a Burundi country profile) to include in a Burundi Coffee folder for presentation to buyers.

Together with BAP Lyse informed necessary member of the Burundi coffee sector (exporters, InterCafe, SOGESTAL Directors) about the dates and agenda for the tour.

Recommendations and Follow Up

1. Assemble Burundi Prestige Cup Coordinating Committee and develop timeline for tasks and preparations.

2. Complete excel spreadsheet of coffee companies for InterCafe database.

3.Translate Trade Show Hand Outs in French and distribute to EAFCA coffee delegates.

4. Finalize edits of PowerPoint presentations for Adrein and Ephrem.

5. Divide/Organize coffee samples for US cuppings and transmit to host companies prior to visits by Burundi delegation.

6. Communication with Dan Clay and Yunus Ibrahim regarding progress of InterCafe website development; submission of content as needed, including announcement/invitation letter for transmittal prior to SCAA.

7. Secure appointment with Peet's Coffee and Tea to present Burundi internship proposal.

8. Finalize all travel arrangements for US Trade Visit and furnish host companies with biographies of delegates and other relevant information.

9. Obtain remaining gifts and bring to US for host companies in US.

Conclusions

A first US Specialty Coffee Trade Mission from Burundi will be conducted with participation from carefully chosen members of the Burundi coffee sector. Upcoming visits by the Burundi coffee delegation have been well received by US coffee roasters. Host companies have made comprehensive plans for tours, presentations and cuppings. These activities are intended to establish the beginnings of a dialogue between those representing Burundi coffee producers and large prospective US buyers of Burundi coffee. They are also designed to create a heightened awareness among the coffee sector in Burundi about the environments within which coffee is roasted, and the quality requirements roasters must adhere to in both purchasing and roasting coffee. US companies will learn about the mechanisms for direct trading of Burundi coffee and will be invited to visit Burundi in order to learn firsthand the opportunities to commence sustainable coffee relationships. The timing of this trade visit was carefully selected to precede both the EAFCA and SCAA Conferences. Delegates will make clear that Burundi is prepared to host EAFCA participants before/after the February 2011 Conference in Tanzania. In addition, by extending invitations in February to tour Burundi's 2011 coffee harvest, roasters will have adequate lead time to make plans for June—either as part of an organized buyers group or individual tour.

With the capability to offer activity and capacity building training grants BAP is uniquely positioned to support a variety of prospective activities prompted by the newly formed Burundi chapter of the International Women's Coffee Alliance (IWCA). Beginning with a needs assessment among women coffee producers in Burundi the new IWCA chapter will have a clear vision of those initiatives that will best serve its constituents and this be in the best position to prepare necessary grant requests to BAP.

Finally, institution of a viable website for Burundi's new trade organization is the starting point to all progress in the sale, marketing and promotion of Burundi coffee. The InterCafe Burundi website represents the single best conduit through which information can be exchanged between buyers and sellers. Inquiries from prospective buyers of Burundi specialty coffee will be properly dispersed and general questions answered. Awareness of Burundi specialty coffee among consumers will be possible through available pod casts, farm stories, video streaming of cuppings and other events. As important, Burundi coffee producers

will have access to detailed and accurate information about quality scores for their coffee, and how and where the coffee is sold enabling them to compete more effectively in the international marketplace.

Coffee Trade Visit

In early February 2011 BAP facilitated a Trade visit for five representatives of Burundi's coffee sector to visit US buyers and roasters. Attending the Trade visit were the President of the Board of Directors of InterCafe, M. Adrien Sibomana, a Q Grader, Ephrem Sebatigita and a Star Cupper Joselyne Nineza (respectively employed by WebCor and ARFIC but who are also ACE certified cupping trainers), Tharcisse Niyungeko, BAP's Coffee Quality Control Specialist and Lyse Kaneza, BAP's Coffee promotion and Marketing specialist. The Mission was accompanied by Anne Ottaway, consultant to BAP for Coffee Promotion and marketing. During the 10 day mission the team visited roasters and importers in Portland Oregon (Coffee Bean International, Portland Roasting, Boyd's Coffee Co., Sustainable Harvest, Water Ave. Coffee, the NorthWest Roaster's Assn- Bellisimo School, and Roast Magazine), Boston Massachusetts (Dunkin' Brands) and Waterbury Vermont (Green Mt. Coffee). At each location the Burundian delegation made a presentation on Burundi's Coffee Sector, changes being made to ensure quality and the road to privatization. They learned from the different roasters and buyers their different business models, toured their facilities, participated in numerous cupping sessions. Coffees from CPC washing station in Kayanza, Bwayi (pyramidal drying) and Butemba (Kirimiro) were judged to be the best. It should be noted that the CPC coffee had been held as parchment since last harvest and was dry milled just before the Trade Mission. The buyers expressed an interest in quality, in specific profiles, and in coffees that are either grown biologically, organically or as certified coffees. Concern was expressed about the cyclicity of Burundi's coffee production, the prevalence of potato taste and the difficulty in judging export timing from Burundi.

EAFCA

Introduction

In Year 4 BAP continues its support of a systematic 3-year plan to upgrade the Burundian exhibit booths and presentations at international trade shows. Beginning with the 2010 EAFCA and SCAA conferences, BAP supported the development and design of a series of innovative and effective marketing and promotional tools. Taken together, these improvements were intended to professionalize the appearance of Burundi coffee and invite new buyers to explore opportunities for direct trade relationships. As a result Burundi has enjoyed a significantly higher profile internationally among specialty coffee roasters, prompting further improvements and upgrades.

Among the increased demand for Burundi specialty coffee is that of certified coffee. A characteristic trait of direct relationships between producers and buyers of certified coffees is its sustainability over time. With only one washing station presently certified, Burundi is aggressively pursuing a course to expand its production of certified coffees.

To promote the quality of Burundi coffee and bring more traceability to the farmers who produce it, BAP is working with Burundi coffee stakeholders, ARFIC and InterCafe to prepare for and conduct a Cup of Excellence trial competition. The Burundi Prestige Cup will take place in August 2011.

With the establishment of an International Women's Coffee Alliance (IWCA) Chapter in Burundi there are opportunities to support the professional development of Burundi women in coffee. Once the areas of

potential collaboration between IWCA and BAP are identified next steps can be taken to develop appropriate proposals.

Continuing to be a formidable challenge to direct trade of specialty coffee in Burundi is lack of adequate finance. Now in Year 4, Burundi is highly sensitized to the time frames within which financing be made available for fulfillment of direct trade contracts.

The purpose of this trip was to:

1. Support Burundi exhibit booth set up and operation, and facilitate interaction between coffee delegates and various coffee companies and organizations

2. Organize all coffee stakeholders represented at EAFCA to meet with the Alliance for Coffee Excellence to discuss roles and responsibilities for the upcoming trial Cup of Excellence competition, the Burundi Prestige Cup.

3. Arrange meeting between IWCA Burundi Chapter representatives, IWCA Chairperson of Chapter Development and BAP team members to discuss opportunities for collaboration in support of initiatives to empower Burundi women in coffee.

4. Arrange for and meet with US and European coffee importers, equipment suppliers, SCAA Roasters Guild, coffee certifiers and finance organizations.

Summary of Meetings, Activities and Recommendations

1. Meeting with Root Capital-Nate Schaffran

Root Capital remains interested to provide finance for the Burundi coffee trade. In 2010 Root approved two loans to Burundi SOGESTALS in Ngozi and Kirundo. Unfortunately obstacles were presented by the Central Bank with request of loan guarantees. On behalf of Root Capital Nate Schaffran expressed the company's interest in providing loans but without the necessity of loan guarantee. Their lending model operates on the basis of using sales contracts between buyers and producers as security for the loans they extend. Among representatives at ARFIC and the Managing Directors of the SOGESTALS there needs to be a better understanding of the Root model.

In order to address the need for financing coffee producers in a timely fashion it was understood that loans would be needed in April before the start of the Burundi harvest.

Recommendations and Follow Up

A face to face meeting between Nate Schaffran and Richard Tugame and various coffee stakeholders and decision makers in Burundi will be arranged by BAP in early March, 2011. The goal of this visit will be to clarify the basis on which Root extends financing, and to lay out a timeline for the various steps necessary to consummate loans.

Companies and organizations included at these meetings will be the Director Generals of ARFIC, SOGESTALS Ngozi and Kirundo. Representatives of WEBCOR, Dreyfus, and InterCafe will also be requested to participate.

2. Meeting with Alliance for Coffee Excellence-Susie Spindler and Grant Rattray

Representatives from ARFIC and InterCafe, together with Webcor management and representatives from the SOGESTALS, joined BAP project directors at a meeting with ACE to hear an overview presentation of the upcoming Burundi Prestige Cup competition beginning August 29, 2011. ACE Director Susie Spindler introduced Grant Rattray, the new Managing Director for Cup of Excellence. Grant will oversee the Burundi competition and the Burundi Coordinating Committee.

Susie urged the Coordinating Committee to meet as soon as possible to develop a timeline for the various activities required in order to ensure a successful competition. In order to increase the level of participation she underscored the importance of clear communication to as many farmers as possible about how and when to submit coffee samples. Susie cautioned about a common pitfall when there is not dedicated oversight to the separation and selection of competition coffee. Members of the coffee should be aware of the manpower required for a successful competition and event. Aside from the national cuppers now in training, there needs to be trained and skilled roasters, staff to boil and pour water, as well as reliable and expeditious milling, warehousing and shipping services. In advance of the competition Susie suggests a bid process for selecting one exporter and one mill to handle COE coffee.

Recommendations and Follow Up

Following EAFCA the Burundi Prestige Cup Coordinating Committee will meet and develop a timeline for the competition and event.

Cup of Excellence will attempt to obtain a Probatino roaster for proper roasting of the competition samples. However roaster training is badly needed and it is important that ARFIC support this training effort.

In between cupper trainings with Paul Songer, national cuppers should have as many opportunities for practice sessions as possible. BAP will support efforts to arrange for these sessions.

3. Meetings with Penagos and Pinhalense

In the coffee sector of Burundi there is widespread interest in developing new privately owned mini washing stations in areas that are currently underserved with existing washing stations. New low water use technologies are promoted for this purpose. Burundi delegates attending EAFCA were given presentations by African manufacturer representatives from both Penagos and Pinhalense. Equipment specifications were readily available for review by coffee delegates. In addition to their availability to visit Burundi to assess requirement at various locales, both companies offer comprehensive training on their equipment once it is properly installed.

Recommendations and Follow Up

Mini washing stations offer an excellent opportunity for producer groups to own and operate their own mill. BAP will continue to facilitate the growth of this ownership model and as well as to support expansion of the use of low water use Penagos and Pinhalense coffee pulping systems.

4. Meeting with Roaster Guild-Wendy DeJong, President

As part of their 2011 coffee tour series Roaster's Guild is planning a June Tour of East Africa coffee origins. Participants will visit coffee growing regions of Rwanda, Burundi and Kenya, Wendy DeJong (Tony's Coffee), outgoing President of Roasters Guild, will develop the tour program pursuant to her advance work in 2010.

Incoming President Phil Beattie (Dillanos Coffee) will accompany Wendy on the June tour, together with 10 US roasters. The 3-day tour of Burundi will begin on or about June 10, 2011 under the direction of BAP. In addition to the farm and mill tours there will be daily cuppings. The Roasters Guild is relying on BAP to organize the tour so that participants gain a clear understanding of pruning, inputs and husbandry of coffee, financing constraints of small holder farmers, and milling practices for small specialty coffee lots.

Recommendations and Follow Up

A similarly sized Burundi coffee tour was recently organized by Dunn Bros Coffee. BAP will send Roasters Guild the itinerary and information regarding event coordination for that tour.

BAP will organize a follow up meeting for Roasters Guild tour guides and participants at the SCAA Conference

5. Meeting with UTZ CERTIFIED-Graham Mitchell

Prior to the EAFCA Conference Graham Mitchell visited Burundi to tour the UTZ CERTIFIED coffee washing station Kagombe and to visit other washing stations in Kirundo-Muyinga provinces. Burundi has been unable to meet the rising demand for UTZ CERTIFIED coffee. In addition, coffee stakeholders in Burundi recognize that the good agricultural practices instituted at Kagombe in connection with certification standards has had positive implications for specialty coffee production. UTZ CERTIFIED is interested to help Burundi expand certification to 4-5 additional coffee washing stations and with the help of BAP will focus this year on certifying 1-2 stations similar to Kagombe in scope and size.

Recommendations and Follow Up

UTZ CERTIFIED will be holding a series of cupping competitions at their booth during SCAA and has requested samples of coffee for this purpose. Timely transmittal of those samples will be facilitated by BAP.

A follow up meeting between Burundi coffee delegates attending SCAA and Utz will be arranged by BAP in order to assess the progress toward UTZ CERTIFIED certification at prospective washing stations.

6. Meeting with Atlas Coffee Importers-Jennifer Roberts

On the advice of coffee buyers at Green Mountain Coffee a meeting was arranged with Atlas Coffee Importers to evaluate the potential for developing a trading relationship with Burundi. As one of the importers fro Green Mountain Atlas explained their prerequisites for buying Burundi coffee. Because of the quality requirements (scores) dictated by Green Mountain Atlas has to be cautious about contracts and requires a high degree of consistency (between pre ship samples and landed coffee) and reliability (timely delivery of coffee without delay) from its suppliers. In order to begin buying coffee on behalf of Green Mountain, or any other roaster, Atlas needs to understand more about the current coffee environment in Burundi and to begin receiving type samples of Burundi specialty coffee.

Recommendations and Follow Up

BAP will supply Atlas with information regarding the coffee trade in Burundi through the channels of direct trade sales and at auction. BAP will also furnish Atlas with a list of Burundi exporters servicing the specialty coffee trade, together with the results of various overland and sea shipping arrangements.

Type samples of Burundi coffee will be sent to Atlas for their purposes in establishing a quality database for Burundi coffee.

7. Meeting with Sustainable Harvest Importers -Sara Morriochi and Libby Evans

BAP was interested to meet with Sustainable Harvest to learn about how the company contracts for coffees on behalf of their roaster customers. Sarah Morriochi explained that all of Sustainable Harvest's coffee purchases are based on contract sales. They do not do spot coffees. Sustainable Harvest is unfamiliar with the direct trade process in Burundi and will need specific information regarding the steps to consummate a direct sale. BAP informed Sarah that Root Capital has evaluated several SOGESTALS that have been approved for pre-finance loans based on signed contracts. Since Sarah is based at the Tanzania offices of Sustainable Harvest she is readily available to come to Burundi to visit washing stations, cup coffee and oversee transport.

Recommendations and Follow Up

BAP will send Sarah information to inform Sustainable Harvest about the steps in negotiating a direct trade contract. Like for Atlas Importers, BAP will transmit information about Burundi exporters of specialty coffee, overland and sea shipping options and results. BAP will also see to it rather Sustainable Harvest receives regular samples of Burundi coffee to consider for their customers.

8. Meeting with IWCA-Phyllis Johnson

The Burundi Chapter of IWCA is in the final stages of obtaining its legal status as a non-profit association. Speaking as the Chairperson of Chapter Development for IWCA Phyllis Johnson informed BAP team members, together with the Burundi IWCA Chapter President, Isabelle Sinamenye and Board member, Euphrasie Nashwabure, that IWCA would sign a Memorandum of Understanding with the new Burundi chapter. In it IWCA will recite their commitment to empowering women in Burundi's coffee sector through leadership development. Phyllis went on to discuss the upcoming SCAA Conference where two women will represent Burundi from the Chapter. Burundi is one of the first East African chapters of IWCA and, according to Phyllis, is a model chapter, embodying the organization and capacity that IWCA promotes.

In taking their first steps the IWCA Burundi chapter will need to determine what makes the chapter strong and assess the needs of women in the coffee sector. Since 75% of IWCA's efforts and resources are directed toward leadership training IWCA will look for specific opportunities to further that objective. Included in BAP's leadership program is a Literacy Training Program. Coupled with its cupper training and internship programs BAP also supports incubators to support woman entrepreneurs in rural areas. All programs offer the potential for collaboration with IWCA to support common goals.

Recommendations and Follow Up

BAP can assist IWCA in the areas of planning, assessment and budgeting. For specific activity and capacity building grants BAP will work with IWCA to develop concepts to be formalized into grant requests.

Once IWCA Burundi representatives to the 2011 SCAA Conference are determined BAP will coordinate with IWCA regarding their activities/presentations germane to the conference.

Conclusion

The Burundi exhibit booth enjoyed an excellent location at the 2011 EAFCA Conference. Professionally staffed with representatives of ARFIC and IWCA Burundi, the booth presented an improved, favorable image for Burundi coffee. Complete with video presentations and posters, informational maps, brochures and Fact

Sheets visitors to the booth received a well-rounded picture of the organization and capacity supporting the coffee sector of Burundi.

Delegates to the Conference benefited generally from EAFCA presentations and meetings. Of particular interest were meetings arranged between Burundi delegates and Penagos and Pinhalense equipment vendors. Coffee stakeholders were presented with valuable information about specification and costs of the various models of these low water pulping systems. Africa representatives of each company became acquainted with prospective washing station owners and began important dialogues to form the basis for future communication in the development of fully washed coffee in Burundi.

The Burundi coffee sector is approaching a critical time for making certain pre-harvest financing mechanisms are in place. For several washing stations direct trade contracts have already been signed for the 2011 coffee harvest. Loans offered by Root Capital last year were unable to be made because of requirements from the Central Bank in Burundi. Through discussions at EAFCA, ARFIC and Root expressed a commitment to work together to make sure timely steps are taken to support loan contracts in 2011 and avoid pitfalls of the past.

The emergence of the Burundi chapter of IWCA represents a strategic mechanism to advance the leadership of women in the coffee sector. BAP will be in a position to play a key role in facilitating opportunities for helping IWCA create targeted initiatives to expand women's entrepreneurship through training and development.

Visit by Randy Layton- Boyd's Coffee

Following EAFCA and the visit by the Burundi Trade Delegation in the US, Randy Layton, Vice President of Operations for Boyd's Coffee visited Burundi for two days to get a feel for Burundi, its coffee infrastructure, the potential and the efforts made by the sector to improve its image and increase the quality of Burundian coffee. Boyd's has bought Burundian coffee in the past and is looking to increase its exposure to East African Arabicas. Following a business dinner with COP Ben Lentz and Francois Nkurunziza of Dreyfus Commodities, Randy was accompanied upcountry by Tharcisse Niyungeko and visited with coffee sector actors in Kayanza and Ngozi. The following washing stations were also visited- Kinyovu, Gahahé, Ruhororo and Rutanga. Additionally, a visit to the SIVCA dry mill in Ngozi and the ISABU coffee research station in Kayanza were arranged. M. Layton was impressed by what he saw and especially appreciated the efforts BAP has made to assist farmers to improve the quality of their production as well as the effluent control systems installed at the CWS to assist with environmental protection. Boyd's coffee is ready to commit to purchasing Burundian coffee in 2011 but also wishes to collaborate with BAP and BAP trained cuppers in order to calibrate and profile coffees in conjunction with Boyds' team in Portland.

Visit by Mario Serracin of Roger's Family Coffee- California

Already based in Kigali, Rogers in looking to expand their business into Burundi. Last year they purchased 70 containers in Rwanda. They could potentially source 25 containers in Burundi this coming campaign. Rogers roasts for Costco. During his visit Mario visited stations in Kayanza, Ngozi and Muyinga as well as the SIVCA dry mill.

Visit by Charles Cordoza and Jason Green of Armadjoro Coffee

Last year Armadjaro was the largest single buyer of Burundian coffee. They purchased over 70.000 sacs of green (4200 mT) at a cost of over 6 million dollars in Burundi's tender system. However a percentage of the coffee they purchased was side sold by the seller resulting in hard feelings between Armadoro and the Burundi coffee sector and a pending lawsuit against one of the sector actors. Armadjoro is interested in increasing its footprint in Burundi and is analyzing whether they will bid on GOB washing stations soon to be tendered or whether they will invest in building their own, new, state of the art infrastructure for processing. Armadjoro is interested in a collaboration with BAP and in understanding the roles, responsibilities and articulation between ARFIC and InterCafe. They are also interested in supporting a major effort for further UTZ certification in Burundi as the demand for UTZ certified coffee far outstrips the current supply.

Both Rogers Family Coffee and Armadoro seem poised to make a long term investments of a substantial nature in Burundi and in assisting Burundian farmers to increase their productivity and the quality of their coffee. Both have made visits upcountry to key coffee growing areas, met with principal coffee sector actors and farmer association representatives. Each proved very interested in the effluent control systems constructed by BAP at washing stations for environmental mitigation and by the new focus on production and composting.

We are finding that serious international buyers are beginning to find their way to Burundi. Many prefer to come by themselves to spend quality time with sector actors and ask questions of interest to their particular organization, rather than touring the origin as part of a group of buyers. These individual visits allow the buyers to drive deep and begin developing relationships, while the grouped buyer's tours are of interest to folks in an exploration mode. Once convinced Burundi is a viable partner with a flourishing coffee industry and the capacity to produce high quality coffee many members of buyer's tours return alone or increase their commitment to purchasing Burundi coffee, something that bodes well for the future.

The Buyers are very interested in the environment, in certification, in seeing Burundi adopt improved, more ecologically sound technologies for processing but also for inflow and effluent treatment. Retention of quality in shipment is also key as they factor in the risk when pricing from Burundi. The high cost and lack of flexible financing as well as the doubly landlocked nature of the country also play into their business decisions and are areas where InterCafe and ARFIC need to actively intervene to create a more favorable business environment. There is also some sense that ARFIC is a toothless body, which needs to take a more dynamic interest in its regulatory mandate, ensuring that legislation exists and is enforced which will protect investors and that contracts, once negotiated, will be respected and exports paperwork will be fast tracked through the bureaucracy. A recommendation was made that ARFIC develop a data base to track contracts and their monitor compliance.

Coffee Sector priorities for Q3

- Monitoring data from BAP's Research and Development activities on Coffee
- Training DPAE and their staff in best agronomic practices for coffee
- Monitoring quality improvements at pilot washing stations
- Finalize grant agreements and assist in setting up and training the managers of pilot mini-washing stations with partner cooperatives
- Continue preparations for Burundi's Prestige Cup
- Prepare and conserve samples for Burundi Prestige Cup
- Continue Training Burundian Cuppers
- Preparation and Participation in the Specialty Coffee Association of America Meetings in Houston TX in support of InterCafe and Burundi's Coffee Sector Actors
- Preparation and Hosting of Coffee Buyers and a coffee buyer's tour
- Preparation and hosting of a Roaster's Guild Tour to Burundi
- Site identification for the Coffee quality Center, identification and ordering of equipment for the CQC

Dairy

Introduction

This semester's focus in dairy was focused on getting the pilot milk collection centers moving. The grant dossier for the pilot at Bukéyé was approved, the equipment has been ordered and renovations are underway. The dossier for the Rutegama MCC was completed at the end of the quarter and submitted to USAID for concurrence. Time was spent improving the quality of milk, monitoring the improved forage activities and working with dairy processors to improve their industrial processes. In the context of integration into the East African Community a workshop was held on the new norms and standards for the industry in an effort to identify the challenges and identify a roadmap where all actors, State and Private, could work together to prepare for the day they are executable. A year after BAP trained community veterinary agents, their impact is starting to be felt in their communities and they have capitalized on their skills to spin off a number of corollary income generating activities. The environment is challenging but the pieces are starting to come together. We foresee that the start up of operations of the milk collection centers will be a real game changer starting in Q3.

Improve Farmer Productivity and Producer Organization Capacity

Forage Production

Based on reports from our ADC and the assessment of our dairy team leader the leguminous forage crops (Calliandra and Leuceana) introduced in the Commune of Rutegama, principally with members of the association Garukira Amatongo, are currently well established on six hillsides: Rutegama, Bupfunda, Munanira, Munyinya, Nyarukere and Rurenda. Initially distributed to four hillsides, two other hillsides- Bapfunda and Munyinya, not initially considered, also received forage plants. Plant survival averages 51% with a high of 81.4% in Munanira and a low of 34.6% on the Rutegama colline. Average number of plants surviving per farmer is 234.6 (235). Calliandra has a lower survival rate (49.6%) in the commune than Leucaena (57.3%), though it is favored by the dairy farmers. A total f 113 dairy farmers benefited from this activity,24% of whom are women.

State of Leguminous Forage, Rutegama Commune, Muamvya Province

Colline	Number of Dairy Farmers			Plants distributed from Nursery			Plants Actually in Production			Survival Rate			
	Men	Women	Total	Calliandra	Leucaena	Total	Calliandra	Leucaena	Total	Calliandra	Leucaena	Total	X plants per Farmer
Rutegama	20	6	26	11,446	7,659	19,105	4,238	2,378	6,616	37.0%	31.0%	34.6%	254.5
Munanira	17	1	18	9,280	4,650	13,930	7,370	3,973	11,343	79.4%	85.4%	81.4%	630.2
Nyarukere	28	13	41	14,743	4,084	18,827	4,752	2,262	7,014	32.2%	55.4%	37.3%	171.1
Rurenda	nd	nd	nd	10,000	1,236	11,236	nd	nd	nd				
Bapfunda	12	2	14				857	234	1,091				77.9
Munyinya	9	5	14				392	161	553				39.5
Total	86	27	113	45,469	17,629	63,098	17,609	9,008	26,617	49.6%	57.3%	51.1%	234.6

The number of forage plants per household is not yet sufficient to feed their cattle year round. Approximately 10% of these plants will be allowed to seed out in order to produce additional seed to meet the growing demand among dairy farmers in the commune. We note that 16 farmers (4 per hillside) have already performed one cut of their forage. In forthcoming reports we will be able to document the impact these forages have on the dairy production in the commune.

Farmers in Rutegama planted their Calliandra and Leucaena on contoured hedgerows to protect their hillsides from erosion and create favorable micro-terraces to recover marginal land and diversify their

production. For 60 farmers of four hillsides in Rutegama where information was available at the end of Q2 we note that a total of 124.35 hectares are under erosion control. The average number of contour rows planted by farmer was 5.77 protecting 2.19 ha. The fewest number of contours planted on average was on the Nyarukere hillside (2.67 protecting 0.62 ha), while the greatest number was in Bapfunda (8.64 protecting 3.32 ha).

Colline	# farmers	Number of contours	ha covered by antierosive bands	X contours/ farmer	X LA (ha) protected by farmer
Rutegama					
Munanira	15	60	29.65	4.00	1.98
Nyarukere	18	48	11.19	2.67	0.62
Bapfunda	14	121	46.53	8.64	3.32
Munyinya	13	101	36.98	7.77	2.84
Total	60	330	124.35	5.77	2.19

We note that the other forage species introduced on a trial basis in Rutegama: Alfalfa, Oats, Lab Lab, Panicum, Stylosanthese and Desmodium did not survive the dry season except when planted in the low lying marshy areas. They are thus deemed unsuitable for wider replication in the Rutegama agro-ecological zone at this time.

In Bukéyé two farmers from two different dairy associations have begun the process of producing and diversifying forage species on their own initiative after receiving training from BAP in the importance of high quality forages for improved milk production.

Name, Position, Association	Forage Species, Height and Number.	Land Area under cultivation.
NTIRANDEKURA Déo, President Association KUNDABAGENZI	-Penissetum (Keyberg) grass) Height :1,5m -Lab-lab -117 Calliandra. Height : 40 cm. -Mucuna spp	-4 Ares -8 m^2 -In association with penissetum. -6m^2
NTAHOMBAYE Emmanuel, Prssident Association ABASANGIRAJAMBO	400 calliandra 200 leucaena Height 50cm.	189 m in contour planting

Implementation of a Small Farmer Dairy Productivity System

In Q 1, one training session was held on use of milk production management sheets with the woman's dairy association of Gahaga in the Bukeye Commune of Muramvya Province. Following this training three women regularly collected production information from their cows during the month of December. Overall the cows monitored produced an average of 6.36 l/milk/day, a total of 573 liters/month. Afternoon milk accounted

for approximately 40% of daily production. All these cows are mixed breed Ankole/Holsteins which were originally imported from Uganda.

Month	Cow Owner	Name of the Cow	Maximum and minimum quantities of milk produced by cow/day		Total milk volume in liters obtained during the month
			Max	Min	
Décembre	Nyandwi Priscilla	Bitaho	8L	5,5L	192,5L
Décembre	Niyonzima_Dionésie	Bihayi	6L	4L	158L
Décembre	Ndayishimiye_Marie-Goreth	Bigeni	8L	5L	222,5L
Total	3	3			573 liters

Improve Genetic Base of Dairy Cow Herds for Targeted Small Farmers

The first step in advancing this dossier was to meet with the dairy herder representatives, DPAE and representatives of MINAGRIE to determine which races should be promoted under this program. The races identified are Holstein and Montebeliard , followed in third position by Jersey, given the performance of improved race cattle in Rwanda, Tanzania and Kenya. In order to advance the Artificial Insemination program it will be necessary to organize a training in collaboration with CNIA (the National Center for Artificial Insemination) to train/retrain 20 technicians. This training is planned for Q3 of PY 4. The Program will equip these technicians with kits once they have been certified competent to perform AI services.

Improve Veterinary Health Systems

During Q1, five lead farmer community veterinary agents reported having treated animals in their zones. Dairy farmers on 13 hillsides benefited from treatment. Treatment provided ranged from external parasites (ticks) to internal parasites (worms) to cuts to dehorning to assistance in birthing of calves.

During Q2, seven lead farmer/community veterinary agents reported having treated 47 cattle in their zones. Forty farmers from 19 hillsides benefited from treatment. Three cattle died, but only one death can be directly attributed to treatment received from these agents. This is a 93.6% success rate. From trending it appears that success breeds success and that these agents are reaching out to treat more regularly animals on a greater number of hillsides. Fever, diarrhea, treatment of internal and external parasites, dehorning and assistance in birthing are the principal conditions being treated, though this quarter saw a number of cases of Theileriose (a tick vector baccilus) and Aphteuse (a viral infection related to hoof and mouth disease) which are known to be prevalent in the region and especially present during the rainy season.

Set up Improved Milk Collection Centers Linked to Dairies

Construct Milk Collection Centers at Bukéyé and Rutegama

During Q 1, USAID approved the grant for the MCC of Bukéyé. Procuring and importing the MCC equipment, identifying local electricians, and installing electricity in the Bukéyé MCC by the end of April are key deliverables. The equipment for the Bukéyé MCC was ordered in early March 2011. There was a delay related to money transfers to pay for shipping and insurance. Banking laws are in flux at the moment as Burundi transitions into full EAC membership. In the Spring of 2010 the Central Bank permitted Burundian individuals and small enterprises to open hard currency accounts with local financial institutions. Before this time only local currency accounts were permitted. The managing director of the farm had never made a

regional, hard currency interbank transfer before and had previously relied on Western Union transfers or hand carrying of cash across international borders to do business. Without a hard currency account, he was forced to withdraw FBU from one of his accounts, change the money on the black market to hard currency in order to get a preferential exchange rate, and then redeposit this hard currency into a new account before the wire transfers could be activated. Understanding and managing this process delayed payment an additional two weeks, thus the equipment for the MCC only started moving from the suppliers during the last week of March.

During Q1, the Bukeye dairy farm purchased and installed an 8 post milking machine and 1500 liter refrigerated milk holding tank. They further invested in their enterprise by hiring a Kenyan dairy technician to assist them in improving both the quantity and quality of raw milk produced. Daily production at the farm increased from an average of 700 liters/day to an average varying between 1000 and 1060 liters/day.

Fig. Milking Machine installed in Bukeye

Fig. The Ntazimba milking salon

The installation of the mechanical milker, milking salon and refrigerated tank have improved efficiency of production at the dairy farm as cattle can now rest at least 8 hours between successive milkings. The milking machine speeds up the milking process, reduces labor costs, while the refrigerated tank permits milk to be held overnight under sanitary conditions before being transported to the dairy after morning milking. Previously the period between milkings was shortened so that the transport vehicle could leave Bukeye by 16h00 to arrive in Bujumbura by nightfall.

Rutegama -The grant request for COTR concurrence for this dossier was submitted to the USAID Office in Bujumbura during the week of April 14th, 2011 . The business plan has been completed, financial and cash flow analysis are finalized. The activity has a positive Net Present Value under subsidy and w/o subsidy, meaning it makes economic sense to move forward with the dossier. The objective to commence collecting milk from farmers for delivering to the processor (IAB), at the end of August 2011, will likely be met.

Technical capacity reinforcement of dairy associations

During Q2 three themes in three sessions were offered by ADC to dairy association members in Muramvya province. The themes covered regenerative cutting of leguminous forages, improved milk production and milk hygiene. Total participation was 28 of whom 19 (68%) were women.

Topics	Muramvya					Total				
	men	women	Total pp	# hillsides	# sessions	M	W	T	#h	#s
Regenerative cutting of Forage Legumes	7	2	9	1	1	7	2	9	1	1
Improving Milk Productivity	0	13	13	1	1	0	13	13	1	1
Improved Milk Hygiene	2	4	6	1	1	2	4	6	1	1
Total	9	19	28	3	3	9	19	28	3	3

Improving Organizational Capacity of Dairy Associations

Seventeen sessions on nine hillsides in four provinces were held by ADC during Q2. A total of 146 people participated in the sessions. Of these participants 60 or 41% were women. Themes developed were Organization of dairy associations and managing an association's resources. Most training sessions occurred in Bururi (8) and Muramvya (7). Women participants dominated in Bururi province while male participation dominated in Muramvya, Ngozi and Makamba.

Themes	Bururi					Makamba					Muramvya					Ngozi					Total				
	H	F	T	#c	#s	H	F	T	#c	#s	H	F	T	#c	#s	H	F	T	#c	#s	H	F	T	#c	#s
Organization of Dairy Assns.	25	32	57	4	8						32	10	42	3	7	25	17	42	1	1	82	59	141	8	16
Management of Assn Resources						4	1	5	1	1											4	1	5	1	1
Total	25	32	57	4	8	4	1	5	1	1	32	10	42	3	7	25	17	42	1	1	86	60	146	9	17

Support to Improved Dairy Processing

Training for Burundi Processors

1) Hygiene Training

During the period 25 to 28 January 20011, short visits were made to six dairy plants in Bujumbura (Ntazimba, IAB, Nyabisabo, Top Milk, Jiwan Lait and MilkCHEL) to conduct a rapid needs assessment and provide practical trainings to improve hygiene practices and standards at each of the dairies, tailored to each plants' specific products and these were much appreciated.

Depending on the readiness of the plants - because some have their (additional) equipment not yet installed – further training will be conducted in June/July or in August/September; the earlier the better.

2) Workshop on East African Standards

The main part of the trip was spent on preparing and conducting a workshop on the subject "East African Dairy Standards" and other subjects directly or indirectly important for the milk processors. 20 processors were invited and 16 attended the workshop. The following subjects were presented and discussed with the participants:

- Present situation of the dairy sector in Burundi
- Raw milk and its dairy products
- East African Standards
- Some general dairy plant practices: cleaning, cooling chain, composition calculations, etc.

Principal conclusions and recommendations of this workshop are:

1. Assist Burundi in obtaining equipment necessary to control and certify fresh milk products and train staff of the National Veterinary Lab in their use.
2. Educate livestock herders and dairy farmers in best practices for milk production
3. Train dairy farmers and livestock farmers in the use of composite improved nutritional supplements and balanced feeding regimens designed to increase the productivity of their animals and the quality of their milk/meat.
4. Promote the use of improved technologies and equipment for hygienic collection of milk
5. Lobby to include veterinary supplies on the list of tax exempt products in the East African Community
6. Increase the number of improved race cattle in Burundi
7. Offer comprehensive training on milk collection
8. Assure that the MCC become the poles for development in their surrounding communities
9. Lobby for affordable agricultural credit (interest rates between 3-5%/yr)
10. Improve the capacity of commercial dairy personnel to ensure processing respects East African Standards
11. Assist in the marketing of local (Burundian) dairy products

More detail can be found in the Power Point presentation attached as ANNEX 3.

A short evaluation showed that the workshop was successful and more workshops in future would be appreciated by participants.

Support Artisanal Cheese Production

Before the Crisis and Burundi's Civil War, there were 8 sites active in cheese making:
Ngozi, Kiganda, Rukeco, Bugenyuzi, Mahwa, Mbuye, Kiryama and Kirundo. However, at the present time 6 of these are no longer operating.

Activities in this domain aim to determine the feasibility of expanding artisanal cheese production through two sub-activities:

- Conduct feasibility studies of expanded cheese production in Ngozi, with particular attention to hygiene requirements.
- Link cheese maker to a potential new MCC in Ngozi

.
It appears that the available supply of milk is sufficient to support expanded cheese production.
Statistics from ISTEEBU (*Institut des Statistiques et d'Etudes Economique du Burundi*) and the *Banque de la Republique du Burundi* (BRB) on the quantities of imported cheeses of this type reveal that a total quantity of 1720 kg of semi-hard cheeses is imported annually. To replace these imports, 17,200 litres of milk (10 litres of milk needed for making 1 kg of semi-hard cheese), are needed.

The average intake by Saint Ferdinand in 2008 and 2009 amounted to: 39,608 litres of cow milk + 3,400 litres of goat milk = 43,000 litres of milk, which is more than sufficient to replace imported cheese.

Cheese Imported to Burundi (in KG) by year

Type/ Year	2006	2007	2008	2009
Fresh non-refined cheese	1.535	331	654	1.553
Hard cheese (grated or in powder)	2.727	180	600	1.925
Soft Cheese	123	15	1298	11
Parsley flavoured soft cheese	100	258	545	600
Other Cheese	46.809	20.230	13.781	24.920
Total	51.294	21.014	16.878	29.009

The above mentioned quantities of imported cheese are the officially registered amounts. However, volumes of illegally imported cheeses, in particular from the DRCongo, are reportedly much higher.

However, the main question surrounding expanded cheese production is: are the volumes of these semi-hard cheeses (from goat's and/or cow's milk) demanded by consumer market sufficient to enable profitable production?

The preliminary conclusion appears to be yes – the Saint Ferdinand cheese maker believes it is quite feasible able to sell 6,000 kg of semi-hard cheese annually, or about 20 kg per day. In addition, some diversification in processing the annually supplied milk volume of 60,000 litres - e.g. fresh cream, butter and fresh cheeses - will certainly contribute to attaining the required outlet.

Current situation of "Saint Ferdinand" (Feb. 2011)
The small cheese production line is receiving around 100 litres of milk a day; it is mostly cows' milk and a very little goats' milk.

The milk is controlled by lacto-densimeter only; milk is rejected if the densimeter indicates 1,026 or lower.

The milk is heated, in a metal vat on a wooden fire, until about 70ºC for pasteurisation purposes. This "pasteurised" milk is poured into a milk churn/can and then placed in a vat of cold water ("bain-marie"). The milk is chilled until about 32ºC.

Afterwards the milk is poured into a plastic vat and the following 4 products are added at the same time: ferment (i.e. lactic acid bacteria), rennet, calcium chloride and potassium nitrate.

This plastic vat is – in dairy technological terms - serving as the main "cheese vat".

The curdled milk (= fresh cheese curd) is cut and placed in wooden moulds ("brick" forms) and pressed for some hours. The current capacity of the press amounts to 60 cheeses in total. The by-product "whey" is given to farmers who are keeping pigs.

The cheeses ("bricks") show an average weight of around 800 grams and, after being pressed, they are put in brine (= a very salted solution) for 24 hours.

Afterwards, the so-called "ripening process" of the cheeses can start.

During this ripening period the cheeses are turned every day.

The cheese maker starts selling the first cheeses after a ripening period of 5-6 weeks.

Observations and conclusions
The cheese maker is capable to make rather good cheeses despite the very basic equipment being used. He also shows having acquired technological knowledge about cheese making procedures.
The different cheese-ripening rooms in the building have a rather constant temperature (about 14ºC) for which no electrical equipment is used. Such climatic conditions are very important for a correct ripening of cheese.

It is a justified recommendation to support this cheese making operation, provided some additional steps (see below) are taken.

Next steps: (1) Repairs (2) Expansion works (3) Procurements

- 1.The existing premises should be improved in order to increase hygiene conditions.

Floors should be repaired where needed, walls be tiled and ceilings painted. Mr Ferdinand is already aware of this and it is proposed to have these works carried out in May/June 2011.

- 2.The existing small work space for cheese making should be expanded.

With regard to the currently-used premises:

- -the 4 rooms for cheese ripening should be maintained; it are:
- 2 rooms (1 in the basement and 1 at ground level) of 4 x 3 meters;
- 2 rooms (1 in the basement and 1 at ground level) of 4 x 2.5 meters.
- -at the ground floor the cheese making activities, including pressing, should be continued.

Expansion at ground floor level.

- Next to the ground floor where the cheese making activities are taking place, 3 other activities could be carried out in a new set up: (1) reception of the raw milk, (2) pasteurisation of the milk and (3) salting in a special brine room.

- 3. Procurement of the following equipment is recommended; for reasons of attaining higher hygiene conditions and for possibilities to diversify current product mix.
  - Equipment to be purchased locally
    - A 200-litre vat of stainless steel for pasteurizing the milk;
    - a 200-litre vat, with double wall, of stainless steel for cheese making purposes, and to replace the plastic vat;
    - 4 special shelf for cheese ripening purposes;
  - Smaller equipment to be purchased in Kenya/Uganda:
    - Weighing balance for analytical purposes;
    - 10 lacto-densimeters
    - 5 pocket thermometers
  - LactiCheck to be imported from USA
  - Chemicals and packaging for one year, to be purchased in Kenya/Uganda:
    - Ferment, rennet, calcium chloride and potassium nitrate
    - Packaging and 1500 cups for fresh cream
  - Separator for cream, with a 200-litre buffer for milk from the batch pasteuriser.

  Capacity: 300 litres of milk per hour, price ex-factory/W Europe
- Butterchurn, Capacity: 22 litres of cream per turn.

Principal Activities for Q3

- Construction, training and effective start up of pilot milk collection centers in Bukéyé and Rutegama
- Training for the start up of paid artificial insemination services for herd improvement
- Collaboration with CNTA to produce and disseminate manual hay balers and small scale forage cutters
- Exchange visit with client dairy farmers and MCC personnel to the Kenyan Agricultural Fair

Success Story 1-New skills translate to improved economic well being for dairy farmers in Bukéyé

Emmanuel Ntahombaye and his wife with their healthy cow

Emmanuel Ntahombaye is a man in his 50's who lives on the Taba sub-hillside in the Bukéyé Commune of Muramvya province. He and his family make their living from agriculture and raising livestock. He owns two improved race dairy cattle each of who produces approximately 10 liters of milk per day. Emmanuel appreciates their productivity, but notes that his cattle are sensitive to local diseases and has cost him quite a bit in the past for veterinary care.

In 2009 Emmanuel participated in a two week training session facilitated by the Burundi Agribusiness Program for Lead Farmer/Community Veterinary Agents. Here he learned how to identify and treat basic diseases effecting Burundi's cattle and received a kit containing simple instruments to assist him in providing basic veterinary care for animals in his community. Since returning, he has treated his animals, those of his neighbors and even those of other livestock herders in the area.

Because of his training he no longer has to travel 8 km to the commune to find the veterinarian to treat his cattle. Before, he would find the veterinarian was unavailable, or, if available, he would need to pay for his transport, his fees and for the medicine he prescribed. Often the animal fell gravely ill or died before treatment. Once he remembers he had to pay 32.500 FBU to save his cow. It was during a period when food was scarce and he was faced with the choice of saving his cow or feeding his family.

Today Emmanuel estimates that he saves an average of 10.000 FBU/month that he used to spend on veterinary care. Further, he is earning appx. 20.000 FBU/month providing veterinary treatment to his neighbor's cattle. With this revenue stream he is able to send his five children to school (3 at the secondary level and 2 in elementary school) and pay their school fees with no problem.

Emmanuel's wife says that the regular monitoring of their cattle's health has reassured her because when they are in good health, they produce an adequate supply of manure she can count on. In the 27 year's she's been married, she's never had a maize harvest as abundant as that of this year. According to her this year's harvest is twice last years' and next year's harvest could attain three times her previous yields.

Emmanuel states that today, in addition to an improved economic status, he has risen in the social hierarchy of his community because now his neighbors see that he has a useful skill.

Success Story 2-Exchange visit yields tangible results for one BAP dairy farmer

Marie Goreth's Kitchen Garden

Marie-Goreth Ndayishimiye is 55 years old and lives on the Gahaga hillside in the commune of Bukéyé in Muramvya province. In 2010 she participated in an exchange visit to Rwanda sponsored by the DAI implemented, USAID funded Burundi Agribusiness Program. During the visit she noted how her Rwandan "sisters" planted kitchen gardens in proximity to their houses and the important nutritional and economic advantage they gained from these gardens.

Returning to Burundi, Marie-Goreth arranged a kitchen garden in back of her house and planted amaranth. Today she has harvested the amaranth, uses it in practically all her meals and is sharing the excess production with her neighbors, especially her daughter in law who has an 18 month old baby. Before her kitchen garden, Marie Goreth spent up to 300 FBU/day (9000 FBU/month) on legumes and condiments. Today she is able to save that money and invest it elsewhere in her household.

Beans intercropped with Bananas

In addition to her kitchen garden, Marie Goreth is experimenting with bananas intercropped with beans, which is another technique she saw during her visit. She is anticipating an important harvest from this plot in the near future.

Success Story 3-Training, a foundation for new private sector economic initiatives in rural Burundi

Scholastic Ntirampeba and Gaspard Bandyatuyaga in their veterinary pharmacy

Scholastic Ntirampeba and Gaspard Bandyatuyaga are farmers who live on the Rutegama hillside in the commune of Rutegama in Muramvya Province. In 2009 they participated in a two week training session facilitated by the USAID funded, DAI implemented, Burundi Agribusiness Program, for Lead Farmer/Community Veterinary Agents. Following the training and with advice from BAP they decided to open a village veterinary pharmacy on their hillside to provide their neighbors with essential veterinary medicines in proximity to their cattle.

They started their pharmacy a little over a year ago with a capital of 100.000 FBU. Today, their stock alone is worth 500.000 FBU. The two lead farmers affirm that their pharmacy generates net benefits of 30.000 FBU/month, even after deducting the 10.000 FBU they pay each month for rent on the building. In addition to their pharmacy, each earns an additional 20.000-25.000 FBU/month by providing basic veterinary services to their neighbor's animals. This gives each of them an average monthly revenue estimated at between 35.000 and 40.000 FBU/month.

Scholastic who is a single mother and head of her household uses her revenue to pay for food for her family, for her children's school fees and to invest in arable land and new livestock.

Siridi Bangurambona is a neighbor to Scholastic on the Rutegama hillside. He admits to having received technical advice from Scholastic for his dairy enterprise. Before he let his cattle range free and pasture at will. He had a small, rustic stable like enclosure and was spending important amounts of money on veterinary care for his cattle at least once every three months. On the advice of his neighbor Siridi built an improved stable and began to raise his cattle in a zero grazing system of permanent stabling. Today his daily milk production has increased from 2 liters to 7 liters yielding an additional revenue of approximately 35.000 FBU/month in addition to the calculated 10.000 FBU/month in average savings he's garnered because his animals are healthier than when they were being raised as free range animals. This additional money has allowed him to pay the school fees for his six children and has permitted his family to invest in new clothing and purchase additional food.

Siridi Bangurambona with his cow in front of his improved stable

Horticulture

Introduction

This year, the BAP HORTICULTURE VALUE CHAIN (BAP HORT VC) team is focused on the transfer of modern agronomic practices to increase production and the transfer of new technologies to reduce post-harvest losses through several cooperation and inter-linking mechanisms with local partners.

Activities during this reporting period were concentrated on five strategic axes: a) Reinforcement of the horticulture team; b) transfer of know-how to the associations through demonstration fields; c) replication of proven technologies; d) establishing linkages with other institutions; and e) creation of income-generating activities for the Burundian rural and urban youth through agricultural activities.

In terms of reinforcing the horticulture team, a Mr. Hormisdas HARIYONGABO was recruited in early March to function as field coordinator. Mr. HARIYONGABO has been specifically assigned to the establishment, monitoring and evaluation of demonstration fields. He has been incorporated quickly to field activities participating and co-delivering training on the installation of seedling units, and the validation and establishment of demonstration fields and associations to be supported by BAP this year. In addition,

An intern from the University of Burundi (Mr. Freddy NISHIMWE) also joined the team in the middle of March for six months taking over from Remy SIBOMANA who has left BAP after a year to complete his college degree. Freddy will be assigned to specific activities like composting, extension of the wooden box, canning, solar drying and other activities in our field demonstration handbook.

In order to organize and facilitate the transferring of new production and post-harvest technologies with the support of different partners, the BPA HORT VC team has developed a handbook *"From farm to the market"* in French and Kirundi which contains the technologies proved by BAP in the last project years. The handbook will be distributed to ADCs and DPAE's staff as part of the capacity building in horticulture. Other production manuals and protocols will be developed in partnership with ISABU and CNTA and the University of Ngozi. MOUs with University of Ngozi and CNTA were signed, and MOUs with ISABU and DPAE are under review. MOUs with University of Ngozi and CNTA both include creation of income generating activities for youth as a key area of development.

Locations for demonstration fields were identified by ADCs in the 12 provinces of BAP operation area. Five of them have been approved and the MOUs have been signed. Field activities have started in 4 of them during the last two weeks of this quarter. Two new grants for horticulture activities were approved and we are starting to see a number of interesting dynamics developing as coffee farmers, having produced their first batches of compost are land applying a percentage of it to their horticultural crops and seeing tangible productivity bounces translating into increased revenue for their families.

Training on good agricultural techniques

Activities and Results from Twitizimbere, Busoni Commune, Kirundo

- Members of TWITEZIMBERE were trained on planting densities for onions and tomatoes, tomato trellising, and a comparison was made between the drip irrigation and the sprinkler. The planting spacing for onions was 10cm x 10cm on 5 raised beds and 20cm x 10cm for 1 band. The horticulture

team expects that the two densities will show us a difference in yields compared to the previous onion plot which was planted in traditional way and allow us to compare the two planting densities.

- The Roma variety of tomato was preferred by the association because it resists handling and transport and it is preferred by the Rwandese who sell it to SORWATOM for processing. The association was also trained on trellising which increases the yield and reduces the fungal diseases.
- The attack by the mildew appeared at the beginning of trellising for the plot envisaged in sprinkling and the incidence was so strong that the tomatoes were completely destroyed and the association didn't continue the trellising.

Strong attack of mildew before trellising

- For the plot in drip irrigation, the attack appeared when trellising was finished at the level of the first line of horizontal tutors, reason for which its incidence was less strong and one could collect 120kg of tomatoes.

Trellised tomatoes before the attack by the mildew

- Among the two irrigation systems tested in Busoni on tomatoes and onions, the drip irrigation showed better results and was the most efficient; it is easier to work with and less expensive in terms of gas consumption.
- The water coverage in overhead irrigation system is not homogeneous and it takes too much gasoline to deliver the necessary amount of water per cropping cycle. We have concluded that the drip irrigation system could be extended to small farmer organizations.

Onion Harvesting at Busoni

The total weight was 2607 kg and the unit price was 300 - 500 FBU/kg. The production of onions was below expectations due in great part to the delay in transplanting and the lack of observance of the recommended planting density. A total revenue of 479.600 FBU was obtained by the association. Additionally, the production was neglected after harvest because of internal problems due to the discouragement of the members of the association with the yields and market prices. This led to some post-harvest losses.

A major lesson learned for the members of the association was that timing and planting densities matter in obtaining adequate yields per square meter. For instance, on the 4 bands which were planted in time, they collected an average of 103,5kg per raised bed, which means that if they had no delay in planting, they could have produced 103,5 kg X 45 = 4.657kg X 500 FBU/kg = 2.328.500 FBU.

Progress made by Dufatanemunda, Commune Gihanga, Province Bubanza

Since 2010 BAP has provided technical and small grant assistance to this women's horticultural association which produces tomatoes and green peppers. Despite losing their "C" season crop in 2010 because of unanticipated water cuts to their irrigation system, the women of Dufatanemunda have taken advantage of the lessons learned from BAP (transplantation of strong, healthy seedlings from their nursery, improved planting density, irrigation scheduling and water management, trellising, use of compost, post harvest conditioning and disaggregation by market niche and transporting produce to market using the cageot) to increase their overall year on year productivity and revenue. While Dufatanemunda has multiple fields where they farm we present the results for one of their parcels below. While the growing seasons are not 100% comparable, one can see that their yield of tomatoes has increased by 39% from 5.3 mT/ha to 8.8 mT/ha and for green pepper the yield increase is on the order of 492% increasing from 1.6mT/ha to 8.8 mT/ha.

Season 2010 B

Crop	Total Land Area (ha)	Production (Kg)	Yield (Kg./ha)
Tomato	0.18	962	5,344
Green Pepper	0.07	114	1,629

Season 2011 A

Crop	Total Land Area (ha)	Production (Kg)	Yield (Kg./ha)
Tomato	0.06	528	8,800
Green Pepper	0.18	1,442	8,011

In 2011 A season the Association sold their pepper harvest for 440.000 FBU and their tomatoes for 98.000 FBU. Their production costs were 247.300 and 41.000 FBU respectively yielding a total net revenue of 249.700 FBU of which 77% was derived from their green peppers. A hand dug well was built last year and the water table was found at 11 meters. To profit from this water BAP has been experimenting with the construction of a prototype rope pump to pull water from the well and feed a cistern for irrigation. The prototype is still under construction as we close this reporting period.

Training on composting techniques

In order to increase the production of organic fertilizer, training sessions on composting techniques were organized in DUFATANEMUNDA association (Gihanga commune and Bubanza province), TWITEZIMBERE association (MUTIMBUZI commune and Bujumbura Rural province), IGANI (Bugarama commune and Bujumbura Rural province), AGRED and ABAZIMYAMURIRO associations (Kayokwe commune and Mwaro province), INYANGE and GARUKIRABAKENYEZI associations (Muramvya commune and Muramvya province).

With these techniques, the farmer associations will promote the use of organic matter and be able to produce compost within three months instead of six. A sheet on composting technique was developed in Kirundi and given to the associations.

Training on good agronomic practices

A total of 28 Associations in 7 provinces of the project zone received capacity reinforcement in good agronomic practices during Q1. A total of six themes were developed during this quarter. ADC facilitating training were most active- judged by the number of associations and number of themes covered) in the provinces of Bujumbura Rural, Muramvya and Mwaro. A total of 414 participants of whom 71.5% were women attended these sessions. The principal crop used as an example in these training sessions was tomatoes. The following table gives a synthesis of effort and outreach in this area. We note that in Bubanza, Kirundo and Muramvya provinces the ADC made sustained efforts to cover multiple themes with individual clients, where, elsewhere many clients received the same theme.

Theme	# Provinces	# Associations	# Men	# Women	Total Participants
Composting	6	16	54	101	155
GAP	2	4	10	39	49
Improved Nurseries	2	3	14	36	50
Mulching/Trellising	3	4	16	33	49
Pesticide/Fertilization Application	2	6	16	80	96
Weeding Tomatoes	1	1	8	7	15
Total			118	296	414

It is interesting to note that composting was the most widespread technical theme offered during this quarter denoting an understanding of the importance of fertilization in improving productivity and produce quality, while recognizing that the high cost of chemical fertilizers often acts as a disincentive to farmers leading them to apply what they can afford to their crops rather than what the plant needs for maximum agronomic productivity. Composting improves soil structure, soil water retention in the rooting zone, leverages manure and acts as a time release vitamin in providing nutrients to the soil. The physical effects on the soil of applying compost are often as important as the agronomic effects in the short/medium term and often outweigh the agronomic effects in retained soil fertility in the medium to long term.

In PY 4 BAP is encouraging our field agents to intensify assistance with existing clients in order to improve overall agronomic productivity in a stepwise fashion.

During Q2 six themes related to best agronomic practices were facilitated by ADC in 6 provinces in our project zone in 58 different sessions with a total of 39 Associations. The most popular modules facilitated during this quarter by the ADC were composting (23 sessions, 173 pp in 4 different provinces) and trellising passion fruit (5 sessions, 104 pp in 1 province).These were followed by Improved nurseries (9 sessions in 2 provinces with 9 associations and a total participation of 74) and Proper Application of pesticides (4 sessions in 3 provinces with a total of 38 pp) Participation at horticultural training sessions averaged 11.7 of whom 73% were women. Highest average participation was registered for training sessions on conservation of tomatoes (26 pp/s), tutoring of passion fruit (20.8 pp/s), growing wheat (15 pp/s) and fertilizer application (11 pp/s) . Effective participation (# assn x mean pp/s) equaled 456.

Theme	# Provinces	# PO	# Men	# Women	Total Participants	# s	X pp/s
Cageots	1	9	6	12	18	9	2.0
Composting	4	20	38	135	173	23	7.5
Growing Tomatoes & Cabbage	1	2	5	25	30	3	10.0
Conservation of Tomatoes	1	1	15	11	26	1	26.0
Improved nurseries	2	9	20	54	74	9	8.2
Tutoring Passion Fruit	1	5	29	75	104	5	20.8
Mushroom Production	1	1	1	12	13	2	6.5
Fertilizer Application	1	1	1	10	11	1	11.0
Pesticide Application	3	4	19	19	38	4	9.5
Growing Wheat	1	1	0	15	15	1	15.0
Total	6	39	134	368	502	58	11.7

Capacity building of institutional, management and organizational aspects of Producer Associations

During Q1, 22 training sessions were held for partner associations in four subject areas: PO Organization, PO Management, Legal recognition for PO and Income Generating Project identification and Business Planning. Agents in 8 provinces (Bubanza, Cibatoke, Gitega, Kayanza,Kirundo, Muramvya, Muyinga and Mwaro) facilitated training for associations per the following table.

Theme	# Provinces	# Sessions	# Men	# Women	Total Participants
PO creation and organization	6	8	55	74	129
PO Management	5	10	71	78	149
Legal Recognition of PO	1	2	2	11	13
Project ID and Business Planning	2	2	91	27	118
Total		22	219	190	409

Total participation at these sessions was 409 of whom 190 or 46.5% were women. Average participation was 18.6 pp/s. More sessions occurred in Kayanza, Gitega Mwaro and Muyinga provinces than in the others.

During Q 2 ADC facilitated 136 sessions in organizational and institutional capacity reinforcement for 88 horticultural associations in 10 provinces of the project zone. A total of 924 farmers (51.6% women) attended these sessions, an average of 7.1 pp/session. The largest number of PO participated in sessions on Organizing PO (42) followed by Managing Association Material and Equipment (23) and Developing the legal documentation necessary for official recognition (23). Greatest average participation was registered for

themes related to Marketing production (12.5 pp/s), planning economic activities (11.6 pp/s) and managing association materials and equipment (capital assets) (9.9 pp/s). Women participants followed the general trend during this quarter. Effective participation is 625 of whom 352 are women.

Theme	# Provinces	# PO	H	F	Total	#s	X pp/s	X wom/s
Managing Association Material & Equipment	5	23	115	212	327	33	9.9	6.4
Managing Producer Assn	1	5	16	8	24	5	4.8	1.6
Roles ad Responsibilities of Assn Leaders	3	5	23	14	37	5	7.4	2.8
Legal Texts	7	15	69	51	120	17	7.1	3.0
Petty Cash Management	1	7	23	3	26	7	3.7	0.4
Marketing Production	2	2	4	21	25	2	12.5	10.5
Managing production costs	1	2	5	13	18	3	6.0	4.3
Organizing Producer Assn.	7	42	165	103	268	55	4.9	1.9
Planning Economic Activities	3	3	16	42	58	5	11.6	8.4
Business planning	2	2	6	10	16	2	8.0	5.0
Monitoring Costs	1	2	5	0	5	2	2.5	0.0
TOTAL	10	88	447	477	924	136	7.1	4.0

Promotion of the use of wooden boxes

During his trips for the training on composting techniques, the HVC intern Mr.Remy SiBOMANA continue to promote the use of the wooden box in the target associations. He described the advantages of the “cageot” (wooden box) and gave to the associations some description sheets in Kirundi which show dimensions for those who are interested and wish to order some boxes from local carpenters.

The promotion of wooden boxes was carried out in DUFATANEMUNDA, TWITEZIMBERE, IGANI, AGRED, ABAZIMYAMURIRO, INYANGE and GARUKIRABAKENYEZI associations.

Training on Seedling Production

A training workshop on seedling production was organized in Bukeye for ADCs of Muramvya, Bujumbura Rural, Mwaro, Gitega, Kayanza and the DPAE’s extension staff (6). During the workshop, Mr Luis Flores made a presentation on BAP Horticulture work plan for year 4 and the handbook for Best Agronomic Practices, and the head of Horticulture Sector made a presentation on the use of a modern seedling unit. The handbook “From Farm to Market” includes production manuals in French and Kirundi for:

a) composting techniques; b) seedling production; c) trellising; d) IPM; e) drip irrigation; f) use of wooden box; g) Good Manufacturing Practices; h) Soil conservation Practices. The handbook will be edited and distributed to ADCs and DPAE’s extension staff for the follow-up of demonstration fields. The demonstration took place in Kibogoye (Muramvya commune) for the ADCs and the members of ABASANGIRAJAMBO farmers group (17 men and 21 women). The seedling kit includes the shed net, the infrastructure using local materials and micro jet irrigation materials.

Demonstration on the installation of a modern seedling unit in Kibogoye (Muramvya commune)

While looking for a supplier of imported seedling kits, BAP HVC team made demonstrations on the use of improved nurseries with local materials in 2 demonstration fields (Evariste Ndikumagenge of Mubimbi commune, Bujumbura rural province and Nugu Erasme of Rutegama commune, Muramvya province) and 2 farmer groups of Mwaro province (AGRED and ABAZIMYAMURIRO).The raised beds are 1.2m wide, 0.02m high, and the length depends on the size of the planting area. The infrastructure is made of local materials (bamboos, banana leaves, Vetiver etc.) The distance between two sawing rows is 10-15 cm, and the average distance between 2 seeds is 5cm.

Training on canning for tomatoes and other fruits and vegetables

On his trip in February-March 2011, Luis Flores provided a training on tomato canning to members of TWITEZIMBERE farmer group (Mutimbuzi commune, Bujumbura Rural province) and their neighbours. Twenty six people (15 men an 11women) attended the training and paricipated actively to the demonstration. This technique improves the preservation of product after sterilization while adding value to the product. The trainees appreciated the technique and they were informed that the technique can be used for other products like pine apples, mangoes, pepper etc. The association remained with 2 cans to test the canning by themselves.

Demonstration on tomato canning in Twitezimbere

Analysis of grant applications and preparation of MOUs

Fourteen grant applications were submitted by the ADC of Mwaro province. The HVC team and the responsible of grants and financial intermediation have analyzed the applications and made recommendations to the promoters for review and more documentation. After two meetings with the associations, 2 of the 14 associations (AGRED and ABAZIMYAMURIRO) were selected and the MOUs for these grants are under review.

Two other dossiers from Bujumbura Rural (TWITEZIMBERE and Evariste NDIKUMAGENGE) were analyzed: TWITEZIMBERE for grant application and Evariste NDIKUMAGENGE for demonstration plot and one dossier (Tharcisse NZIGAMASABO) from Matongo commune, Kayanza province was analyzed.

Two dossiers, AGRED and ABAZIMYAMURIRO, were approved during Q2. These two associations are interested in growing tomatoes. Abazamuriro is interested in growing passion fruit as well. Total value of these dossiers is 6.354.550 FBU of which 3.723.300 FBU (58.6%) represents BAP's contribution to the grants.

Selection and Installation of Demonstration Plots

The MOUs for 5 demonstration fields have been signed: 3 of Mwaro province, 1 of Bujumbura Rural Province and one of Muramvya province.

Distribution of the demonstration plots and the crops to be grown

Province	Nb.Parcelles	Noms des partenaires	Commune	Zone	Colline	Cultures	Superficie
Cibitoke	3	David NAHAYO	Mugina	Rugajo	Muyange	Oignons	0.1ha
		Anselme	Rugombo	Cibitoke	TR6	Tomates	0.1ha
		NAHAYO David	Mugina	Rugajo	Muyange	Tomates	0.1ha
Bubanza	4	NKUNZIMANA Eric	Gihanga	Gihanga	TR5	Poivron	0.1 ha
		Canut	Bubanza	Mitakataka	Kizina	Poivron	0.1 ha
		TWIYUNGUNGANYE BAKENYEZI	Gihanga	Gih anga	Village 4	Poivron	0.1ha
		DUFATANEMUNDA	Gihanga	Gihanga	TR4	Aubergines	0.1ha
		DUKORERE HAMWE	Gihanga	Gihanga	Village 4		0.1ha
Buja Rural	4	Evariste NDIKUMAGENGE	Mubimbi	Mageyo	Mageyo	Tomates	0.1ha
		ABAKENYEZI TWISUNUNURE	Mutimbuzi	Rubirizi	Muyange	Poivron	0.1ha
		GIRUMWETE	Kabezi	Migera	Migera	Hricot vert	0.1ha
		NDARWARUKANYE Clement	Kabezi	Ramba	Gakungwe	Aub.blanches, courgettes	0.1ha
Makamba	2	NSABIMANA Venant	Mabanda	Kayogoro	Nyagihara	Choux	0.1ha
		NDACASABA Athanase	Makamba	Nyange	Canda	Oignons	0.1ha
Gitega	5	TURWANYINZARA 1	Giheta	Kiriba	Gasunu	Oignons	0.1ha
		KAZOZA KEZA	Gitega	Mubuga	Mirama	Tomates	0.1ha
		TWUNGURANE UBUMENYI	Gitega	Mubuga	MIrama	Oignons	0.1ha
		DUKORE VYIZA (Kiyongozi)	Gitega	Mubuga	Mubuga	Choux	0.1ha
		TWITEZIMBERE I	Mutaho	Mutaho	Mutaho	Tomates, choux	0.1ha
Mwaro	3	BARYUWIWE Pierre-claver	Kayokwe	Gatwe	Nyagitongati	Tomates	0.1ha
		NGENDANKAZI Imelde	Kayokwe	Kayokwe	Musama	Choux	0.1ha
		Francine NTAKARUTIMANA	Kayokwe	Kayokwe	Kibenga-Migende	Carottes	0.1ha
Muramvya	6	REMESHA	Rutegama	Rutegama	Nyarunazi	Oignons	0.1ha
		ABASANGIRAJAMBO	Muramvya	Bugarama	Kibogoye	Carottes	0.1ha
						Poireaux	0.1ha
						Oigons	0.1ha
						Choux	0.1ha
						poireaux	0.1ha
Bururi	3	TWIJUKIRE IBIKORWA	Matana	Matana	Gisifye	Choux	0.1ha
		BARIMWOTUBIRI Gerard	Mugamba	Vyuya	Kigina-Mugomera	Carottes	0.1ha
		Cyriaque NDAYUBAHE	Matana	Matana	Rubanga	Poireaux	0.1ha
Ngozi	4	DUHUZE	Mwumba	Mwumba	Karungura	Oignons	0.1ha
		NAHIMANA Pierre	Kiremba	Kiremba	Gisuka	oignons	0.1ha
		DUSOZANYE	Ngozi	Mubuga	Nyanza	Carottes	0.1ha
		Menyereye Daphrose	Gashikanwa	Gatobo	Gitanga	Choux	0.1ha

Province	Nb.Parcelles	Noms des partenaires	Commune	Zone	Colline	Cultures	Superficie
Kayanza	4	MINANI Siméon	Matongo	Ruganza	Mvuvu	Tomates	0.1ha
		DUKOMEZE IBIKORWA	Kayanza	Nyabihogo	Muhweza	Carottes	0.1ha
		MURIMYI W'IKAWA GIRA IJAMBO	Muruta	Muruta	Karunyinya	Oignons, choux	0.1ha
		SHIGIKIRA ABARIMYI B'IKAWA	Kayanza	Kayanza	Mwendo	Oignons	0.1ha
		DUKORERE IKAWA	Kayanza	Kayanza	Mwendo	Choux	0.1ha
		NAJENJE	Kayanza	Kayanza	Mukoro	Oignons, choux	0.1ha
		DUHAYIKAWA	Muruta	Muruta	Buziraguhandwa	Oigons	0.1ha
Kirundo	3	TWIJUKIRE IBIKORWA	Kirundo	Cewe	Ruyonza	poivron	0.1ha
		ABASANGIRAKIVI	Kirundo	Kirundo	Runanira 3	poivron	0.1ha
		ABAKORERAGUSHAKA	Kirundo	Kirundo	Yaranda	Aub. blanches	0.1ha
Muyinga	3	NDERAGAKURA	Gashoho	Gisanze	Gisebeyi	Tomates	0.1ha
		ABAKUTSAKIVI	Gashoho	Gashoho	Gitwa	Aub. blanches	0.1ha
		TUGIRISUKU	Muyinga	Muyinga	Nyamaso	Tomates	0.1ha
	45						**4.5ha**

Note: Identification of demonstration fields in Muramvya province is still going on.

The owners have committed to provide land, labor and traditional agricultural tools.They also accept to allow the neighboring farmers and technical staff to visit the demonstration field. BAP will provide inputs, equipment and technical supervision. The training on seedling production was held in March in the five demonstration fields.

Discussion on partnership with DPAE Muramvya

The responsible of the HVC had discussions with the DPAE Muramvya to define partnership between the two organizations. Five points were identified for a close collaboration during year 4. Some of the results of these discussions are summarized below

1. Meeting attendance

The DPAE suggested that ADCs take part in the meetings organized by the DPAE in the field and in the coordinating meetings which gather the various speakers of the agricultural sector in the province. A meeting is envisaged to finalize the work plan of the DPAE for the year 2010-2011. The various speakers then will put themselves together to make sure that their work plans fit well in the line of the action plan of the DPAE. Thus, BAP and the DPAE will act in synergy and complementarity from planning to reporting addressing execution, follow-up and evaluation throughout the program. The Director promised to ADC Romuald an office in the enclosures of the DPAE.

2. Planning

The communes have the exhaustive list of approved associations while the DPAE has the list of the associations supported by the PRASAB. On the institutional and organizational level, in the majority of associations, the internal procedures are not respected. This is the major cause of several irregularities from which the need to reinforce the organizational capacity of these associations is justified.

From the lists of associations, ADCs will identify the associations to be supported. For more visibility and taking into account the agro-ecological aptitudes, DPAE and BAP have decided to focus on 6 sites, namely: the zone of Bugarama, the hill of Kibogoye hill, the Mubarazi valley between Muramvya and Bukeye, the Mubarazi valley between Muramvya and Bugarama, the Mubarazi valley at Gatabo between Muramvya and Rutegama and the marsh of Nyamirambo between Bukeye and Banga

Using the card of identification of associations which was developed by BAP, ADCs and DPAE will identify in these locations the associations that will be supported in 2010-2011.

3. Training

For each association selected, the following training topics will be developed: soil conservation practices, composting techniques, good agricultural practices, modern seedbeds, good governance in management of associations and finances, Integrated Pest Management, irrigation techniques, Kitchen Garden, rainwater harvesting and the visits for experience sharing.

For these various topics, the personnel of the DPAE will attend the training sessions animated by ADCs within the associations supported by BAP and will reflect the training in cascade to other recipients.

The Director of the DPAE will try to get through the Project of Institutional Support to the Ministry of Agriculture and Livestock some specimens of the module in Kirundi on the management of associations which was written by Salvator KAMATARI.

A specimen of the handbook on the Good Agricultural Practices was given to the Director who promised that his agent who was trained by BAP in 2009 will train the associations identified by the DPAE and draw up every month the list of trainees. The ADCs will annex it to his monthly report as a deliverable of the DPAE and BAP partnership.

4. Demonstration fields

At the question of knowing if the DPAE has some land that it can place at the disposal of associations as demonstration fields, the Director said that the lands which were occupied in the past by the DPAE in Bugarama and Muramvya belonged, either to the State, or to the individuals, and the owners are recovering them for construction. On the other hand, there are private people who have lands and who are interested by such a formula. The Director gave their names to the ADCs who communicated them to the associations so that they do themselves the following steps.

5. Sales outlets of the horticultural products

The Director of the DPAE is very sensitive to the need for improving the marketing conditions for the horticultural products, in particular by the installation of sales outlets which fill the standards of hygiene and safety. In this order of ideas, the province envisaged in its Provincial Plan of Community Development the installation of such a center in Bugarama and the DPAE was committed to ask to the Governor the availability of this plot in January 2011. HVC team members will add some ideas where the use of the wooden box also becomes practical.

Technical Conventions signed

During Q2 technical Memoranda of Understanding were signed with the University of Ngozi and CNTA. Under horticulture the collaboration with the University of Ngozi will focus on:

1. Local production of horticultural seed and their extension/dissemination through BAP demonstration fields
2. Support to students entrepreneurial initiatives for simple technologies and support services to the agricultural industry,
3. Opportunities for internships for students nearing completion of their academic curriculum in support of BAP farmer associations and demonstration fields and
4. Sharing of technologies and research information between BAP, its partners and the University to ensure widespread diffusion through students to BAP's farmer beneficiaries

The partnership with CNTA will focus on:

1. Testing and disseminating simple, low cost, techniques for post harvest preservation of fruits and vegetables
2. Design, testing and promotion of solar dryer prototypes for fruits and vegetables
3. Construction, testing and dissemination of manual appropriate technologies for post harvest operations and irrigation (manual corn degrainers, treadle pumps and grain mills, and other manually operated labor saving devices)
4. Development and diffusion of Good small scale manufacturing processes and, finally,
5. Jointly sponsored events for building the capacity of small and medium scaled food processors to enable them to better access markets while protecting the health of their targeted consumers

An MOU with ISABU is also under negotiation but must be finalized and signed once BAP's Yr 4 core workplan and budget have been approved by USAID.

Horticulture Activities Planned for Q3

- Selection of associations to be supported in year4;
- Training on best agronomic practices;
- Training of the extension staff of the DPAE and NGOs on composting techniques;
- Monitoring and evaluation of production results;
- Installation and follow up of demonstration fields;
- Training workshop on the use of "Bon Debut" seedling units;
- Evaluation and reporting of results for "Bon Debut "seedling units;
- Promotion of the irrigation system which was developed by Kickstart;
- Comparison of yields between irrigated fields and non irrigated ones;
- Designing testing and dissemination of a prototype of solar drier for fruits and vegetables
- Multiplication and dissemination of the handbook on good agronomic practices "From farm to the market";
- Signature of the MOUs with ISABU and the DPAEs.

Crosscutting Activities

Gender and Micro-Enterprise

Introduction

The principal activities of this reporting period continue to be capacity reinforcement for women's associations and literacy training. Rural women leaders are highly engaged in income generating activities particularly in horticulture and dairy, less so in coffee, though they are a critical force in coffee growing communities. Women are using their new literacy skills to keep better books and manage their enterprises more transparently. We are seeing greater efforts consented for community mobilization of funds. In Kayanza province, in particular, there are documented cases of neo-literate women being engaged by NGO to assist in sensitizing the population for treated mosquito nets and as peer leaders in the fight against AIDS.

Structural and Managerial Capacity Reinforcement of Women's Associations by ADC

During the first quarter of PY 4, a total of 532 women in six provinces of the project zone received assistance from BAP ADC to improve the structural and management capacities of their associations. Additionally 75 men participated in these sessions, increasing overall participation to 608 in 36 separate sessions an average participation of 16.89 of whom 87.5% were women. Participation was fairly evenly concentrated among three themes who together represented 68.6% of all activity during this quarter- Creation, organization and management of associations (240pp from 54 different associations), Developing income generating activities (93pp from 15 different associations) and Petty Cash Management (84 pp from 18 different associations). ADC in Gitega and Kayanza covered more themes during this quarter than did ADC in other provinces. Themes with greatest geographic spread (as opposed to intensity of participation) were: Creation, organization and management of associations and Petty Cash Management (4 provinces each) and Developing of Income Generating Activities (3 provinces). Themes with the lowest participation (and least geographic spread) were Depreciation and Amortization of capital assets and Reading a Bank Statement (2 provinces each) and Managing credit (1 province).

Q1PY4

Participants au séances de renforcement des capacités institutionnelles et organisationnelles des ADCs

	Bubanza					Cibitoke					Gitega					Kayanza					Mwaro					Ngozi					Total				
Themes de formation	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**
Creation Organization and Management of	0	17	17	1	1	0	9	9	1	1											20	61	81	13	4	9	124	133	39	6	29	211	240	54	12
Simplified Accounting Systems																										0	10	10	5	1	0	10	10	5	1
Petty Cash Management	1	15	16	3	3						0	11	11	2	2	3	54	57	13	2											4	80	84	18	7
Inventory Control and Mgmt											0	10	10	2	2	2	45	47	14	2											2	55	57	16	4
Reading a Bank Statement																2	38	40	12	1	1	5	6	2	1						3	43	46	14	2
Managing credit											10	10	20	8	1																10	10	20	8	1
Internal Mobilization of funds																3	49	52	13	2											3	49	52	13	2
Developing income generating activities						1	6	7	1	1	0	6	6	1	1						22	58	80	13	4						23	70	93	15	6
Depreciation and Amortization of Capital Assets											2	4	6	1	1																2	4	6	1	1
Total	1	32	33		4	1	15	16		2	12	41	53		7	10	186	196		7	43	124	167		9	9	134	143		7	76	532	608		36

In Q2 a total of six themes were developed by ADC in 10 of 12 provinces in the project zone for the capacity reinforcement of women's associations. A total of 1054 people participated in these sessions of which 798 or 75.7% were women. Average participation for all sessions across all provinces was 13.69 of whom 10.4 were women. The most subscribed themes were: managing producer associations (35 sessions on 25

hillsides in 7 provinces, with an average participation of 11.97 pp/s) followed by organization of producer associations (22 sessions on 18 hillsides in 5 provinces with an average participation of 15 pp/s) and the development of legal texts for associations (7 sessions on 4 hillsides in 4 provinces with an average participation of 18.14 pp/s). Effective participation (# hillsides x average participants/s) equals 835.

Capacity Reinforcement for Women's Associations during Q2 PY 4

		Bubanza					Bujumbura Rural					Bururi					Cibitoke					Gitega					Kayanza					Makamba					Muramvya					Muyinga					Ngozi					Total				
	theme	M	W	T	# h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s
1	Creation and Organization of Associations	8	38	46	2	2						2	24	26	2	3						0	25	25	1	1	24	154	178	7	8						3	2	5	1	1	25	25	50	7	7						62	268	330	20	22
2	Legal documentation for PO	36	6	42	1	1																					1	10	11	1	1	1	27	24	51	1	4											1	22	23	1	1	65	62	127	4	7
3	Managing PO	4	34	38	3	3	32	76	108	5	12						22	19	41	4	4	14	17	31	2	2	1	68	69	3	3	3	5	2	7	1	1											19	106	125	7	10	97	322	419	25	35
4	Roles and Responsibilities of PO Leadership																9	6	15	1	1																													9	6	15	1	1
5	Developing income generating activities	0	16	16	2	2	2	6	8	1	1											0	25	25	1	1	9	21	30	1	1	6	7	13	1	1																17	75	92	6	6
6	Water Harvesting and Efficient Fuel Stoves	5	40	45	3	3	1	15	16	3	1																										0	10	10	1	1											6	65	71	7	5
	Total	53	134	187	11	11	35	97	132	9	14	2	24	26	2	3	31	25	56	5	5	14	67	81	4	4	35	253	288	12	13	38	33	71	3	6	3	12	15	2	2	25	25	50	7	7	20	128	148	8	11	256	798	1054	63	76

Sessions in Producer Association Capacity Reinforcement facilitated by Lead Farmers for Women's Associations

During Q 1 Lead Farmer's in three provinces –Bujumbura Rural, Gitega and Ngozi facilitated training sessions for women's associations on their hillsides. A total of 208 participants of whom 190 (91.3%) were women participated in 15 different training sessions. The most popular themes were Creation, organization and management of associations (10 sessions for 148 participants from 5 different associations, 3 of which are in Ngozi Province) and Petty Cash Management (3 sessions for 33 participants of 3 associations, two of which are in Gitega Province). The greatest number of themes developed by lead farmers during Q1 was three (Bujumbura Rural and Gitega).

	Bujumbura Rural					Gitega					Ngozi					Total				
Themes	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**	**H**	**F**	**T**	**# Ass.**	**# s**
Creation Organization and Management of Associations	0	32	32	1	4	0	60	60	1	2	6	50	56	3	4	6	142	148	5	10
Petty Cash Management	0	8	8	1	1	7	18	25	2	2						7	26	33	3	3
Inventory Control and Mgmt	0	8	8	1	1											0	8	8	1	1
Managing credit																0	0	0	0	0
Internal Mobilization of funds						5	14	19	1	1						5	14	19	1	1
Developing income generating activities																0	0	0	0	
Depreciation and Amortization of Capital Assets																0	0	0	0	
Total	0	48	48		6	12	92	104		5	6	50	56		4	18	190	208		15

During Q2 lead farmers facilitated a total of 46 sessions for women on 20 hillsides in four provinces of our project zone. A total of 552 people attended these sessions of whom 515 (93.3%) were women. The most popular themes were managing the associations (34 sessions on 11 hillsides in all four provinces with an average participation of 10.03pp/s) and the creation and organization of producer associations (8 sessions on 6 hillsides in two provinces with an average participation of 18.13 pp/s). In third place was developing income generating activities (both identification and planning). This took place only in the province of Kayanza on two separate hillsides in three different sessions. Average participation was 15.3 pp/s). Effective participation (# of hillsides x average participation/session) in these sessions can be calculated as 240 of whom 224 were women.

Training Sessions facilitated by Lead Farmers for Women and their associations on hillsides during Q2

	Bujumbura Rural					Cibitoke					Gitega					Kayanza					Total				
	M	W	T	# h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s	M	W	T	#h	# s
Creation and Organization of Associations	0	30	30	2	2											0	115	115	4	6	0	145	145	6	8
Managing PO	0	59	59	2	6	24	124	148	3	20	0	13	13	1	1	4	117	121	5	7	28	313	341	11	34
Roles and Responsibilities of PO Leadership	0	20	20	1	1																0	20	20	1	1
Developing income generating activities																9	37	46	2	3	9	37	46	2	3
Total	0	109	109	5	9	24	124	148	3	20	0	13	13	1	1	13	269	282	11	16	37	515	552	20	46

Literacy

During Q1, PY 4, 122 literacy centers were in operation in 10 provinces of the project zone, an increase of 26% over the previous reporting period. This increase was due to new centers being opened in Kirundo and Ngozi following the training of trainers workshops held at the end of PY 3 for women leaders in their respective provinces.

Province	Number of Literacy Centers in Operation	Neo-literates in training
Bubanza	8	123
Bujumbura Rural	4	118
Cibatoké	15	298
Gitega	9	189
Kayanza	24	344
Kirundo (new Q1)	12	247
Muramvya	8	132
Muyinga	10	134
Mwaro	12	223
Ngozi (new Q1)	20	365
Total	122	2173

By the end of Q1 BAP had registered 112 women's associations in the project zone actively pursuing literacy training facilitated by trainers identified by their communities and trained in collaboration with the National Literacy Service. The following table gives the number of associations, total number of women association members and the mean number of women per association who are actively participating in literacy activities. This information is derived from centers that have been open at least two months and for participants who are "regular" active learners. We note that a total of 1993 women in the project zone are actively pursuing literacy, an average of 19.2 pp/association. We note that the greatest number of centers is open in Kayanza Province , followed by the province of Ngozi. In third position is Kirundo. The greatest average number of women participants per association and literacy center is in Gitega (31.5 pp/assn) followed by Kirundo and Bujumbura Rural. The province with the smallest average number of participants/assn and per center is Bubanza (10.4) followed by Muyinga (14.9) and Kayanza (15.1). Smaller class size is not a sign of disinterest. In many cases centers with smaller class sizes move through the curriculum quicker and have better retention by the neo-literates of the subject being facilitated. We note that active participation at the centers (members registered actually attending class) averages 92%. This varies slightly with the seasons, being higher during dry season and less intense when agronomic activities are at their peak.

Province	Assn	Participants (pp)	Mean # pp/Assn
Bubanza	8	83	10.4
Bujumbura Rural	5	87	21.8
Cibatoké	10	188	20.9
Gitega	6	189	31.5
Kayanza	23	347	15.1
Kirundo	12	247	22.5
Muramvya	8	132	16.5
Muyinga	9	134	14.9
Mwaro	11	221	20.1
Ngozi	20	365	18.3
Total	112	1993	19.2

During Q2, literacy activities continued in 6 provinces: Cibatoke, Gitega, Kayanza, Kirundo, Muyinga and Ngozi. A total of 1991 members of whom 1786 or 89.7% were women participated in 183 sessions on 23 different hillsides. Average participation per session was 10.88. The greatest participation occurred in Kayanza province where 848 people participated in 91 sessions held on 7 hillsides. Least participation occurred in Gitega where 13 women of one hillside held only 1 session for literacy during the entire reporting period.

Priority Activities for Q3

- Identification of new women's associations for literacy training
- Finalize the list of associations and participants in the water harvesting and fuel efficient cook stove pilot activities
- Promotion of women's participation at regional trade fairs
- Funding income generating activities identified by, and of interest to, women
- Continue support to the International Women's Coffee Alliance Burundi Chapter
- Continue extension support to Burundian women's basket weavers associations

Success Story 4-The Importance of Literacy

Marie Habonimana, dairy farmer and proud neo-literate

Marie HABONIMANA, a thirtyish farmer and livestock herder on the Gahaga hillside in Bukéyé Commune of Muramvya Province was illiterate until several months ago. When the USAID funded Burundi Agribusiness Program introduced literacy training in her community in 2010 she seized upon the opportunity to learn to read and write. Today she is proud of her newly learned skills and is especially pleased that she can now register the volume of milk she sells each day, the price she negotiates and the value of that milk on a monthly basis. Because she writes everything down, no milk collector can fool her by declaring that she gave them a different volume or sold the milk at other than the negotiated and registered price. She calculates that by writing down all of her transactions she has recovered at least 10 liters of milk or a value of approximately 5000 FBU that would have been previously lost to the collectors. She has decided to invest this recovered revenue in improved animal forage for her cow to increase her production of milk and manure.

Success Story 5- Women's Literacy produces unexpected results in Kayanza

Cassilde Nzoyisaba is a member of the Twizerane Association on the Mpfunda hillside in the commune of Buteganzwa Commune of Kayanza province. She is a widow and mother of five children. This past year she participated in literacy training facilitated by the USAID funded Burundi Agribusiness Program on her hillside. She graduated from the program and can now read and write in Kirundi. Because of these skills she has been hired temporarily by the Red Cross as a local community organizer to perform a census of the population on her hillside, to promote the use of impregnated mosquito nets. This job earned her 50.000 FBU. With this money she expects to pay for her children's secondary school fees for the third quarter of this year. Because of BAP's literacy program she will not have to visit the village loan sharks and use the projected harvest from her banana plantation as a guarantee for debts she would otherwise have contracted. Cassilde is proud of her newly learned skills and is no longer afraid to stand for elected office in her association. Further, with her literacy skills she is now able to interpret the receipts she receives from merchants in the market which keeps her from being robbed.

Josette Niyimpaye is a member of the same association as Mme. Cassilde. She is 24, married and the mother of two small children. Following BAP sponsored literacy training she is now able to read, to write and to draft reports on her activities in Kirundi. Because of these new skills she has been identified in her community as a peer educator for AIDS and as an animator for child and maternal health. For these activities she receives an indemnity, but beyond this she has earned a new social status and the respect of her community.

Success Story 6-Women's Associations of Mwaro increase revenues and improve their lives through BAP technical assistance

Members of AGRED at work in their field

AGRED was created in 2002 to assist its members in improving their daily lives by providing a collective workforce. The Association is based on the Ruramba hillside of the Kayokwe Commune in Mwaro Province. Composed of 31 members of whom only 3 are men the association operated in its early days on contributions from its members, sale of day labor and profits garnered from small communal fields. The money they earned was shared among the members or used as contributions for community social events. While the association had a bank account, its balance had never attained 100.000 FBU. Further, the association lacked management tools.

In late 2009 the USAID financed, DAI implemented, Burundi Agribusiness Program (BAP) has provided technical assistance to AGRED. Since this time, AGRED has increased its land area under cultivation, has adopted improved agronomic practices and today has a series of management tools available to them notably a petty cash register, receipt book and bank account register. In 2010 the association benefitted from literacy training which has facilitated the management of internal conflicts and the adoption of improved management practices for their finances and inventory. The members have ceased allocating communal funds to social events like marriages and baptisms. Today their bank account at the COOPEC has a balance of 651.000 FBU. In addition, the group has begun extending internal credit to its members. Members have used this credit to purchase goats, chickens and pigs. Actually, of 31 members 23 have already received credit and purchased pigs and the association has between 20 and 30 rabbits that they raise primarily for manure. AGRED currently has 95.000 FBU is circulation with four of its members. The monthly interest rate is 5% per 10.000 FBU borrowed. The borrowers are currently using their loans to market grapes and bananas. To date the Association has had no problem with reimbursement.

The Tuzamurane association, situated on the Saswe I hillside of the Kayokwe Commune in Mwaro Province was created in 2000. It has 28 members, all women. Before commencing its collaboration with BAP the association's resources were derived principally from member contributions, fees paid for day labor services and revenues derived from their communal field of beans, cassava and bananas.

Members of the Tuzamurane Association in a group meeting

Since receiving technical assistance from BAP the association has understood the importance of cultivating fruits and vegetables both to diversify their revenue streams and to improve nutrition for their members and their families. In the past year the association has planted and harvested both cabbage and tomatoes earning respectively, 124.000 FBU and 45.000 FBU.

Partial view of the passion fruit plantation

In addition the association has planted passion fruit on ½ hectare of marginal agricultural land they were ceded by the communal authorities. This plot has already begun bearing fruit. A percentage of the fruit is reserved for the individual members while the rest is being sold by the association.

To date the Association has sold 130.000 FBU of fruit to buyers from Bujumbura and the harvest is just beginning. The association anticipates earning 800.000 FBU by the end of June 2011. They are planning on investing this money in the purchase of an additional ½ hectare of land to be planted to passion fruit.

Passion fruit from the Assn plantation starting to mature

Grants and Financial Intermediation

Introduction

During this reporting period three grants were financed and one dossier was approved under the DCA. Many more grants are pending as technical and financial clarification is sought from potential grantees. BAP staff has worked hard at streamlining the grant request process so a minimal amount of critical path information is required upon which to base financing decisions. Further, a real effort has been made to intensify pre-award due diligence and post award monitoring of activities and results. The flow down from this should become apparent in Q3 and Q4 of this fiscal year. A number of larger grant requests are pending, including a Milk Collection Center in Rutegama and three mini-coffee washing station dossiers that should be finalized during April 2011.

Activities

Technical Assistance in finalizing grant request dossiers

During Q1 technical assistance was offered for 17 client associations in the process of developing grant request s to assist them in preparing their budgets, cash flow and projected profitability analyses. In addition an additional 15 dossiers were reviewed- 5 in the horticulture sector, 5 in coffee, 2 in dairy, 2 for beekeeping enterprises and 1 request to participate in a European Trade show on hotels and tourism in Paris.

Requesting Organization	Sector	Province	Activity	Disposition
CAPAD	Hort	Cibatoke	Tomato processing plant- 120.501 Euros	Rejected
Assn. Twitezimbere	Hort	Bujumbura Rural	Production of tomatoes, green pepper and red chilis 5.095.500 FBU	Pending
Assn. AGRED	Hort	Mwaro	Production of tomatoes, japanese prunes, soy and onions -3.432.000	Pending- was approved during Q 2 for a value of 1.676.450 of which 66% was supported by the program. Land area was decreased and tomatoes were retained as the only crop for subsidy
Assn. Abazimyamuriro	Hort	Bujumbura Rural	Production of tomatoes, passion fruit and onions- initial request 3.160.000 FBU	Pending- was approved during Q2 for a total value of 4.678.100 FBU of which 55.8% was supported by BAP. Land Area was reduced to 20 ares (1/5 ha) of tomatoes and 60 ares (3.5 ha) of passion fruit.
Coop. Kazoza N'Ikawa	Coffe	Kayanza	Acquisition of equipment for a mini-coffee washing station- initial project cost 43.376.200 FBU of which 32.597.600 FBU is requested in grant assistance	Pending land acquisition by cooperative, business plan, financials
Coop. Nkamwayacu	Coffee	Muyinga	Co-financing effluent control for a mini-coffee washing station- initial grant request 16.735.800 FBU	Pending
Coop. Kawanziza	Coffee/ Environment	Muyinga	Co-financing planting of agroforestry trees to protect the environment in proximity with coffee plantations- initial grant request 16.735.800 FBU	Pending
African Promotion Company (APROCO)	Coffee/Env	Muyinga	Co-financing effluent control for a coffee washing station- initial grant request 13.540.967 FBU	Pending- returned for questions/clarifications
SOGESTAL Kirundo-Muyinga	Coffee/Env	Muyinga	Co-financing for drying tables at the CWS Buhimba, (6.504.000 FBU)	Pending-returned for questions/ clarifications by the SOGESTAL
Bukeye MCC	Dairy	Muramvya	Milk Collection Center	Dossier Approved, Equipment ordered, Building renovations in process
Assn Garukira Matongo	Dairy	Rutegama-Mouramvya	Milk Collection Center	Dossier finalized, project submitted to USAID for concurrence- pending

Requesting Organization	Sector	Province	Activity	Disposition
Assn Twiteho Ibidukikije	Beekeeping/ Environment	Muyinga	Beekeeping coupled with sustainable land use management- 7.730.000 FBU	Pending- BAP is offering capacity reinforcement in modern beekeeping in Muyinga province during April 2011
AFAB	Hotel/ Tourism	Bujumbura	Participation at the Paris Equip'Hotel Trade Show- value 5.469 Euros	Rejected. This fair was destined for larger hotel chains in developed countries not for hotels in emerging economies

During Q1 two credit request dossiers in the coffee sector were reviewed, one for the setting up of a mini-coffee washing station near Bwayi and another for the construction and equipping of a new coffee washing station by Murambi Coffee. By the end of the quarter the Murambi Washing Station dossier in the amount of 60 million FBU had been submitted to Interbank Burundi for consideration. Murambi Coffee's dossier was approved by IBB in March 2011 for 55 million FBU under the DCA.

During Q2, our head of grants and financial intermediation met with two cooperatives in Kayanza CODEMU and CODENYA who are managing mini-washing stations with technical assistance from FHI. Last year their credit request dossiers were refused by IBB. This year we decided to get a jump on the process, working closely with these cooperatives who are not only interested in submitting credit requests to IBB for operational financing of the coffee campaign and purchase of cherry but are also submitting grant requests to BAP for the acquisition of small equipment to assist in the collection of cherry from farmers in their draw zone. The amount requested for the two stations equals 5.879.000 FBU of which they are requesting BAP grant assistance for 76%.

In addition to dossiers contained in the above table BAP has been assisting two other coffee cooperatives DUSANGIRIJAMBO of Karinzi in Kayanza and MBONERAMIRYANGO of Korane in Gitega in finalizing their grant requests for the setting up and management of mini-coffee washing stations. We note that both of these cooperatives have already purchased the land where the stations are to be constructed. DUSANGIRIJAMBO has an office/warehouse complex valued at 38 million FBU which was constructed under financing received from INADES, further they have already grouped together the local construction materials needed for their mini-washing station. They are actively seeking title for their land to use this in obtaining campaign credit financing for operations through a commercial lending institution. The Association MBONERAMIRYANGO also has a warehouse and office complex constructed using INADES financing in the amount of 28 million FBU. They also possess a transport vehicle valued at 50 million FBU purchased with funds received from Canadian Cooperation. They too have gathered the local materials necessary for the construction of their mini-washing station and have begun construction of the coffee storage warehouse and office complex on their land. Both of these cooperatives are looking to BAP to finance the in-kind contribution of a new ecopulper and contribute to the purchase of imported construction materials (drying tables, protective cloth, ciment, rebar, etc..) and equipment (pH meters, humidity meters, scales, etc) necessary to complete the mini-washing stations. We expect these dossiers to be submitted to USAID for concurrence during April 2011. DUSANGIRIJAMBO calculates the total cost of their project at 65.074.550 FBU of which they are requesting 30.197.600 FBU from BAP as an in-kind grant. The Association MBONERAMIRYANGO values their project at 66.992.450 and is requesting an in-kind contribution from BAP valued at 28.728.350 FBU. Both of these cooperatives expect to submit operational financing requests for cherry purchase to IBB under the DCA portfolio.

We note too that the SOGESTAL Kayanza has submitted grant requests for the construction of additional water effluent infrastructures at Gatare and Mutumba washing stations. The dossiers are pending because the SOGESTAL has yet to complete the financial analyses necessary for submission.

Situation of dossiers financed under the Development Credit Authority

As mentioned above we learned from the borrower, that a loan in the amount of 55 million FBU had been accorded to Murambi Coffee during the month of March 2011 to assist in finalizing the mini-washing station being built at Gatabo in the commune of Kiganda, Province Muramvya. The borrower, Cassien Nibaruta is well respected in the Burundi coffee sector having been the Production Director of the SOGESTAL Kirimiro and currently serving as Production Director for CPC in Kayanza. The quality of the coffee produced by Cassien has been recognized internationally with Counterculture Coffee contracting to purchase a majority of the highest graded samples by direct sales agreement last year. Murambi Coffee received their loan at 14% interest reimbursable over three years. The credit obtained is a line of credit so the ceiling on the loan is 55 million but the borrower is only obliged to reimburse on money he withdraws from the credit line. The credit line comes with deferred payment for 6 months, meaning the borrower is not obliged to begin reimbursing before September 2011. The interest on the money borrowed from the credit line can be reduced progressively based on deposits made to his account from sales of coffee.

Currency	Beneficiary Name	Start Date	End Date	Credit Type	Business/Sector	City/Region	Purpose Of Loan	Total Assets	Is Women Owned (Yes/No)	First Time Borrower (Yes/No)	Business Size (Number of Employees)	Total Revenue	Interest Rate	Collateral Value	Local Currency Amount	Total Principal Disbursement (As of 03/31/2011)	Principal Repayment (As of 03/31/2011)	Number of Days in Arrears (As of 03/31/2011)
BURUNDI - FRANC	Industrie Alimentaire de Buterere, "I.A.B."	April 30th, 2009	May 30th,2013	Term Loan	Agro-industry	Bujumbura	Equipment for tranforming milk, fruit juice and mineral water	1,750 BIFbillion	No	Yes	32 employees	360 BIF millions per semester	15.50%	1,2 billion	389 BIF millions	369 BIF millions	144,6 BIF millions	NIL
BURUNDI - FRANC	MANWANGARI Jean Baptiste	March 26th,2009	March 31st, 2011	Term Loan	Agriculture(rice)	Bujumbura Rural	Agriculture of rice	200 BIF millions	No	No	40 employees	295,2 BIF millions	17.00%	NIL	20 BIF millions	20 BIF millions	Already paid since sptember	NIL
BURUNDI - FRANC	SOGESTAL NGOZI	March 31st, 2009	May 30th,2013	Term Loan	Agriculture_ Coffee	Ngozi	Coffee Factory	4,236 BIFmillion s	No	Yes	194 employees	2 885 BIF millions	16.00%	2 944 BIF millions	289,3 BIF millions	289,3 BIF millions	73,6 BIF millions	NIL
BURUNDI - FRANC	Laiterie NYABISABO	October, 20th 2010	June, 6th 2016	Term Loan	Dairy	Bujumbura	Milk processing industry		No	Yes			14%		170 BIF millions	170 BIF millions	8 BIF millions	NIL
BURUNDI - FRANC	TURAME COMMUNITY BANK	October, 2010	Sptember 2011	Term Loan	Microfinance	Bujumbura	Small loan			No			14%		200 BIF millions			
BURUNDI - FRANC	ADECAP	September,9th 2010	August,10th 2015	Term Loan	Livestock farming	CIBITOKE province	Livestock farming & milk collection	Yes	Yes	No			14%		50 BIF millions	50 BIF millions	4,3 BIF millions	NIL
BURUNDI - FRANC	HATUNGIMANA Japhet			Term Loan	Livestock farming	Bujumbura Rural	Livestock farming		No	No			16%		82BIF millions	82 BIF millions	7 BIF illions	NIL
BURUNDI - FRANC	MURAMBI COFFEE				Coffee	MURAMVYA province	Coffee washing station		No	Yes			14%		55 BIF millions	32 BIF millions	Not yet	NIL
															1235,3 millions $1,012,540.99	1012.3 millions $829,754.10	257.5 millions $211,065.57	

Current exchanger rate 1220 FBU= 1 USD

This is the synthesis table on loan disbursements from the DCA received from Interbank. We note that to date $1,012,540.99 is obligated to borrowers but only $829,754.10 has been disbursed. Of this $211,065.57 has been paid back by borrowers. There are no loans at risk and no current defaults on payments. Two of the loans have been to milk processors, two others for livestock farming and milk collection. Two loans have been made for coffee washing stations and one loan was made for rice production. We note that the loan to the Turame Community Bank, a Microfinance facility, while obligated has yet to be disbursed to the borrower.

Principal Activities for Q3

- Finalize action on pending grant requests
- Continue technical assistance to ADC, clients and component leaders in developing their Revenue Generating Activity grants and credit request dossiers, paying particular attention to the financials-business plans, cash flow, budgeting and profitability analyses
- Perform technical and financial due diligence on grant requests, including pre-award assessments and site visits

Community Water

Introduction

During this reporting period four of 9 washing station effluent control systems were completed and communities on the hillsides of Rusengo and Kayenzi in the commune of Muyinga had their community water system construction completed. Provisional reception of waterworks occurred in Kinyovu, Commune Matongo, Kayanza Province and in Murima, Commune de Kayanza in the province of Kayanza. Additionally baseline water samples were taken at 16 coffee washing stations, eight with BAP designed effluent control systems, two with alternatively designed wastewater treatment systems and six control washing stations where no environmental mitigation has occurred. Together with BAP's Micro-Enterprise and Gender specialist visits were made to women's associations in seven provinces to identify pilot families for water harvesting and improved fuel efficient stove demonstrations.

Activities

During Q1 construction of effluent control systems at the three WebCor washing stations-Nkaka, Gahahe and Butegana, as well as the station of Buhorwa belonging to the SOGESTAL Kayanza were completed. Each has six cabin improved bloc latrines . Of the four community water systems, three are functional and have undergone provisional reception. The fourth system at Kigoganya is not yet functional due to an engineering design problem of how to link the water source with the community water tanks. It was originally anticipated that a mechanical ram pump or "pompe a belier" would suffice. This proved not to be the case because the system needed continued priming to keep the flow intact. Two other methods have been explored, one using a solar pump and a second using diesel generated pumping. The solar technology is not known in Burundi, spare parts are relatively unavailable and it is unsure that Burundi's solar radiation will support the head pressure necessary for continued flow to supply the community cistern. The diesel powered pumping system is more expensive than initially anticipated and has two two major problems associated with the system. First, is security because the pump will be placed outside of the community at the base of the hillside. Second are the operational costs necessitated by the system (diesel fuel, oil, maintenance, spare parts, etc..) which may render the system unaffordable to the community. BAP is working with our technical consultant PAIHAR and the entrepreneur PFC to find a durable and affordable solution.

During Q 2 reception of the effluent control systems and latrines was accomplished. Baseline water samples were collected and analyzed at 10 coffee washing stations with effluent control systems and seven stations where no mitigation currently is in process. These analyses are presented in the table on the following page. BAP will take water samples again at peak harvest and at the end of the season to facilitate comparative analysis.

Water Analyses- Burundi Coffee Washing Stations w/effluent treatment systems

			Kayanza		WebCor	WebCor	Kayanza	Kayanza	Ngozi	Ngozi	WebCor	Muyinga	
	DATE	Reference	14-Mar-11	14-Mar-11	14-Mar-11	14-Mar-11	14-Mar-11	14-Mar-11	15-Mar-11	15-Mar-11	15-Mar-11	25-Mar-11	25-Mar-11
Parameters	Units		Rohororo 1-right	Rohororo 2- left	Gahahe	Butegana	Kinyovu	Buhorwa	Gitwa	Rutanga	Nkaka	Kagombe	Nyamasaka
pH		>6.5 et<9	7.5	7.2	7.3	7.7	6.4	6.8	5.4	5.2	5.2	6.7	6.4
Turbidity	NTU	2	23	15	46	57	13	28	37	17	15	27	43
Conductivity	uS/cm	<400	46	32	91	116	24	56.5	76	35	29	59	90
Sulfur	mgS/l		0.038	0.028	0.113	0.04	0	0.263	0.005	0	0	>.8	0.193
Orthophosphates	mgPO4/l		0.085	0.23	0.1	0.16	0.15	0.31	0.14	0.21	0.06	0.02	0.18
Chloride	mg Cl/l	200	5.7	3.8	9.2	9.8	6	11.2	9.4	7.1	7.8	22.6	21.3
Magnesium	mg Mg/l	50	0.68	0.66	0.62	0.65	0.58	0.7	0.7	0.77	0.75	0.21	0.77
Sulfates	mg SO4/l	250	0	5	12	7	12	7	8	1	1	4	0
Chrome	mg Cr/l	max 50	0	0	0	0	0.01	0	0.01	0.07	0.02	0.29	0.04
Phosphorus	mg P/l	max 5	0.02	0.08	0.03	0.05	0.05	0.1	0.04	0.07	0.02	0	0
Potassium	mg K/l											0	2.1
Ammonium (NH4)	mg NH4/l	0.5	0.04	0.04	0.68	0.1	0.02	0.29	0.01	0.01	0.01	>.73	0.35
Nitrates (NO3)	mg NO3/l	50	1.2	2	0	1.7	6.6	0	8.4	6.7	6.9	0	0
Nitrites (NO2)	mg NO2/l	0.1	0.023	0.025	0.013	0.005	0.043	0.06	0.079	0.024	nd	0.001	0.03
Copper	mg Cu/l	max 1	0	0.06	0.09	0	0.02	0.01	0.03	0	0	0	0
Total Iron	mg Fe/l	200	1.02	0.61	>3	1.32	0	>3	0.13	0.03	0.13	0	>3
Floride	mg/F/l	max 1.5	0	0	0	0	0.01	0	0.05	0	0	0	0
Manganese	mg Mn/l	max 0.05	0.3	0.3	5.1	0.5	0.4	0.8	0.7	0.8	0.7	0	0.71
Oxydability	mg O2/l	5	0.8	0.7	1.2	2.2	1.8	2	1.7	1.2	0.6	1.8	0.96
Zinc	mg Zn/l	Max 5	0.07	0.02	0.27	0.08	0.03	0.05	0.05	0	0	0.13	0
			eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de source	eau de ruisseau	eau de ruisseau	eau de source	eau de source	eau de ruisseau	eau de ruisseau

Control washing Station Water Analyses

Stations w/o effluent control

				ARFIC/Sogestal Kayanza		WEBCOR	COPROTRA	Sogestal Ngozi	Prive	ARFIC/Sogestal Kirundo-Muyinga
	Date			24-Mar-11	24-Mar-11	24-Mar-11	24-Mar-11	25-Mar-11	25-Mar-11	25-Mar-11
№	Denomination	Unites	Valeur maximale admissible	Bwayi 1(droite)	Bwayi 2 (gauche)	Nemba	Karehe	Rwintare	Gatukuza	Ngogomo
1	pH		>6.5 et<9	6.76	6.4	6.2	4.43	5.4	5.8	6.51
2	Turbidite	NTU	2	77	32	35	25	22	14	31
3	Conductivite	µS/cm	<400	158	67	71	49	46	30	59
4	Sulfure	mgS^{2-}/l		0.090	0.468	0.036	0.019	0.003	0.007	0.011
5	Orthophoshate	mg $P04^{3-}/l$		0.110	0.39	0.34	0.05	0.18	0.04	0
6	Chlorure	mg Cl /l	200	43.7	9.6	7.2	11.8	8.9	6.4	10.2
7	Magnesium	mg Mg/l	50	0.80	0.5	0.67	0.55	0.67	0.68	0.88
8	Sulfates	mg $SO4^{2-}/l$	250	2	4	6	3	2	1	3
9	Chrome hexavalent	mg Cr 6+/l	max 50	0	0	0	0	0.01	0.01	0.01
10	phoshore	mg P/l	max 5	0.05	36	0.18	0.15	0.11	0.13	0.02
11	Potasse	mg K/l		>7	0	3	3.4	2.3	2.1	1.20
12	Ammonium	mg NH4+/l	0.5	0.13	0.61	0.22	0.1	0.02	0.05	0.13
13	Nitrates	mg NO_3^-/l	50	0.1	0	2.7	9.6	9.2	3.3	8.10
14	Nitrites	mg NO_2^-/l	0.1	0.114	0.014	0.004	0.021	0.013	0.022	0.042
15	Cuivre	mg Cu/l	max 1	0	0	0.15	0	0	0.01	0
16	Fer	mg Fe /l	200	>3	>3	2.52	1.28	0.48	0.69	0.92
17	Fluorure	mg F^-/l	max 1.5	0	0	0	0	0	0.07	0
18	Manganese	mg Mn/l	max 0.05	0.479	4.4	0.9	0.423	0.142	0.065	0.105
19	Oxadabilite au KMnO4	mgO_2/l	5	1.02	0.62	1.4	0.95	2.1	1.8	2.00
20	Zinc	mg Zn/l	Max 5	0	0.02	0	0	0.03	0	0
				eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de ruisseau	eau de ruisseau

In collaboration with BAP's Micro-Enterprise and Gender specialist 19 associations of 70 previewed have been visited and 33 households with a total population of 273 family members have been identified to participate in pilot activities related to water harvesting (rainfall catchment) coupled with kitchen gardens and the installation of improved fuel efficient cooking stoves.

BAP also participated in the annual review of water sector activities during Q2. BAP's participation in the discussions included our community water system rehabilitation work and the environmental mitigation being performed at a select number of pilot washing stations. BAP agreed to share results and impacts with sector actors as well as to participate in future lessons learned sessions.

Activities planned for Q3

- Definitive reception of community waterworks at Kinyovu and Kayenzi with transfer of the systems to the communes
- Finish installation of the Community water system at Kigoganya
- Collect and Analyze water samples taken at peak production from Coffee Washing Stations with effluent control systems and control washing stations
- Finish the identification of pilot women's groups for water harvesting and improved cookstove demonstrations
- Collaborate with CNTA to identify and train local artisans in the construction and diffusion of water catchment and improved fuel efficient stoves.
- Monitor construction of new effluent control systems at requesting washing stations and mini-washing stations

Burundi Business Incubator

Introduction

This has been a semester of intense activity for the Burundi Business Incubator. Over the course of the past 6 months the BBIN has finished recruiting its core management team, accomplished the renovation of the old USAID complex at the intersection of Avenues Uprona and Muyinga, moved in, hosted an official inauguration, recruited a handful of pre-incubatees, facilitated numerous training sessions for Burundi's private sector entrepreneurs, participated in an exchange visit with a South African Business Incubator (RAIZCORP), rented the majority of its commercial space, cpmpleted its 2011 workplan, budget and grant request and had these approved and transitioned from being a BAP project component to being a BAP grantee as of 1 April 2011.

Activities undertaken

During Q1 of PY 4 BBIN:

- Finished the renovation of the old USAID Building complex
- Finished recruiting core management and support staff
- Held an inauguration ceremony at which were present the 2nd Vice-President of the Republic Hon. Gervais RUFYIKIRI, the US Ambassador Pamela Slutz, the Charge d'Affaires of the Dutch Embassy, numerous businessmen and women as well as representatives of the international donor community. The inaugural ceremony was followed by a visit to of the incubator, discussions between dignitaries with pre-incubatees, and an exposition by the founding member organizations of the BBIN
- Implemented a number of procedures including an operations manual, a client handbook, and a financial control system, as well as a procedure for managing their generator and established a database to track potential clients
- Staff training included sessions on marketing products and services of the BBIN, identification of partners, clients and potential business mentors, and a session on time management
- A BBIN website was developed and populated
- A series of outreach/marketing presentations were made to AFAB, to BICOR and to the Belgian Embassy and, finally
- Two types of client contracts were drawn up and vetted by our lawyer

During Q2 most activity at BBIN focused on:

- Training of Staff and Clients. To this end the following sessions were facilitated
    - Training in financial modeling
    - Use of quickbooks accounting software
    - Business planning TOT (12 pp of whom 2 were women) 4 trainers retained
    - Business Planning Course (16 pp of whom 9 were women) resulted in three successful requests for pre-incubation
    - Business mentorship (9 pp of which 1 was a woman) all were retained as mentors for future incubates

  - Steps to becoming an Entrepreneur (16 pp of whom 2 were women) This session was facilitated with COPED, 11 participants decided to pursue the second module of the training in Business Ideas
  - Business Ideas (17 pp of whom 2 were women) Three graduates of this course signed up for the Business Concept Course
  - Business Concepts (16 pp of whom 4 were women) Fourteen graduates expressed an interest in pursuing further training while six requested to participate in a future business planning seminar
  - Sectors represented by participants at these trainings include: agribusiness, commerce, transport, construction, and small manufacturing.
- In addition an exchange visit was made to South Africa by the BBIN Director, BAP's Coordinator for BBIN and the President of the BBIN Executive Committee to learn from RAIZCORP the principles of their success as an incubator (a report on this exchange is available in the annexes.
- At the end of the quarter BBIN held a very successful general assembly meeting in anticipation of its first birthday and the transition to managing a grant with BAP rather than being an integral component of BAP.
- Outreach activities included presentations during the Belgian Business week and to the New Generation Association, as well as a networking dinner held for training participants from sessions facilitated in January and Februrary.
- In preparation for this transition BBIN staff and technical consultants worked hard on developing an operational financial management system, developed priorities for roles and responsibilities during the transition, finalized the setting up of administrative, technical and financial procedures, proceeded with an evaluation of staff performance and completed the administrative transition through the signature of employee agreements with the BBIN ASBL.
- We note, however, that the resignation of the Deputy Director of the BBIN who was in charge of training programs left a hole which, in the interim, is being filled by BAP's BBIN coordinator Frank Kagimbi.
- By the end of the second quarter BBIN had accomplished the following:
  - Rented commercial space to 10 commercial clients
  - Recruited 3 pre-incubatees
  - Trained a total of 83 business men and women

Planned Activities for Q3

- Strategic Development of the Training Service, including recruitment of a new training director
- Development of Incubation Services and pre-incubation mentoring
- Finalization of a partnership with the IFC for Business Edge training and curriculum
- Application of Lessons learned at RAIZCORP
- Development of a business relationship with SPARK and BIDNET

Conclusion

This first semester of our fourth project year BAP expanded into two new provinces Bururi and Makamba, bringing to 12 the number of provinces where interventions are underway. Technical refocusing to pay greater attention to productivity and the reduction of production costs is beginning to bear fruit in terms of impact. Our literacy activities targeting women are a great success and are creating overflow and secondary impacts. A solid foundation for private sector growth is being laid and we are starting to see the emergence of synergistic impacts from integrated programming with clients in their communities. We are pleased to see the milk collection centers moving forward and that negotiated changes in legislation are beginning to exhibit results in terms of the number and diversity of coffee processing operations, including those owned and operated by farmers that are emerging. Interest in our program runs high in the communities we serve. More of our clients are focusing on community mobilization of funds for income generating activities; and flow through revenues is beginning to be invested in the communities of our target zone. The effluent control systems instituted at pilot coffee washing stations, the attention to hygiene, and quality as well as mastering costs is attracting the attention of the wider international community and decision makers. We are quietly optimistic as we head into the third quarter of this project year and much appreciate the new partnerships, linkages and networks we are developing. We look forward to transitioning our activities in ways that will be sustainable post project financing and appreciate the support we continue to receive from USAID, our partners and clients in the field.

Annexes

1) Coffee White Paper
2) PV of Coffee Reform Committee Meeting 15 April 2011
3) Powerpoint Presentation from Workshop on East African Dairy Norms and Standards
4) RAIZCORP Exchange Visit Report

BAP Coffee White Paper #2

Calculating costs for SOGESTAL coffee washing stations: some lessons for discussion

January 2011

Team Leader/Economist: Tom Lenaghan, DAI

Processing Specialist/Financial Analyst: Stephan Jean-Pierre, AGRIDEV

Accountant: Guillaume Nkeshimana, Interacos

List of Acronyms

BIF	Burundian Francs
CCS	Coffee Cooperative Society
CWS	Coffee Washing Station
SOGESTAL	Société de Gestion de Station de Lavage

Introduction

This white paper presents a synthesis of the presentations of the team members at a workshop held for SOGESTAL accountants and Directors of Finance in Banga, Kayanza Province on October 26, 2010. The results presented here and in the workshop are the fruit of a three-month effort by the BAP project to calculate real costs of production for coffee washing stations that are managed by the SOGESTALs—mixed-capital (public and private) management companies who have been responsible for running wet processing operations for fully-washed coffee on state-owned washing stations in Burundi since 1991. BAP's initial objective in commissioning this work was to come up with economically valid estimates of the cost of transforming raw coffee cherries (*cerises*) into parchment (*café parche*) so that SOGESTAL managers would be in a better position to enter into firm fixed-price service contracts with farmer cooperatives (or other owners of cherries) seeking to sell coffee directly to overseas buyers, without referring to the percentage based formula for SOGESTAL remuneration under the regulated *clef de répartition* system.[1] These processing costs have been historically difficult to estimate because of the aggregated nature of SOGESTAL financial accounting systems, which grouped together costs from different washing stations and from the central service units (production, finance and administration) at the SOGESTAL head offices. Several of the SOGESTALs have made efforts to calculate these costs, but the two specific estimates of SDL processing costs from different SOGESTALs that were made available to the team members at the start of this assignment both assigned arbitrarily determined allocations of indirect costs from central services without a clear methodology based on analytic accounting principles.

A second objective of this work is to provide the SOGESTALs with a dynamic planning tool which will project how overall profitability will react to different scenarios for green coffee sales prices, volumes, and technical rates of transformation between cherries and parchment and between parchment and green coffee. They key element in this management planning tool is a separation of costs into fixed and variable components for all lines in the chart of accounts at both the CWS level and the SOGESTAL headquarters level.

To assess the availability of the expense data, the Study Team Leader and BAP's Coffee Value Chain Leader visited three SOGESTALs in July and found that one of them had allocated all costs in its chart of accounts to individual Coffee Washing Stations (CWSs) and to its headquarters—making full use of the feature for assigning cost centers that exists in the financial accounting software used by SOGESTALs.[2] This data, available for four full years from 2006 through 2009, provided to the team by the SOGESTAL forms the basis for the analysis presented here.

[1] These types of direct sales from farmer groups to overseas importers are of great interest to specialty coffee buyers looking for longer term commercial relationships with farmers that would help to mitigate Burundi's exposure to price fluctuations on the spot market.

[2] One of the other SOGESTALs had made a nearly complete allocation of costs, with the exception of personnel costs that were all assigned to the headquarters.

Since the Study Team did not have the resources to analyze data from all the SOGESTAL's washing stations, after consulting with SOGESTAL managers, the Team decided to base its model on five CWS selected to represent a range of typical conditions. These included three stations with relatively high volumes and two with lower-range volumes (including one that did not function in two of the four years). In addition three of the chosen stations run with reservoirs that are fed with diesel motor pumps—representing an important extra fuel cost. The remaining two stations take their water supply from gravity fed ground water, with no need for pumping. Again, it is important to note that these five stations are not a random sample; they were specifically chosen by BAP and SOGESTAL mangers to embrace the full range of CWS types.

With the historical cost data from the five stations and from the SOGESTAL headquarters over four years, it was possible for the team to look at how expenses varied with volumes over all the main expense lines in the chart of accounts. This data was used to produce a preliminary classification of fixed and variable costs which was then verified with SOGESTAL operational and financial staff to ensure coherency.[3] Expenses from the five CWSs were assessed individually and then as a simple arithmetic average. The Study Team found no meaningful differences between the individual CWS models and the five-station average model, which led to the decision to base all the analyses presented here and in the October 26 workshop on the five-station average.

The Cost Model

The full template of the cost model built from this historical data is shown in Annex Table 1, which presents the individual line-by-line breakdown of fixed and variable costs with the corresponding basis of allocation for all direct (CWS) and indirect (headquarters) costs. Table 1 below shows a resume of the predicted costs from the model for a single CWS operating at the SOGESTAL average parchment volume level in the current year (2010). The full details by line item appear in Annex Table 2.

An examination of Annex Tables 1 and 2 reveals two particularly salient findings:

> The weight of indirect costs in the total is quite high. Sixty percent of the total cost of processing consists of indirect costs incurred not at the CWS itself, but at the SOGESTAL headquarters.
>
> Indirect costs are mostly fixed; direct costs are mostly variable. Annex Table 1 shows that the vast majority of costs at the SOGESTAL level are fixed costs that do not vary with volumes treated in a given year. In contrast, many more of the line items in the direct cost structure at the washing stations are variable (daily labor, spare parts, sacks and fuel). In both direct and indirect costs, fixed costs salary charges for permanent staff weigh quite heavily. This structure

[3] Variable costs were defined as costs that varied significantly with volumes of coffee being treated at the CWS and at the overall SOGESTAL level. Fixed costs were costs that had no discernable correlation with volume (not to be confused with costs that do not vary from year to year).

means that indirect costs are not only high; they also are inflexible and constitute a significant weight on overall SOGESTAL profitability particularly in years of low volume.

These two characteristics of the SOGESTAL cost structure are extremely important, as will become clear in the subsequent analysis.

Table 1: Predicted costs for the average CWS (in BIF)

Direct Costs (CWS)	
Maintenance & repairs	1,955,724
Consumables	1,422,210
Administration	271,129
Parchment loading	24,582
Daily labor	4,232,931
Employee remuneration & social charges	3,986,535
Depreciation of SOGESTAL assets at CWS	1,487,857
Total Direct Costs	**13,380,967**
Indirect Costs (SOGESTAL)	
Maintenance & repairs	381,205
Rental Payments to State for CWS	3,693,103
Administration	2,652,521
Losses & Stock Irregularities	1,124,674
Employee remuneration & social charges	3,078,228
Taxes	6,061
Interest charges on loans/overdrafts	6,962,849
Depreciation of SOGESTAL assets at HQ	2,378,591
Total Indirect Costs	**20,257,453**
Total Direct + Indirect Costs	**33,638,440**

Historical Analysis and New Challenges

Table 2 shows the profitability of each of the CWS in the sample using actual historical direct costs for each station with its share of fully allocated indirect costs incurred by the SOGESTAL in each year. Revenue figures are taken from annual average sales figures for green coffee by the SOGESTAL with its share of the revenue as determined by the *clef de répartition* formula for each year. Revenue figures are based on overall average sales prices per year, since the SOGESTAL does not track actual sales lots and prices received down to the CWS level.

Table 2: CWS Profitability

Washing Stations	2006	2007	2008	2009
Average Annual Sales Price (BIF/Kg)	2,150	2,690	2,750	3,500
CWS 1				
Cherry Volume (Kg)	1,057,975	381,512	630,403	163,467
Revenue per Kg of parchment	245	307	323	411
Cost per Kg of parchment	216	356	243	742
Profit (loss) per Kg of parchment	29	(49)	80	(331)
CWS 2				
Cherry Volume (Kg)	1,710,178	285,497	622,300	62,540
Revenue per Kg of parchment	245	307	323	411
Cost per Kg of parchment	207	434	327	1,741
Profit (loss) per Kg of parchment	38	(127)	(4)	(1,330)
CWS 3				
Cherry Volume (Kg)	895,698	214,955	609,342	144,890
Revenue per Kg of parchment	245	307	323	411
Cost per Kg of parchment	278	527	305	920
Profit (loss) per Kg of parchment	(33)	(220)	18	(509)
CWS 4				
Cherry Volume (Kg)	237,589	44,481	333,381	15,511
Revenue per Kg of parchment	245	307	323	411
Cost per Kg of parchment	573	2,306	409	5,635
Profit/(loss) per Kg of parchment	(328)	(1,999)	(86)	(5,224)
CWS 5				
Cherry Volume (Kg)	141,041		70,610	
Revenue per Kg of parchment	245		323	
Cost per Kg of parchment	1,927		2,124	
Profit/(loss) per Kg of parchment	(1,682)		(1,801)	

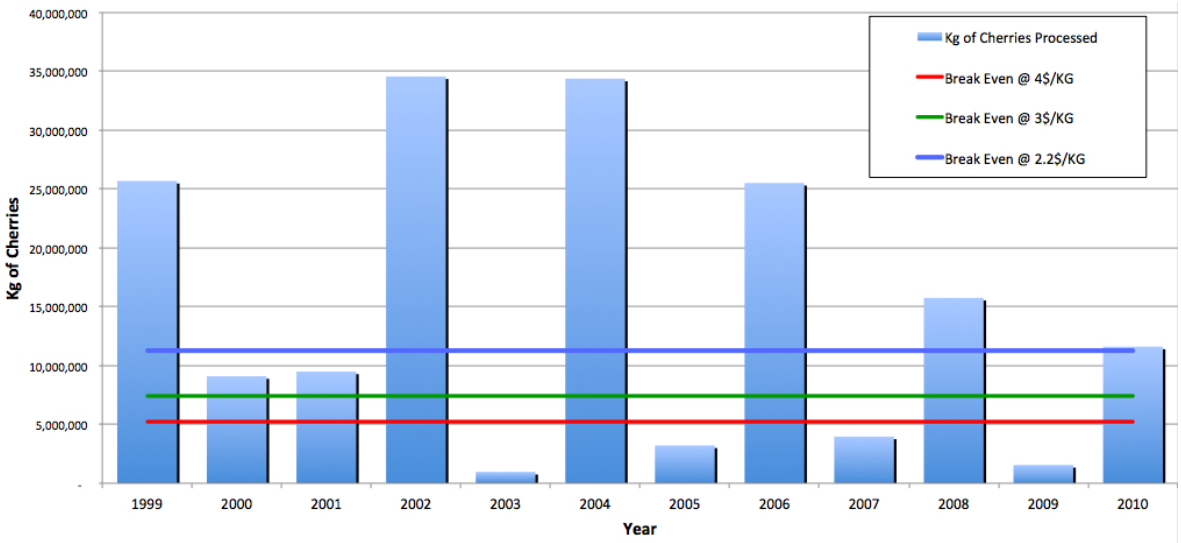
The overall profitability of the five sample CWSs as shown in Table 2 is hardly encouraging. Even the three first stations, which are good volume performers, are only profitable in four out of twelve cases. Furthermore, the scale of the losses in very bad years such as 2009 is such that they easily erase the occasional profitability in good years. The lower volume stations are in structural deficits—losing money in good years as well as bad years.

While the historical record of the five stations in the sample shown in Table 2 gives a good picture of how a variety of CWSs respond to different volume and price conditions over the past four years, it is not a good indicator of profitability at the overall SOGESTAL level. To assess overall SOGESTAL profitability it is necessary to consider overall volumes at the SOGESTAL level.

This analysis is presented below in Figure 1, which shows the breakeven points at different green coffee market prices for the SOGESTAL as a whole. The breakeven points are based on the underlying CWS cost model in Annex Tables 1 and 2, multiplied by the total number of CWSs operated by the SOGESTAL during the four year period.[4] The picture painted in Figure 1 confirms that the poor profitability shown at the CWS level in Table 1 is also a problem at the SOGESTAL level. Even at the historically high current price level of around $4/kg, the SOGESTAL would have only been profitable for 67% of the time (8/12 years). At 2006 average prices of $2.20/Kg, the SOGESTAL would be profitable only 42% of the time (5/12 years).

[4] This assumes that the five CWS model is a good representation of the average SOGESTAL station.

Figure 1: SOGESTAL Breakeven Points, 1999 to 2010



The trends in volume treated since the early part of the decade are also extremely worrisome. The near linear drop in "good year" volume since 2004 is progressively reducing the overall value of profits recorded in the up-cycle years and reducing the ability of the SOGESTAL to fund operations in poor years. It is at a point where even in a relatively good year such as the current one, were it not for a lucky coincidence of historically high prices, the SOGESTAL would likely be near its breakeven point. (At 2006 prices for instance, shown by the blue line, the SOGESTAL would likely just be breaking even this year.)

This relatively somber picture presents, however, an inaccurate roadmap for what the immediate future will look like. In reality the situation is even bleaker. Specifically, the advent of privatization in 2009/10 has significantly altered the prior status quo that underlies the above analysis. Two major changes have been introduced to the system.

The first of these changes is that the sale of the first lot of CWSs has started to reduce the geographical footprint of the SOGESTAL. Whereas the basic model built up for this study is based on a figure of 29 CWSs between 2006 and 2009, the actual number of CWSs now managed by the SOGESTAL is 27. In total five stations were removed from its pool of rented public stations in the first lot of privatized CWSs, which were only partially replaced by the construction of three new stations through a combination of debt financing and equity investments from private SOGESTAL shareholders. As more lots are scheduled for privatization, the footprint of this SOGESTAL (as well as the other four) will be reduced even further. With fewer CWSs operating, the SOGESTAL needs to increase volumes at the remaining stations just to compensate for the loss of privatized stations. In addition, with no reductions in headquarters level indirect costs following the sale of CWSs, this also narrows the basis for allocating fixed indirect costs—as they must be spread out over a lower number of stations, resulting in higher levels of fixed costs per kilogram.

The second major change is that the GOB's announced policy of seeking to privatize all CWSs in the near future is a direct challenge to the whole SOGESTAL business model of supplying contractual management services for state-owned washing stations. With the major push to privatization, it is clear that the implicit agreement between the GOB and the SOGESTALs whereby the state charged a nominal rent that gave the SOGESTALs the right to exploit all the assets belonging to the state is now on life support. Henceforth, if they are to continue as going concerns, SOGESTALs will need to move to a management model under which they take full responsibility for all the assets they use to produce parchment—just like any true private CWS owner. First and foremost, this means that in return for no longer having to make rental payments of around BIF 3.6 million per CWS, the SOGESTALS will need in the future to take into account the economic depreciation of all assets at the stations. The Study Team's estimate of the rough annual cost represented by the economic depreciation of only the major core assets of a washing station (depulper, electrical generator, motor, water pump, buildings and land) is around BIF 17.6 million as shown in Annex Table 3.[5] This implies that moving to a full private mode of operation with the full depreciation/rent trade-off will imply the loss of an implicit subsidy of around BIF 14 million per year—**basically doubling the direct operating costs of the average CWS producing at 2010 volumes, as shown in Table 1**.

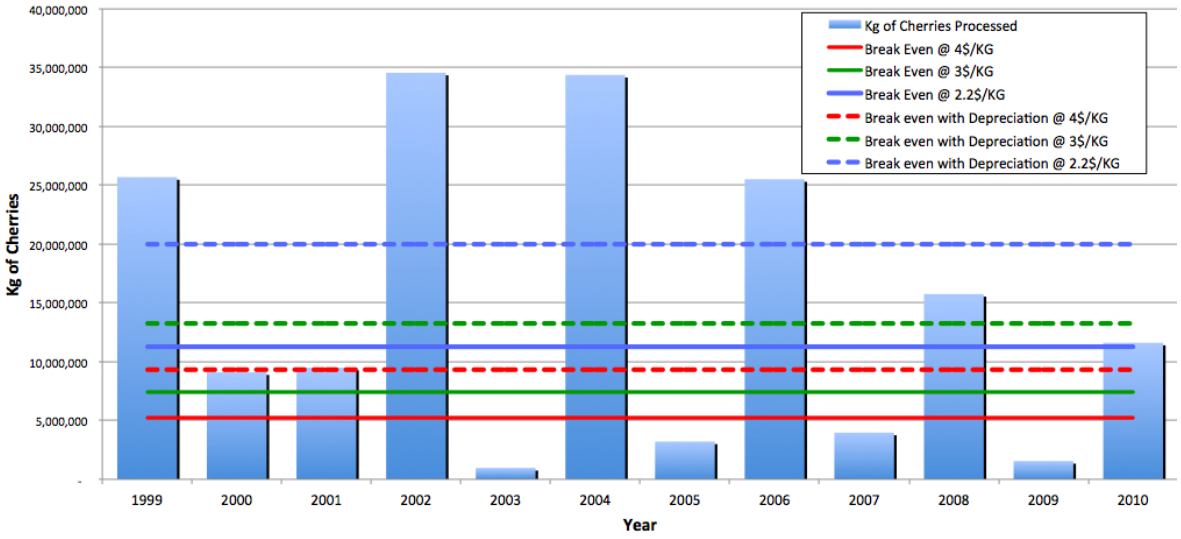
It should be noted that this situation is technically not new. Stations that have been built by the SOGGESTAL shareholders have been operating under this new logic for several years, since these station's assets do appear on the SOGESTAL's balance sheets. However, there seems to be little practical difference to-date in how the SOGESTALs manage these stations vis-à-vis publicly owned stations, which is hard to understand given the significant cost of production differences between the two models. This lack of a true business model taking in to account the necessity of making a return that covers all the investment costs associated with running a wet processing station is at the heart of the challenge now facing the SOGESTALs and their shareholders.

The extent of this challenge can be seen from Figure 2 below, which adds new breakeven points to the analysis presented in Figure 1 taking into account the necessity of covering the additional costs represented by the full economic depreciation of assets at the washing stations as calculated in Annex 3. Each dotted line in Figure 2 presents a new break-even point for the SOGESTAL assuming no other changes in its costs structures are made other than the swaping of the rental payments to the State for with the full incorporation of economic depreciation of the major pieces of equipment, buildings and land at all the CWSs. In reality the current situation of the SOGESTAL is somewhere between the dotted and the solid lines in Figure 2. Its 6 privately built stations essentially are operating with breakeven points defined by the dotted lines, while its remaining publicly built stations are still operating under the solid lines. However, the basic sea-change implied by the GOB's privatization policy is clear for all to see: the continued operation of the CWSs still in the public domain with the implicit subsidy of BIF 14 million per station is not sustainable in the long-run. The challenge then for all the SOGESTALs, or more

[5] This estimate does not include the depreciation costs of drying tables and other smaller pieces of equipment that are on the state's balance sheet at present.

precisely, for their private shareholders or for the private owners of lots of newly privatized CWSs, will be to find a way to be profitable under the dotted lines in Figure 2. At present, with their current cost structures and with the straight jacket imposed by the *clef de repartition*, which limits commercial possibilities for independent action on the part of CWS owners operating within the system, there is little chance that SOGESTALs can continue to operate without significant financial losses in most years.

Figure 2: Breakeven Points for SOGESTAL with full depreciation of CWS assets, 1999 – 2010



Processing costs: Direct and Indirect

The first challenge for SOGESTALs or their completely private successors will be to restructure existing operations to ensure that high fixed costs do not render them non-competitive in an environment characterized by declining volumes. The locus of effort to reduce fixed costs needs to be focused mainly at the indirect costs at the SOGESTAL headquarters. This is because that within the three major types of costs (direct or CWS costs, indirect or SOGESTAL headquarters costs, and depreciation) by far the largest concentration of fixed costs over which SOGESTAL management has some degree of control are indirect costs. The differential mix of fixed and variable costs within each of the three major cost categories can be seen in figure 3 below which shows the breakdown of the three different cost categories per Kg of parchment coffee in three different volume scenarios[6]:

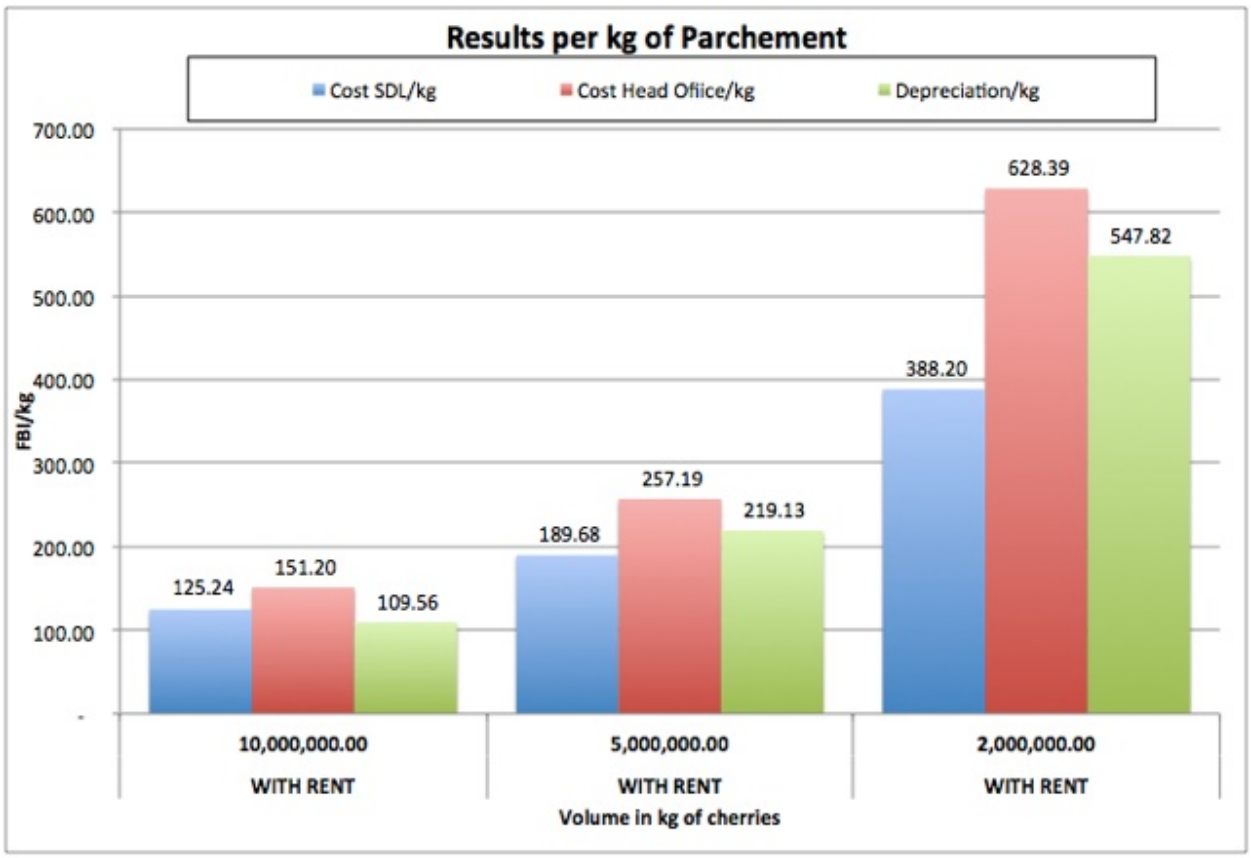
- a low volume scenario of 2 MT of cherries that corresponds to an extremely low level of production such as in 2009/10;
- a medium volume scenario of 5 MT of cherries; and

[6] All three scenarios were modeled with rent payments rather than with full economic depreciation of CWS assets as this is most representative of the current situation for the modeled SOGESTAL.

- a high volume of 10 MT of cherries that is equal to the current “good year” volume in 2010/11.

As can be seen in the three different cases, all three types of costs grow significantly on a per Kg basis at lower volumes, since all three have some fixed costs that do not decline with lower levels of activity. However, the red and green bars that represent indirect (SOGESTAL) and depreciation costs grow at a much faster rate compared to the direct (CWS) costs shown in blue. This reflects the much heavier weight of fixed costs relative to variable costs in the indirect cost category and the fact that depreciation is an inherently fixed cost.

Figure 3: Unit Cost Breakdown under three volume scenarios



While there is little *in the short run* that can be done to change depreciation, the SOGESTAL does have a wider degree of management control over its indirect costs. Thus the major point of Figure 3 is that the current structure of the SOGESTAL is burdened by too many fixed indirect costs so that it needs to find a way to keep the red bars in figure 3 from growing so fast at lower volumes.

While the above analysis makes clear that there is a problem in the absolute levels of indirect costs in the SOGESTAL system, it is harder to say if such costs are out of line in comparison with other international examples. Although there are numerous methodological hurdles to be overcome to find

comparable international benchmarks for assessing the reasonableness of indirect costs for wet processing station managers,[7] the Study Team was able to obtain some data from the 2006/07 exercise for the KILICAFE cooperative APEX organization in Tanzania which fills a similar role to the SOGESTAL for first-level member cooperative washing stations in the Northern and Southern Highlands of Tanzania. KILICAFE is an APEX organization whose members are all farmer cooperatives running their own independent small washing stations, most of which use the Penagos-type "mini-station" water-efficient technology. KILICAFE's Northern chapter, from which the costs presented here are taken, organized the production of 30 different washing stations in 2006/07. KILICAFE's services to its member CWS are much like the SOGESTAL model: it is responsible for technical assistance on processing, providing governance support and training to members, setting quality standards, organizing evacuation and dry milling of parchment from third-party factories, storage of parchment, marketing and sales—both through direct and auction mechanism, and processing final payments to member cooperatives after deductions for external service providers (millers, transport, cupping and certification) and for its own charges. One very major difference with the SOGESTAL model is that KILICAFE also finances the entire coffee campaign, as it advances funds to members to buy cherries beginning from a few weeks after the harvest begins and covers all costs through reception of payment from overseas buyers. It finances most of this considerable working capital needs by virtue of a $900,000 guarantee fund provided by a donor organization that allows it to access $US 1.8 million in commercial overdraft facilities at two commercial banks at an annual interest rate of 8.5%. Thus, in contrast to SOGESTALs that have not had to cover campaign financing since 2008, KILICAFE's income statement supports the full brunt of seasonal campaign financing.

Annex Table 4 shows the entire breakdown of KILICAFE indirect costs for the 2006/07 campaign. These costs are then compared below in Table 3 on a per kilogram basis with indirect costs from the SOGESTAL model under three different volume scenarios: a low volume scenario with the SOGESTAL producing at the same level as KILICAFE in 2006/07, a medium volume scenario with the SOGESTAL producing at its breakeven point given the high current price (which is just a bit lower than the actual volumes for the current season), and a high volume scenario corresponding to the last really abundant campaign which was the 2006/07 year. A comparison of the costs reveals that, as can be expected from the high level of fixed costs, at small volumes the SOGESTAL is vastly more expensive in terms of indirect costs compared with KILICAFE. This is true whether or not the KILICAFE costs are adjusted to remove financing costs to make them more directly comparable. At moderate volumes, the SOGESTAL's indirect costs are either about 25% above those of KILICAFE when corrected for differences in financing or are slightly lower without the adjustment. At high volumes, there is no basic problem—as the SOGESTAL is much cheaper than the 2006/07 KILICAFE standard.

[7] These include: different levels of true economic costs; differences in institutional roles in what is usually a very complicated value chain structure; the presence of implicit or explicit subsidies from donors and the public sector; and differences in accounting rules and practices.

Table 3: Comparison of Indirect Costs with KILICAFE

	Case 1 Low Volume Volume = Kilicafe	Case 2 Medium Volume 2010 Breakeven Volume	Case 3 High Volume 2006 Volume
Cherry Volume (Kg)	2,139,470	9,144,565	24,165,250
Parchment Volume (Kg)	427,894	1,828,913	4,833,050
Total Indirect Costs (BIF)	252,247,473	296,915,650	392,765,660
Indirect Costs per Kg (Parchment)	BIF 590	BIF 162	BIF 81
Kilicafe Indirect Cost per Kg (Parchment)	BIF 177	BIF 177	BIF 177
Kilicafe Indirect Costs w/o Financing (Parchment)	BIF 129	BIF 129	BIF 129
SOGESTAL costs as % of Kilicafe Indirects	333%	92%	46%
SOGESTAL costs as % of Kilicafe Indirects, net of Financing Costs	457%	126%	63%

Despite the very rough nature of these calculations and the fact that the Study Team has no fixed/variable cost breakdown for KILICAFE, it is clear that the SOGESTAL model suffers from being over-dimensioned and inflexible—rendering it non-competitive at low volumes. The low volumes in Case Number 1 are actually accurate representations of the real volumes recorded by the SOGESTAL in 2005, 2007 and 2009. In years like these when overall volumes are no larger than KILICAFE's, the weight of indirect costs on overall productivity is so heavy that it threatens the financial viability of the whole SOGESTAL business model.

In contrast to the very grave problems with indirect costs, international comparisons of direct costs do not show problems on quite the same scale. Thus, while the growth in the blue bars of Figure 3 is somewhat unsettling, a rough comparison of the direct costs of some Kenyan CWSs in Table 4 indicates that the SOGESTAL's washing stations direct costs are not out of line with at least some regional competitors using the same basic wet processing technology. In fact, Table 4 shows that actually the SOGESTAL maintains a lower level of CWS operational costs per unit of output in both good and bad years as compared to the Kenyan Gantunyu Kigio CCS, that also uses the same basic McKinnon depulping technology.[8]

[8] It should be noted that there is a significant wage differential between Burundi and Kenya which will have a tendency to inflate the Kenyan CWS costs. At equal wage rates, it is unlikely that the SOGESTAL's costs would still be lower than the Kenyan case in Table 3. However, this does not invalidate the overall point that direct costs at the washing stations are not generally out of line with at least this one comparable case.

However, one other key point to emerge from Table 4 is that, with a move to a much smaller CWS model using the latest generation of water-efficient depulpers (from either Penagos or Pinhalense) which do not require large motors, complicated water storage and circulation systems, and which can produce parchment without fermentation, there seems to be a clear potential for reducing direct costs by a huge amount—compared to the "old-style" McKinnon-based washing station used in both the Burundian and Kenyan cases. This can be seen from the much lower costs for the Tanzanian cooperatives in Kigoma in Table 4 who use this type of technology.

It is important, however, to not read too much into the differentials between the Kenyan/Burundian costs levels and the Tanzanian cost levels in Table 4. The differences between the two lie not only in the technology, but also in the institutional architecture under which the stations are run. In the Tanzanian case, the farmer cooperatives own the land and contribute to the construction costs of the stations. They also provide much of the management oversight. In addition, cooperative members provide labor at generally lower rates than what a private company such as a SOGESTAL would be paying to occasional or permanent employees. In this manner some of the fixed asset depreciation, management and operating costs that in the SOGESTAL model come out of the SOGESTAL's income statement are "externalized" to a first-level farmer cooperative. Thus the cost savings represented by smaller mini-washing stations is really as much the result of a different institutional model with much of the operating processes at the washing station being managed directly by farmer cooperatives rather than by paid employees of an APEX-type organization as in the SOGESTAL model.

Table 4: direct costs of washing stations: Kenya, Burundi, Tanzania[9]

	Kenya		Burundi		Tanzania	
	Gatunyu Kigio CCS		SOGESTAL		SDL a Kigoma	
	2007/08	2006/07	2008/09	2007/08	2009/10	2009/10
					Kalinzi	Makatanga
Cherry volumes in system(Kg)	226,181	738,139	386,408	2,266,036	120,000	220,000
Cherry volume per CWS (Kg)	56,545	184,535	77,282	453,207	120,000	220,000
Total operational costs in local currency	2,241,666	2,942,899	29,733,982.00	58,175,551.00		
USD exchange rate	71.5	67.8	1193.4	1240.9		
Total operational costs in USD	31,374	43,393	24,915	46,882	1,667	2,334
USD cost per Kg of cherry	$ 0.139	$ 0.059	$ 0.064	$ 0.021	$ 0.014	$ 0.011
USD cost per Kg of parchment	$ 0.694	$ 0.294	$ 0.322	$ 0.103	$ 0.069	$ 0.053
USD cost per Kg of green coffee	$ 0.867	$ 0.367	$ 0.403	$ 0.129	$ 0.087	$ 0.066
Number of CWSs	4 CWs		29 CWSs		1 CWS	1 CWS
Technology	McKinnon, 3 disks		McKinnon, 3 disks		Penagos UBE 500 (1 ou 2)	
	Concrete reservoirs		Concrete reservoirs		Low water use	

Sources: Kenyan figures provided by the Gatanga Coffee Growers Development Group; Tanzanian figures from Sustainable Harvest; Burundian figures from the team's model.

Conclusions

The conclusions of the above analysis are summarized briefly below. There are two sets of conclusions: one directed mainly at SOGESTAL managers and shareholders, and a second set of conclusions directed at public policy makers.

<u>The SOGESTAL</u>

Conclusion #1: Indirect costs are both too high and too inflexible. They must be adjusted quickly.

The SOGESTAL's indirect costs structure is unsuited to a new environment characterized by increased competition for cherries and declining production (which is different from just cyclical swings in production). Headquarters administrative and personnel expenses are set to a level that would be appropriate for a firm processing at least 20 MT of cherries per year. Looking forward, with declining production and new competitors, it seems unlikely that such volumes are likely to materialize very often if at all. The SOGESTAL shareholders must realize that if no steps are taken to modify the indirect cost structure of the firm to reduce costs and, perhaps more importantly, to turn them from fixed to variable

[9] Costs do not include any financing, depreciation or downstream marketing or processing costs.

costs, there is little hope of maintaining acceptable levels of profitability. New approaches to personnel remuneration and administrative expense management will need to be considered. These may include the use of personnel contracts with fixed and variable portions based on volume targets, setting fixed administrative budget limits based on pro rata volume rates against projections with adjustments in budget authorizations over a season in accordance with progress against projections. The type of model developed by the Study Team can be used to devise such management budgets.

Conclusion #2: The SOGESTAL is split between two different logics: operating as custodians of publicly owned CWSs and operating as private owners of CWSs. The current business model is adapted to the former case. The future, if the SOGESTAL is to continue as going concerns, lies in the latter. Urgent attention needs to be given to devising an appropriate new business model.

The SOGESTAL's traditional business model of operating within the *clef de répartition* leaves it free from many elements of risk normally associated with commercial processing operations. It is not responsible for cherry purchase and is not technically owner of the coffee at any stage of its processing. Thus it neither finances the campaign nor carries the risk of stock loss or of poor quality cherries with low parchment yields or quality (or rather it carries less than 16% of these risks—based only on its share of total green coffee revenue under the *clef de répartition*). Nor does it have to worry about the whether its rate of return covers the investment in core CWS assets or their depreciation, as these assets are not carried on its balance sheet. However, the end of this model has already been announced with the GOB's stated intention to privatize all publicly owned CWSs. If private shareholders of the SOGESTAL's wish to continue in the coffee business, they must develop a new business model that responds to a new environment in which all of the above risks are fully assumed. Perhaps unknowingly, they have already taken the first step in this process by building their own CWSs, which to be profitable under the current *clef de répartition* formula, require almost double the volume of throughput vis-à-vis publicly owned stations.[10]

The major elements of this new business model will need to be developed looking not to the traditional Burundian-SOGESTAL model, but to other models that are more suited to a down-scaled approach with significantly lower break-even points than in Figure Two of the above analysis. The major lines of such a model are already apparent. They are likely to include the following:

> <u>Replacement of McKinnon-based technology with lower-cost Penagos/Pinhalense water efficient depulpeurs</u>. As equipment wears out, or even before, moving to the next generation of depulping technology will first of all, permit the SOGESTAL to lower direct operating costs, from savings in fuel, diesel spare parts, water-pumping and storage costs, fermentation tank maintenance and labor charges. It should also in the longer term allow for reduced depreciation costs as water-efficient washing stations can dispense with much of the concrete lined water channels, pipes, fermentation tanks and treatment facilities that the current stations require.

[10] The precise figure from the model is 1.8 times.

This should help to reduce initial investment requirements and allow for a reduction in long term economic depreciation as much of this infrastructure would not need to be maintained.

Work out a cost reducing division of labor and responsibilities with farmer cooperatives present at the washing stations. The possibility of learning from models now operating in Tanzania and elsewhere needs to be explored. It should be feasible for CWS owners (SOGESTALs or others) to work out collaborative agreements with cooperative unions to divide up management responsibilities and roles so as to devolve some tasks to farmers' cooperatives where they have the potential to fulfill needed functions at a lower cost than the SOGESTAL. Areas such as the processing farmer payments, some CWS labor charges and real estate purchases linked to CWS operations may all be areas in which cooperatives could enjoy a price advantage.

Revise indirect costs so as to lower the basic fixed cost base line that gets charged to CWSs. As noted above, this is an imperative step for both the "old" and "new" models. This will require significant reengineering of the SOGESTAL's basic management structure.

Leaving the clef de repartition system and enter into directly negotiated transactions with farmers, dry millers and exporters. The mandated straight jacket of the *clef de répartition* serves to discourage the negotiation of new flexible service agreements that need to be worked out between all the actors in the value chain.[11] A corollary of this is that the SOGESTAL, or its private shareholders in some new form, will likely need to actually buy cherries and sell green coffee on their own—implying the assumption of many new risks they will have to master with appropriate management tools that they do not yet have. This will also certainly require more of an investment in green coffee marketing and sales capacity than the SOGESTAL has developed to date.

There is little reason that the SOGESTAL could not now start applying some of these measures on an experimental basis in the washing stations it already owns. Working out arrangements, when associated with cost reducing measures to address the indirect cost issue, would indeed help to position the SOGESTAL's private shareholders for making credible bids for the purchase of CWS in the next round of privatization.

Conclusion #3: with a current structure that is over dimensioned for the level of volume that can be realistically expected, it is crucial that the SOGESTAL do all in its power to raise the volume of cherries it processes. It will need to be much more active and aggressive—particularly in its own stations with their higher breakeven points.

[11] This is because actors refer to their shares under the *clef de répartition* as the basis for all negotiation, and can always fall back on their reserved part of the pie. The persistence of these shares tends to fossilize existing value chain relationships, making it very hard to for actors to redistribute roles among themselves or to bring in new innovations to reduce costs through vertical integration. Even worse, the current system encourages waste and high costs by giving actors incentive to inflate their costs to justify a negotiated increase in their percentage share.

Another problem with the current system from the SOGESTAL's point of view is that the SOGESTALs are largely passive processors who have little ability to influence the main levers on which their volumes depend. They do not fix the prices farmers receive. They do not arrange for financing of cherries or provide the crucial cash advances that are so important to farmers in deciding between washed and fully washed channels or between competing washing stations. Getting sufficient volumes for the SOGESTAL depends largely on what other actors over whom they have no control decide to do and when they do it. To improve profitability, the SOGESTAL must find ways of encouraging farmers to bring in more cherries to their stations. Besides leaving the *clef de répartition* and embarking on a strategy of buying cherries with their own financing, the SOGESTAL can clearly do more in this regard. Simple good relationship management with farmers and cooperatives can contribute a lot, as often this is lacking. Other mechanisms like contests, prizes or bonuses for farmers bringing lots of cherries could be explored. Washing station managers can also be incentivized through bonus programs and promotional budgets to think up their own stratagems for raising volumes.

Public and Sectoral Policy Makers

Conclusion #1: the recent evolution of the coffee value chain is unwinding the basic financial viability of the core SOGESTAL-based processing system. This will only get worse whether CWS privatization goes forward rapidly or not. Successful privatization will largely depend on how fast new operational models that can function profitably at lower volumes can be developed at the SOGESTAL washing stations.

The poor profitability figures that underlie the analysis presented here point to a fact that is likely to be valid for all SOGESTAL washing stations: the fundamental technical and business model of large-scale washing stations operated by firms with staffing and cost structures based on models close to those of public administrations is no longer viable. The era of the SOGESTAL's monopoly is over. Competition from new washing stations, from privatized lots of ex-SOGESTAL washing stations, and even from the washed coffee sector mean that even without declines in coffee production, the volumes are no longer there to justify such top heavy structures. The next generation of washed coffee processing will need to be developed so that it can function profitably at lower volumes. This can happen quickly, particularly if SOGESTALs use their own stations as laboratories for this new model with a concomitant reduction in fixed indirect costs to provide a tangible "demonstration effect." Without such a demonstration effect, potential private investors in SOGESTAL washing stations are likely to adopt a "wait and see" attitude. Public bodies including ARFIC and Intercafé should be focusing on encouraging experimentation in terms of new processing models (notably mini-washing stations) focusing on SOGESTALS and farmer cooperatives, as well as promoting new institutional arrangements between farmers, processors and exporters to encourage and exploit such investments. Even more troubling, keeping the current SOGESTAL system alive in its present form will likely result in growing need to fund SOGESTAL CWS operations either in the form of public subsidies, debt assumptions for unpaid operational loans or increased shares from the clef de reparation revenue sharing system.

Conclusion #2: the development of the necessary new models is being retarded by the persistence of the clef de répartition which is crystallizing the relationships between farmers, wet-processors, dry

processors and exporters. It will be hard for the Burundian coffee sector to entice new private investors into the country or interest existing national actors in large new investments as long as all players in the sector still expect to be remunerated through an administratively determined revenue sharing formula. Eliminating this mechanism would probably do more than any other measure to promote needed institutional innovations and attract private investment.

Even if it is legally possible to export coffee without being subject to the *clef de répartition* the mechanism still sets the basic expectations of what farmers, processors and exports expect to receive. Operating outside of this frame of reference is difficult for SOGESTALs to do, even in their own washing stations. Similarly, the prospect of having to negotiate prices with farmers and dry mills while both can call on "their share" according to the predetermined formula, adds another element of risk in the eyes of potential new washing station investors.[12] In this manner, the continued presence of the clef de repartition not only serves to discourage private investors in CWSs, it makes it hard for the SOGESTALs to fully exploit their own private stations. At its most perverse, the *clef de repartition* discourages the SOGESTALs from developing new lower cost CWS models as well as making the much needed cuts in indirect costs, since both actions could lead to a reduction in revenues on the grounds that they no longer need their current share.

[12] The recent tensions between Webcor and farmers center on just this issue.

Annex Tables

Table 1: Cost Model Breakdown

The following table on the next three pages presents the template of the basic cost model built by the Study Team for the SOGESTAL. It is divided into two major sections: “Charges Directes” or costs at the washing station; and “Charges Indirectes” or costs at the SOGESTAL headquarters. The lines in black are for fixed costs; the lines in blue are variable costs. The blue numbers in the center column are the BIF cost per kilogram of the relevant variable cost. Direct costs are per Kilogram of cherries. Indirect costs

ae per kilogram of parchment. The last column in red gives the basis of allocation.

CHARGES DIRECTES (SDL)	Coefficient Calcul CV par kg Cerises	Base d'Allocation
Pièces moteur Lister		Moyenne Historique
Equipement station	1.226416993	Volume Cerises
Autres équipements station	0.185780716	Volume Cerises
Pièces moteur Hatz		Moyenne Historique
Boulonnerie		Moyenne Historique
Courroie		Moyenne Historique
Dépulpeur MC KINNON	0.645423956	Volume Cerises
Petit outillage	0.077712562	Volume Cerises
Peinture		Moyenne Historique
Plomberie		Moyenne Historique
Matériaux de constructions		Moyenne Historique
Installation électrique		Moyenne Historique
Poulie		Moyenne Historique
Pompe		Moyenne Historique
Total entretien et reparation		
Sacs nylon	0.41261286	Volume Cerises
Lubrifiants	0.152751894	Volume Cerises
Carburant	1.698459426	Volume Cerises
Autres consommables		Moyenne Historique
Total Consommables		
Frais PTT		Moyenne Historique
Imprimés+Fournitures de bureau	0.42637969	Volume Cerises
Frais de Mission		Moyenne Historique
Autres charges		Moyenne Historique
Total Administration		
Chargement café	**0.039128438**	**Volume Cerises**
Salaires de base		Moyenne Historique
heures suplementaires	0.347118815	Volume Cerises
m.o journalier	6.737905571	Volume Cerises
ind de logement		Moyenne Historique
ind de deplacement		Moyenne Historique
Prestations familiales		Moyenne Historique
INSS part patronale		Moyenne Historique
MFP part patronale		Moyenne Historique
Total Charge Salariale		
Amortissement (Actif Sogestal)		Moyenne Historique
Amortissment (Actif Etat Terrain/Batiments)		Calculs sur valeurs neufs actualisees
Amortissement (Actif Etat Equipements)		Calculs sur valeurs neufs actualisees
Total Amortissement		
TOTAL CHARGES DIRECTES (SDL)		

CHARGES INDIRECTES (SIEGE)	Coefficient Calcul CV par kg Parche	Base d'Allocation
Plomberie		Prorata du nombre de SDL
Matériaux de constructions		Prorata du nombre de SDL
Meubles		Prorata du nombre de SDL
Installation électrique		Prorata du nombre de SDL
Pompe		Prorata du nombre de SDL
Lubrifiants		Prorata du nombre de SDL
Carburant		Prorata du nombre de SDL
Pièces de rechange véhicul		Prorata du nombre de SDL
Moteur Lister		Prorata du nombre de SDL
Pièces moteur Hatz		Prorata du nombre de SDL
Poste à souder		Prorata du nombre de SDL
Boulonnerie		Prorata du nombre de SDL
Dépulpeur MC KINNON		Prorata du nombre de SDL
Petit outillage		Prorata du nombre de SDL
Peinture		Prorata du nombre de SDL
Equipement station		Prorata du nombre de SDL
Autres équipements station		Prorata du nombre de SDL
Refection Piste		Prorata du nombre de SDL
Frais de remetalisation	-	Prorata du nombre de SDL
Entretien&Rép. Mat.Transp	0.0576	Prorata du volume de parche SDL
Entr&Rep mach, autr mater		Prorata du nombre de SDL
Total entretien et reparation		
Location stations+Gite Buja		Prorata du nombre de SDL
Location véhicules	1.5212	Prorata du volume de parche SDL
Frais bancaires		Prorata du nombre de SDL
Frais PTT		Prorata du nombre de SDL
Eau et Electricité		Prorata du nombre de SDL
Imprimés+Fournitures de bureau		Prorata du nombre de SDL
Autres consommables		Prorata du nombre de SDL
Chargement café	0.4754	Prorata du volume de parche SDL
Frais de mission		Prorata du nombre de SDL
Jetons de présence		Prorata du nombre de SDL
Frais de représentation		Prorata du nombre de SDL
Publicité et sponsor		Prorata du nombre de SDL
Frais de documentation		Prorata du nombre de SDL
Frais de formation	7.2796	Prorata du volume de parche SDL
Frais de reception		Prorata du nombre de SDL
Frais de restau A.G.A		Prorata du nombre de SDL
Agents de sécurité	0.1810	Prorata du volume de parche SDL
Honorair et Frais d'actes		Prorata du nombre de SDL
Hono commiss.aux compt		Prorata du nombre de SDL
Expédition échantillon café	0.0388	Prorata du volume de parche SDL
Frais encadrement café		Prorata du nombre de SDL
Frais fonctionnemt unité repr		Prorata du nombre de SDL
Total Administration		

Manquant/stock		Prorata du nombre de SDL
Charges&Pertes diverses		Prorata du nombre de SDL
Total pertes diverses		
Salaires		Prorata du nombre de SDL
Total Salaires		
Impôt foncier		Prorata du nombre de SDL
Taxe d'exploitation+panneau		Prorata du nombre de SDL
Total Taxes et Impots		
Intérêt sur emprunt	4.0296	Prorata du volume de parche SDL
Intérêt bancaire	34.4017	Prorata du volume de parche SDL
Intérêt OCIBU Financent CC	16.9853	Prorata du volume de parche SDL
Total Interets Bancaires		
Amortissement&Provision		Prorata du nombre de SDL
Amortissement (Actif Etat)		
Total Amortissement		
TOTAL CHARGES INDIRECTES (SIEGE)		
TOTAL CHARGES DIRECTES ET INDIRECTES		

Table 2: Cost Model Results

The following table presents the costs given by the model for volumes equal to 2010.

	Coefficient		
CHARGES DIRECTES (SDL)	Calcul CV		**Base d'Allocation**
	par kg Cerises		
Pièces moteur Lister		89,185	Moyenne Historique
Equipement station	1.226416993	770,468	Volume Cerises
Autres équipements station	0.185780716	116,712	Volume Cerises
Pièces moteur Hatz		21,750	Moyenne Historique
Boulonnerie		151	Moyenne Historique
Courroie		25,975	Moyenne Historique
Dépulpeur MC KINNON	0.645423956	405,472	Volume Cerises
Petit outillage	0.077712562	48,821	Volume Cerises
Peinture		233,372	Moyenne Historique
Plomberie		29,377	Moyenne Historique
Matériaux de constructions		167,557	Moyenne Historique
Installation électrique		28,216	Moyenne Historique
Poulie		150	Moyenne Historique
Pompe		18,517	Moyenne Historique
Total entretien et reparation		**1,955,724**	
Sacs nylon	0.41261286	259,214	Volume Cerises
Lubrifiants	0.152751894	95,963	Volume Cerises
Carburant	1.698459426	1,067,017	Volume Cerises
Autres consommables		16	Moyenne Historique
Total Consommables		**1,422,210**	
Frais PTT		50	Moyenne Historique
Imprimés+Fournitures de bureau	0.42637969	267,863	Volume Cerises
Frais de Mission			Moyenne Historique
Autres charges		3,216	Moyenne Historique
Total Administration		**271,129**	
Chargement café	0.039128438	24,582	**Volume Cerises**
Salaires de base		1,695,081	Moyenne Historique
heures suplementaires	0.347118815	218,069	Volume Cerises
m.o journalier	6.737905571	4,232,931	Volume Cerises
ind de logement		1,030,474	Moyenne Historique
ind de deplacement		371,526	Moyenne Historique
Prestations familiales		189,000	Moyenne Historique
INSS part patronale		194,828	Moyenne Historique
MFP part patronale		287,556	Moyenne Historique
Total Charge Salariale		**8,219,466**	
Amortissement (Actif Sogestal)		1,487,857	Moyenne Historique
Amortissment (Actif Etat Terrain/Batiments)			Calculs sur valeurs neufs actualisees
Amortissement (Actif Etat Equipements)			Calculs sur valeurs neufs actualisees
Total Amortissement		**1,487,857**	
TOTAL CHARGES DIRECTES (SDL)		**13,380,967**	
	Coefficient		
CHARGES INDIRECTES (SIEGE)	Calcul CV		**Base d'Allocation**
	par kg Parche		
Plomberie		2,263	Prorata du nombre de SDL
Matériaux de constructions		67,202	Prorata du nombre de SDL
Meubles		327	Prorata du nombre de SDL
Installation électrique		3,850	Prorata du nombre de SDL
Pompe		1,100	Prorata du nombre de SDL
Lubrifiants		3,123	Prorata du nombre de SDL
Carburant		22,101	Prorata du nombre de SDL
Pièces de rechange véhicul		43	Prorata du nombre de SDL
Moteur Lister		286	Prorata du nombre de SDL
Pièces moteur Hatz		175	Prorata du nombre de SDL
Poste à souder		388	Prorata du nombre de SDL
Boulonnerie		1	Prorata du nombre de SDL
Dépulpeur MC KINNON		669	Prorata du nombre de SDL
Petit outillage		23,787	Prorata du nombre de SDL
Peinture		1,336	Prorata du nombre de SDL
Equipement station		2,553	Prorata du nombre de SDL
Autres équipements station		1,423	Prorata du nombre de SDL
Refection Piste		12,222	Prorata du nombre de SDL

Frais de remetalisation	-	177,034	Prorata du nombre de SDL
Entretien&Rép. Mat.Transp	0.0576	7,236	Prorata du volume de parche SDL
Entr&Rep mach, autr mater		34,085	Prorata du nombre de SDL
Total entretien et reparation		**361,205**	
Location stations+Gite Buja		3,693,103	Prorata du nombre de SDL
Location véhicules	1.5212	191,137	Prorata du volume de parche SDL
Frais bancaires		15,076	Prorata du nombre de SDL
Frais PTT		100,950	Prorata du nombre de SDL
Eau et Electricité		39,149	Prorata du nombre de SDL
Imprimés+Fournitures de bureau		107,226	Prorata du nombre de SDL
Autres consommables		9,620	Prorata du nombre de SDL
Chargement café	0.4754	59,736	Prorata du volume de parche SDL
Frais de mission		199,007	Prorata du nombre de SDL
Jetons de présence		303,448	Prorata du nombre de SDL
Frais de représentation		25,021	Prorata du nombre de SDL
Publicité et sponsor		46,380	Prorata du nombre de SDL
Frais de documentation		2,343	Prorata du nombre de SDL
Frais de formation	7.2796	914,644	Prorata du volume de parche SDL
Frais de reception		164,299	Prorata du nombre de SDL
Frais de restau A.G.A		61,742	Prorata du nombre de SDL
Agents de sécurité	0.1810	22,742	Prorata du volume de parche SDL
Honorair et Frais d'actes		159,612	Prorata du nombre de SDL
Hono commiss.aux compt		104,160	Prorata du nombre de SDL
Expédition échantillon café	0.0388	4,875	Prorata du volume de parche SDL
Frais encadrement café		56,228	Prorata du nombre de SDL
Frais fonctionnemt unité repr		65,123	Prorata du nombre de SDL
Total Administration		**6,345,624**	
Manquant/stock		241	Prorata du nombre de SDL
Charges&Pertes diverses		1,124,674	Prorata du nombre de SDL
Total pertes diverses		**1,124,915**	
Salaires		3,078,228	Prorata du nombre de SDL
Total Salaires		**3,078,228**	
Impôt foncier		2,423	Prorata du nombre de SDL
Taxe d'exploitation+panneau		3,638	Prorata du nombre de SDL
Total Taxes et Impots		**6,061**	
Intérêt sur emprunt	4.0296	506,306	Prorata du volume de parche SDL
Intérêt bancaire	34.4017	4,322,414	Prorata du volume de parche SDL
Intérêt OCIBU Financent CC	16.9853	2,134,129	Prorata du volume de parche SDL
Total Interets Bancaires		**6,962,849**	
Amortissement&Provision		2,378,591	Prorata du nombre de SDL
Amortissement (Actif Etat)		-	
Total Amortissement		**2,378,591**	
TOTAL CHARGES INDIRECTES (SIEGE)		**20,257,473**	
TOTAL CHARGES DIRECTES ET INDIRECTES		**33,638,440**	

Table 3: Annual Economic Depreciation Costs of Core Assets at CWS

Estimation de la valeur de l'amortissment economique annuel des biens de l'Etat present sur le SDL typique					
Terrain et constructions					
	Valeur du Rapport Proman 2002	**En Valeur 2009 Correction pour Inflation (facteur de 2.26)**	**Correction pour usage (- 7/20)**	**Valeur Acturelle Estimee**	**Amortissement Annuel (20 ans)**
SDL # 1	105,469,900	238,827,500	(41,794,812)	197,032,687	9,851,634
SDL # 2	103,694,000	234,806,127	(41,091,072)	193,715,055	9,685,753
SDL # 3	103,724,750	234,875,758	(41,103,258)	193,772,500	9,688,625
SDL # 4	84,376,750	191,063,879	(33,436,179)	157,627,700	7,881,385
SDL # 5	97,693,750	221,219,078	(38,713,339)	182,505,740	9,125,287
Amortissement SDL Moyen					**9,246,537**
Equipements Principaux					
			Valeur de Remplacement	**Duree de vie (annees)**	**Amortissement Annuel**
	Mckinnon Burundais		12,410,000	20	620,500
	Groupe Electrogene + Moteur d'Entrainement		62,971,790	10	6,297,179
	Motopompe Lister		14,595,600	10	1,459,560
	Amortissment Equipements Total				**8,377,239**
	Total de l'Amortissment Economique des Biens de l'Etat				**17,623,776**

Table 4: Indirect Cost Structure for KILICAFE, Northern Chapter, 2006/07

		2006/07
Federation Cooperative Kilicafe, Northern Chapter		
Cerises (Kg)		2,139,475
Parche (Kg)		427,894
Nombre de SDL		32
Vol Moyenne de cerises par SDL (Kg)		66,859
CHARGES OPERATIONNELLES		
Impots	**BIF**	**14,976,758**
Charges Financieres		
Charges Bancaires	BIF	1,777,050
Interets sur decouvert	BIF	16,229,589
Interets sur pret client	BIF	2,840,801
Cout Total de Charges Financieres	**BIF**	**20,847,440**
Frais de Reunions des Cooperatives	BIF	3,282,523
Prestataires de Services		
Charges de degustation	BIF	122,810
Gardiennage des stocks en usine	BIF	646,550
Certification FLO	BIF	1,662,620
Certification Starbucks	BIF	2,024,208
Assurance risk prix	BIF	269,473
Total Prestataires de Services	**BIF**	**4,725,661**
Market Linkage Fee	**BIF**	**23,937,517**
Deficit Operationnel de l'Annee	BIF	8,146,472
Couts Totals	**BIF**	**75,916,371**
Couts Indirects par Kg		
de cerises	BIF	35
de parche	BIF	177
de vert	BIF	222

PROCES VERBAL DE LA REUNION DU COMITE DES REFORMES DE LA FILIERE CAFE DU BURUNDI TENUE DANS LES ENCEINTES DE L'ARFIC EN DATE DU 15 AVRIL 2011.

La réunion a été ouverte à 15 h 00 par le Président du Comité de suivi des Réformes de la Filière Café et a présenté les points à l'ordre du jour. Il s'agit de :

1. Etat d'avancement du plan d'action du Comité en rapport avec la communication après les descentes dans les provinces du pays par une délégation ad hoc.
2. Evaluation de la campagne café 2010-2011.
3. Préparation de la campagne café 2011-2012.
4. Etat d'avancement de la paie complémentaire aux caféiculteurs.
5. Divers.

DEROULEMENT DE LA REUNION.

1. Compte rendu des ateliers organisés dans les provinces à l'endroit de l'administration locale.

Sous financement de DAI/PAIR, ces ateliers d'information et d'échanges ont été organisés à l'endroit des Gouverneurs des provinces et des Administrateurs communaux au mois de Mars 2011 en dates du 09, 10, 11, 26, 29, et 30 respectivement dans les provinces de Ngozi, Kayanza, Muyinga, Bubanza, Gitega et Kirundo. Une délégation conduite par le Président du Comité de suivi des Réformes de la Filière Café, Monsieur Nestor NIYUNGEKO et Monsieur Bernard SELEMANI, membre en collaboration avec les experts du SCEP, à savoir Monsieur Gaspard GACIYUBWENGE et Monsieur Libérât NTUNZWENIMANA ainsi que par le Commissaire Général Monsieur Melchiade NZOPFABARUSHE pour les trois premières provinces a sillonné ces provinces dans le but d'expliquer l'état d'avancement du processus de Libéralisation/Privatisation de la filière café et de sensibiliser l'administration locale à faire sien la Stratégie de Désengagement de l'Etat de la Filière café adoptée par le Gouvernement en date du 17 Décembre 2008. D'autres programmes ont été pris pour ce mois d'Avril à visiter les provinces de MAKAMBA et de CIBITOKE. Les objectifs principaux de la stratégie sont basés sur :

- L'augmentation des revenus des caféiculteurs ;
- La compétitivité de la filière pour garantir sa durabilité ;
- La meilleure valorisation du patrimoine de l'Etat ;
- Le redressement de la gestion de la filière.

La délégation a donné des réponses à toutes les questions posées par ces administratifs et a enregistré des doléances proposées à tenir en compte avant le lancement du deuxième appel d'offre des cent quatre (104) stations de lavage restant à vendre. Les principales interventions étaient centrées sur :

- L'assouplissement des conditions d'accès des investisseurs nationaux pour qu'ils puissent soumissionner à l'appel d'offre prochain pour la vente des 104 stations de lavage restant à vendre par l'atomisation de lots. Il a été demandé d'assouplir aussi la caution équivalant à

un million de dollars de participation et de revoir l'augmentation du pourcentage de la part réservataire jusqu'51%.

- L'appui financière issu de la taxe caféière qui sera versé directement aux communes car disent- ils, le fond FONIC conditionne le financement des projets des communes et beaucoup d'activités caféières demandent des liquidités que les communes ne disposent pas. Pour cette question, la délégation a renvoyé l'administration territoriale d'approcher le Ministère de tutelle pour trouver une solution à leur demande car cette taxe est toujours versée à destination après répartition des fonds issus de la vente du café. Cette taxe est de 6 Fbu ou 6,5 Fbu par Kg de café vert vendu suivant qu'il s'agit du Washed ou Fully Washed.
- L'encadrement des activités caféières reste à désirer car on constate un relâchement de la population ainsi que des moniteurs agricoles par manque de motivation. Le renforcement des capacités a été demandé pour les caféiculteurs regroupés au sein des unions et fédérations situées autours des stations de lavage qui sont en train de s'organiser afin de créer des coopératives qui participeront dans l'actionnariat des sociétés caféicoles. Il a été proposé aussi de restaurer l'aspect punitif pour décourager ceux qui maltraitent ou arrachent les caféiers dans la mesure où cette attitude ternisse l'image du pays vis-à-vis des nos partenaires. Une autre proposition était dans le sens d'instaurer une politique d'augmenter la production par un traitement sanitaire du caféier et renouvellement des caféiers qui sont vieux ainsi que ceux qui sont abimés par des maladies caféières. L'administration locale était aussi favorable à l'instauration d'une journée consacrée aux activités caféières. La délégation a rappelé que l'encadrement des activités caféières est assuré par les DPAE en collaboration avec les organisations des caféiculteurs. L'ARFIC et l'INTERCAFE BURUNDI qui donnent les moyens financiers sont aussi interpellés pour le suivi de ces activités en menant une action urgente pour améliorer l'encadrement.
- Le mécontentement des caféiculteurs qui n'ont pas perçu la paie complémentaire de BIF 140 contrairement à ceux qui ont livré leur cerise aux stations de lavage gérées par les Sogestal's. Cette question n'a pas trouvé de réponse définitive car la société WEBCOR qui est visée, n'a pas encore donné sa dernière parole étant donné que les pourparlers étaient en cours. Mais à les écouter, on dirait que la société WEBCOR BURUNDI n'est pas favorable de donner cette paie complémentaire ; car dit-elle, elle a respecté la loi de l'offre et de la demande, et non pas à la clé de répartition.

Pour tout ce qui précède, le Comité de suivi des Réformes de la Filière Café fera un rapport global de toutes ces descentes qui sera adressé aux autorités pour une prise de décision. Entre temps, le SCEP a commandité un rapport d'évaluation de la première étape de la privatisation après la vente des 13 stations de lavage à la société WEBCOR BURUNDI. Une réflexion sur les recommandations de ce rapport d'évaluation sera débattue dans un atelier ad hoc où les critiques des intervenants de la filière seront prises en compte. L'INTERCAFE BURUNDI est en train de préparer un contrat de performance à signer avec les DPAE pour un suivi correct de l'encadrement des activités caféières afin de justifier les fonds donnés à cet effet.

2. Evaluation de la campagne café 2010-2011.

La particularité de cette campagne café 2010-2011 a été caractérisée par sa cogestion entre l'ARFIC et l'INTERCAFE BURUNDI. Elle est presque à la fin car la quasi-totalité du café washed et Fully Washed est déjà vendu. Il reste à collecter quelques sacs des micros brisures et ceux de qualité TRIAGE qui sont encore chez des propriétaires à un pourcentage insignifiant qui n'influe pas beaucoup sur un rapport global et définitif qui va sortir bientôt. La dernière vente date du 31 Mars 2011 où 486 Tonnes ont été vendues pour un montant d'US $ 1.960.000. La production pour la campagne 2010-2011 est de :

- ✓ Production de café vert vendu washed et fully washed : 24.000 Tonnes.
- ✓ Prix moyen de vente au kg de café vert : US $ 3,9.
- ✓ Coût global des ventes (environ) : US $ 84 Millions.

L'achat d'un kilogramme de café cerise livré aux Sogestal's a été revalorisé et comptabilisé à BIF 490, ce qui a conduit à un paie complémentaire de BIF 140 à ajouter au premier paiement de BIF 350. Tous les crédits bancaires ont été remboursés, sauf la société SIVCA qui doit encore un crédit de transformation qu'elle n'a pas encore apuré.

Problèmes rencontrés.

a) ICOCOGE.

Cette société n'a pas honoré les contrats signés avec ses acheteurs, non pas par mauvaise foi, mais par le fait que son café a subi un accident dû au manque de technicité et de la méconnaissance de traitement de la cerise au niveau de leur station de lavage. La société n'a produit que du café de basse qualité alors qu'elle prévoyait de vendre du café de qualité supérieure. Cet incident n'a pas fait de bruit car une solution a été trouvée pour départager les deux contractants. Une recommandation du Régulateur ARFIC a été donnée à ICOCOGE pour remédier ce problème durant cet exercice.

b) COPROTRA

Cette société a causé du tort à toute la filière café Burundaise en n'honorant pas de contrats signés avec un acheteur potentiel du café du Burundi. Le premier contrat a été signé avec cet acheteur (ARMANDJARO) au moment où les cours mondiaux oscillaient autour de 135 ct/lb et 150 ct/lb. COPROTRA s'est désistée lorsque les cours étaient favorables (entre 190 ct/lb et 210 ct/lb) en signant un second contrat avec un autre acheteur et cette fois ci en informant le régulateur ARFIC. Ce dernier a autorisé cette vente sans savoir qu'il y avait déjà un premier contrat signé et qui n'apparaissait nulle part dans ses rapports. Le Régulateur a du mal à joindre les responsables de COPROTRA afin d'envisager une rencontre entre les deux contractants. Le Régulateur constate une mauvaise foi de COPROTRA et prévoit de lui refuser une licence d'exploitation durant la campagne 2011-2012. ARMANDJARO peut porter plainte devant les juridictions de Londres avec toutes les conséquences pour COPROTRA en particulier et pour toute la filière café burundaise en général.

3. Préparation de la campagne café 2011-2012.

Les préparatifs de la campagne café 2011-2012 vont bon train car les travaux de réhabilitation ainsi que de la maintenance des stations de lavage sont terminés pour bon nombre des sociétés. Comme pour l'exercice précédent, la campagne 2011-2012 est cogérée par l'INTERCAFE BURUNDI et l'ARFIC. Sur base des données collectées à travers tout le pays, la production du café vert escompté est de 24.000 Tonnes dont :

- 9.000 Tonnes de café vert en Washed
- 12.000 Tonnes de café vert en Fully Washed

Les démarches de recherches de financement sont déjà entreprises. Le montage financier est déjà discuté avec la banque chef de file et qui a accepté de le financer sans faire intervenir les fonds de stabilisation. Une autre particularité pour cette campagne est le fait que chaque entité s'engage individuellement pour accéder au crédit bancaire. L'INTERCAFE BURUNDI et l'ARFIC n'interviennent que pour le suivi du respect des clauses des contrats et à la centralisation des données caféières des différentes entités qui ont contracté ces crédits. Des descentes sur terrain sont organisées à travers tout le pays pour sensibiliser les caféiculteurs à cueillir et à collecter du café cerise mûres. Une convention d'échange hebdomadaire d'informations entre les intervenants sera exigée pour que ce montage réussisse.

4. Etat d'avancement de la paie complémentaire.

Le paiement de la 2è tranche de Bif 140 au Kg de café cerise aux caféiculteurs qui ont livré leur cerise aux Sogestal's est terminé pour un montant de Bif 10,886 milliards. Les sociétés WEBCOR BURUNDI et SONICOFF n'ont pas donné cette paie complémentaire car elles disent qu'elles n'ont pas adhéré à la clé de répartition de la filière café. Pour WEBCOR, il a investi et a distribué gratuitement de l'engrais dans les zones autours de ses stations de lavage et a mis une structure d'encadrement gratuite qui lui a coûté beaucoup d'argent à la condition que les caféiculteurs lui livrent de la cerise. WEBCOR a investi aussi dans la construction d'une usine de deparchage à Kayanza. Le Régulateur demande à ce que ces sociétés justifient toutes ces dépenses pour chercher ensemble un dernier message consensuel à donner aux caféiculteurs mécontents et qui prodiguent des menaces à l'endroit du patrimoine de WEBCOR BURUNDI à cause de cette paie complémentaire non perçue.

Le Comité de suivi des Reformes de la Filière Café propose à l'INTERCAFE BURUNDI et à l'ARFIC de mettre sur pieds des mécanismes de contrôle pour cette campagne 2011-2012 afin d'éviter des surprises qu'on a remarquées au courant de la dernière campagne surtout l'honorabilité des contrats. Le Comité demande aussi au SCEP de pouvoir siéger au conseil d'administration de la société WEBCOR BURUNDI pour représenter les 25 % de la part réservataire qui n'est pas encore libérés. Malheureusement le contrat est en cours d'élaboration au niveau du PAGE pour que cette participation au conseil soit effective. Ainsi la gestion de la société sera connue et mise au clair.

5. **Divers.**

En divers, le Comité de suivi des Réformes a été informé d'une nouvelle marque de café de Kayanza qui est publiée par la société internationale STARBUCKS. Il a été décidé d'approcher les concernés de la question à savoir DAI/PAIR et la Sogestal Kayanza pour des plus amples explications à ce sujet. Il a été aussi question de savoir si tous les préparatifs sont terminés pour que la filière café du Burundi participe aux activités d'EXPOSITION/EXHIBITION de SCAA aux Etats-Unis à Houston du 28 Avril au 01 Mai 2011.

La réunion a été clôturée à 18 h 00.

Fait à Bujumbura, le 18 Avril 2011.

Bernard SELEMANI

Rapporteur

NORMES (CEA) POUR LE LAIT CRU

(CEA = Communauté Est Africaine)

DESCRIPTION

Le lait est le produit de la sécrétion mammaire normale, obtenu par une ou plusieurs traites sans aucune addition ou soustraction, venant d'une vache saine et exclus du colostrum (premiers 7 jours).

- **CRITERES DE COMPOSITION (PHYSICO-CHIMIQUES) et DE QUALITE**

Densité à 20°C	**1,028 à 1,036 g/ml**
Point d congélation	**-0,525 °C (min) - -0,550 °C (max)**
Test à l'ébullition	**Stable (pas de coagulation)**
Epreuve à l'alcool	**Stable (pas de coagulation)**
Acidité titrable (mmol/l d'acide lactique)	**Max 0.17%**
Test de résazurine	**Min 10 minutes**
Test bleu de méthylène	**Min 30 minutes (décoloration dans < 30 min, le lait n'est pas acceptable)**

- **Note : D'autres critères peuvent être ajoutés selon les besoins spécifiques de traitement.**

p.e. Teneur en matière grasse: min 3,25%

Teneur en matière sèche dégraissé: min 8,50%

- **CRITERES BACTERIOLOGIQUES**

  -FBT (Flore de Bactéries Totales)/ml

  -Flore de Coliformes/ml

  -Cellules Somatiques/ml

Classification	Nombre de bactéries totales par ml
I or A	< 200,000
II or B	200,000 – 1000,000
III or C	>1000,000 – 2000,000

Classification	Nombre de bactéries Coliformes par ml
Très bon	0 - < 1000
Bon	1000 – 50000

Cellules somatiques/ml : < 300,000

- **<u>Contaminants</u> (voir Codex Alimentarius ; LMR= Limites Maximales de Résidus):**

-Résidus de pesticides

-Résidus de médicaments vétérinaires

-Métaux Lourds et autres contaminants

NORMES (CEA) POUR LE LAIT PASTEURISE

DESCRIPTION

Le lait pasteurisé est le lait ayant subi un traitement thermique approprié permettant la destruction de la totalité des germes pathogènes, tout en préservant au maximum ses caractéristiques physico-chimiques organoleptiques et sa valeur nutritive.

- **Le lait est pasteurisé en utilisant l'une des méthodes suivantes :**

Température	**Temps**	**Technologie**
Min. 65°C	**30min**	**Batch (en discontinu)**
Min. 73°C	**16s**	**en continu (HTST)**
Min. 80°C	**10s**	**en continu (Flash)**

- **A la sortie du pasteurisateur, le lait doit être refroidi immédiatement à une température inférieure à 4°C pour la commercialisation et la consommation.**

- **EXIGENCES du lait pasteurise : sept points**

1. **LP doit: un point de congélation de**

- 0,525°C (min) à - 0,550 °C (max).

2. **LP ne doit pas contenir des produits de préservation ou d'autres substances ajoutées.**

3.CRITERES PHYSICO-CHIMIQUES du LAIT PASTEURISE

	Lait entier	MG Réduite	MG Basse	Ecrémé
Teneur en M.G. (%)	3.25 min	1.51 – 3.24	0.51 - 1.50	0.50 max
Teneur minimale en matière sèche dégraissé (%)	8.50	8.50	8.50	8.50

4. Densité à 20°C : 1,028 à 1,036 g/ml
5. Test de Phosphatase doit être négatif et Acidité titrable max 0.17%
6. Homogénéisation est permis
7. Addition des vitamines et minéraux est permis (voir Codex)

CONTAMINANTS (voir Codex) :

-Résidus de pesticides

-Résidus de médicaments vétérinaires

-Métaux Lourds et autres contaminants

LIMITES MICROBIOLOGIQUES du lait pasteurisé

1. Absence de bactéries pathogènes

2. Limites bactériologiques comme suit :

Bactéries	Limites maximales (nombre/ml)
Flore totale	30,000
Total Coliformes	10
Escherichia Coli	Absent

EMBALLAGE

L’emballage doit préserver le produit contre toute action de perte et de l’oxygène pour prévenir toute contamination.

ETIQUETAGE (voir Codex)

L'étiquetage du lait pasteurisé doit comporter les indications suivantes :

- **Nom du produit ; (p.e. : «lait pasteurisé »)**
- **Date de fabrication et date limite de consommation**
- **Instructions de stockage**
- **Contenu net en volume et teneur en M.G.**
- **Identification du lot: nom fabricant et pays d'origine**

NORMES (CEA) POUR LE LAIT STERILISE (UHT)

UHT = Ultra Haute Température

DESCRIPTION

Le lait stérilisé UHT est le lait débarrassé entièrement des ferments ou microbes qu'il contient et dont l'action nuirait à sa conservation.

On désigne par lait stérilisé UHT, le lait ayant subit un traitement thermique rapide à ultra haute température ; de l'ordre de 135ºC à 150ºC durant 2 à 5 secondes et conditionné aseptiquement dans un emballage permettant de le préserver contre la lumière et l'oxygène.

EXIGENCES du lait UHT: neuf points

1. **UHT doit: un point de congélation de -0,525°C (min) à - 0,550 °C (max).**
2. **UHT ne doit pas contenir des produits de préservation ou d'autres substances ajoutées.**
3. **Densité à 20°C : 1,028 à 1,036 g/ml.**

4.CRITERES PHYSICO-CHIMIQUES du lait UHT

	Lait entier	MG Réduite	MG Basse	Ecrémé
Teneur en M.G. (%)	**3.25 min**	**1.51 – 3.24**	**0.51 - 1.50**	**0.50 max**
Teneur minimale en matière sèche dégraissé (%)	**8.50**	**8.50**	**8.50**	**8.50**

5. Acidité titrable (% acide lactique) après 7 jours d'incubation ne doit pas être augmenté plus de 0,02 Unités.
6. Le pH après 7 jours d'incubation ne doit pas être diminué plus de 0.3 Unités.
7. Homogénéisation est obligatoire
8. Addition des vitamines et minéraux est permis (voir Codex)

9. Exigences du traitement thermique

-Si un système direct (de vapeur) est appliqué, seulement un vapeur « spécial » est permis.

-Stockage du produit finis pour au moins 7 jours (« quarantaine ») avant le mettre au marché.

-Le lait UHT doit rester stable (date limite de consommation) pour une période minimale de 90 jours à 30°C.

LIMITES BACTERIOLOGIQUES du lait UHT :

Bactéries	Limites maximales (nombre/ml)
Flore totale	10
Total Coliformes	Absent
Escherichia Coli	Absent

Note : UHT est «stérile » pour sa commercialisation !

CONTAMINANTS (voir Codex)

-Résidus de pesticides

-Résidus de médicaments vétérinaires

-Métaux Lourds et autres contaminants

EMBALLAGE

L'emballage doit préserver le produit contre toute action néfaste de la lumière et de l'oxygène et de prévenir toute contamination afin d'assurer la stérilité du produit depuis le stockage jusqu'à sa mise en consommation.

Note : l'emballage doit être solide, non-toxique et résistant à haute température !

ETIQUETAGE (voir Codex)

L'étiquetage du lait stérilisé UHT doit comporter les indications suivantes :

Nom du produit suivi du nom de l'additif alimentaire au cas d'une addition;

Nom et adresse du fabricant (pays d'origine);

Identification du lot : marque indélébile ou code

Teneur en matière grasse et contenu net en volume;

Date de fabrication et date limite de la consommation ;

Instructions de stockage et utilisation ;

p.e. « après ouverture à conserver au froid et à consommer rapidement »

Importants points:

- Lait UHT est «stérile » pour sa commercialisation!

- Lait UHT peut être conservé à la température ambiante

- La durée de conservation est fixée sous la responsabilité du fabricant.

- Avis : Commencer le processus avec un excellent lait cru (test à l'alcool 72-73%).

NORMES (CEA) POUR LE YAOURT

DESCRIPTION

Lait fermenté : Produit laitier préparé avec des laits (écrémé ou non) ou des laits concentré ou en poudre (écrémé ou non) ayant subi la pasteurisation, la stérilisation ou l'ébullition, ensemencé avec des bactéries lactiques.

DESCRIPTION

Yaourt : Lait fermenté obtenu par le développement des bactéries lactiques spécifiques dites Lactobacillus bulgaricus et Streptococcus thermophilus.

Différentes types :

Yaourt nature, sucré, aromatisé, aux fruits (traités thermiquement), à boire (sous forme liquide).

Yaourts traités thermiquement.

FACTEURS ESSENTIELS DE COMPOSITION ET QUALITE

(six points)

1. Composition

	Yaourt du lait entier	Yaourt partiellement écrémé	Yaourt écrémé
Matière grasse	**3.0% (min)**	**0.5% - 3.0%**	**0.5% (max)**
Matière non grasse	**8.2% (min)**	**8.2% (min)**	**8.2% (min)**

2. pH: le pH doit être inférieur à 4,5.
3. Matières Premières : Yaourt doit être obtenu des laits pasteurisés ; addition de la poudre de lait est permis (Note : souvent réglé par pays, p.e. max 5% de poudre).

4. **Additifs obligatoires :**

   Lactobacillus bulgaricus et Streptococcus thermophilus.

5. **Additifs alimentaires (tous spécifiés dans Codex)**

   -Autorisés : stabilisants, épaississants et émulsifiants

   -Autorisés : aromatisants et colorantes ; sauf pour le yaourt nature !

6. Additifs alimentaires (voir Codex) :

-Non autorisés : conservateurs.

Les seuls autorisés (voir Codex) sont les résidus des substances aromatisantes comme :

- **Acide ascorbique et leurs sels Na, K, Ca : max 50 mg/kg**
- **Dioxyde de soufre et acide benzoïque (seul ou ensemble): max 50 mg/kg**

LIMITES MICROBIOLOGIQUES du yaourt

Bactéries	Limites maximales
Escherichia Coli	Absent
Salmonella spp / 25 ml	Absent
Moisissures et Levures / ml	10
Staphylococcus aureus / 25 ml	Absent

CONTAMINANTS

-Résidus de pesticides

-Résidus de médicaments vétérinaires

-Métaux Lourds

EMBALLAGE

Les emballages doivent être des matériaux de qualité alimentaire qui ne sont pas toxiques et inertes au produit. L'emballage doit préserver le produit contre toute action de perte.

(Note : Certains pays sont plus strictes: La réutilisation des emballages plastiques est interdite !).

ETIQUETAGE (1)

Les mentions d'étiquetage suivantes doivent être écrites de manière très lisible :

- Nom du produit : « Yaourt » suivi du type de l'yaourt, p.e. « du lait entier » ;
- Liste des ingrédients par ordre décroissant en pourcentage ;
- Contenu net : en volume ou en masse ;

ETIQUETAGE (2)

- **Nom et adresse du fabricant ;**
- **Date de fabrication et Date limite de consommation ;**
- **Identification du lot : marque indélébile ou code et Pays d'origine.**
- **Instructions de stockage : « Conservation à ….°C » ;**

Yaourts traités thermiquement aprés fermentation:

Yaourt pasteurisé: 73°C / 16 sec soit 80°C / 10 sec.

Yaourt thermisé: 62 – 65 °C / 15 – 20 sec.

Yaourt stérilisé: 115 °C / 15 sec.

<u>Objectif</u>: Prolongation de la durée de conservation par une réduction des bactéries vivantes !

NORMES (CEA) POUR LA CREME

DESCRIPTION

La crème est le produit laitier fluide plus ou moins riche en matière grasse qui se présente sous la forme d'une émulsion du type graisse-dans-lait écrémé et qui a été obtenue en la séparant physiquement du lait. (Note : par écrémage!)

COMPOSITION (1)

1. **CRÈME : lait contenant au moins 30 g de matière grasse provenant exclusivement du lait pour 100g de poids total.**

COMPOSITION (2)

2. CRÈME LEGERE : lait contenant moins de 30 g mais au moins 12 g de matière grasse provenant exclusivement du lait pour 100 gr de poids total.

NORMES (CEA) POUR LE BEURRE

DESCRIPTION

Le beurre est le produit obtenu par barattage soit du lait, soit de la crème ou de ses sous produits et suffisamment débarrassé de lait et d'eau, par malaxage et lavage pour ne plus renfermer, par 100g, que 18g au maximum de matières non grasses, dont 16g au maximum d'eau.

MATIERES PREMIERES

Lait/crème pasteurisé(e) et/ou produits obtenus à partir du lait pasteurisé.

INGREDIENTS AUTORISES

- Chlorure de sodium et sel de qualité alimentaire
- Cultures de bactéries lactiques et/ou bactéries productrices d’arômes.

CLASSIFICATION **Pourcentage du poids total**

	Teneur minimale en MG	Teneur maximale en EAU	Teneur maximale en extraits secs non gras
Beurre	**82 soit 80 (*)**	**16**	**2**
Beurre demi-allégé	**80 à 60**	**-----**	**2**
Beurre allégé	**60 à 40**	**-----**	**2**
Beurre concentré	**96**	**2**	**2**

(*) Le beurre peut contenir max. 2 g de sel pour 100 g de produit fini.

NORMES (CEA) POUR LE FROMAGE

Le fromage est le produit affiné ou non affiné, solide ou semi-solide, obtenu par coagulation du lait, lait écrémé, lait partiellement écrémé, crème ou babeurre seuls ou en combinaison, grâce à l'action de la présure et par égouttage partiel du lactosérum résultant de cette coagulation et permettant la conservation des constituants essentiels du lait : caséine, matière grasse et aussi les sels minéraux et phosphore.

Fromage non affiné ou frais : fromage prêt à la consommation juste après la coagulation suivi ou non d'égouttage.

Fromage affiné : fromage qui n'est pas prêt à la consommation après la coagulation mais doit être maintenu pendant un certain temps à la température adéquate et dans les conditions nécessaires pour que s'opèrent les changements biochimiques et physiques caractéristiques du fromage.

MATIERES PREMIERES

Lait pasteurisé et/ou produits obtenus à partir de lait pasteurisé.

INGREDIENTS AUTORISES

Cultures de bactéries lactiques et/ou bactéries productrices d'arômes, et cultures d'autres micro- organismes sans danger pour les consommateurs.

CLASSIFICATION: Fromages sont souvent classifiés selon sa teneur en eau.

Désignation	Teneur en eau par rapport à la substance non grasse
Fromage blanc ou frais	80% ou plus
Fromage à pâte molle	entre 67% inclus et 80%
Fromage à pate demi-molle	entre 62% inclus et 67%
Fromage à pâte pressée demi-dure	entre 54% inclus et 62%
Fromage à pâte pressée dure	entre 49% inclus et 54%
Fromage à pâte pressée extra dure	inférieure à 49%

NORMES (CEA) POUR LE FROMAGE FONDU

DESCRIPTION

L'expression « fromage fondu et fromage fondu pour tartine» est réservée au produit de la fonte d'un fromage ou d'un mélange de fromage avec addition éventuelle d'autres produits laitiers, y compris lait en poudre, caséine ou concentré de petit lait. L'adjonction de sels de minéraux, épices et aromates (pour caractériser le produit) ou encore, vitamines, dissolvants et émulsionnants, est permis.

TRAITEMENT THERMIQUE

Au cours de leur fabrication, les produits conformes à la définition de la présente norme doivent être chauffés dans la masse à une température de 70°C maintenue pendant 30 secondes.

GENERALITES sur les NORMES :

Pour appliquer les normes de la CEA, on suit les normes de références suivantes:

- **-de CODEX Alimentarius**
- **-de OIS/ISO (Organisation Internationale de Standards)**

Les références normatives de CODEX concernent :

-CONTAMINANTS: Limites Maximales de Résidus (Pesticides, Médicaments vétérinaires et les Métaux Lourds)

-ETIQUETAGE des aliments préemballés

-ADDITIFS alimentaires

Les références normatives de l'OIS concernent :

-Méthode d'échantillonnage

-Méthode d'analyse (p.e. détermination de la composition, nombre de bactéries, etc.)

La STANDARDISATION du LAIT pour la fabrication des différents produits laitiers:

On utilise un carré spécial de calcul.

D'abord le carré modèle et ensuite un exemple pratique.

MG crème (haute)%……..[MG donnée - MG voulue] parts de crème

MG donnée (moyenne) (lait de départ)

MG voulue/stand (basse)%.....[MG crème – MG donnée] parts de lait stand

---

[MG crème - MG voulue] parts de lait donné

Exemple :

MG donnée = 4% MG crème = 40% MG lait standardisé = 3%

40%..... 4 – 3 = 1 kg de crème à 40% de MG……(2.7)
4%

3%.....40 – 4 = 36 kg de lait standardisé à 3% de MG……(97.3)

37 kg de lait cru à 4% de MG...x100/37 =...(100)

Les 3 principes d'un bon nettoyage de l'équipement laitier

1. Pré-rinçage
2. Rinçage principal avec un produit chimique (6x/1x par semaine)
3. Post-rinçage

1. Rincer avec l'eau tiède/froide pour enlever les résidus de lait dans le tank

2a. SIX jours per semaine :

Nettoyer, le tank ouvert avec une broche, en utilisant l'eau à 60°C + alcaline (concentration de 0.5% : 50 gr par 10 litres d'eau) pendant 6 à 8 min.

Note : alcaline (p.e. soude caustique, bicarbonate de soude) pour dissoudre les résidus du lait (grasses, proteïnes, etc.).

2b. Le 7-ième jour :
Nettoyer, le tank ouvert avec une broche, en utilisant l'eau à 60°C + acide (concentration de 0.5% : 50 gr par 10 litres d'eau) pendant 6 à 8 min.
Note : acide (p.e. acide citrique, acide phosphorique) pour dissoudre du caillot de lait.

3.Nettoyer le tank avec beaucoup d'eau froide; DEUX fois.

Importantes points :

- **Le meilleur équipement est fait de l'inox. Note que aluminium peut être endommagé par alcaline!**
- **Peut-être un nettoyage avec acide doit se faire 2x par semaine si l'eau est dûre (calcium, magnésium) !**
- **Jamais mélanger un détergent acide avec détergent alcaline !!**
- **Il y a beaucoup de produits chimiques pour le nettoyage sur le marché : suivez attentivement les instructions!**

Règles spécifiques d'hygiène pendant (selon UE)

-la traite

-la collecte

-le transport

Refroidissement, à la ferme:

Immédiatement après la traite :

≤ (ne dépassant pas) 8°C lorsque collecté chaque jour

≤ 6°C lorsque la collecte n'est pas effectuée chaque jour

<u>Refroidissement, pendant le transport</u>:

La chaîne du froid doit être maintenue et la température ne doit pas dépasser 10° à l'arrivée dans l'établissement de destination.

Le secteur n'est pas tenu de respecter les dites températures (6/8/10°C):

- Si le lait répond aux critères prévus (≤100,000 germes ; ≤400,000 cellules somatiques et la teneur en résidus d'antibiotiques ne dépasse pas les LMR's)

ou

- Si le lait est traité dans les deux heures suivant la traite.

Exigences concernant le traitement thermique du lait cru ou des produits laitiers

Le secteur alimentaire doit tenir compte des procédures mises au point conformément aux principes HACCP (Rég. 854/2004)

et

satisfaire aux exigences que l'autorité compétente pourrait formuler concernant

(i) des agréments des établissements alimentaires et

(ii) des contrôles officielles.

ORGANISATION du SYSTEME de CONTROLE (dans certains pays de l'UE)

Quel laboratoire fait les analyses du lait cru?

La détermination de la teneur en MG. et en MP ainsi que la détermination de la qualité hygiénique sont faites par un laboratoire indépendant; cette situation sera le plus idéal!

Ce laboratoire peut être "national/central" (souvent dans les petits pays) soit "régional" (dans des pays plus vastes), mais indépendant du vendeur (producteur de lait) et d l'acheteur du lait (laiterie).

Les (organisations de) producteurs et les entreprises laitières peuvent conjointement être le propriétaire de ce laboratoire, mais il doit fonctionner d'une façon indépendante.

Quel organisme décrète les réglementations ?

Les réglementations sur les méthodes de détermination de la composition et de la qualité hygiénique du lait sont faites sous la responsabilité d'une Service d' Inspection d'un Ministère (Agriculture ou Sante Public) étant en liaison avec la Commission Européenne à Bruxelles.

Ces réglementations peuvent être prépares par un Office ou Bureau, mais toujours un Ministère assume la responsabilité finale.

Quel organisme fait le control du laboratoire d'analyse ?

- **C'est également sous la responsabilité d’un Ministere (e.g. un Service d' Inspection) de surveiller ("monitoring") et vérifier si les méthodes sont appliqués correctement.**
- **Le Ministère délègue souvent ces tâches à un laboratoire national.**

MERCI

A VOUS

Report on the training attended in South Africa at RAIZCORP. (14-16FEB 2011).

The training was very interesting due to their way of training. I have noticed there are a lot of similarities with our incubator & probably with other incubators but Raizcorpussles work very hard to differentiate themselves from others.

- **RECRUITEMENT**
- **Clients**

The principle in whatever they're doing is to keep the focus on entrepreneur not on the business. ***("We focus on Jockey not on the horse")***

Selection: One of the selection processes that the company shared with us looks very tough & confirm the above principle. It has 8 steps & 4 of them are focused on the jockey: 2 interviews, 1 psychometric test & 1 presentation to the panel. This process helps a lot to discover what type of entrepreneur we're dealing with & therefore how we can work it out with him.

Application: Interviews are easily applicable within BBIN since these are mostly the results of documents submissions required by the incubator before admission. Even though psychometric test is very expensive , before investing for having one , the knowledge acquired by the team , make us able to develop a questionnaire which can help us identify what type of entrepreneur we have whether it's ***Substance Entrepreneur , Lifestyle or Growth Entrepreneur.*** The presentation to the panel is very similar to what we have with the selection committee for the business plan which is kinder final step before the result.

Joining the incubator: 30-40 potential customers apply on line to take part of the incubation program , BBIN can also introduce the online service before meeting the clients by availing the form on the website. E.G some of Burundian Diaspora might be interested in that as planning to come back home.

- **Staff.**

When recruiting staff, RAIZCORP looks for the mirror. People with entrepreneurship spirit. Some of those have successfully created & ran their businesses while others have failed but were resilient enough to reset & reset even though ended up failing. It's so important in a way that these above categories of employees who went through the business experience have the empathy for the entrepreneurs attending the incubation process therefore communication, partnership when working together in terms of all the assistance provided go smoothly.

Application: BBIN can also when recruiting staff & consultant to assist the incubates take into consideration their business background or entrepreneurship spirit as it would be very easy for the 2 parties when working together. Those who would have succeeded & failed. In fact BBIN have already

applied that when hiring the director who had failed in his previous business & the coordinator with the entrepreneurship spirit. Throughout these 2, clients might find themselves in.

- **PROGRAM**

In their program as part of the services provided they've got what we call:

- **Learning:**

Learning is what we call training on our end. The difference is the methodology which is been used during sessions. The key thing here is:"Learning by Doing". A great example from what I experienced is the RU500 program that I participated in. During the sessions in most cases answers & solution came from participants & based on the facilitator would confirm or advise for the best answer/solution.

Ex: "May each one of you build his dreams using the playdoh".

Each one of us started building the dream using the playdoh, I was working on Frank Conglomerate, Novat on a hotel & Claver on family thing that I can't well remember , then what happened ;after a while each one of us was again told to shift & work on someone else's dream & again. The facilitator then asked us how we felt when shifted to work on someone else's dreams & abandoning ours. The answers that came out were like: "***We were very frustrated to give up our dreams while we were all concentrated on realizing it!"*** Then the facilitator said: "***Great, am glad you all felt that way. When entrepreneurs come to your incubator they come with the hope you help them realize their dreams but not your dreams!!"***

Application:

In our trainings using the modules we have or to be acquired, we should introduce that methodology of learning by doing. Instead of narrating on how things are. This was recently done with the Business Planning course where participants chose their case studies businesses, did the market research out there in the field, gathered data & inserted or developed their own financial model. This should be a principle to be applied in all other courses by introducing such exercises & methodology in modules like Steps, Business Ideas & others ,since it touches on each one's conscience & none can ever forget about the experience.

- **Guiding :**

Guiding is similar to what we call coaching & mentoring program on our end. The main differences are:

- **Coaching**: It's when mostly the consultant tells you what you should do.
- **Mentoring**: As an entrepreneur , based on your experiences , you share that with your mentor & say , I've tried this & that but this didn't work , this did so how can I?... Here things mostly come from you after you've tried as opposed to coaching.
- **Guiding**: It's a complete program that Raizcorp have been developing for more than 6 years which gives you several options (5) that you can consider when building/extending your

business & that gives you consequences for each option considered. The guiding program will very soon be certified by UK government.

Application:

BBIN team is able to develop such program even though it might take very long. We can use our coaching & mentoring team & our founding members where most of the business people are (Banks, BEN , AFAB,…) to brain storm on what are different & most current used ways to set & grow a company successfully & most frequent faced challenges in our environment & come up with a documentation that can be integrated in our coaching & mentoring program.

- In the mean time our coaches & mentors have to be sensitized on focusing on trying to help entrepreneurs realize their dreams not theirs.
- The forms to track shared information should be able to help us see if this is been respected.

SPACE RENTAL

Raizcorp does not have any limitation period in terms of renting the space to the raizcorpians. They're allowed to stay as much as long, until when they're comfortable to leave. In most of the cases they would leave after having grown the number of employees that can no longer fit in the space occupied.

Application:

- Residents: BIN can act in the same way in terms of space & incubation program time schedule by extending the prior fixed periods, so that by the time clients leave are ready. If BBIN has chosen the best entrepreneurs with high growth potential, we should not kick them out so quickly as we need to produce very successful entrepreneurs & this can make the difference in terms of branding via success stories. (Millionaires made by BBIN!!)

PRODUCTIZATION.

Productization is one of the concepts that work on adding value to different product that we have within our incubation throughout the Coleslaw. Cole's law came from coleslaw salads. To make it , one needs products: Cabbage, carrots , ; tools: knife, rapper; ingredients: mayonnaise & granny L sauce. The cost of each of the product has nothing to do with the price when offering a ready salad (margin of profit is in there) due to the whole process that one went through, cutting, rapping , adding ingredients & hire staff allowing you to go out & sell . This creates a demand & satisfied customers. The logic behind is to consider different product that might be anywhere, gather the tools , ingredients & staff, Work on the

products by putting it all together using the tools, competent staff & add a Granny L sauce to differentiate BBIN with other business service providers.

Application:

From the different product within BBIN , we can productize them by offering not only more packages but also by inserting other stuff in the packages we already have & adding granny L sauce to make the difference from what we've seen elsewhere. Tailing the product to the needs of the Burundian entrepreneur & offering tailed packages & hiring competent staff & training them in making products marketing & sales is one of the best ways to productize!

Ex: In terms of training. BBIN team should recommend to start-ups, going through steps & business idea modules before attending the BCC thereafter join the pre-incubation & attending BP simultaneously.

MARKETING.

"Make it complex inside but simple outside."

BBIN can have different products, even complex, due to much tailed products to respond to different entrepreneurs needs. However if it comes to sell them, we must be very specific, summarizing & concrete by providing accurate data with no doubting at all. And before selling our products we should first ask questions to the clients to identify their real needs. After that we can tell her/him how we can respond to his/her needs, how BBIN XYZ program fit in the expressed gaps***.(Remember : We realize entrepreneurs dreams not ours!!!)***

MAKE THE INCUBATOR SUSTAINABLE /PROFITABLE

Raizcorp is officially 9 years old & is for profit organization. It took the company 6 years to be sustainable. It is actually the most profitable incubator in Africa & it's very hard to compete with them.

The key to this success: Not think in the box of the business plan, not act as limited in terms of revenue streams prior planned. Allon says:" Where is the money, where we go" whatever allows Raizcorp to make money, where we shoot".

2 main strategies were used to achieve the goal.

- Make others pay for their clients
- Pay later

1. **Make others pay for clients.**

With the new SA government law (black economic empowerment), corporate have to contribute in company & job creation for black people by releasing 3% of their profit for the purpose. Raizcorp uses that money to integrate black entrepreneurs with very high growth potential in its program & is able to make lot money throughout that.

2. **Pay later**

Raizcorp can never let down an entrepreneur with the very high growth potential, for not being able to pay by him/herself for the program. Raizcorp would take 30% of equity in their business & 20% of profit on monthly bases with a signed convention of refunding the client the total amount if Raizcorp is unable to double their turnover within 2 years. Raizcorp has never ever refunded any of the entrepreneurs who integrated the program in such way & is making lots of money by acting that way.

Application.

- BBIN team is able to act just like Raizcorp. We have identified some donors & we can keep identifying others who can pay for clients eligible for the incubation process & all other separate services provided e.g.: Training & Advisory services. This would help BBIN to make more money as the rotation would go very high due to demand increment preceded by our aggressive marketing.
- BBIN should be allowed to enlarge revenue streams & not only uses those prior planned in the business plan. E.g.: investing in other businesses by buying shares in profitable companies, since all incomes are kept in accounts as BBIN uses the donor funds.

Some reflection questions were raised by Allon Raiz.

- What if you were quadriplegic?
- What if BBIN hard to work only from 6pm-6am?
- What if BBIN was moved to Bahamas...?

Some of the Answers given were:

- I would train much staff to be surrounded with the dream team.
- I would introduce online services & pattern with other incubators abroad with which the above schedule corresponds /coincides with their day time for example (coaching & mentoring online program, online trainings , …)
- I would tail the products based on the Bahamas entrepreneur's needs & based on the environments to fit in gaps.

The answer to all the above answers was: ***"Why can't you do it now?"***

Why can't you train much your staff now? Why can't you pattern with other incubators now? Why can't you also introduce online services now? Why can't you tail your products based on the environment & entrepreneurs need now???

WHO AM I?

In one of the session we had which was somehow psychometric; I realized there were 2 types of personalities.

- **Victims** : Those who do nothing whenever anything happens & keep on blaming others or throwing responsibilities to others with no action at all to reverse the situation
- **Responsible**: Those who take responsibilities in whatever situation & take action.

As a beneficiary of this training , we should be taking responsibilities , by taking actions in terms of growing BBIN such us by implementing & sharing the knowledge we're getting to other staff and clients & considering BBIN as our baby & always do what's best for it without waiting comments or suggestions from the Bosses & consultants!

Thanks for this training!!!

By
René Frank KAGIMBI
Coordinator
Burundi Business Incubator
USAID/DAI/BAP