## Evaluation Summary Sheet

### 1. Outline of the Project

| Country: Kenya | Project title: Sustainable Smallholder Irrigation Development and Management in Central and Southern Kenya (SIDEMAN) |
| Sector: Agriculture Development / Rural Development | Cooperation scheme: Technical Cooperation Project |
| Section in charge: JICA Kenya Office | Project total cost (up to March 2008): JPY 1,824,450,000 |
| | Local cost in Kenya (up to 15 April 2008): |
| | KES 46,942,304, JPY 79,038,780 equivalent |
| Period of cooperation | Partner country related organization: Department of Irrigation and Drainage, Ministry of Water and Irrigation, Government of Kenya |
| 8th December 2005 to 7th December 2010. (Record of Discussion was signed on 8th December 2005) |

### 1-1 Background of the project

The Vision 2030 intends to transform Kenya into a middle income country by 2030. Towards this end, the government recognizes the increase in productivity of agriculture through increased use of fertilizer and development of irrigation in ASALs as prime movers to socio-economic development of the areas. JICA acknowledges the priority given to development of irrigation by the government of Kenya. Kenya has collaborated with the government of Japan in addressing some of the issues that have stagnated irrigation development in the country. A development Study on Smallholder Irrigation Development was conducted in Mt. Kenya Region from 1997 to 1999 and it identified a number of challenges facing the smallholder irrigation development in Kenya. A mini-project type of technical cooperation in smallholder irrigation development succeeded the study from 2000 to 2003 developed the following outputs: 1) Guideline for smallholder irrigation development, 2) Framework for formation and management of irrigation water users association, and 3) Training master plan for irrigation personnel. SIDEMAN is a follow-up initiated by the Ministry of Water and Irrigation with JICA in order to test and verify the outputs of the Mini-Project.

### 1-2 Project Overview

(1) Project goal: The methodology established through the Project will be used for other smallholder irrigation scheme development.

(2) Project purpose: Methodology for development of sustainable smallholder irrigation system is verified in the selected schemes.

(3) Outputs:

1. Irrigation infrastructure of pilot sites are provided
2. Irrigation water users’ associations (IWUAs) of pilot sites are responsible for O&M of their irrigation system.
3. Improved irrigation and drainage services are provided to farmers.

(4) Inputs (as at the Project’s mid-term):

#### Japanese Side

a) Experts dispatched
   - Long term experts (2 persons)
   - Short term experts (4 persons)

b) Project expenses (Local cost)
   - KES 46,942,304, JPY 79,038,780 equivalent
   - Equipment KES 15,933,363

c) Training in Japan
   - Counterpart training (2 persons)

#### Kenyan Side

a) Counterpart Personnel (C/P)
   - A total of Kenya 16 counterparts have been involved

b) Operational Expenses
To date, a total of KES 9,388,410 was allocated by the Kenyan government during the 2006/07 and 2007/08 financial years as direct operational costs for project activities.

### 2. Evaluation Team

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<tr>
<th>Members of the Evaluation Team</th>
<th>JICA Team leader, Dr. Ryuzo Nishimaki, JICA HQ</th>
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<td>GOK Team (Engineer), Eng. Raphael Ogendo, Rift valley Province, MWI</td>
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**Period of Evaluation:** May to 25th June, 2008  
**Type of Evaluation:** Mid-Term Evaluation.

### 3. Results of Evaluation

#### 3-1 Summary of Evaluation Results

**1) Achievement of Outputs and Activities**

**Output 1**  
The draft designs were done in all 6 schemes. In Kiambindu, 22% of the pipes were installed. In Kisioki and Kyeekolo, construction and procurement amounting to 32% and 20% of the total cost has been achieved respectively. There was underestimation of cost of construction and the difference is between 2 to 7 times when compared to the cost of ex-ante evaluation.

**Output 2**  
16 IWUAs trainings have been conducted and a total of 530 farmers (27% of the target) have received training at scheme level. The training components have improved cohesiveness among the farmers groups, created social capital of farmers and the farmers are now more willing and ready to contribute towards scheme development, operation and maintenance.

**Output 3**  
As for IDD staff, 86 participants (29% of the target) have attended different courses. As for in-country trainings for farmers, 4 trainings have been conducted and total of 150 farmers (38% of the target) have been trained. The trainings have developed confidence and cohesiveness for the IDD staff and farmers respectively. However, specialized training in specific crops and common interest groups need to be considered in future.

**2) Issues Relative to the Implementation Process**  
Generally, the level of outputs is behind the schedule relative to the implementation plan. Reason for this is:

- **Conducting feasibility studies and approvals of designs**  
  A lot of time was used in conducting feasibility studies and approvals of designs.

- **Costs of construction materials and services**  
  There is drastic increase in the costs of construction materials and services.

- **Issues to be considered for better understanding of local communities**  
  These include: Land tenure system and local culture, Low levels of literacy, Low involvement of women and the youth.

- **Counterparts’ involvement**  
  The involvement of some of counterparts has not been at sufficient levels to produce outputs as expected due to different assignments besides SIDEMAN.

- **Coordination of SIDEMAN**  
  The DIOs were observed to have too much work to handle.

- **Communication**  
  PMT communicates directly with DIOs, sidestepping PIOs. The PMT should delegate more and focus on supervisory role.

### 3-2 Results of the Evaluation as per the five evaluation criteria
(1) Relevance
The Project goal and purpose are still relevant. The Project is in line with both Kenyan development strategy and Japanese aid policy. The SIDEMAN project pilot schemes are representatives of different scenarios for irrigation development and lesson learned could be used in the whole country.

(2) Effectiveness
The interaction of the cost of infrastructure construction, recent water sector reforms and the ability for the communities to participate in smallholder irrigation development is a good test case for the methodology that is being verified. There is great expectation that SIDEMAN will increase income and food security of farmers when the infrastructure is in place, judging through the experience that the use of the existing pipe improved food security in Kiambindu, though this effect was not directly related to the inputs of the Project.

(3) Efficiency
Efficiency was rated as moderate. There is however need for improvement. The farmer/IWUAs training have strengthened the farmer groups and they are now moderately equipped to operate and manage their irrigation systems. The capacity of IDD staff has improved and the engineers have gained more confidence. The available funds can only install part of the infrastructure. There is therefore need for rational use of the available resources to intervene in a way that the farmers will see a positive change either by more farmers starting to irrigate or the farmers get more water than before. Some parts of the infrastructure may be done later by the farmers once their income increases. Cost cutting measures like in built capacity to conduct the EIA need to be considered.

(4) Impact
In order to achieve the overall goal, more budget source for irrigation infrastructure is necessary.
Impacts identified
Impacts are feasible and no negative impact so far.

a) Policy level impact: Approach toward farmers under SIDEMAN and SIPMK by KfW are different although the two projects are under the same department. Farmer contribution should not be fixed at 10% but the communities should be encouraged to contribute more.

b) Technical impact: The IDD staff has more confidence in design of farmer training programmes and irrigation schemes, and management of construction works. The farmers are better organized and are contributing towards scheme development.

c) Social and cultural impact: Participation of both male and female was noted to be influenced by the culture of the community. Women participation in decision making among the pastoralist Maasai community is slowly but steadily improving. More young people have become members of the irrigation schemes especially in Kiambindu and Kiarukungu, however, in Narok South, young ladies do not attend training although they are active in farming.

d) Economical impact: Irrigation farming is improving and diversifying the income of farmers, especially for women and the youth.

e) Farmers have had more sense of ownership of the process.

Achievement forecast of Overall Goal
Despite the identified project constraints, achievement of the overall goal is feasible. In order to achieve the overall goal more budget source for irrigation infrastructure is necessary.

(5) Sustainability.
The sustainability of the methodology after termination of the project is relatively high from following aspects.

Institutional
Capacity of IDD engineers and IWUAs improved. Farmers’ awareness of their role in O&M is very high.

Financial
The budget for irrigation sector development has increased 3 times from 2005 to 2008. The concept of
Cost sharing has been introduced by the Project.

Training
Cost of IWUA training was judged by DIO to be attainable with GOK resources and can therefore be done in other schemes.

3.3 Conclusions
During the past two and half years, the Project has shown good progress so far despite slight delay of the achievement level of outputs. Enhanced capacity development in IDD and strengthening of IWUAs should be used for accelerated infrastructure development during the second half of the project in order for the effect to be seen.

3.4 Recommendations

General implementation process
1. **Project monitoring:** There is need for both experts and counterparts to discuss and refer to the PDM and project document
2. **The “Project” feeling:** A misconception in the project. The “project” notion needs to be clarified in view of Japan technical cooperation project
3. **Performance contract:** The projects activities should form part of the performance contract.
4. **Discuss current level of funding:** Clarity of issues of budget flows (AIEs), from GoK and smooth JICA’s funding budget flows should be discussed with counterparts.
5. **Inclusion of the PIO office in SIDEMAN:** There is need to involve the PIOs in SIDEMAN implementation.

Infrastructure construction
6. **Critical infrastructure structures:** In view of the budgetary limitation, it is advisable to intervene in phases and have crucial structures to ensure that all schemes get some infrastructure and have access to reliable water supply.
7. **The making of cost effective purchases and use of local community labor:** as is now the practice, is recommended.
8. **IDD should encourage more contribution by the farmers and not to stick to 10% stipulated.**
9. **Micro-credit financial institutions should be encouraged to support construction and marketing of the farm produce**
10. **Designs and approvals:** The panel of engineers to guide the quality of design should be institutionalized within the project.

IWUAs strengthening
11. **Continue more training:** Conduct more training at irrigation scheme level and encourage all irrigators to attend all training courses
12. **Involve all categories of water users**
13. **Mainstream gender issues**
14. **Involve the youth more**
15. **Increase farmer to farmers training approach**

Capacity development
16. **Introduce more specialized professional courses for IDD staff**
17. **Strengthen the EIA /socio-economic survey capacity in-house at IDD**
18. **Train other officers in the MWI working with DIOs in the SIDEMAN project sites**
19. **The PMT should delegate some activities to the DIOs, PIOs e.g. farmer trainings.**
20. **The issue of transport for the DIOs should be addressed. Provision of vehicles to DIOs should be considered.**

3.5 Revision of the PDM
The Evaluation Mission Team recommended for the revision of the PDM.