

## Summary of Terminal Evaluation

<b>I. Outline of the Project</b>	
<b>Country:</b> The Republic of Kenya	<b>Project title:</b> The Strengthening of Mathematics and Science Education (SMASE)
<b>Issue/Sector:</b> Basic Education	<b>Cooperation scheme:</b> Technical Cooperation
<b>Division in charge:</b> Human Development Department	<b>Total cost:</b> 101.8 million yen
<b>Period of Cooperation</b>	<b>(R/D):</b> 2009/01/01-2013/12/31
	<b>Partner Country's Implementing Organization:</b> Ministry of Education, Science and Technology
	<b>Supporting Organization in Japan: -</b>
<p><b>1. Background of the Project</b></p> <p>The Government of Kenya (GOK) introduced Free Primary Education (FPE) in 2003 and Free Day Secondary Education (FDSE) in 2008, which have rapidly expanded access to education in Kenya. However, the quality of education, particularly the learning achievement in mathematics and science has been stagnant. To improve the quality of education, the GOK had requested the Government of Japan (GOJ) to provide a series of technical cooperation projects such as the “Strengthening of Mathematics and Science in Secondary Education (SMASSE) Project (hereinafter referred to as “SMASSE”)” and “SMASSE Phase 2,” which aimed to promote in-service education and training (INSET) for mathematics and science teachers.</p> <p>The successful results of SMASSE project in Kenya led 34 African countries to convene to address the current challenges being faced in mathematics and science education and organize the “Strengthening of Mathematics and Science Education in Western, Eastern, Central and Southern Africa (SMASE-WECSA) Association.” The activities of SMASE-WECSA contributed to the promotion of mathematics and science education and the establishment of the INSET system in SMASE-WECSA member countries in Africa.</p> <p>The achievements in mathematics and science education at the secondary education level and the positive influence on other countries in Africa through SMASSE and SMASSE Phase 2, led the GOK to request further technical cooperation with GOJ in order to implement the primary INSET in Kenya and strengthen the SMASE-WECSA network in Africa.</p> <p>Thus, the Japan International Cooperation Agency (JICA) and the Ministry of Education (MOE) of Kenya, through cooperation with the Centre for Mathematics, Science and Technology Education in Africa (CEMASTE), started the five-year-project called the “Strengthening of Mathematics and Science Education (SMASE)” in January 2009, which is expected to be completed in December 2013. The activities of the Project are composed of the following two components: 1) Kenyan Component targeting Kenyan education, and 2) SMASE-WECSA Component targeting SMASE-WECSA member countries.</p>	

## **2. Project Overview**

### **2-1. Kenyan Component**

#### **(1) Overall Goal**

Capability of young Kenyans in Mathematics and Science is upgraded.

#### **(2) Project Purpose**

Quality of Mathematics and Science education at Primary and Secondary school levels in Kenya is strengthened through In-Service Education and Training (INSET).

#### **(3) Outputs**

- 1) A system of National INSET for Regional Trainers is established at CEMASTEА.
- 2) A system of Regional INSET and Regional workshop is established at Primary Teachers' Training Colleges (PTTCs).
- 3) Existing system of cluster INSET is strengthened.
- 4) Secondary Mathematics and Science teachers' "Activity, Student Centred, Experiment, and Improvisation/Plan, Do, See, and Improve (ASEI/PDSI)" practices in classroom are enhanced.
- 5) Role of CEMASTEА as resource centre for mathematics and science education is strengthened.

### **2-2. WECSA Component**

#### **(1) Overall Goal**

Quality of Teaching and Learning of Mathematics and Science in member countries is improved.

#### **(2) Project Purpose**

Capability of INSET providers to implement ASEI/PDSI based INSET in member countries is strengthened.

#### **(3) Outputs**

- 1) ASEI/PDSI based INSET providers from member countries are trained.
- 2) SMASE-WECSA network is strengthened.
- 3) Role of CEMASTEА is strengthened as resource centre for mathematics and science education in Africa.

### **2-3. Kenya and WECSA Components**

#### **(4) Inputs (at the time of evaluation)**

##### **Japanese side**

**No. of long-term Experts:** 7

**No. of short-term Experts:** 3

**No. of trainees received:** 136

**Equipment:** Ksh. 101,554,593 (112,726 thousand yen)

**Local cost (Kenya component):** Ksh. 79,364,693 (88,095 thousand yen)

**WECSA component-related expense:** Ksh. 317,308,219 (352,212 thousand yen)

##### **Kenyan side**

**No. of counterparts:** 5 (MOEST), 45 (CEMASTEА), and approx. 6,000 (regional level)

**Land and Facilities:** Buildings, offices and other facilities necessary for INSET activities

**Local Cost:** Ksh. 472,326,270

## **II. Evaluation Team**

<b>Members of Evaluation</b>	Mr. Shinichi Ishihara	Leader (JICA)
	Ms. Akiko Komori	Cooperation Planning (JICA)

<b>Team</b>	Ms. Sawa Hasegawa	Evaluation Analysis 1 (Japan Development Service Co., Ltd.)
	Ms. Chie Tsubone	Evaluation Analysis 2 (Global Link Management Inc.)
<b>Period of Evaluation</b>	2013/07/15-08/11 (Kenya Component)	<b>Type of Evaluation:</b> Terminal Evaluation
	2013/06/29-08/11 (WECSA Component)	
<b>III. Results of Evaluation</b>		
<b>III-1. Kenya Component</b>		
<b>1. Project Performance</b>		
<b><u>1-1. Outputs</u></b>		
<p>(1) Output 1 is considered to be almost achieved and the system of National INSET for Regional Trainers has been almost established at CEMASTE A.</p> <p>(2) Output 2 is considered to be not achieved to the fullest. Neither the number of Cluster Trainers trained by the Regional INSET nor the numbers of TAC Tutors/Zonal QASOs, County QASOs and Sub-county QASOs trained by the Regional Workshops has reached the target as well as the quality of Regional INSET has not reached the expected level. It is deemed that while the system of Regional INSET and Regional workshops has been established at PTTCs to some extent, the system in terms of the quality and number of participants has a room for improvement.</p> <p>(3) Output 3 is considered to be achieved, but not to the fullest. The number of primary school teachers trained by the Cluster INSET has not reached the targeted number. It is deemed that while the system of Cluster INSET has been strengthened to some extent, the system in terms of the quality and number of participants has a room for improvement.</p> <p>(4) Output 4 is considered to be achieved, but not to the fullest. While the reasonable number of secondary school principals has participated in the Principal's Workshops, their supervision on ASEI-PDSI practices has not been enhanced or improved to the expected level during the project period. Only 2 out of expected 4 Principal's Workshops have been conducted so far, due to many factors such as teachers strike, lack of funds by some DPCs and change of modality of training. It is deemed that the secondary M/S teachers' ASEI-PDSI practices in classroom have been enhanced to some extent.</p> <p>(5) The achievement of Output 5 is in progress and Output 5 is expected to be achieved by the end of the Project. The revised Primary INSET materials (write-ups) for Cycle 1&amp;2 as self-explanatory materials, the booklet on ASEI-PDSI practices and the exemplary lesson video are to be completed by the end of the project period.</p>		
<b><u>1-2. Project Purpose</u></b>		
<ul style="list-style-type: none"> <li>- The Project Purpose for primary level is expected to be achieved. The results of 3 quantitative indicators for Project Purpose are found to be positive. Meanwhile, the number of primary school teachers who participated in the Cluster INSET has not reached the target number. It is therefore desirable that the SMASE INSET will be continuously conducted at the primary level and more primary school teachers will be trained to reach the target.</li> <li>- The Project Purpose for secondary level has been achieved to some extent. Some activities for secondary level were not conducted as expected as well as all districts did not conduct the District INSET every year as assumed. It is likely that these issues have affected the achievement of Project Purpose for secondary level.</li> </ul>		
<b><u>1-3. Overall Goal</u></b>		
<ul style="list-style-type: none"> <li>- It would be desirable that the achievement of Overall Goal for primary level be measured by another indicator. In regard to the secondary level, based on the result of indicator, the prospect for achievement of Overall Goal was not clearly identified by the SPIAS results.</li> </ul>		

## **2. Summary of Evaluation Results**

### **2-1. Relevance: Moderately high**

- The Project meets the needs of its targets, i.e. primary and secondary school teachers who teach mathematics and science. They have been aspired to upgrade their teaching skills. However, this does not meet their demands of career advancement.
- The Project is consistent with the national development strategy as well as educational development policy of the Government of Kenya such as “Vision 2030,” “Sessional Paper No. 14 of 2012,” “Basic Education Act 2012” and “Teachers Service Commission Act 2012.”
- The Project is consistent with the Japan’s ODA policy such as “Action Plan adopted in the TICAD IV,” “Country Assistance Policy for the Republic of Kenya” and “Japan's ODA: Rolling Plan for the Republic of Kenya.”
- The 3-in-1 design of the Project, comprising primary, secondary and WECSA components caused some complication in the implementation of project activities. The design also overlooked piloting stage that would have been appropriate. Similarly, targeting only grades 6, 7, or 8 teachers caused a challenge in consistent participation of same teachers since teachers teach different classes year by year.

### **2-2. Effectiveness: Medium**

- The Project Purpose for primary level is expected to be achieved as far as the SMASE INSET, especially the Cluster INSET, will be continuously conducted and school-based training will be developed in schools. The Project Purpose for secondary level has been achieved to some extent.
- The achievement level of Project Purpose for both primary and secondary levels have been affected by factors such as project design, insufficient inputs and issues on the project management. The Project has been also affected by the important assumptions towards Outputs and Project Purpose.

### **2-3. Efficiency: Medium**

- The achievement of Outputs 2, 3 and 4 have been realized, but not to the fullest extent. Output 1 is almost achieved and Output 5 is being achieved once the on-going activities are completed.
- The achievement of Outputs has been affected by the following factors: ambitious project design; a shortage in CEMASTE A personnel and delay in disbursement of fund for conducting the SMASE INSET and Workshops; project implementation affected by the important assumptions; creation of a new administrative structure and transfer of personnel; and change of the implementation system of Principals’ Workshops midway through the Project.

### **2-4. Impact: Medium**

- In regard to the prospect for achieving the Overall Goal of the Project, the present level of achievement of Overall Goal was not clearly identified based on the results of indicators.
- In regard to the project impacts, the following developments have been reported: 1) some schools have been trying to exercise some ingenious attempts to improve their teachers’ skills in mathematics and science based on the experiences of SMASE INSET and Workshops, one of which is the lesson observation among teachers; 2) the Makueni DPC members recognize the necessity of improving the SMASE INSET based on the needs assessment of teachers and show their high motivation to develop their customized SMASE programme including the training curriculum and contents of SMASE INSET by their own.

### **2-5. Sustainability: Moderately high**

- Concerning the policy and institutional aspects, the strengthening of teacher education as well as the improvement of teaching/learning in mathematics and science is considered to be one of the important strategies for Kenya in order to realise the national development. The plan for upgrading CEMASTE A to one of the Semi-Autonomous Government Agency status, i.e. ICADETA, is an evidence of the commitment of the Kenyan government to achieving the purpose as well as overall goal of the Project.

- Concerning the organizational aspect, the strong government backing described above means that CEMASTEА is expected to play a major role in the strengthening of teacher education in Kenya. Its organizational authority is therefore likely to grow in the coming years. The upgraded ICADETA is planning to continue the SMASE INSET and Workshops, both of which have been developed under the Project.
- Concerning the financial aspect, the proposed SMASE INSET funding for primary level as a part of “Free Primary Education” could strengthen the sustainability to meet the expenses of implementation cost of SMASE INSET, same just as the secondary SMASE funding through “Free Day Secondary Education.”
- Concerning the technical aspect, CEMASTEА staffs have enough know-how and skills for planning, execution and management of National INSET and Workshops. The District, Regional and Cluster Trainers have acquired their skills by implementing the INSETs under the Project and it is essential for them to continue to improve their skills through the actual works.

### **3. Factors that Promoted Realization of Effects**

#### **3-1. Factors concerning the Planning**

- None

#### **3-2. Factors concerning the Implementation Process**

- The SMASSE/SMASE Project has lasted for 15 years in Kenya and succeeded in reaching many project stakeholders who belong to the education sector in Kenya. In spite the changes in administrative personnel both at national and local levels during the Phase 3, the newly assigned persons, including PTTC principals and tutors, CDE and CQASO, DEO and DQASO and TAC tutors have known of and understood the SMASE Project somehow since they had been engaged in the Project in their previous positions.
- MOEST set up the “Technical Committee on Re-engineering of CEMASTEА” in 2011, where key stakeholders of the Project discussed how to improve the management of CEMASTEА and implementation of SMASE Programme.

### **4. Factors that Impeded Realization of Effects**

#### **4-1. Factors concerning the Planning**

- The design of conducting the SMASE INSET at primary level across the country would be speed-before-quality decision. It would be more appropriate and effective if the SMASE INSET for the primary level had been introduced to some pilot regions at first and a stable model of primary level, including the guidelines, training manuals and implementation system, had been firmly established through the enough experiences and lessons of pilot regions.

#### **4-2. Factors concerning the Implementation Process**

- In Kenya the numbers of schools, teachers and students have been increasing over time. The local administrative system and personnel have also been changed with constitutional revision. This forced the Project to change numbers of some target groups, e.g. DEOs and QASOs. The implementation system of Principals’ Workshops was also changed in the middle of project period.
- The delayed disbursement of budget from MOEST has affected the planned implementation of SMASE INSET and Workshops.
- In some districts, the District INSET for secondary level was not conducted due to the interference by Teacher’s Trade Union which negatively affected the implementation of INSET.
- Many teachers who participated in the INSET are not satisfied with the fact that SMASE INSET does not lead to their promotion. This interfered with attendance of INSET.

## 5. Conclusion

- Based on the findings of the Terminal Evaluation, it is concluded that the Project has achieved expected outputs, but not to the fullest extent. Output 1, 2 and 3 is concerned with the newly introduced National, Regional and Cluster INSETs as well as Workshops. These were developed and implemented, though some were behind the schedule. Secondary level activities in Output 4 were implemented, but only to some extent. The achievement of Output 5 is in progress and is expected to be achieved by the end of the Project. The SMASE INSET system both at the primary and secondary levels still has issues to be considered and modified for the future improvement.

## III-2. WECSA Component

### 1. Project Performance

### 2. Project Performance

#### 1-1. Project Purpose

Project Purpose: Capability of INSET providers to implement ASEI/PDSI based INSET in member countries is strengthened.

- Verifiable indicator (a): INSET providers obtain a mean of 2.5 on a scale of 0-4 in the overall assessment of Capacity Building Index for INSET provision  
⇒3.08 in 2011 (N=69, 17 countries), and 3.3in 2013 (N=58, 4 countries)
- Verifiable indicator (b): The extent to which the ASEI-PDSI concept is reflected in the training manual/materials in the member countries.

⇒Among 11 countries, training manuals/materials of three countries have limited reflection of the concept of ASEI-PDSI, six countries have certain reflection of the concept, one country has a will to reflect, and one answer was not pertinent to the question. According to the impact survey results, all the four sample countries incorporated the concept in their training contents. However, this indicator does not necessarily prove the degree of capacity developed.

Besides above indicators, the impact survey team observed INSET sessions, and objectively confirmed that the ex-participants' facilitation skills have been developed sufficiently in the four sample countries.

Moreover, 96% of ex-participants assessed that their capacities were developed by assistance provided by the Project (N=48), and seven out of eight Japanese experts in member countries answered that the capacities of their counterparts were developed by TCTP. Therefore, judging from these information and the status of Indicator (a), the Project Purpose was mostly achieved although Indicator (b) was not pertinent.

#### 1-2. Overall Goal

Overall Goal: INSET systems in member countries are established/strengthened.

- Verifiable indicator (a): Existence of policy on INSET  
⇒According to the results of the questionnaire of the evaluation team, 44.2% responded that their countries own INSET policies (N=77).
- Verifiable indicator (b): Existence of administrative structure on INSET system  
⇒According to the results of the questionnaire of the evaluation team, 61.0% responded that they have administrative structures (N=77).
- Verifiable indicator (c): Existence of a funding mechanism for INSET  
⇒According to the results of the questionnaire of the evaluation team, 53.2% responded that they have funding mechanisms (N=77).
- Verifiable indicator (d): Existence of M&E systems of INSET  
⇒According to the results of the questionnaire of the evaluation team, 53.2% answered that they have M&E structures (N=77).

It is impossible to assess the achievement level of the Overall Goal due to the absence of definitions, baseline data and targets for the indicators, and limited reliability of obtained information. Also, the

causality between the intervention of the Project and the indicators is limited. Therefore, setting new indicators is recommended.

### **1-2. Outputs**

(1) Output 1: ASEI-PDSI based INSET providers from member countries are trained.

- Verifiable Indicator (a): TCTP at CEMASTE A is carried out five times  
⇒Four rounds of regular TCTP have been carried out to date. The fifth round is planned to be held from September to October 2013.
- Verifiable indicator (b): At least 500 participants attend the TCTP at CEMASTE A  
⇒In total, 692 participants have attended since January 2009.
- Verifiable indicator (c): At least 15 sets of training materials are produced  
⇒In total, 12 regular TCTPs, and one customized TCTP were organized, and one set of training material was produced for each course. As the Project plans to conduct three more TCTPs, and is developing a set of material for each, 16 sets of training materials will be developed in total by the end of the Project.
- Verifiable indicator (d): Lesson Innovation Index attains a mean of 2.5  
⇒The impact survey was conducted by the project team in the Gambia, South Sudan, Uganda and Zambia from March to May 2013, and the team found that the mean of Lesson Innovation Index was 3.06. However, Lesson Innovation Index is not an appropriate indicator because it is a tool to measure the level of practice of ASEI-PDSI in classroom.

Though Indicator (d) could not be used, it was confirmed that the usefulness of training and quality of facilitation are evaluated highly by participants, and the level of understanding of the training contents is satisfactory through project documents and the response to the questionnaire of the evaluation team. Therefore, Output 1 has been mostly achieved. It will be fully achieved by the end of the project period if the planned activities are implemented, and the quality of upcoming TCTPs and the level of knowledge gained by participants, which are to be assessed by more relevant tool, are proved to be satisfactory.

(2) Output 2: SMASE-WECSA network is strengthened.

- Verifiable indicator 2(a): Regional conferences and SMASE-WECSA delegates meetings are held at least four times  
⇒SMASE-WECSA Regional Conference and Delegates Meeting were held four times. The fifth Regional Conference will be held from October 28 to November 1, 2013, and Delegate Meeting will be held from 28 to 29 October, 2013.
- Verifiable indicator 2(b): Increased number of countries participating in SMASE-WECSA activities and implementing INSET  
⇒The number has increased from 25 to 27. There was no increase since 2010.
- Verifiable indicator 2(c): Technical workshops organized by Kenya or in collaboration with member countries are held at least three times.  
⇒Three technical workshops were conducted in Swaziland in 2009, Kenya in 2012 and Zambia in 2013.

Output 2 has been fully achieved judging from the status of the indicators. It was also confirmed that the contents of conferences were appropriate to strengthen the network, and Technical Workshops were

highly appreciated by the participants.

(3) Output 3: Role of CEMASTEAM is strengthened as a resource center for Mathematics and Science education in Africa.

- Verifiable indicator 3(a): ASEI/PDSI prototype lesson plans, developed by member countries, are compiled and disseminated.
- Verifiable indicator 3(b): One of the TCTP materials (write-ups) is revised/refined for publication.
- Verifiable indicator 3(c): The revised material is digitized and made available through the CEMASTEAM website.

All the three indicators have not achieved yet. The project team plans to finalize all the related activities by the end of the project period. Therefore, Output 3 has not yet been achieved, but it is possible to achieve it if the planned activities are conducted.

### **3. Summary of Evaluation Results**

#### **2-1. Relevance: High**

WECSA component is relevant to the needs and policies of African nations as follows:(1) African Union prioritizes teacher development along with mathematics and science education in its recent strategic paper “Second decade of education for Africa (2006-2015)” and (2) the activities of the WECSA component are at the same time activities of working group of mathematics and science education of the Association for the Development of Education in Africa. It is also consistent with Japanese ODA/foreign policy for Kenya, and Yokohama Action Plan (2013-2017) of TICAD V.

The means that the Project adopted, which is South-South Cooperation, was appropriate considering the experiences and knowledge Kenya has accumulated over a decade, and the similarity of context and challenges other African countries have. The Project also matched the needs of the member countries, which do not have practical knowledge about how to practice child-centered teaching in classroom. The Project also revised the contents of the training in response to emerging needs of the member countries. Meanwhile, the appropriateness of logic of PDM was limited due to the gap between the Overall goal and the Project Purpose, and inappropriate indicators.

#### **2-2. Effectiveness: Moderately High**

As explained, the achievement level of the Project Purpose is relatively high. Also, TCTP, Third Country Expert Dispatch and Technical Workshop are evaluated highly by participants. Meanwhile, the effectiveness for participants from Francophone and Lusophone countries is considered to be limited due to the barrier of language. Also, the contents of TCTP and Technical Workshop tend to be general to cover interests of all the member countries. It is assumed, from the experience of conducting a special course for South Sudan, that a country-specific TCTP would enhance the effectiveness. Another challenge is the difficulty for ex-participants to adapt and spread ASEI/PDSI without additional support and follow-ups in their own countries. The effectiveness for these countries would have been more visible by leveraging the follow-up activities.



### **2-3. Efficiency: Medium**

While Output 1 and 2 have been mostly achieved, the achievement level of Output 3 is low due to the delay in the activities. The fact that the Project adopted the scheme of South-South cooperation, and utilized past inputs to Kenya, which are Kenyan human resources and experiences strengthened, as well as equipment provided previously contributed to raise the efficiency. In addition, the Project benefitted from the cooperation provided for CEMASTEAM by the Belgium NPO. Also, additional buildings being constructed by JICA grant will strengthen Output 3 (establishment of resource center). Meanwhile, the fact that 40% of TCTP participants were teachers, and the system in which the WECSA Component activities were delegated to two different committees decreased the efficiency.

### **2-4. Impact: Medium**

It is impossible to assess the achievement level of the Overall Goal due to unclear definitions, targets, baseline data, and obtained information on the indicators. Also, the causality between intervention of the Project and the indicators is limited. Other impacts include active discussions and initiatives taken by SMASE-WECSA Association to sustain the network after the termination of the Project, COMEDAF's recognition of CEMASTEAM as the lead agency for improving science, mathematics and technology in Africa, and active technical exchanges among member countries and ex-participants.

### **2-5. Sustainability: Medium**

- (1) Policy: CEMASTEAM is mandated by MOEST to conduct WECSA Component activities. There are indications, through the bill to convert CEMASTEAM to ICADETA and the commitment of MOEST to COMEDAF that CEMASTEAM will serve as a lead agency for improving science, mathematics and technology, that the Kenyan government will continue to support WECSA activities.
- (2) Finance: No alternative funding has been confirmed to run WECSA Component activities after the project period.
- (3) Institutional/ Personnel/Organizational: The bill to convert CEMASTEAM to the Institute of Capacity Development of Teachers in Africa (ICADETA) is expected to be approved by the parliaments within this year. It will be easier, under this more autonomous system, to create a section solely in charge of WECSA Component. Meanwhile, it was pointed out, through interviews, that ownership and motivation for routine activities such as TCTP is limited among working-staff levels. Also, the documentation and the quality of reports need significant improvement so that information and lessons learned can be shared and retained.
- (4) Technical: CEMASTEAM staff have sufficient capacities to continue the current activities. Meanwhile, it is important to keep upgrading their capacities in order to further improve the current activities and to meet the needs of the member countries. Moreover, their capacities to conduct quality evaluation and impact studies need to be further improved.

## **4. Factors that promoted realization of effects**

There are several contributing factors of the Project, which includes: (1) long-term and continuous assistance and collaboration between Kenya and JICA, (2) existence of JICA projects in member countries, and (3) establishing NPC and PPC meetings

## **5. Factors that impeded realization of effects**

### **4-1. Inadequate logic of PDM**

The definition of the narrative summary of the Project Purpose, logic between the Project Purpose and the Overall Goal, and definitions as well as relevance of some of the indicators were not sufficient. Moreover, common understandings regarding the PDM among the project team are missing.

### **4-2. Inadequate number of staff at CEMASTEА**

Efforts were made by CEMASTEА staff to implement project activities as scheduled. However, due to the limited number of staff, they have been occupied with competing tasks, and observance of deadlines and the quality of work may have been compromised.

### **4-3. Inadequate information sharing on the WECSA Component activities**

Sharing of information regarding WECSA Component between a temporary committee and WECSA Committee, as well as among WECSA Committee is not sufficient. Because results of activities such as Regional Conference, Technical Workshop, and other WECSA activities are not sufficiently shared with the committee members, it was sometimes difficult for them to pursue allocated tasks without information resulted from these activities.

## **6. Conclusion**

The Project Purpose was mostly achieved mainly by the high achievement levels of Output 1 and 2. Regarding evaluation by the five criteria, while Relevance is high and Effectiveness is moderately high, Impact, Efficiency and Sustainability are medium.

The evaluation team concluded that the Project has made steady progress towards the target by conducting TCTP, Technical Workshop, Regional Conference/Delegates Meeting, and other technical supports and exchanges, which have been highly appreciated by the member countries. Meanwhile, the implementation process, which includes ownership/motivation regarding routine WECSA activities, communication, and monitoring requires further improvement in order to achieve the target with quality and to ensure sustainability of the component.

## **6. Recommendations**

### **6-1. Kenya Component**

#### **6-1-1. For Sustainable INSET**

- (1) SMASE INSET at all levels as Mandatory INSET/Continuous Professional Development (CPD) Program
- (2) Establishment of Primary SMASE Fund
- (3) Reinforcement of Accountability for SMASE Fund
- (4) Securing CEMASTEА budget for FY2013/14.
- (5) Providing adequate staffing level
- (6) Institutional sustainability

#### **6-1-2. For Effective INSET**

- (1) Implementation of strategic monitoring
- (2) Effective follow-up on SMASE activities at cascaded levels

#### **6-1-3. For Quality INSET**

Re-vitalizing SMASE Spirits – Learning from the Ground

## **6-2. WECSA Component**

6-2-1 CEMASTEAs function as a platform for Mathematics and Science Education in Africa

6-2-2 Legal Status for CEMASTEAs Regional Activities for further regional cooperation

6-2-3 Further Enforcement of the Support of Regional Activities

6-2-4 Improvement in TCTP procedures; Improvement of TCTP Report, and Record Keeping, monitoring, indicators, needs analysis

## **7. Lessons Learned**

### **7-1. Kenya Component**

#### **(1) Primary Level**

- Pilot approach must be considered when the target level was changed from Secondary to Primary. It would be more effective if the SMASE INSET at primary level had been introduced to some pilot regions to develop the adjusted model for nation-wide INSET including guidelines, training manuals and implementation system. The experiences and lessons of pilot activities may contribute to minimize various challenges for the scaling-up as well as to improve training contents based on the ground needs.
- Involvement of Head teachers was quite effective. Facilitation of the ASEI-PDSI concepts with broad coverage produced the certain impacts.

#### **(2) Secondary Level**

- Involvement of sensitization for all principles (instead of only one in Phase 1) led to enhanced support at the school level. It was acknowledged and appreciated by many stakeholders.
- The use of lesson study at the school level goes along with the understanding of ASEI practice.
- Use of DQASO as facilitators in Principals WS helped them internalize ASEI practice which in turn enhance their supervision.

### **5-2. WECSA Component**

#### **(1) Effectiveness of Customized Assistance**

For South Sudan, a customized TCTP course was developed based on the country needs, and it was conducted attended by 73 participants in 2009. At the same time, Third Country Experts were dispatched three times to provide assistance for project formulation, development of training curriculum/ modules, and tools for evaluation and baseline survey. It was proved, by the observation of INSET sessions by the impact survey team, that this country-specific assistance was effective to develop their INSET capacities.

#### **(2) TCE**

When the staffs of CEMASTEAs were nominated as TCE, beneficiary country was not involved the nomination of the staff. This could be one of the reasons for the declining number of TCE mission. This service should be assessed to take into account the interest of the beneficiary countries.