

Summary of Terminal Evaluation

I. Outline of the Project	
Country: The Republic of Kenya	Project title: Smallholder Horticulture Empowerment Project (SHEP)
Issue/Sector: Agricultural and Rural Development - Agricultural Development	Cooperation Scheme: Technical cooperation project
Division in charge: JICA Kenya Office	Total cost: 314 million JYen by Japan. 4.6 million Ksh. by Kenya (100 JY = 82 Ksh. as of July 2009)
Period of cooperation: Three years from 14 Nov. 2006 to 13 Nov. 2009 Record of Discussions signed: 8 August 2006	Implementing Organization: Ministry of Agriculture (MoA), and Horticultural Crops Development Authority (HCDA) Supporting Organization in Japan:
<p>1.1. Background of the Project</p> <p>Agriculture sector in Kenya contributes to 27% of GDP, employs over 80% of the labor, and generates over 65% of foreign exchange earning (2002). However, the performance of the agriculture sector has been declining from 6% of growth in the 1970s to 1.3% in the 1990s.</p> <p>Despite the downward trend of the agriculture sector, horticulture is the fastest growing sub-sector with an average growth rate of between 15 to 20% per annum. Smallholders play major roles in the horticulture sub-sector. They produce 60% of total produce and account for 80-100% in number depending on the area. 96% of the horticulture produce is sold and consumed in the domestic market. The involvement of farmers selling to the profitable export market is limited to less than 2%. There is a need for smallholder farmers to strengthen their access to various markets, especially the domestic markets. The empowerment of smallholder horticulture farmers is a key to redress the existing disparity as well as to reduce rural poverty.</p> <p>In response to the request by the Government of Kenya (GOK), JICA conducted the Ex-ante Evaluation Study in the period between July and September of 2005. The Ex-ante Evaluation team recommended the Smallholder Horticulture Empowerment Project (SHEP) to address the issues identified, such as: i) weak bargaining power, ii) considerable pre/post-harvest loss of the produce, and iii) limited or declining productivity.</p> <p>Based on the Ex-ante Evaluation study, GOK and JICA agreed on the commencement of SHEP by signing the Record of Discussions on 8th August 2006 as a result of a series of discussions.</p> <p>1.2. Contents of Cooperation</p> <p>(1) Target Area</p> <p>1) Bungoma District, Western Province; currently divided into four as Bungoma East, West, North, South</p> <p>2) Trans-Nzoia District, Rift Valley Province; currently divided into three: Trans-Nzoia East, West and Kwanza</p>	

- 3) Kisii District, Nyanza Province; currently divided into three: Kisii Central, South and Masaba
- 4) Nyandarua District, Central Province; currently divided into two: Nyandarua North and South

(2) Target Group

- 1) Direct Beneficiary: Smallholder horticulture farmer groups and extension staff of MoA and HCDA in the target area.
 - Direct supported farmer groups: 10 groups in each district: 42 groups in total (around 1,000 farmers).
 - Indirect supported farmer groups: 20 groups in each district: 80 groups in total (around 1,600 farmers).
- 2) Indirect Beneficiary: Smallholder horticulture farmer groups

(3) Overall Goal

Improved livelihoods of smallholder horticulture farmers in the target districts.

(4) Project Purpose

Developed capacity of the smallholder horticulture farmer groups supported by the project.

(5) Outputs of The Project:

- Output 1: Target groups (smallholder horticulture farmer groups) gain bargaining power in marketing their produce.
- Output 2: Target groups increase the production of better quality crops.
- Output 3: Target groups develop capacity to improve rural infrastructure for production and transportation.

(6) Activities of The Project

The project is the technical assistance i) to empower smallholder horticulture farmer groups, ii) to develop capacities of extension workers who provide technical support to farmer groups, and iii) to develop capacities of SHEP Kenyan team members as counterpart personnel who provide technical support to extension workers. The Project support includes the aspects of marketing, production and rural infrastructure. The project implementation process is conceptualized as follows:

Stage I: setting-up, detail designing and sensitization:

Sensitization, detail designing and Baseline survey were done.

Stage II: Direct model farmer group approach:

SHEP Team consisting of Japanese experts and Kenyan counterpart personnel, along with extension workers, provided technical support to the target farmer groups to empower them.

Stage III: Indirect model farmer group approach

SHEP Team, mainly Kenyan team members, provided trainings to extension workers. Trained extension workers provided trainings and facilitations to farmer group by their own initiatives.

Indirect model approach was developed based on the experience of direct model approach. Basic concept of both approaches is as follow:

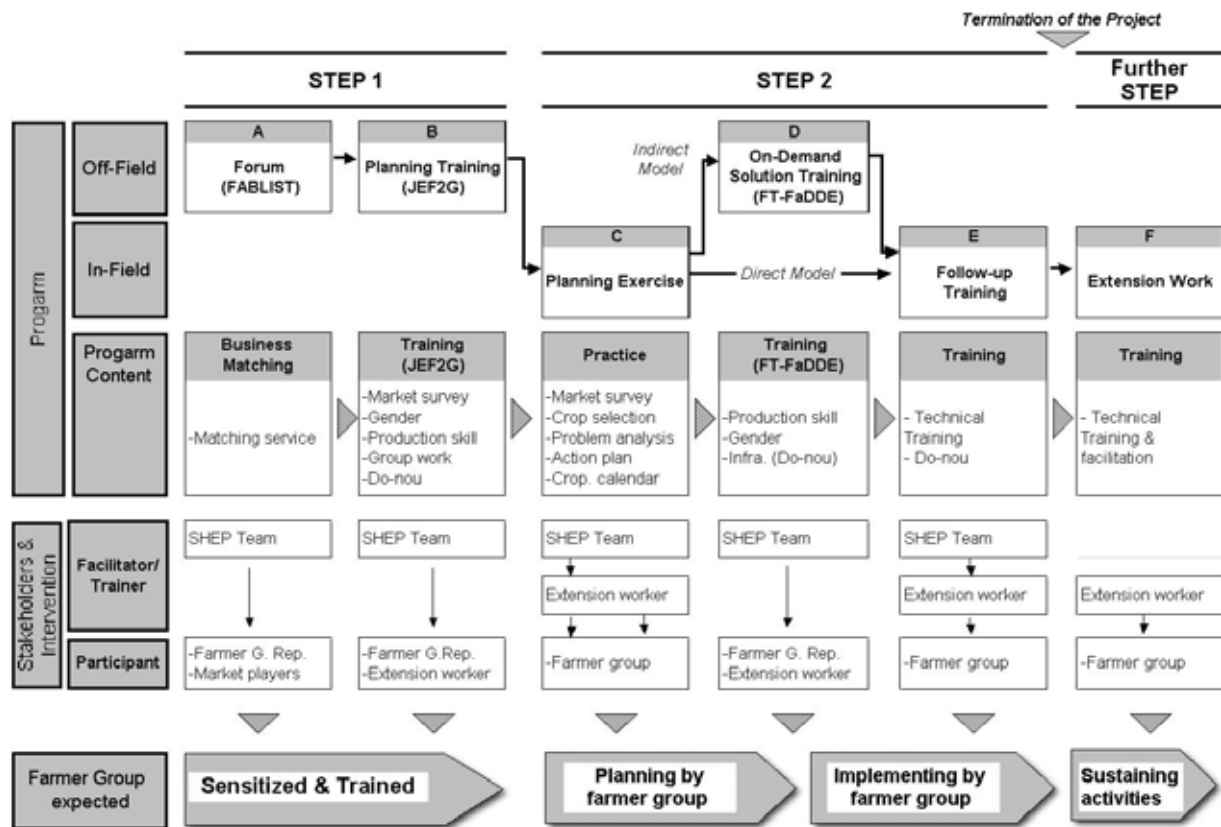
Both approaches have two steps: *STEP 1*: off-field training, and *STEP 2*: in-field practice and training.

In the first step, farmer groups are provided necessary knowledge and skills and sensitized. In the second step, farmer groups develop action plans and implement them by themselves. Extension workers and SHEP Team facilitate them to do so and provide trainings as demanded. Through the *learning-by-doing* process, the capacities of the farmer groups are strengthened.

The project has a further step where farmer groups sustain their activities by themselves after the termination of the project. This concept is as shown in the following figure.

Stage IV: Wrapping-up:

Follow-up trainings, farmers exchange visits and development of training manuals are also to be done.



(7) Inputs

1) Inputs by Kenyan side

- Provision of building and facilities necessary for the implementation of the project
- Assignment of qualified and experienced counterpart personnel for each field of experts
- Allocation of counterpart budget necessary for the implementation of the project

2) Inputs by Japanese side

- Three Japanese long-term experts and short-term experts
- Counterpart personnel training in Japan arranged during the cooperation period.
- Provision of machinery and equipment

II. Outline of Evaluation Study Team

Members of Evaluation Team	Conducted by Join Evaluation Team consisting of Kenyan and Japanese members as follows: <u>Kenyan Side</u> Mr. Nehemiah Chepkwony, Team Leader, Deputy Director, Horticultural Division, Ministry of Agriculture
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	Ms. Margaret Masaku, Member, Horticulture Division, Ministry of Agriculture
	Mr. Moses Mwangi Kamau, Member, Monitoring and Evaluation Division, Ministry of Agriculture
	Ms. Grace G. Kyallo, Member, General Manager of Crop Production, Horticulture Crops Development Authority
	<u>Japanese Side</u>
	Mr. Kyosuke Kawazumi, Team Leader, Senior Representative, JICA Kenya Office
	Ms. Etsuko Masuko, Member, Representative of Agriculture Sector, JICA Kenya Office
	Mr. Sebastian Odanga, Member, Agriculture & Rural Development Consultant, JICA Kenya Office
	Mr. Hiroshi Yoshimura, Member, Senior Researcher, International Development Center of Japan (IDCJ)

Evaluation study period	From the beginning of June to 9 July 2009	Type of evaluation: Terminal evaluation
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III. Outline of Evaluation Result

3.1. Performance Assessment

3.1.1. Process assessment

The project framework was carefully designed and modified during the implementation through revision of indicators. Measurable indicators were set to link logical sequences between outputs and the project purpose as well as to improve monitoring and management. In addition, those indicators themselves became the targets to motivate stakeholder such as farmer group, extension workers and counterpart personnel to achieve. Internal information management and easy accessibility of information from outside are further challenges.

3.1.2. Achievement assessment

(1) Output 1

Target groups gain bargaining power in marketing their product.

Indicators: 100% of the direct model farmer groups and 60% of the indirect model farmer groups improve by at least of Group Empowerment Indicators (GEI).

86% of the direct farmer groups have improved by at least one level of GEI. Many of the indirect farmer groups have improved at least one level of GEI. There is a positive indication that Output 1 will be achieved by the end of the project period.

(2) Output 2

Target groups increase the production of better quality crops.

Indicators: Members of the farmer groups increase net-produce per acre increase by 10-50% for the direct model groups and 5-30 % for the indirect model groups.

In all the four districts where the project was implemented, on average there was an increased net production per unit of land (acre). For the direct groups this increase ranged from 0.25% in

Nyandarua to 311.5% in Kisii district. For the indirect groups' category the increased range was between 9.5% for Bungoma and 169% in Kisii. The targets of Output 2 have been achieved except for Nyandarua district. The increase of produce is expected by the end of project after harvesting in July to August.

(3) Output 3

Target groups develop capacity to improve rural infrastructure for production and transportation.
Indicators: 80% of the direct model farmer groups in problem with rural infrastructure and 60% of the direct model farmer groups

The targets of Output 3 have been achieved. 80.5% of direct farmer groups and 77.8% of indirect farmer group implemented the technology for the infrastructure improvement.

(4) Project Purpose

Developed capacity of the smallholder horticulture farmer groups supported by the project.
Indicator: The net-income benefit for individual member farmer increase by 14.7% - 20.2%.

The Project Purpose is achieved except for Nyandarua district. Individual farmers net-income increased 84.1% (as compared with the target 20.2%) in Bungoma, 90.5% (18% for target) in Kisii, -38.5% (14.7% for target) in Nyandarua and 68% (16.2% fro target) in Trans-Nzoia districts. Income of Nyandarua is expected to increase by the end of the project. It has be noted that in Nyandarua, the nature of their produce sales means that they are more prone to the effect of external factors such as global economic crisis. Further analysis shall be made on the contributing factors to income across the districts.

Implications

According to the questionnaire survey conducted by the Evaluation Team, "market survey", "cropping calendar" and "gender awareness" are the major the skill and knowledge helped the increase of production and income. This result, combined with the results of field survey, implies that a market-first SHEP intervention changed farmer's behavior from "grow and sell" to "grow to sell". Farmer came to have an idea of "farm household as a farm business unit" and "farming as farm business". Cropping calendar enabled farmers to gain a "farm business planning capacity". Gender awareness changed the relationship between men and women in the household from "manager and labor" to "farm business management partner", which enabled the efficient utilization of labor among household.

Benefit analysis at household level

The household income of the target groups grew 23 % on average, 30% for direct group, and 18% for indirect group for the period from April 2007 to May 2009. Annual growth rates of the household income are far beyond the economic performance of the agricultural sector of the nation as shown in the table below.

Item	Annual growth rate (%)	
Annual growth rate (%) of household income of the target groups: April 2007 – May 2009	Average	11.0%
	Direct model	14.2%
	Indirect model	8.7%
Annual growth rate at the nation (%) 2008	GDP	1.7%
	Agriculture	-5.1%
	Crop and horticulture	-7.1%

Source: SHEP Team, Central Bank of Kenya

A household level cost-benefit analysis shows 425% on average, 290% for direct group and 584% for the indirect group, as shown the table below.

	Average	Direct model group	Indirect model group
Operational cost of training/farmer (Ksh)	5,047	8,269	3,355
Nominal income increased/farmer (Ksh)	21,424	23,960	19,601
Cost-benefit ratio per farmer (%)	425%	290%	584%

Source: SHEP Team

These results imply that SHEP worked to increase income quite efficient with external investment. A further investment in these programs shall be made.

(5) Overall Goal

Improved livelihoods of the smallholder horticulture farmers

Indicator: *Reduced poverty rate in the target districts.*

Poverty rates of the target districts reduced in Kisii and Trans-Nzoia and increased in Nyandarua and Bungoma. The project has positive impacts. The number of target group members is only 0.5% of the total household of the target districts. A continuous and scaling-up action will be required to achieve Overall Goal.

3.2. Summary of Evaluation Result

(1) Relevance:

The Team concludes that relevance of the project is very high for the following reasons:

- 1) Market-oriented approach of the project is highly consistent with the commercially-oriented agricultural development policy in Kenya.
- 2) Market-oriented agriculture development of smallholder farmers is the one of the important area in the latest JICA's Country Project Implementation Plan.

(2) Effectiveness

The Team concludes that the effectiveness of this project is very high for the following reasons:

- 1) The project purpose has been achieved except for Nyandarua district. The net-income is expected to grow after the harvesting season in July – August 2009.
- 2) Indicators of Outputs and Project purpose were carefully designed to link causal relationship between Outputs and Project Purpose.

(3) Efficiency

The Team concludes that the project produced Outputs and achieved the Project Purpose quite efficiently, for the following reasons:

- 1) Annual growth rate of the income of target farmers are 11% on average, 14.2% for the direct model farmers and 8.7% for the indirect model farmers for the period from April 2007 to May 2009. These annual growth rates are far beyond that of the overall performance of the country. In 2008, the growth rate of agriculture sector is - 5.1 %, and that of the crop and horticulture subsector is -7.1%.
- 2) A simple calculation of cost-benefit ratio gives 425% on average, 290 % for the direct group farmers, and 584% for the indirect group farmers. Project cost as external investment required to support the target farmers is quite small. 5,047 Ksh of external investment to a farmer generated additional income to the farmer at 21,424 Ksh on average, 8,269 Ksh of investments generated 23,709Ksh for the direct model farmer, and 3,355 Ksh of investment generated 19,601 Ksh for the indirect model farmer.

(4) Impact

The Team concludes that the impact of the project is positive for the following reasons:

- 1) The income of the target group increased significantly, and spill over effects of the project were widely observed. Other positive impacts were also observed such as job creation for the youth, growing school fee payment, increased frequency of church attendance and better relationship among family members.
- 2) The target group accounts for only 0.5% of the households of the target districts. These impacts are limited to be local. However, there is a significant income increase effect on the target farmers as well as spillover effects on the surrounding farmers. Continuous effort can maintain these positive impacts and scaling-up efforts can expand the impact to the wider area.

(5) Sustainability

The Team concludes that the sustainability of the project is high, for the following reasons:

- 1) Direct model approach developed the capacities of counterpart personnel.
- 2) Indirect model approach developed the capacities of extension workers as well as contributed to strengthen the supporting system to farmers.
- 3) Ministry of Agriculture has established a new unit to scale up the project activities in order to expand the outcomes of the project, cognizant of the successful performance of the project.

3.3. Contributing factors

- (1) The project framework was carefully designed including revision of indicators. Measurable indicators were set to link logical sequences between outputs and the project purpose. In addition, those indicators itself became the targets to motivate stakeholder such as farmer group, extension workers and counterpart personnel to achieve.
- (2) Carefully designed sequence of the programs combining market awareness building with gender awareness raising changed the minds and behaviors of farmer to consider *farming as a business*.

3.4. Inhibiting factors

- (1) Post-election turmoil brought about the suspension of the project activities for three months from January to March 2008.

- (2) Global economic crisis affected the income of Nyandarua districts where many of farmers are involved in growing the export crops.

3.5. Conclusion

The Team concludes that the project is highly relevant, effective and efficient, as mentioned above. The team also concludes that the project has a positive impact and sustainability. For sustaining the positive effects and impacts and expanding into the wider areas, continuous follow-up and scaling-up efforts are recommended.

3.6. Recommendations

The Team recommends to SHEP Team:

- (1) To make a further analysis on factors contributing to the outcome based on the valuable raw data obtained, which should be utilized for developing horticulture policy and program, institutional framework and Japanese cooperation policy.
- (2) To strengthen internal information management for its further utilization and easy accessibility of the information on the project activities and outcome for public relations, information sharing among stakeholders and development partners.
- (3) To strengthen the implementation system to support extension workers and farmer groups, in terms of management, reporting and motivation development within the framework of the current extension service system by the termination of the project.

The Team recommends to the Government of Kenya (GOK):

- (4) Timely budgetary allocation to the project.

The Team recommends to GOK and JICA that:

- (5) The follow-up activities be made to digest knowledge and experiences to be shared among MOA and development partners applicable to other projects and programs.

3.7. Lessons Learnt

The Team draws lessons replicable to other programs and projects as follows:

- (1) Well-designed monitoring system brought about project effects.
- (2) Performance indicators boosted stakeholder motivation.
- (3) Market-first approach induced farmer minds and behavior to be more market-oriented
- (4) Higher gender awareness made efficient utilization of labor in the farmer households.