



Sustainable Coffee Production and Processing coupled with Income Diversification in Mbeya Rural and Mbozi District

ICP Project

2006 to 2010

Final Report

Hamburg, December 2017



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Executive Summary

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Project Duration: 01/05/2006 to 31/08/2010

Project Objective

Improved living conditions of organized small-scale coffee farmers and their families through the increase of net farm income through sustainable Arabica coffee farming and promotion of other promising crops in Mbeya and Mbozi District, Tanzania

Main activities of the project

- Trainings on sustainable agricultural and post-harvest practices for sustainable coffee production and quality improvement
- Continuous trainings on farmer organizational development and technical assistance in establishing the Apex organization *Shirikisho la Vikundi vya Wakulima wa Kahawa (SHIVIWAKA)*
- Assistance in market development using a combination of training, technical assistance, financial investment and consulting services

Main achievements of project

- Application of good agricultural practices (GAP), good harvesting methods and improved processing has led to improved crop quality and coffee production
- Availability of finance for farmers at competitive terms and inputs at affordable costs
- Improved marketing options for farmers
- Internal Control Systems and an extension system have been established within the organizational structure
- Implementation of Sustainability Standards and diversification of income

Main challenges encountered

- Since coffee is a traditional crop in Tanzania, innovations regarding agronomy promoted by the project faced some cultural challenges.
- The approach to enhance self-selection/ self-organization of farmers in their farmer groups was challenging due to social structures of the targeted communities.
- Farmers were hesitant due to prior unfortunate experiences with other development projects and they often expected handouts from the project (inputs and cash).
- The introduction of the concept of *Farming as Business* met several obstacles due to
 - The absence of any record keeping culture as the result of low literacy rates which also caused problems regarding monitoring of the project's progress.

- The inaccessibility of inputs due to skepticism from service providers (financial institutions, input providers, technical advisors) towards smallholder farmers.

Main lessons learnt

- A change of mindset and the establishment of effective farmer organizations requires a long time perspective: experiences from other HRNS projects suggest about 10-15 years.
- Self-selection is very important. Farmers need to learn to take ownership and to manage their farmer organizations within a bottom-up structure (in most cases organizations were formed and managed through a top-down structure in the past).
- Organizational development is crucial: Group cohesion is very important for the sustainability of the farmer organization. Trust has to be built up. Clear roles/responsibilities have to be defined, and all members have to understand the goals of the organization.
- Building up linkages between input/service providers and farmers is very important, but it takes time as trust needs to be build up between all parties.
- Farmers will not take ownership and adopt new practices and technologies if they do not understand the benefit of it. Otherwise new practices might only be adopted superficially.
- In Tanzanian households there is often a gap between the household head (mostly the husband) and the rest of the household (usually the wife/wives and children). Those intra-household dynamics have to be taken into consideration for the conceptualization of effective trainings.

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Project Background

Coffee is Tanzania's largest export crop, contributing approximately \$115 mil to export earnings, and provides employment to 400,000 families. About 95% of the coffee in Tanzania is grown by smallholders on average holdings of 3 acres. In smallholder settings, coffee is often intercropped with food crops such as bananas and maize.

The project is located in Mbeya Rural and Mbozi, two districts in Mbeya region in the southern highlands of Tanzania. At project start yields were extremely low (with only ¼ kg per tree of green coffee the yields are among the lowest in the world), due to a lack of maintenance of coffee fields, poor farming practices, and inadequate infrastructure to achieve a consistent and high coffee quality.

Moreover, smallholders suffered from extreme cash flow problems since independent farmer groups could not afford to effectuate advance payments and had no access to micro-financing options. From the time of picking the coffee until it was sold at the national auction in Moshi, it could take up to ten weeks for the farmers to receive their payment. As a consequence, many farmers sold their coffee cherries straight off the tree to brokers or middlemen who did not care about the quality and paid extremely low prices. On a structural level, there was a lack of professional and well-managed farmer based organizations in Mbeya Rural and Mbozi. In addition, farmers did not have entrepreneurial and agricultural skills and knowledge required to move from subsistence farming to commercial levels. Smallholders were locked in a declining spiral of too low productivity which did not provide adequate levels of income, threatened food security and made any future on-farm investment opportunity impossible.

In order to improve the difficult economic situation of smallholder farmers in Mbeya Rural and Mbozi, the project "Sustainable Coffee Production and Processing coupled with Income Diversification in Mbeya Rural and Mbozi District" was set up. It served as an initial pilot for the project *Building Coffee Farmer Alliances in Tanzania (CFAT)*, which started in September 2010 supported by ICP and implemented by HRNS.



High Level Progress & Project Outreach

Project Objective

Increased net farm income through sustainable coffee farming and promotion of other promising crops leading to improved livelihood of organized small-scale coffee farmers and their families in the Mbozi and Mbeya region

Project Outreach

The project targeted 3,000 direct beneficiaries. However, at the end of the project the number was surpassed and 3,287 coffee farmers and their families were reached directly through project activities. Additionally, the smallholder communities of Mbeya and Mbozi benefited indirectly from the project work.

A total number of 93 Producer Organisations (POs), 7 Depot Committees (DCs)¹ and one Apex organization were established. The Apex organization *Shirikisho la Vikundi vya Wakulima wa Kahawa* (SHIVIWAKA) was established in 2007 by the project beneficiaries with support of the project. The development of effective structures, management systems, and efficient operational practices within the farmer organizations was one of the focus areas of the project.

On smallholder level, the project focussed on enhancing sustainable coffee production, increasing coffee yields and crop quality. On a structural level, the project assisted the development and strengthening of smallholder coffee organizations and their marketing capacity within a holistic approach using a combination of training, technical assistance, financial investment and consulting services.

¹ The DCs are responsible for ensuring that their member POs are managed democratically, efficiently and transparently. DCs offer services in terms of establishing linkages to input suppliers as well as providing the opportunity to their members to access medium term loans through the Community Rural Development Bank (CRDB) and other financial lending institutions. POs on the other hand are responsible for disseminating general recommendations on coffee production ranging from sustainable agricultural and post-harvest practices to quality requirements. The POs are self-monitoring, self-managing entities and support their members in the implementation of recommended crop management practices and loan repayment.

Progress on Specific Objectives

Specific Objective I

Practices for sustainable coffee production are adapted to the specific conditions of smallholders in Tanzania and farmers increase their productivity and crop quality

Main activities of project on specific objective

- A baseline study and a gap-analysis of coffee production system in Mbozi were conducted.
- HRNS extension staff was trained on sustainability practices, standards, indicators and schemes for verification/ certification.
- A field manual for sustainable coffee farming in Tanzania was developed.
- Farmer Field Schools (FFS) and demonstration plots regarding sustainable coffee farming practices were established and consolidated during the project phase. Technical know-how was transferred via seminars and workshops held by HRNS staff to farmers through FFS and HRNS' agronomic extension system.
- Farmers received intensive technical training at every stage of the coffee production, on Good Agricultural Practices (GAP)², post-harvest and processing techniques.
- The use of CPU's (Central Processing Units) and drying tables for proper post-harvest processing was promoted. Trainings about coffee quality included also aspects of food safety.
- The project organized and promoted the multiplication of high quality coffee plantlets and shade trees and their sale to project farmers.
- The project fostered exchange visits of producers on FFS level.
- HRNS staff regularly monitored farmers' responses to extension measures and the change of production practices.
- The project identified reliable input suppliers for all project farmers in collaboration with farmer promoters and SHIVIWAKA. The inputs for the demonstration sites were sourced from these identified input suppliers.

Main achievements

- More than 50 demonstration plots for sustainable coffee production were set up. FFS were established and held regular meetings on these plots.
- By means of continuous capacity building over the 4-years duration of the project, on fields of extension staff, on individual farmers' fields and on some demonstration plots the impact of best agricultural practices could be seen, as coffee yields increased

² GAP include pruning, mulching, weed control, disease control, shade tree planting, safe and controlled use of agrochemicals, soil erosion control, rainwater harvesting, replanting/planting of improved varieties, farm economics.

from 250 kg per hectare (clean coffee) in season 2007/8 to 600 kg/ha in season 2009/10 on some of these plots.

- The quality of the coffee produced also improved as an increased number of farmers used raised drying tables. The percentage of upper grades delivered to the dry mills increased from 70% to 97% and farmer started to use Central Pulping Units.

Practices	Project Start 2006	Project end 2010
Yields	250 kg/ha	600 kg/ha
Drying tables	10% of the beneficiaries use drying tables	97% of the beneficiaries use drying tables
Central Pulping	None	20% of the beneficiaries centrally pulp their coffee
Quality	70% of delivered parchment are upper grades	95% of delivered parchment are upper grades

- At the end of 2007 a quality control system for parchment was successfully implemented to improve and stabilise coffee quality produced by the supported farmer groups.
- The project supported individual farmers to manage 6 elite and 2 clonal coffee nurseries as commercial businesses in order to booster the supply of planting material.

Main challenges encountered

- Farmers faced high costs for inputs and genuine inputs were often not available as many locally available inputs are fake products.
- Fungi and other diseases, e.g. CBD (Coffee Berry Disease) strongly affected the plants and led to low yields.
- Due to a lack of know-how on GAP, farmers often did not follow the cropping calendar which resulted in a low production.

Main lessons learnt

- Farmer Field Schools (FFS) and exchange visits to other DCs are very efficient. Farmers learn through the exchange with their fellow farmers who already have experienced how the adoption of GAP and other practices result in higher yields.
- Also demonstration plots have helped a lot to showcase and promote the impact of trainings as farmers see the changes on the field.

Specific Objective II

Democratic and efficient farmer organizations are strengthened and have access to finance

Main activities

- HRNS staff provided extensive training in organizational development, including best management practices for farmer organisations to foster integrity as part of sound leadership. Support in business development included advisory in the development of business plans and capacity building on marketing, quality control, financial management and record keeping for all POs and DCs.
- Specific organisational development trainings for the Apex organisation were also conducted in which all executive members of the Apex were trained on leadership skills and good governance.
- The project offered advisory services as well as the facilitation of financial linkages.
- To improve transparency through internal control of farmer organizations, the project assisted in setting up and training of Monitoring Committees at DC level.

Main achievements

- By the end of 2010, the project reached an impressive number of 3,287 farmers as members of the established organizational structure.
- The number of POs increased from 60 to 93 including 28 women groups, organized in 7 DCs, and the Apex organization SHIVIWAKA.
- A strong sense of ownership has been instilled into the members of the supported POs, DCs and the Apex organization which has enhanced the improvement of management practices. All members of producer organizations have been educated on the importance of sustaining their primary and secondary organizations, as well as the role and responsibilities of SHIVIWAKA.
- The project has facilitated the registration of five DCs (out of 7) and 60 POs (out of 93) with the Ministry of Home Affairs and Cooperatives.
- With support of the project, SHIVIWAKA was legally registered as a Non-Governmental Organization (NGO) and acquired a direct coffee trading license from the Tanzania Coffee Board (TCB). SHIVIWAKA is mainly responsible for providing marketing, advocacy and lobbying services to its member DCs and POs. A number of partners ventured into cooperation with SHIVIWAKA including the Tanzania Agriculture Development Trust (TADT), Actionaid/MS Tanzania and the District Councils of Mbozi, Rungwe, Ileje and Mbeya rural. These commercial partnerships benefited the organization and its members in terms of strengthened advocacy, further networking and financing of its operations.
- By the end of 2007 a comprehensive internal control system was established and operationalized for the supported organizational structure.



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- 58 POs have managed to receive input loans from the Community Rural Development Bank (CRDB) through the partnership with the Private Agricultural Sector Support (PASS).

Main challenges encountered

- Initial skepticism and hesitation of farmers regarding becoming a member of a farmer organization and farming as a business as contrary to traditional production systems and approaches.

Main lessons learnt

- The establishment of sound, strong and independent first-, second-, and third-tier farmer organizations takes time and require continuous backstopping. Group cohesion is very important for sustainability of the farmer organization. Trust has to be built up. Clear roles/ responsibilities have to be defined, and all members have to understand the goals of the organization.
- Smallholders need time to take ownership and self-manage their organizations.
- Organizational development is crucial for the other project components.

Specific Objective III

Sustainable coffee is successfully commercialized from the farm to the international market.

Main activities

- An internal control and monitoring system for the evaluation of the farmers' progress in the implementation of sustainable practices was implemented.
- The NKG Sustainability Index was tested and further developed.
- The project facilitated marketing support to achieve the best possible prices – so that smallholder farmers reach an increased share of the prices received at the national auction.
- Direct linkages between project farmers and oversee importers were established.
- Marketing material was produced to promote coffee from the project farmers.
- A system of traceability was established allowing the identification of coffee from the project area.

Main achievements

- By the end of 2007 the internal control system was established. Since then, every DC has a monitoring committee, which is elected by its members.
- Producers were linked to the international market via the Apex organization and received transparent information about world market prices. This process was supported by the Project Coffee Unit (PCU), a department of Bernhard Rothfos (the trading company of Neumann Kaffee Gruppe).



- In 2007 and 2008 third party inspections for verifying the degree of the implementation of sustainable practices by farmers were realized by the use of the NKG Sustainability Index.
- Eventually, project beneficiaries were awarded a Common Code for the Coffee Community (4C) verification certificate due to the implementation of good agronomic practices and the adherence to a set of standards in the three dimensions of sustainability (economic, environmental and social). By the end 2008, 80% of project farmers had achieved 4C verification.
- HRNS business advisors trained farmers in specific marketing-related topics. Since 2014, every DC has a marketing manager/coordinator who advises his fellow farmers.
- Marketing options were improved for the beneficiaries of the project while organizational structures have been strengthened.

Main challenges encountered

- Traceability remains a major challenge.
- Coffee volumes and quality provided by the DCs have to be constant for long-term commercial relationships with buyers. As the continuity of coffee supply cannot be guaranteed by project farmers (yet), coffee is often still (pre-)sold to middle men when cash is urgently needed.
- Many farmers look mostly at their local markets. However, through the establishment of marketing coordinators farmers have better access to coffee-market relevant information, e.g. world coffee prices.

Main lessons learnt

- Smallholder farmers can significantly improve their income through bulk sale, bulk input purchase and improved quality, which enables them to establish beneficial commercial relationships with international buyers. However, building up linkages between input/service providers, farmers and buyers takes time and needs to be built up on trust between all parties.

Specific Objective IV

Options for the diversification of farm family income are identified and implemented.

Main activities

- The potential for the promotion of food crops such as maize and beans and products was analysed and farmers were trained on the production, quality control and marketing options of such alternative crops and products.

Main achievements

- In line with the project goal of increasing farm income through sustainable coffee farming and promotion of other promising crops, the project introduced beans as a second cash crop to the participating farmers in Mbeya rural and Mbozi District. To

this end the project has established and is working closely with 28 women groups on diversification and additional income generation.

Main lessons learnt

- Due to their low resilience to climate change related challenges (droughts, pests and diseases, hail storms...) smallholder farmers remain vulnerable, which can be alleviated through a diversification of crops/ income generating activities.

Specific Objective V

Micro projects contribute to the improvement of environmental and social conditions

Main activities and achievements

- The EUR 6,000 donation from one of ICP shareholders, Löffbergs, contributed to a socio-economic micro-project which was implemented in the two initial project districts. 1,050 pupils benefited from the donation from which the renovation of four class rooms, two schools' offices and 120 desks were purchased. The implementation and monitoring of Löffbergs' contribution project was done by the DCs around the two primary schools in collaboration with the schools' authorities as a way of empowering project DCs.
- Due to the high desertification in some parts of the project area, the project took up promoted environmental conservation including rain water harvesting techniques and contour construction in steep slopes. Moreover, the project supported POs to establish shade tree nurseries which provide seedlings to farmers for indigenous trees for their coffee fields. In addition, the project promoted the establishment of basins and mulching in coffee and other crop fields for moisture conservation and environmental management.
- The project also focused on gender as an integral part of its objective to improve the livelihoods of smallholder farmers. To this end the project has strengthened the position of women through their participation in trainings and involvement in management of farmer organizations as well as through the establishment of 28 women groups that have been supported with the second cash crop, beans.

Main lessons learnt

- Gender and climate change adaptation are to components that have to receive further attention in upcoming projects.

Project Finance & Strategic Partners

Financial contributions to project

	Private Partners	Public Partners	NGO / Foundation
ICP	392,700		
ADA		199,800	
CiCo (City Coffee Ltd.)	75,000		
MST (MS Tanzania)			280,000
% Share	49%	21%	30%
Total Contributions	€ 947,500		

Important project partners and financial contributors were the Austrian Public Development Agency (ADA); City Coffee Ltd., a member company of NKG, located in Mbeya and active in pre-export activities³; and MS Tanzania, a non-governmental organization of the Danish Association for International Cooperation, which supports farmer organizations through trainings and capacity-building.

³ Through its milling services City Coffee has built up a sound cooperation with coffee farmers in Mbeya rural and Mbozi.

Strategic Partners

Key project partners apart from the aforementioned financing entities were local governments (District Councils; District Agricultural and Livestock Development Officers (DALDOs) of Mbozi & Mbeya Rural) as well as technical supporting partners, such as TFMK (Tropical Farm Management Kenya) and CRDB (Community Rural Development Bank). In addition, the following partners supported the project's implementation:

MVIWATA, a regional network of coffee farmers, which was established in 1993 to serve the interest of the small-scale farmers, strongly supported SHIVIWAKA. MVIWATA mainly aims at empowering farmers and cater for lobbying and advocacy, to solve produce market problems and to enhance communication between and among farmers. MVIWATA serves the overall purpose of representing and defending the interests of small-scale farmers. It advocates the existence of reliable markets for farmers' products, sustainable financial and adapted technical services.

MS Tanzania supported MVIWATA under a partnership agreement that included institutional capacity building. Of direct benefit to the ICP project was MS Tanzania's support for setting up a regional MVIWATA office in Mbeya.

The **Tanzania Coffee Research Institute** (TaCRI) is responsible for coffee research and technology transfer to support the rejuvenation of coffee industry in Tanzania. During the ICP project, TaCRI received support from EU/Stabex for the implementation of its Strategic Action Plan (SAP) which aimed at revitalizing coffee research through the establishment of a well-managed, financially viable and internationally respected research institute, providing essential services to farmers. The SAP also undertook activities to rehabilitate and modernize the research facilities at TaCRI. The main challenge of TaCRI was to bring new disease resistant varieties to the stakeholders. So far more than 200,000 seedlings have been distributed to farmers' groups and estates under its coffee improvement programme. Project farmers were also assisted to produce their own clonal gardens from cuttings provided by TaCRI. TaCRI is based in Moshi with an outpost in Mbeya.

Also **PASS**, the Private Agricultural Sector Support, contributed with important technical support to the ICP project. The entity was established in 2001 as part of the Government of Tanzania's overall policy to encourage the private sector to become the engine of economic growth and reduce poverty. The goal of PASS is to stimulate investment and growth of private commercial farmers and agri-businesses. It was registered in 2007 as non-profit and non-governmental organization under the Trustees Incorporation Act and is governed by a Board of Directors from the public and private sector. PASS provided business development services to the project, such as development of business plans, capacity building and provision of advisory service as well as financial services, i.e. it acted as guarantor for smallholders to get a loan for their viable investments.

