



## **FINAL REPORT**

SUSTAINABLE IMPROVEMENT OF THE BANANA CROPPING SYSTEM IN KAGERA REGION AND KIBONDO DISTRICT IN KIGOMA REGION TAN 0400911

#### BASIC INFORMATION ON THE PROJECT

Project name:

Sustainable Improvement of the Banana Cropping

System in Kagera Region and Kibondo District in

Kigoma Region

Project Code:

TAN 0400911

Country

Tanzania

DAC Sector and subsector:

Agriculture

National or regional institution in charge of the execution:

Kagera Region and Kibondo District in Kigoma Region

Agencies in charge of the execution

MAFC, PMO, MoF

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Number of BTC international cooperation experts:

Duration of the project (according to SA/SC):

72 Months

Start date of the project:

According to SA/SC

January 2009

Effective

February 2009

End date of the project:

According to SA/SC:

November 2014

Effective

November 2013

Project management methods:

Co-gest and Regie

Total budget for the project:

EURO 1,500,000

Period covered by the report:

February 2009 to November 2013

	Annexes	Yes	No
1.	Results summary	✓	
2.	Situation of receipts and expenses for the year		
co	nsidered		
3.	Disbursement rate of the project	1.00	
4.	Personnel of the project		
5.	Subcontracting activities and invitations to tender		
6.	Equipments		
7.	Trainings		
8.	Backers		

## PART ONE: APPRAISAL

	PIPENO AL PERENO AL PERENO AL PARENO AL PARENO AL PARENO AL PERENO AL PARENO	National execution official	BTC execution official
RELEVANCE			
Is the project relevant compared to the national development priorities?		Banana project was aligned to the Tanzanian policy framework for food security and improved livelihood as stipulated the Development Vision 2025. It also accomplished the MKUKUTA I&II and NBKP	Banana improvement project contributes to Tanzanian Agricultural policy and the Agriculture Sector Development Strategy and Programme
2. Is the project relevant compared to the Belgian development policy?  Indicate your result according to the three themes below:  a) Gender b) Environment c) Social economy		The project was in line with Belgium Policies since gender balance was among the primary considerations in the project. Both women and men were participated (in the groups at least 30% were women)  In the project life, majority of women who used to have commands about only cooking bananas have commands and access to other bananas and are selling them  Environment: The project was environmental friendly as with good coverage of the soils bananas enabled soil moisture conservation. And the recommendation for intercropping have positive effect to the environment  Social economy:  The project was in line with Belgian Policies as it advocated to improved livelihood through increased food security and income hence reducing poverty that contributes to millennium goals. banana value as food and cash crop has improved social values of individuals by ensuring that food is available, participation to the social gatherings have increase. Yet social status of individuals have increased as they can pay for school fees, have managed to use corrugated iron sheets for roofing, can buy clothes to the family. etc	Gender: Project designed to support gender issues. In component 4 women traders and processors were targeted.  Environment: Through capacity building in good agronomic practices environmental sustainability has been enhanced.  Social economy The project aim at production and marketing has enhanced food security and generation of income.
3. Were the objectives of the project always relevant?	2	The objectives of the project were relevant as the project targeted the vulnerable households who are majority	Projects objectives have been relevant very much all along and beyond

The state of the s		in the project areas.	
4. Did the project meet the needs of the target groups?	1	The project met need of the group though there are still vulnerable who think the project have ended pre- maturely	People need more food and more income. The support on production and selling of more banana met the needs of the target.
5. According to its objectives, did the project rely on the appropriate local execution organs?	2	The project was executed by the Government organ that is District Council in the department of agriculture	The project was implemented by the district councils and coordinated by the Regional authorities. The central ministries provided the technical and policy backup.

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RF	ELEVANCE	A design of the second of		
1.	Did the results of the project contribute to the carrying out of its objectives <sup>1</sup> ? (efficiency)	1	The results contributed in the achievement of the project objective. Banana farmers have improving their livelihood by assured food and increased income, have been exposed to the banana post harvesting techniques and marketing.	The capacity building of district staff and the innovative farmers, the increase in the production and marketing have resulted in achieving the objective of increased livelihood
2.	Evaluate the intermediate results (efficiency)		The intermediate results were satisfactory because they contributed to a positive achievement of the specific objective, i.e. improved livelihood, capacity building within and among stakeholders, improved banana marketing and value addition	
3.	Are the management methods of the project appropriated? (efficiency)	1	The management of the project was appropriate and abided to the proposed project formulation structure. To add to the efficiency, the project execution adopted the use of already employed government staffs and outsourced qualified implementers whenever need arouse.	Use of district council staff and financial system, enables efficient and effective implementation. Flexibility in design enables the use of Private sector institutions in implementation.
	4. Were the following reso	ource	s appropriated (efficiency):	no. Zellango waa wa akainin hakiila kainin kainin ka wa ahainin ka ahainin ka kainin ka ahainin ka ahainin ka a
a. Financial means?		2	The financial means were satisfactory to cover most of planned activities. However, the area planned was very	The Belgian contribution was transferred when needed. The Belgian system did not cause any

THE REAL PROPERTY AND ADDRESS OF THE PERSON		enteriore de la minima della mi	big compared to the resources that were available. Fund disbursement was on time.	delays
b. Human resources?		3	Human resources were not sufficient. The NPC was managing also the sister project (FSP) that could have made him overworked. In addition, some of district staff were not conversant in reporting and could not be changed because some districts complained of shortage of the Government employed staff to be assigned project activities.	The district councils provided the extension staff and system required hence a small coordination team was set.
c. I	Material and equipments?	2	The working materials at the PMT office were enough. At the district level transport was problem despite of been allocated with some transport funds (fuel could be available but no vehicle for the field work)	Materials and equipments were provided for in the budget and some were provided by the districts. Through a SLA with a sister project the project staff used motorcycles bought by the other project.
5.	Were the project resources effectively used and optimized in order to reach the foreseen results? (efficiency)	1	Allocated funds they were utilized effectively to ensure they lead to project's expected results.	Allocated funds were used to implement the planned activities which were relevant for the project results.
6.	Was the project satisfactory on a cost- efficiency approach in comparison to similar interventions? (efficiency)	1	The project approach in terms of management and fund control was costefficient.	The use of partner structures made the project cost effective and hence a very small project coordination team.
7.	According to the execution planning, assess the speed of the execution. (respect of deadlines)	2	The execution speed was good except for component 4 (entrepreneurial innovation component) that started late because it needed external fund for value chain analysis and market studies.	The speed was good enough except component 4 which started rather late although within the set time for the implementation of the project

		National execution official	BTC execution official
Global evaluation of the project	1	The project was successfully implemented as it addressed the needs of the beneficiaries, indicators which were set were achieved, and more than 80% of the planned activities were implemented. Banana production increased from 15 mt/ha to 35 mt/ha	All the results of the project were achieved. The objective has been met to a satisfactory level and mechanisms for sustaining the objectives are in place. The capacity building of the extension system will sustain the

(considering the entire banana production area in the project areas). More than 8,000 farmers were trained on banana best technologies (for suckers, bunches and marketing). Post harvest processing and marketing exacerbate success and formation of marketing groups is ensuring good marketing of banana products.

project achievements

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### PART TWO: SUMMARY OF THE PROJECT IMPLEMENTATION

#### The general objectives of the project:

The Overall Objective is "Incomes and food security in Kagera Region and Kibondo district increased."

Banana production in Kagera Region and Kibondo District has increased as a result of farmers' adoption to the new banana varieties. Banana harvesting for home consumption is currently done on piecemeal instead of cutting the entire banana stem because of the large sizes of banana bunches. Selling of bananas is currently the major source of income to farmers. With support of banana value chain analysis, post-harvesting and marketing the price of banana bunches has started to increase and bananas are sold to other regions and to neighboring countries. Some banana farmers have formed banana marketing groups to ensure the price offered by traders for the banana bunch is satisfactory.

## The specific objective of the project reached:

The project's specific objectives was "Strengthened institutional capacities and public-private partnerships ensuring the sustained spread of farmer-led innovation in banana production in Kagera region and Kibondo district"

From the results achieved though implementation of the project activities, the specific objectives of the project have been achieved. The district staff were trained, towards the end of the project, banana sucker macropropagators have been constructed to all project districts to ensure sustainable availability of clean banana suckers whenever needed. Farmers have been trained in banana management techniques and marketing to ensure they will continue benefitting from the banana industry.

Achievement of intermediate results of the project, according to the accepted indicators

#### The expected results were

1. Institutional capacities and farmer empowerment consolidated allowing an enabling environment for technical and entrepreneurial innovation.

In the project implementation, farmer exchange visits were organised and facilitated within and among the districts. Extension staffs in all banana project areas (25 per district) were trained on general banana management; decapitation and management of banana pests with emphasis on Banana Xanthomonas Wilt (BXW). Capacity of most of banana stakeholders (farmers, between farmer groups, district and NGO extension staff, research) either as beneficiaries of the trainings or as resource institutions has been enhanced. The LGA crop specialist and extension staff were trained in banana management practices and have been responding to farmers needs; based on preliminary assessment of training needs of farmers. Banana nursery keepers were used as ToTs in their respective areas. Banana development agenda was integrated in districts plans. District leaders including DEDs, DALDOs and Planning officers were involved in the project monitoring, as well as in specific administrative support (e.g. providing vehicles etc). The Regional Secretariat was supported to undertake monitoring of the project and coordinate the districts.

Under this project, ARDI Maruku staff, LGAs extension staff, District land planners and some NGOs (KOLPING, World Vision and ScVi agroforestry) were trained on EPICOR and GIS to support monitoring and statistics at regional level.

The PMO's and the MAFC's representatives have been providing technical and monitoring support during the JLPC meetings. KU-Leuven has been providing international scientific support.

2. A sustainable supply of improved banana varieties planting material ensured through public-private partnerships and a farmer-based dissemination system.

Individual and some farmer groups were supported in the production of suckers of new banana varieties (FHIA17, FHIA23, FHIA25 and Yangambi km5) that proved to have the positive results to banana cropping system. A total of 133 nurseries were established since November 2009 and through direct and indirect sucker distribution approximately 5.0m suckers were distributed. This number of suckers covers about 3.3% of banana growing areas in the project areas.

cropping and 3. Dissemination ofhest available banana participatory practices through ensured management farmer capacity-building and farmer-to experimentation, extension.

This was achieved. In the records more than 8,000 banana farmers were trained by ARI Maruku, Extension staff and or by ToT farmers in their respective villages. In areas with nurseries, owners were trained as ToTs.

4. Spread of innovations increased and sustained by improved postharvest, processing and marketing skills

Farmers who organized the banana marketing groups are been trained on banana post harvesting and marketing. Sixteen groups have been formed.

Groups of women traders and processors have been assisted to develop business plans some of which have received support from the project. Out of the farmers and groups that have received support directly from the project, other s will be able to easily and quickly acquire the skills.

## The follow-up evaluation system established and during project implementation

The project activities were implemented direct by the Districts. The PMT have been monitoring the progress by reports from the districts and physical

visit. The project coordination office has made an average of a visit in every 2 months for monitoring and backstopping. The Kagera Regional Secretariat have been monitoring the project in the districts and supervise through its leadership of the JLPC meetings held semiannually. The project has conducted technical committee meetings comprising the DALDOs, District project coordinators, Region secretariat and the Representation office to manage the agendas for discussions and approval by JLPCs.

The project has developed and submitted Execution reports and operational planning to RRTAN on quarterly basis. Annual results reports have been compiled one for each year of execution.

The project office by use of an AFO have been monitoring and reporting the use of project funds done centrally including the transfers of funds made to the implementing agents.

In addition Midterm review was done. It came out with some key recommendations that were implemented by the project. At the end the final project evaluation was made.

#### PART THREE: COMMENTS AND ANALYSIS.

Major problems and questions having influenced the project implementation and the project attempt to solve them

1. The major questions were if the proposed indicators were realistic and achievable

Response by project: The indicators were revised and the new banana roadmap was proposed

2. Is the specific objective of the project in line with proposed indicators

Response by the project: To meet this, the project worked focusing mainly on indicators

3. With intermittent changes in the district accounting systems, will the project be able to accomplish planned activities

Response by the project: Such issues were presented to the JLPC and when it continued to delay implementation, funds were paid from central bank account in Bukoba

## Factors that explain the differences in relation to the awaited results

#### Assured funding

Funding was assured and disbursed timely (if the districts assured to confer to timely reporting both technical and financial). The financial transfer system was sometimes interfered by the intermittent changes by the Tanzania Government central financial system. This affected mainly the timely implementation of field activities.

## Close follow up by the DC leaders

In the districts mainly the district project coordinators followed up the activities. The Ward and Village extension staff added the qualities in assuring that majority of farmers are reached. The District Executive Directors were directly linked to the project in terms of authorization of all activities including fund request, approval of reports and attending to the JLPC meetings.

### Close follow up by PMT

The PMT was overall in the project management at large. It convened technical and JLPC meetings, monitoring of the project activities in the field and assuring that activities are implemented according to plans. All central local project financial matters were done by the PMT.

#### Advises by international backstopping

In the project TFF, KuLeuven was foreseen to provide the technical backstopping. During the project life Prof. Swennen was assigned that activity. During the missions he made some recommendations e.g. the need to establish the macro-propagators at all districts implemented the project to ensure there is a continuing assurance of availability of clean planting materials even after the project have ended. One macro-propagator was established to all districts that implemented the project. The old one was established at ARI Maruku at the initial stage of the project and it produced 130,233 banana suckers that were distributed to both banana secondary nurseries and to other farmers by the support of other NGOs e.g. WorldVision Tanzania.

### Advises by backstopping missions from BTC HQ

The backstopping missions from BTC HQ played some roles in improving approaches in the project implementation. The missions revised the logic framework of the project and suggested the new roadmap that was used to the end of the project. Some indicators were as well revised to meet the project objectives. In addition, the HQ backstopping proposed the recruitment of the NTA for the sister project (FSP) to ease some works to the NPC who manned both projects.

#### • Recommendations from the JLPC

The JLPC was the supreme board of the project. The committees meeting were held twice in every year i.e. March and September. The JLPC discussed and approved project progress reports, approved some budget modifications if raised and endorsed the annual reports. A total of 8 JLPC meeting were held during the project life.

#### Recommended by the project evaluation missions

Project evaluation missions were held twice (Once in form of a midterm review and once as a final evaluation). The recommendations by the midterm review among others proposed to stop the free distribution of banana suckers to farmers owing to the fact that the planned number of suckers and farmers has been reached; outsourcing the implementation of component 4 of the project (entrepreneurial innovation). The recommendations were accepted by the JLPC and implemented.

# Lessons that can be learnt from the project experience; in terms of the impact and the durability of the results

- 1. Three of the banana varieties that were multiplied and distributed among farmers through proper management, meet food security and market requirements (FHIA 17, FHIA 23 and FHIA 25) and have been adopted by many farmers during the project. Another variety Yangambi Km5 variety has been less adopted by farmers so far because it has relatively small bunches and limited use (mainly for juice production), fetching small market prices and its prolificacy in sucker production lead to intensive and high labor demand. The Market of FHIAs (17, 23 and 25) is promising and the demand is high.
- 2. In Ngara, people have harvested a bunch of 200kg that they'd like to be recorded in the Guinness Book of Records, this is a great achievement. But can it be repeated repeatedly? Sustaining this achievement would require increased crop management mainly in maintenance of soil fertility and soil water.
- 3. Bananas are sold in bunches this seems to limit the bargaining power of farmers. If bananas will be sold by weighing could increase farmers' income by fetching good price from buyers.
- 4. With all positive success in banana project there are some challenges:
  - Similar to all other banana varieties, FHIA is not resistant to BXW. There have been a few cases of attack by the disease in Kibondo District.
  - An increased challenge to maintenance of soil fertility by the fact that through banana marketing to distant places it leads to transportation of nutrients that could be recycled back to the soil. This challenge could be controlled if post-harvest processing and value addition to bananas is done locally.
- 5. Farmers are quite responsive to collective marketing and can fetch higher prices through it. Within a few months of interventions on banana marketing, inexperienced groups of farmers have managed to market considerable loads of bananas with a significant price increase (as compared to farm gate price for individual sellers).
- 6. Farmers' livelihoods will improve further if the introduced new banana varieties are continuing to be supported by good cropping management and collective marketing.
- 7. Since direct beneficiaries (those with nurseries and others in the project areas) received free suckers, free manure, free fertilizer, free mulching, training and monitoring visit of extension staff their plots were in good conditions. Most of districts have promised to continue maintaining the extension support to farmers. Most of nursery keepers (70%) have changed nurseries to banana production plots with minimum sucker production while 30% have transformed half of nurseries to banana production and half maintained for sucker production.
- 8. Districts have now models for quick win nurseries;

- Districts have developed models of nurseries for quick win and have included them in the 2013/14 district plans.
- ARI Maruku staff and district extension staff provided training to farmers and conducted monitoring visits to the fields;
- Nurseries are either individual of group nurseries depending on the district;
- Some district have planned to subsidize all cost of production including provision of suckers, manure, mulch, fertilizer etc except land and labor since farmers are the implementers in the field
- 9. Identification of potential and limits of working with local government authorities
  - Working with and through the districts had both advantages and disadvantages.
     The system can be improved through:
  - Improved backstopping and methodological support from BTC;
  - Smoother financial management without much bureaucracy in availing field funds
  - Commitment of local account staff;
  - Improved monitoring and evaluation of the project (at least put in place a monitoring and evaluation system, even basic);
  - Funding of districts to be based on regular external / independent evaluation of performance and good governance. Districts performing well shall receive additional funding; while the project may decide to stop working in a district achieving poor results / performance.
  - Better identifying which activities should be implemented through the districts and which ones can be implemented in collaboration the districts.
- 10. The role of technical backstopping cannot be neglected. Both backstopping by Kuleuven and BTC HQ contributed to make the project reach the success achieved.

#### Perception of the project by the target groups

Perception of the project was positive in that majority of farmers planted new banana varieties, in some district e.g. Muleba and Biharamulo some farmers devoted to start their new banana varieties nurseries on their own (without support of the project). The final banana project report remarked that:

"new FHIA varieties have proven quite interesting from a production and marketing side and are being adopted by farmers, that Districts have now models for quick win nurseries and that some Districts have committed resources for additional nurseries, that FHIA has spread broadly and will continue spreading among farmers, and that the initial tests of collective marketing have proven quite promising".

Beneficiaries, whom in the project document (TFF) referred to as vulnerable households from the remote areas are satisfied in the way the project was managed and the results achieved; increased banana production catering for food and income has lead even to the change of banana type preferences (traditionally farmers used to prefer to the EAH bananas that turn yellow after cooking to those turning brown). Farmers are earning income and assured food from new banana varieties. In addition, they have gained social status as they can contribute to social activities e.g. contribution of a banana bunch during cerebration or if somebody has deceased, they can pay some school fees, build houses with corrugated iron sheets, buy assets etc from the selling of banana suckers and bunches.

According to farmers, there were no technical problems in adopting banana technologies. However, they are of the opinion that some farmers are still in need of banana suckers since some farmers are selling them at high price (500 TZS and above) and vulnerable cannot afford buying them. The major challenge to the banana cropping system is the prevailing of BXW disease that affects all banana varieties.

Banana marketing groups are still optimistic upon the expected outcome of market training and post-harvest processing. Already they have been registered under cooperatives and are planning to extend their tentacles to big market in cities like Mwanza and Dar es Salaam.

Follow up of recommendations from the results by evaluation, monitoring, and the audits and controls

The follow of recommendations from the results of different missions

#### 1. Midterm evaluation

• The table below presents the recommendations by midterm review(October 2011) and the follow up made

MTR main	Level of implementation since the MTR	
recommendations		
Given satisfactory	Activities related to component 4 have indeed	
results already achieved	started since the MTR. The value chain analysis	
using the push	has been conducted from January to March	
approach it was	2012 and SIDO contract for implementation of	
recommended to focus	component 4 started in November 2012. 16	
on the pull approach.	marketing groups have been supported.	

Stop the free	5.984.509 suckers have been distributed from
distribution of suckers	nurseries during the period August 2011 –
from nurseries.	December 2012. The traditional free distribution
	of suckers from farmer to farmer is still taking
	place (this is why a real market does not really
	exist) and will continue ensuring a broad
	dissemination of suckers without proper
	nurseries
Support nurseries as	The MTR recorded 114 existing nurseries. There
economic businesses,	are currently 133 nurseries recorded, hence
but no new nurseries to	about 20 additional nurseries have been added
be established.	after the MTR. These are nurseries established
	by farmers who decided on their own to multiply
	and distribute suckers.
Focus on market driven	District and village staffs have indeed been
initiatives and district	trained by SIDO on methodologies to sensitize
staff, ward extension	communities, guide banana farmers marketing
officers should be	group formation and strengthening. However
trained accordingly.	these activities have started very recently
	(December 2012).
Outsource component 4	Component 4 has indeed been outsourced to
and component 1	SIDO has from December 2012.
(linked to the pull	
approach) to SIDO.	The outsourcing of component 4 proves to be the
	best strategy to deal with value chain
	development issues even if some methodologies
	should be improved.
ARDI-Maruku	Done.
continues to be in	
charge of component 3.	
Project extension until	Such extension has not been granted. Project is
November 2014.	due to end between June and September 2013
	depending on components; PMT being already
	now only part-time on the project (i.e. less than
	the initial half-time).

#### 2. Monitoring

This was mainly done by the JLPC. The JLPC received the project progress report and made recommendations as necessary. The JLPC approved budget modification and endorsed the use of new roadmap in implementing the project.

However, some of recommendations such as timely reporting and settlement of advances by the district were not implemented as recommended by the JLPC. Delays continued to threaten the project progress and accomplishment of targets.

#### 3. Auditing

The external audit mission made some recommendations such as endorsement/stamping of all financial documents; this was done as recommended.

Keenness in filing of finance documents be in the manner that they are available whenever needed. There was some Improvement in this though not completely achieved.

## Recommendations for the consolidation and the appropriation of post-project period

- To convene a workshop comprising district staffs, some extension workers, farmers'
  representatives, some NGOs, some policy leaders etc to discuss the exit and
  transition period, achievements and gaps if any that could be built on to ensure
  sustainable banana production and access to the market, take ownership of the
  findings and propose the role of the districts.
- Prepare a strategic plan for banana production in Kagera and other areas producing bananas in Tanzania
- Involve of all stakeholders in combating BXW and propose for the surveillance activity to ensure the disease is not spreading in non infected areas.
- In the future, when working through districts, funding of districts to be based on regular external / independent evaluation of performance and good governance. Districts performing well shall receive additional funding; while the project may decide to stop working in a district achieving poor results / performance.
- The success stories of the project need to be publicized so that they can be used in other banana growing areas of Tanzania. Whenever possible farmers in Kagera region should be ready to receive and train other farmers from other regions in decapitation for massive sucker production, conventional management of new banana varieties and the role of intercropping in soil nutrient management.

- Since already bumper banana production have been realized, and the current efforts for banana marketing in progress, there still continue be the need to make banana marketing more strong by securing external (out of Tanzania markets) to make bananas more of cash earning crop.
- Training materials that were used during the project could be further reviewed to suit different agro-ecological zones instead of continuing been uniform to all banana growing areas.
- A banana day like the one organized in Ngara district could be organized in all districts to air out the availability of new banana varieties and their performance in alleviating food insecurity and contribution to household income
- Organise in each district one meeting with representatives of the various stakeholders of the banana value chain: farmers, farmers marketing groups, women groups, traders, brokers, and private businesses involved in post-harvesting and processing and district representatives. This will allow a better understanding of stakeholders. At least they'll know each other. This refers to the step 2 (building engagement) exposed earlier. These should then be followed by similar meetings at regional level, possibly inviting stakeholders from other regions (buyers).
- It has been continually asked by policy leaders if similar project can be implemented in other regions growing bananas in Tanzania. To answer to this question BTC could make a article explaining the pillars that made it success in Kagera and Kibondo in Kigoma. These include the strict financial control, sensitization of farmers so that they own the project, monitoring of the project areas by the PMT and commitment of agriculture department of the districts to ensure they reach the set goal.
- If similar project has to be designed, the project leaders (PMT) should be involved in selecting the district staff to be coordinators. One of the unexpected setbacks was working with inexperienced persons, some who cannot even write a project report in English! This is because in the district staff set up, there are "Subject Matter Specialists" (SMSs) who are assigned all duties on that crop irrespective of the number of the projects they are supervising and their initial experiences.

#### 7. Conclusions

It can be concluded that the project has achieved the overall objective "Incomes and food security in Kagera Region and Kibondo district increased.". In all project areas, farmers are explaining their benefits from the project in terms of increased and assured income and increased food security (in project areas there is no longer theft to banana bunches as it used to be, they are currently stealing suckers for planting).

Following the fact that bananas take some 18 months to realize the first harvest, and that the project could not start immediately due to pre start logistics, the effective time taken is three years instead of 4 years. And if much conclusions could be expected, the project could be of 6 years. Therefore, short time allocated.

The project was relevant and well integrated to Tanzanian policy by addressing the vulnerable households who could not access new banana varieties, who have been receiving extension services in ad-hoc manner, yet food insecure and limited source of income. In addition, banana crop used to be gender specific since the women were responsible in harvesting cooking bananas and men to the bananas that had markets such as dessert and beer bananas. By introducing new banana varieties that are

multi-purpose in uses lead to equal benefit from the crop. During the trainings it was common that at least 30% are women.

The project was run efficiently in accordance to plans with exception of component 4 that started later towards the end of the project. The allocated funds for the project was used efficiently to achieve the project goal.

To ensure there is project sustainability the training materials were transilated in user friendly language and distributed among farmers. On farm training enabled farmers practice the technologies therefore will always remember them. For continuing availability of clean banana planting materials, macro-propagators have been constructed in every district that implemented the project (one in each district) at convenient centers to be used for both training and multiplication of clean banana suckers.

Banana been the crop with broad leaves, have capability of covering the soil therefore conserving moisture and suppress weeds thereby, environmental friendly.

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#### PART THREE. ANNEXES.

	Annexes
Annex 1	Results summary
Annex 2	Situation of receipts and expenses
Annex 3	Disbursement rate of the project
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	Backers

ANNEX 1. Results and activities summary (according to the logical framework)

Intermediate results	Indicators (foreseen or realized)	Progress
IR. 1. Institutional capacities and farmer empowerment consolidated allowing an enabling environment for technical and entrepreneurial innovation	<ul> <li>100 DC and NGO         specialists and         extensionists trained on         banana development and         protection</li> <li>8 DC planning banana         development activities in         DADP</li> <li>300 villages planning         banana development         activities</li> <li>Durable partnerships         between ARDI, DC and         NGOs</li> </ul>	<ul> <li>Maruku-ARDI staff and extension staff trained on macropropagation, false decapitation, crop management; The project has used partly district procedures and has pointed out at some difficulties in such procedures; Other trainings of district staff on financial aspects notably; Reporting capacities of District staff have improved during the project; District commitment towards macro-propagation units and establishment of new nurseries</li> <li>133 nurseries established as group or individual nurseries; 16 marketing groups currently / recently established (2 per district); Capacity building of farmers on nursery, crop management and marketing (the later just starting); Many farmers have access to new and clean planting materials; Nursery farmers (i.e. direct beneficiaries) have developed their farms (increased food security and income).</li> <li>FHIA (17, 23, 25) varieties</li> </ul>

		adopted by farmers and
IR. 2. A sustainable supply of improved banana varieties planting material ensured through public-private partnerships and a	<ul> <li>At least 250 farmer banana multipliers in the 8 districts by year 2</li> <li>1,500 vulnerable households benefited</li> <li>700,000 improved suckers yearly available</li> </ul>	adopted by farmers and dissemination is taking place (the Yangamba Km5 variety less adopted by farmers); False decapitation is adopted from Maruku by nursery farmers and nursery management has improved; 133 nurseries established as quick win solutions and district will commit resources to establish more nurseries (they now have a model for quick win nurseries); Improved crop management by nursery farmers; Better management of macropropagation unit at Maruku and extension of the units; Future macro-propagation units at district level; Adequate technical backstopping on macropropagation and nursery.  • A total of 5.984.509 suckers were distributed (December 2012); FHIA 17, 23 and 25 seem to meet farmers and market requirement Farmers' traditional dissemination of suckers is taking place in all areas with minimum of
IR. 3. Dissemination of best available banana cropping and management practices ensured through participatory experimentation and farmer-to farmer extension.	300 Participatory Farmer Groups trained in banana development and protection by year 4     200 demonstration and on farm trial sites ensuring spread of innovation in 8 districts by year 3     Specific capacity-building for vulnerable household	<ul> <li>Several "best" practices have indeed been disseminated to nursery farmers: False decapitation, mulching, farm yard manure, compost, disease control, propping, etc.</li> <li>Adoption of techniques by farmers; farmers ownership of the project and combination of nursery ownership by PFG was important in efficient use of project available resources</li> <li>The use of ToTs and farmer to</li> </ul>

		farmer training added quality to farmers understanding of the technologies.
IR. 4. Spread of innovations increased and sustained by improved postharvest, processing and marketing skills	At least 25 farmers     groups trained for group     marketing of bananas     improving incomes from     sale of bananas      At least 50 women groups     and enterprises trained     for entrepreneurial skills,     improving incomes from     processing and trade     activities	Collective marketing, which is new to farmers, is being tested: this is an innovation for farmers; Marketing groups seem very responsive to collective marketing: in a limited time several loads of bananas have already been marketed in only a few months of implementation and this is thus very promising

Planned activities	Progress of the activities (with comments
<ul> <li>R.1.</li> <li>A0101 Assessment of training needs of extensionists (DC and NGOs)</li> <li>A0102 Planning and implementation of training to extensionists</li> <li>A01403 Planning and implementation of training of district level specialists</li> <li>A0104 Support to district level planning for banana development</li> <li>A0105 Support to village level planning for banana development</li> <li>A0106 Upgrading of ARDI Maruku capacities</li> <li>A0107Support to banana protection, monitoring and statistics</li> <li>A0108 International scientific support and backstopping</li> </ul>	Maruku-ARDI staff and extension staff trained on macro-propagation, false decapitation, crop management; The project has used partly district procedures and has pointed out at some difficulties in such procedures; Other trainings of district staff on financial aspects notably; Reporting capacities of District staff have improved during the project; District commitment towards macro-propagation units and establishment of new nurseries  133 nurseries established as group or individual nurseries; 16 marketing groups currently / recently established (2 per district); Capacity building of farmers on nursery, crop management and marketing (the later just starting); Many farmers have access to new and clean planting materials; Nursery farmers (i.e. direct beneficiaries) have developed their farms (increased food security and income).  FHIA (17, 23, 25) varieties adopted by farmers and dissemination is taking place (the Yangambi Km5 variety less adopted from Maruku by nursery farmers and nursery management has improved; 133 nurseries established as quick win solutions and district will commit resources to establish more nurseries (they now have a model for quick win nurseries); Improved crop management by nursery farmers; Better management of macro-propagation unit at Maruku and extension of the units; Future macro-propagation units at district level; Adequate technical backstopping on macro-propagation and nursery.

#### IR.2.

- A0201 Assessment of demand for improved varieties in each district
- A0202 Planning of selection criteria and standards for banana multipliers
- A0203 Farmer and site selection
- A0204 Farmer training in multiplication techniques
- A0205 Production of clean nursery material through macro-propagation
- A0206 Distribution and establishment of multiplication plots at farm level
- A0207 Planning of voucher system for vulnerable households
- A0208 Implementation of voucher system
- A0209 Monitoring, supervision and certification of banana multipliers
- A0210 On farm and palatability trials in new areas (Kibondo district)
- A0211 Release of national certification of improved varieties
- A0212 International scientific support and backstopping

- A total of 5.984.509 suckers were distributed (December 2012); FHIA 17, 23 and 25 seem to meet farmers and market requirement
- Farmers' traditional dissemination of suckers is taking place in all areas with minimum of selling/buying of suckers

#### IR.3.

- A0301 Selection of innovative farmers (along with A0101)
- A0302 Participatory assessment of training needs of farmers
- A0303 Formation of Farmer Extension Groups
- A0304 On farm training
- A0305 Organization of exchange visits
- A0306 Demonstration of innovative practices
- A0307 Production of extension support material
- A0308 Monitoring of spread of innovation
- A0309 International backstopping

- Several "best" practices have indeed been disseminated to nursery farmers: False decapitation, mulching, farm yard manure, compost, disease control, propping, etc.
- Adoption of techniques by farmers; farmers ownership of the project and combination of nursery ownership by PFG was important in efficient use of project available resources
- The use of ToTs and farmer to farmer training added quality to farmers understanding of the technologies.

#### IR.4.

- A0401 Inventory of marketing and processing initiatives
- A0402 Assessment of entrepreneurial training needs (farmers/processors)
- A0403 Training of farmers in post harvest and marketing
- A0404 Support to market empowerment (group sales, market information)
- A0405 Training needs assessment of traders (women)
- A0406 Business support to processors groups and traders (business plans)
- A0407 Micro projects in value adding
- Collective marketing, which is new to farmers, is being tested: this is an innovation for farmers; Marketing groups seem very responsive to collective marketing: in a limited time several loads of bananas have already been marketed in only a few months of implementation and this is thus very promising

#### **ANNEX 2: EXPENSES**

Budget Code	Description of Budget Headings	Task Code	Sector Code	TOTAL COST BELGIAN CONTRIBUTION (EURO)	CUMULATED EXPENSES
PART A					
Result 1					
A01_01	Assessment of training needs of extensionists (DC and NGOs)			11290	
A01_02	Planning and implementation of training to extensionists			3120	
A01_03	Planning and implementation of training of district level specialists			22080	
A01_04	Support to district level planning for banana development			48960	
A01_05	Support to village level planning for banana development			48900	
A01_06	Upgrading of ARDI Maruku capacities			26000	)
A01_07	Support to banana protection, monitoring and statistics			37040	)
A01_08	International scientific support and backstopping			20600	
	Subtotal Result 1-Part A				
Result 2:			1		
A02_01	Assessment of demand for improved varieties in each district			2,400	)
A02_02	Planning of selection criteria and standards for banana multipliers			1,062	
A02_03	Farmer and site selection			3,880	
A02_04	Farmer training in multiplication techniques			45,484	1
A02_05	Production of clean nursery material through macro-propagation			23,340	)
A02_06	Distribution and establishment of multiplication plots at farm level			15,700	
A02_07	Planning of voucher system for vulnerable households			2,70	
A02_08	Implementation of voucher system			95,700	D
A02_09	Monitoring, supervision and certification of banana multipliers			24,50	4
A02_10	On farm and palatability trials in new areas (Kibondo district)			7,20	0
A02_11	Release of national certification of improved varieties			2,76	2
A02_12	International scientific support and backstopping			20,60	0
T	Subtotal Result 2-Part A				
Result 3 A03_01	Selection of innovative farmers (along with			1,16	0
A03_02	A0101) Participatory assessment of training needs of farmers			15,44	0
A03_03	Formation of Farmer Extension Groups	<u> </u>		84,68	0
A03_03 A03_04	On farm training			187,00	
A03_04 A03_05	Organization of exchange visits	+	<b>—</b>	21,40	
	Demonstration of innovative practices	<del></del>		52,50	
A03_06	Production of extension support material			11,75	
A03_07	Monitoring of spread of innovation	1	-	7,60	
A03_08	International backstopping			7,30	
A03_09_	Subtotal Result 1-Part A				

	Subtotal Part A	
A04_01	Presentation of value chain analysis and	2500
A04_02	market studies Inventory of marketing and processing	2120
A04_03	initiatives Assessment of entrepreneurial training needs of	9200
A04_04	farmers/processors  Training of farmers in post harvest and	31230
A04_05	marketing Support to market empowerment (group sales, market information)	31750
A04_06	Training needs assessment of traders (women)	1600
A04_07	Business support to processors groups and traders (business plans)	15193.4
A04_08	Micro projects in value adding	100000
A04_09	International technical backstopping	7300
Z01 01	Local BTC staff	195,400
Z02_01	Vehicles	48,000
Z02_02	Office material	4,800
Z02_03	IT equipment	5,400
Z03_01	Contribution to office maintenance	7,200
Z03_02	Fuel, spares and maintenance vehicle	47,500
Z03_03	Air tickets	6,000
Z03 04	Communication	5,760
Z03 05	Stationery	4,800
Z03_06	Other operation costs	4,000
Z04_02	Field visits BTC-HQ staff (10 days)	20,000
Z05_01	Support to internal audit	2,400
Z05 02	External audit	56,000
Z06_01		17,693
	BELGIAN CONTRIBUTION	1,500,000
	DIRECT MANAGEMENT	482,753
	CO MANAGEMENT	1,017,247

ANNEX 3: Disbursement rate of the project.

Source of financing	Cumulated budget	Real cumulated expenses	Cumulated disbursement rate	Comments and remarks
Direct Belgian Contribution	1,500,000 EURO	1,331,505.92	. %68	
Contribution of the Partner Country	0	0	0	
Contribution of the Counterpart Funds	In kind (district staff salaries and district facilities)			
Other source	0	0	0	

#### ANNEX 4 : Personnel of the project

Personnel type (title, name and	Duration of recruitment (start	Comments (recruitment
gender)	and end dates)	periods, profile relevance)
National personnel put at disposal by the Partner Country	1 <sup>st</sup> February 2009 to 31 <sup>st</sup> January 2013	A banana agronomist working at the Maruku banana research centre
Title: National Project Coordinator		
Name: Mgenzi S.R. Byabachwezi		
Gender: Male		
2. Support personnel, locally recruited	1st February 2009 to 31st January 2013	
Title: Administration and Finance Officer		
Name: Frank Muganyizi		
Gender: Male		
3. Training personnel, locally recruited		
None		
International Personnel (outside BTC)		
Expert in International Cooperation (BTC)		

## ANNEX 5: Subcontracting activities and invitations to tender

(one form for each subcontracting contract)

Tendering mode

Date of the invitation to tender :

Start date of the subcontracting contract : December 2012

Name of the subcontractor (or of the company) : Small Industries Development Organization

(SIDO)

Object of the contract: To entrust SIDO with the operational management, budget planning and

reporting on expenditures, in view of proper implementation of the

activities in component A4: Entrepreneurial and Innovation.

Cost of the contract

: EURO 147,500

Duration of the contract

: 1 year (end 30/12/2013)

Results

: the activity is still going on

#### **Comments:**

There is promising results on marketing and value addition to banana and banana biproducts

ANNEX 6 : List of the equipments acquired during the project

Equipment type	Co		deliver		Remarks
	budget	real	budget	real	
• 2 Vehicles					1 grounded
• 3 Desktop computers					
• 2 Printers					
• 1 Photocopier					
• 2 Laptop computers					
Computer accessories and UPS					
• 2 Office tables					
6 Office chairs		!			
2 Metal Cabinets					
3 Book/file shelves					
Office stationeries					

#### Annex 7. Trainings

	Subject, content
Training type Country, Name or number	
Institution, of trained people	and level
Traineeship	

	1 DY1 1	0 1'-4-'-4-	Datuman	
General banana	ARI Maruku,	8 districts 212 District staff	Between November 2009	
management	District staff, ToT		and December	
	farmers	7,945 banana farmers	2012	
		ranners	2012	
Banana	ARI Maruku,	8 district		
decapitation	District staff, ToT	32 district staff	Between January	
чесарнанон	farmers	798 farmers	2010 and	
	latificis	770 Idilliois	November 2010	
GIS Training	PMT (Junior	80 district staff	Between May	i
	assistant)		2011 and	
	,		November 2011	
EPICOR training	PMT (experts	24 District	January 2011	
	from Ministry of	accountants		
	finance Dar es			
	Salaam)			
	CIDO IZ	23 district staff	April 2013	
Banana post-	SIDO Kagera	23 district starr 238 farmers	April 2013	ļ
harvesting		238 lanners		
(packaging,				
storage and transportation)				
and markeng				
Scholarship				-
None				
Workshop				
	DEC D 1:	1 D 1 1 Ct - CC	December 2010	
Monitoring and	BTC, Belgium	1 Project Staff	December 2010	
Evaluation		2 Project Staff	June 2011	
041		2 FTOJECE SIAH	June 2011	
Other		<u> </u>		

ANNEX 8. Backers Interventions

Interventions of other backers for the same project or for project pursuing the same specific objective.

	Bailleurs de 1	onds intervenant	dans le même projet	
Backers	Name of the Intervention	Budget	Main objectives	Comments
KuLeuven	Scientific backstopping		Technical support to banana project	
BTC HQ				
RRTAN	Monitoring, administration, project implementation advises			
	Monitoring, administration,			

	project implementation advises, repors and reporting system			
	Bailleurs de fonds con	tribuant à un mêm	e objectif spécifique	
Backers	Name of the accounts.	Budget	Main objectives	Comments
	ameryennon-			A TANAN MATANINE DA PARA PARA PARA PARA PARA PARA PARA P
	1	I	1	<u> </u>