

## 添付資料

1. ミニッツ（英文）
2. プロジェクト・デザイン・マトリクス
3. 評価グリッド（和文）
4. 評価グリッド調査結果（和文）
5. 評価グリッド調査結果（英文）
6. 質問票
7. 質問票調査結果
8. インタビュー項目
9. 議事録
10. 現地調査報告書

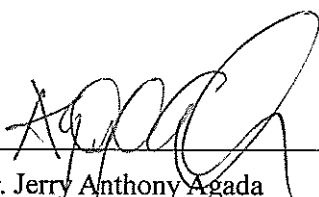
**MINUTES OF MEETING  
BETWEEN  
JAPANESE MID-TERM EVALUATION TEAM  
AND  
FEDERAL MINISTRY OF EDUCATION  
FOR AND ON BEHALF OF THE FEDERAL REPUBLIC OF NIGERIA  
ON  
JAPANESE TECHNICAL COOPERATION  
FOR  
“STRENGTHENING OF MATHEMATICS AND SCIENCE EDUCATION  
IN NIGERIA AT THE PRIMARY LEVEL (SMASE NIGERIA)”**

The Japanese Mid-term Evaluation Team (hereinafter referred to as “the Team”), organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) headed by Mr. Katsuhiko Kamiya, visited the Federal Republic of Nigeria from 24 June to 10 July 2008 for the purpose of the mid-term evaluation of the Project on “Strengthening of Mathematics and Science Education in Nigeria at the Primary Level (SMASE Nigeria)” (hereinafter referred to as “the Project”).

During its stay in Nigeria, the Team had a series of discussions with the Nigerian authorities concerned, jointly evaluated the achievements of the Project, and exchanged views for further improvement of the Project.

As a result of the discussions, both sides agreed upon the matters referred to in the document attached hereto.

Abuja, 8 July 2008

  
\_\_\_\_\_  
Dr. Jerry Anthony Agada  
Honourable Minister of State for Education  
Federal Ministry of Education,  
Federal Republic of Nigeria

  
\_\_\_\_\_  
Mr. Katsuhiko Kamiya  
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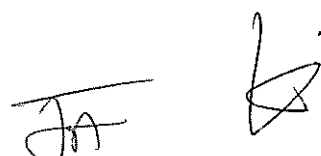
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## List of Abbreviations and Acronyms

ASEI/PDSI	Activity, Student-centered, Experiment, Improvisation / Plan, Do, See, Improve
COE	College of Education
CP	Counter Part
CT	Core Teacher
DBSE	Department of Basic and Secondary Education
FME	Federal Ministry of Education
IDP	International Development Partner
INSET	In-Service Education and Training
JICA	Japan International Cooperation Agency
LGEA	Local Government Education Authority
M/M	Minutes of Meeting
M&E	Monitoring and Evaluation
M&S	Mathematics and Science
NC	National Coordinator
NCCE	National Commission for Colleges of Education
NCU	National Coordinating Unit
NEEDS	National Economic Empowerment and Development Strategy
NSC	National Steering Committee
NT	National Trainer
NTI	National Teachers' Institute
PDM	Project Design Matrix
R/D	Record of Discussions
SCU	State Coordinating Unit
SIC	State Implementation Committee
SMASE	Strengthening of Mathematics and Science Education (Project)
SMASE-WECSA	Strengthening of Mathematics and Science Education in Western, Eastern, Central and Southern Africa (Regional Network in Africa)
SMASSE	Strengthening of Mathematics and Science in Secondary Education (Project in Kenya)
ST	State Trainer
SUBEB	State Universal Basic Education Board
UBE	Universal Basic Education
UBEC	Universal Basic Education Commission



# 1. INTRODUCTION

## 1-1. Preface

This Project was executed in August 2006 by the signing of the Record of Discussions (R/D) between JICA and the Federal Republic of Nigeria. The duration of the Project is three (3) years. The terms of R/D state that the evaluation of the Project will be conducted jointly by JICA and the Nigerian authorities in the middle of the execution of the Project.

The Project has been in operation for approximately one year and ten (10) months. JICA dispatched the Team to the Federal Republic of Nigeria from 24 June to 10 July, 2008 for the purpose of conducting the mid-term evaluation, which has been undertaken jointly by the Team and Nigerian authorities concerned.

## 1-2. Objectives of Evaluation

Objectives of the mid-term evaluation are as follows:

- (1) to review and evaluate the inputs, activities and achievements of the Project;
- (2) to clarify the problems and issues to be addressed for the successful implementation of the Project for the remaining period;
- (3) to assess the rationale for the continuation of the Project based on the review and evaluation;
- (4) to make recommendations for activities in the remaining period; and
- (5) to review and revise the Project Design Matrix (PDM) if necessity arises.

## 1-3. Schedule of the Evaluation Team

Date	Day	Activities
24 Jun	Tue	Arrival at Abuja Meeting with JICA Nigeria Office Interview with NCU
25 Jun	Wed	Interview with NCU and NT Move to Plateau
26 Jun	Thu	Interview with SCU, ST and CT in Plateau Move to Kaduna
27 Jun	Fri	Interview with SCU, ST and CT in Kaduna Move to Abuja
28 Jun	Sat	Documentation
29 Jun	Sun	Move to Niger
30 Jun	Mon	Interview with LGEA officers and CT in Niger
1 Jul	Tue	Interview with SUBEB and SCU in Niger Observation of State INSET Center, Interview with ST in Niger
2 Jul	Wed	Observation of M&S Lesson, Interview with CT in Niger Move to Abuja
3 Jul	Thu	Meeting with DBSE Meeting with NCU and NT Observation of National INSET Centre

4 Jul	Fri	National Steering Committee
5 Jul	Sat	Drafting of M/M
6 Jul	Sun	Drafting of M/M
7 Jul	Mon	Meeting on M/M Finalizing of M/M
8 Jul	Tue	Signing of M/M Site Visit (Grant Aid Project on School Construction)
9 Jul	Wed	Report to International Donors Report to the Embassy of Japan and JICA Nigeria Office
10 Jul	Thu	Departure from Abuja

#### 1-4. Members of the Evaluation Team

##### (1) Japanese Mid-term Evaluation Team

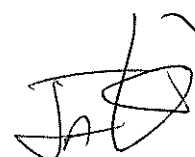
Mr. Katsuhiko KAMIYA	Leader	Deputy Director General, Human Development Department, JICA
Mr. Keiichi NAGANUMA	Teachers' Training	Expert, Strengthening of Mathematics and Science in Secondary Education (SMASSE Kenya) Project
Mr. Chigiru YAMASHITA	Cooperation Planning	Basic Education Division II, Basic Education Group, Human Development Department, JICA
Mr. Haruo ITO	Evaluation and Analysis	Consultant, Social System Department, ICONS International Cooperation Inc.

##### (2) Project Team (National Coordinating Unit)

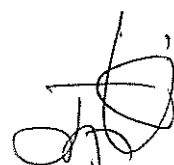
Mrs. B. U. Okpa.	National Coordinator Deputy Director, Department of Basic and Secondary Education, Federal Ministry of Education
Mrs. E. M. Okebukola	Assistant Coordinator Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education
Mr. S. A. Odo	Assistant Coordinator Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education
Mrs. F. A. Chuku	Assistant Coordinator Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education
Mr. J. C. Aguiyi	Assistant Coordinator Chief Education Officer, Department of Basic and Secondary Education, Federal Ministry of Education
Mr. Umar Iro	Assistant Coordinator Assistant Planning/Research Officer, Universal Basic Education Board
Mr. Ippei SHIMIZU	Japanese Expert

##### (3) JICA Nigeria Office

Mr. Kyojin MIMA	Resident Representative, JICA Nigeria Office
Mr. Kuniaki AMATSU	Assistant Resident Representative, JICA Nigeria Office



Ms. Naoi SUWA	Project Formulation Advisor, JICA Nigeria Office
Mr. Ayandele M. Kola	Education Expert, JICA Nigeria Office



### 1-5. Methodology of Evaluation

The evaluation is designed to verify the following aspects based on the PDM and Plan of Operations:

- 1) Achievements of the Project based on the PDM indicators
- 2) Implementation process
- 3) Five evaluation criteria of DAC

Definitions of the criteria are as follows;

Relevance	Relevance of the project plan was reviewed in terms of the validity of the project purpose and the overall goal in connection with the development policy of the Federal Government of Nigeria, aid policy of the Government of Japan, needs of beneficiaries, and by logical consistency of the project plan.
Effectiveness	Effectiveness was assessed by evaluating the extent to which the Project had achieved its purpose and by clarifying the relationship between the purpose and outputs.
Efficiency	Efficiency of the project implementation was analyzed with emphasis on the relationship between outputs and inputs in terms of timing, quality and quantity of inputs.
Impact	Impact of the Project was assessed on the basis of both positive and negative influences caused by the Project.
Sustainability	Sustainability of the Project was assessed in terms of political, institutional, financial and technical aspects by examining the extent to which the achievements of the Project would be sustained or expanded after the Project period.

Conclusions were drawn from the results of the study and recommendations were made by the Team.





## 2. EVALUATION

### 2-1. Achievements of the Project

#### 2-1-1 Outputs

Output 1: The bodies / units to implement the INSET at National and State level are established.

Output 2: The INSET for State Trainers and Core Teachers is conducted and assessed.

Output 3: Supporting system for INSET is strengthened.

With the efforts of both the Nigerian and the Japanese sides, especially the Nigerian Counterparts and the Japanese Expert, most of the planned activities have been implemented successfully, which is expected to contribute to the attainment of the Project Purpose. The status of the attainment of each output is as follows:

Output 1: The bodies / units to implement the INSET at National and State level have been established as planned.

#### (1) National Level

- National Coordinating Unit (NCU) has been established.
- **Four (4) National Trainers (NT)** have been assigned and trained in Kenya as planned. National Trainers are working for the Project on part-time basis. (Target<sup>1</sup> Number: 4 National Trainers)
- National Commission for Colleges of Education (NCCE) has been equipped and is functioning as the National INSET Centre.

#### (2) State Level

- State Coordinating Units (SCU) have been established in the 3 pilot states, namely Kaduna, Niger and Plateau. All the members of SCU have been trained in Kenya and or Japan.
- **Twenty-five (25) State Trainers (ST)** have been assigned and been working for the Project in the 3 pilot states. Ninety-six (96) percent of the State Trainers have been trained in Kenya or Malaysia. The number of State Trainers in each state is shown Table 2-1. (Target Number: 24 State Trainers)

Table2-1 Number of State Trainers

State	Number of ST
Kaduna	8
Niger	9
Plateau	8
Total	25

<sup>1</sup> "Target Number" and "Target Value" show the targets set in the Project Design Matrix (PDM) for the end of the Project.

- State INSET Centers have been established in each of the 3 pilot states by equipping existing Colleges or Community Education Resource Centre.

Output 2: The INSET for State Trainers and Core Teachers (CT) has been conducted and assessed as planned. However, the total number of participants in State INSET is slightly less than the target number of 600.

(1) National INSET (INSET for State Trainers)

- Three (3) cycles of National INSET have been conducted. The numbers of participants (ST) in each INSET are shown in Table 2-2. (Target Number: 24 participants)

**Table2-2 Number of Participants in National INSET**

Cycle	Time	Number of Participated ST
National INSET Cycle 1	Nov 2006	12 <sup>2</sup>
National INSET Cycle 2	Mar-Apr 2007	25
National INSET Cycle 3	Apr-May 2008	23 <sup>3</sup>

- Monitoring and evaluation exercise on the quality of INSET<sup>4</sup> has been conducted for Cycle 2 and 3. The result is summarized in Table 2-3. It shows that the quality of INSET Cycle 3 has improved compared to Cycle 2 in all the indicators. INSET Cycle 3 scored over 3 points in most indicators, which shows that INSET with a certain quality had been conducted.

**Table2-3 Quality of National INSET (1-5 scale)**

	Quality of Session	NT's ability to implement INSET	Understanding of Contents by ST	Quality of Service	NT's ability to Facilitate Sessions
Cycle 2	3.9	2.9	3.3	2.4	2.9
Cycle 3	3.9	3.2	3.5	2.7	3.4

(2) State INSET (INSET for Core Teachers)

- Two (2) cycles of State INSET have been conducted in each pilot state. The number of participants in each cycle/state is shown below. (Target Number: 600 participants)

**Table2-4 Number of Participants in State INSET**

Cycle	Time	Number of Participated CTs			
		Kaduna	Niger	Plateau	Total
State INSET Cycle 1	Dec 2006	214	199	161	574
State INSET Cycle 2	Aug 2007	196	181	192	569

<sup>2</sup> The total number of ST at this time was 12. After Cycle 1, 13 teachers joined the project as ST to make the total number 25.

<sup>3</sup> Out of the 25 State Trainers, one could not participate in the INSET at all and another could not complete the course, both for personal reasons.

<sup>4</sup> Monitoring and evaluation is conducted based on the Monitoring and Evaluation Tools developed by the Project on a 1-5 scale. The Project defined the rating as;

1.0 ≤ M < 3.0 Needs effort  
 3.0 ≤ M < 4.5 Attaining  
 4.5 ≤ M ≤ 5.0 Attained



- Monitoring and evaluation exercise on the quality of INSET has been conducted for each cycle. The result is summarized in Table2-5<sup>5</sup>. It shows that the quality of INSET Cycle 2 has improved compared to Cycle 1 in most indicators. INSET Cycle 2 scored over 3.5 points in most indicators, which shows that INSET with good quality had been conducted.

**Table2-5 Quality of State INSET (1-5 scale)**

	Quality of Session	ST's ability to implement INSET	Understanding of Contents by CT	Quality of Service	ST's ability to Facilitate Sessions
Cycle 1	4.0	3.4	4.2	3.8	3.1
Cycle 2	4.1	3.7	4.1	3.6	3.3

(3) Development of Training Manuals and Materials (Target Number: 6)

- Three (3) sets** of training materials, one (1) for each INSET Cycle, have been developed as shown below. The 3 sets consist of **3 training manuals and 36 handouts**.

**Table2-6 Number of Training Materials Developed by the Project**

		INSET Theme	Number of Materials Included in the Set
		Core Contents	
1	Materials for INSET Cycle 1	"Enhancing positive attitude toward mathematics and science education"	Training Manual: 1 Handouts: 11
		Current Practices in the Classroom, Attitude Change, ASEI/PDSI Approach <sup>6</sup> , Mastery of Content	
2	Materials for INSET Cycle 2	"Enhancing classroom activities for effective teaching and learning"	Training Manual: 1 Handouts: 16
		Pedagogy, Resource Materials, Lesson Preparation, Mastery of Content	
3	Materials for INSET Cycle 3	"Actualization of ASEI/PDSI approach in classroom"	Training Manual: 1 Handouts: 9
		Lesson Note, Actualization, Mastery of Content	

(4) Development of Monitoring and Evaluation Tools (Target Number: 3 sets)

- Three (3) sets** of monitoring and evaluation tools, one for each cycle, have been developed. The set consists of 11 types of instruments.

Output 3: Sensitization workshops and public relations have been conducted as planned. Some of the pilot states have made posters to advocate ASEI-PDSI in the schools. These activities have contributed to promote the understanding of stakeholders toward the Project.

(1) Publication of Newsletters (Target Number: 3 newsletters)

One (1) newsletter has been published so far.

(2) Sensitization Workshops

- Three (3) State INSET Management Workshops, one (1) in each pilot state, have been conducted for officers of Local Government Education Authorities. Each State developed a

<sup>5</sup> Table 2-5 shows the mean score of the result of monitoring and evaluation of the INSET conducted respectively in the 3 pilot states.

<sup>6</sup> A Student-centered Approach which places emphasis on Activity, Student-centered, Experiment, Improvisation in lessons as well as the Plan-Do-See-Improve Cycle in implementing lessons.

draft of action plan for local level INSET in the workshop.

- Advocacy Seminar has been conducted for education officers of non-pilot states.

**Table2-7 Number of Participants in Workshops and Seminar**

Title of Workshop/Seminar	Target Group	Time	Number of Participants
Niger State INSET Management Workshop	LGEA officers	Oct 2007	50
Kaduna State INSET Management Workshop	LGEA officers	Oct 2007	45
Plateau State INSET Management Workshop	LGEA officers	Oct 2007	46
SMASE Advocacy Seminar	Commissioners and SUBEB officers from non-pilot states	Nov 2007	59

Details are shown in ANNEX3-1.

### 2-1-2. Project Purpose

Ability of Core Teachers to provide INSET for teachers in primary mathematics and science is enhanced.

Core Teachers have actively participated in the State INSET which has led to the improvement in their attitude and teaching skills. The result of monitoring and evaluation conducted by the Project shows that the attitude and teaching skill of Core Teachers have already met the level of the target value. The result of the questionnaire survey shows that most of the Core Teachers think they are well-prepared to conduct INSET for other teachers as trainers. However, activities focusing on the development of ICT skills of Core Teachers have not been conducted in the Project so far.

As a whole, it can be said that the 3 pilot states are on their way to developing human resources to provide INSET for teachers in the field at local level.

#### (1) Core Teachers' Teaching Skill

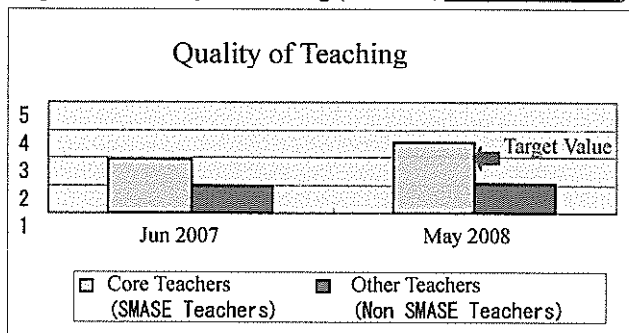
- The result of Classroom Impact Survey<sup>7</sup> conducted by the Project is shown in Table 2-8, Table 2-9, Figure 2-1, and Figure 2-2 in the next page.
- The result shows that the teaching skills are improving as the Project goes on. It also shows clear difference between the teaching skill of Core Teachers and that of other untrained teachers (as shown as (a)-(b) in the table), which demonstrates the effectiveness of the INSET on improving teaching skills of teachers.

<sup>7</sup> Classroom Impact Survey has been conducted through lesson observation. National Trainers have observed and evaluated actual mathematics and science lessons conducted by Core Teachers as well as other untrained teachers.

**Table2-8 Quality of Teaching<sup>8</sup> (1-5 scale, Target Value: 3.0)**

	(a)Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	2.9	2.0	0.9
May 2008	3.6	2.1	1.5

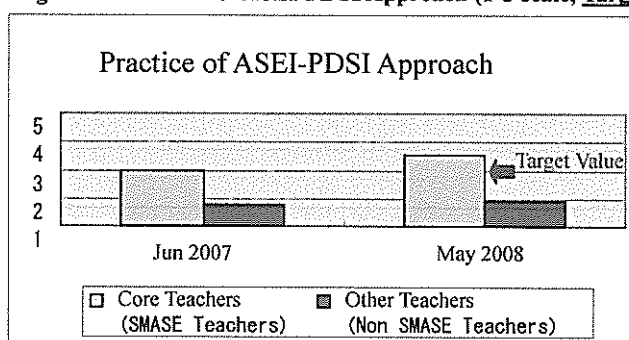
**Figure 2-1 Quality of Teaching (1-5 scale, Target Value: 3.0)**



**Table2-8 Practice of ASEI-PDSI Approach<sup>9</sup> (1-5 scale, Target Value: 3.0)**

	(a)Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	3.0	1.8	1.2
May 2008	3.5	1.9	1.6

**Figure 2-2 Practice of ASEI-PDSI Approach (1-5 scale, Target Value: 3.0)**



- Positive practices have been observed in the lesson conducted by Core Teacher as follows:
  - More time and efforts are spent on lesson preparation;
  - Group work and experiments are frequently conducted, which strongly encourages students to participate actively in lessons;
  - Appropriate questions are given frequently which stimulate the pupils' interest and thought;
  - Pupils are called by their names, which make them more comfortable to answer; and
  - Summary and conclusion of the lesson are made by involving pupils, which deepen their understanding

<sup>8</sup> Quality of teaching in classroom is rated based on the monitoring and evaluation tool "Classroom Observation Instrument" developed by the Project. The tool rates the quality of teaching on a 1-5 scale on the following 3 aspects; (a) Teaching Procedures, (b) Fundamental Techniques and (c) Classroom Management.

<sup>9</sup> Practice of ASEI-PDSI is rated on a 1-5 scale based on the monitoring and evaluation tool "ASEI-PDSI Check List" developed by the Project.

JA b'

(2) Core Teachers' Participation in State INSET<sup>10</sup> (1-5 scale, Target Value: 3.0)

	Participation in State INSET
State INSET Cycle 1	3.2
State INSET Cycle 2	3.5

(3) Attitude Change of Core Teachers<sup>11</sup> (1-5 scale, Target Value: 3.0)

	Pre-INSET Index	Post-INSET Index
State INSET Cycle 1	3.5	4.4
State INSET Cycle 2	3.8	4.4

(4) Mastery of ICT mode of instruction of Core Teachers

Activities focusing on the development of ICT skills of Core Teachers have not been conducted in the Project so far.

Details are shown in ANNEX3-1.

### 2-1-3. Overall Goal

Overall Goal: Teaching skills of primary teachers in mathematics and science are upgraded.

Considering that it has been only 1 year and 10 months since the Project started, and only 600 Core Teachers out of the 70,000 teachers in the 3 pilot states have participated in the INSET, it is too early to measure the impact of the Project on the teaching skills of the teachers in the field in the 3 pilot states. However, the teaching skills of Core Teachers who have participated in the INSET has improved compared to the untrained teachers as shown in 2-1-2. This indicates the strong possibility of achieving the Overall Goal in the future if the INSET is cascaded down to local level and all teachers in the field participate in the training.

Details are shown in ANNEX3-1.

### 2-1-4. Super Goal

Super Goal: The capability of primary school pupils in mathematics and science education is upgraded.

Considering that it has been only 1 year and 10 months since the Project started, and only 600 Core Teachers out of the 70,000 teachers in the 3 pilot states have participated in the training, it is too early

<sup>10</sup> Participation in INSET is rated on a 1-5 scale based on the Monitoring and Evaluation Tool "Session Observation Questionnaire" developed by the Project.

<sup>11</sup> Attitude change is rated on a 1-5 scale based on the Monitoring and Evaluation Tool "Pre/Post INSET Evaluation Questionnaire" developed by the Project. The value of Pre-INSET shows the attitude toward mathematics and science lesson at that time. The value of Post-INSET indicates the degree of attitude change made by the INSET.

to measure the impact of the Project on academic achievement of pupils at this stage. However, some stakeholders have identified increase in students' participation and interest in Core Teachers' lessons based on ASEI-PDSI approach. This shows the potential of achieving the Super Goal in the future if all teachers in the field participate in the INSET and practice ASEI-PDSI approach in their classes.

Details are shown in ANNEX3-1.

## **2-2. Results of the Evaluation**

### **2-2-1. Implementation Process**

- (1) The Project has implemented the activities as planned. Inputs from both Nigerian and Japanese sides have been provided appropriately as planned.
- (2) Nigerian counterparts at both National and State level are highly motivated and committed to the Project. Active participation to Project activities, appropriate disbursement of Project budget and efforts made toward developing the strategy to cascade the INSET down to local level for teachers in the field demonstrates the strong commitment of the Nigerian counterparts. The ownership and commitment of the Nigerian counterparts and Japanese Expert has facilitated the implementation process.
- (3) Monitoring and evaluation exercise on the quality of INSET and lessons have been conducted and the results have been appropriately shared by the stakeholders. These results are expected to contribute to the continuous improvement of INSET quality.
- (4) Although National Commission for Colleges of Education (NCCE) is functioning well as a National INSET Centre, FME and other stakeholders are aware of the need to set up a National INSET Centre within an appropriate institution which is given clear mandate to implement INSET.
- (5) Incessant strikes, shortage of materials, large class size etc. were observed in some places. These factors could be a challenge for the effective implementation of ASEI-PDSI approach.
- (6) Requests for allowance from participants need to be managed appropriately.

## 2-2-2. Evaluation by the Five Criteria

The result of the evaluation by the five criteria is summarized below. For details, refer to ANNEX3-3.

Criteria	Evaluation Result	Description
Relevance	High	<ul style="list-style-type: none"> <li>● Strengthening the capacity of teachers in teaching mathematics and science at primary level is consistent with the priority of the Nigerian education policy and the aid policy of the Japanese Government.</li> <li>● INSET corresponds to the needs of teachers to improve teaching skills as many of them are unqualified or under-qualified. The ratio of qualified teachers in the 3 pilot states (Kaduna 50%, Niger 39%, Plateau 51%) is below the national level of 59 %.</li> <li>● ASEI-PDSI is a useful approach to actualize the “practical, exploratory and experimental methods” mentioned in the National Policy on Education. Most stakeholders have noticed that the INSET provided by the Project which focuses on ASEI-PDSI approach is much more practical than other INSET programs conducted in Nigeria to improve the teaching skill of teachers.</li> </ul>
Effectiveness	High	<ul style="list-style-type: none"> <li>● Most Outputs have been produced as planned, which has contributed to enhance the ability of Core Teachers as human resources for the implementation of INSET at local level in the 3 pilot states. However, activities focusing on the development of the skills of Core Teachers to use computers and projectors for making presentation have not been conducted so far, which needs to be addressed within the remaining period of the Project.</li> <li>● The attitude and teaching skills of Core Teachers is showing improvement as the Project goes on. Indicators of teaching skills and attitude of Core Teachers have already reached the level of the Project Purpose set in the PDM. They also show significant difference with that of other untrained teachers, which demonstrates the effectiveness of the INSET.</li> <li>● As a result of the advocacy activities, some LGEA and head teachers of schools are starting to support the teachers in practicing ASEI-PDSI approach in classrooms.</li> </ul>
Efficiency	High	<ul style="list-style-type: none"> <li>● Activities have been implemented as planned and inputs to the Project are well utilized to produce the Outputs.</li> </ul>



		<ul style="list-style-type: none"> <li>● By not paying allowances to the participants, the Project has succeeded in conducting INSET more cost-effectively compared to other INSET programs in Nigeria. Without allowances, most of the participants are satisfied and willing to participate continuously because of the high quality of the INSET. The Project is making continuous effort to maintain and further improve the quality of the INSET.</li> <li>● Technical support from SMASSE Kenya was effectively utilized. The framework of the Project was developed based on the experience and lessons learned in SMASSE Kenya, by making appropriate adjustments according to the context of Nigeria.</li> <li>● The efficient use of existing facilities as the INSET Centers contributed to minimize the initial cost of the Project.</li> </ul>
Impact	Positive Impact Observed	<p><b>【Possibility of Achieving the Overall Goal and Super Goal】</b></p> <ul style="list-style-type: none"> <li>● Teaching skills of Core Teachers have been upgraded by the INSET. This indicates that if the INSET is cascaded down to local level, there is strong possibility of achieving the Overall Goal of improvement in teaching skills of all the teachers in the field.</li> <li>● It was reported that increase in students' participation and interest were observed in lessons of Core Teachers practicing ASEI-PDSI approach. This indicates that if the INSET is cascaded down to local level and more teachers practice ASEI-PDSI approach, there is strong possibility of achieving the Super Goal of improvement in pupils' academic achievements.</li> </ul> <p><b>【Extended Effect】</b></p> <ul style="list-style-type: none"> <li>● Each of the 3 pilot states is developing an action plan to cascade down INSET to local level for teachers in the field. Core Teachers have been trained as human resources for the local level INSET. Most of the Core Teachers think they are well-prepared to conduct INSET as trainers. These facts show the strong possibility of the benefit of INSET to be expanded to all the teachers in the pilot states in the future.</li> <li>● Many Core Teachers have shared the knowledge and skills gained in the INSET with their colleague teachers.</li> <li>● Some Core Teachers are applying ASEI-PDSI approach to other subjects than mathematics and science, which is expected to</li> </ul>

		<p>contribute to the improvement in quality of lessons in all subjects.</p> <ul style="list-style-type: none"> <li>● Some other states than the 3 pilot states are showing interest in introducing the INSET system developed by the Project.</li> <li>● Most of the Trainers who are lecturers in College of Education is applying ASEI-PDSI approach to Pre-Service Education and Training (PRESET) in their colleges.</li> </ul>
Sustainability	Average	<p><b>【Policy Aspect】</b></p> <ul style="list-style-type: none"> <li>● The importance of quality basic education as well as science and technology are stipulated in the National policy documents, which assumes the continuous commitment of the Government of Nigeria to the Project.</li> </ul> <p><b>【Organizational Aspect】</b></p> <ul style="list-style-type: none"> <li>● At National level, NCU and NCCE is managing and implementing the INSET. However, the mandate of NCCE to implement INSET is not clear. NCU is making effort to have a National INSET Centre with clear mandate for a sustainable INSET system.</li> <li>● Presently, National Trainers work for the project on part-time basis. However, for further improvement of the Project activities, full-time National Trainers are needed, especially if the INSET is to be expanded.</li> <li>● At state level, SCU and the Team of State Trainers are managing and implementing the INSET with high ownership and commitment in each of the 3 pilot states.</li> <li>● Most of the equipments and machineries provided to the INSET Centers are well-maintained and well-managed.</li> </ul> <p><b>【Financial Aspect】</b></p> <ul style="list-style-type: none"> <li>● The running cost for the INSET at both National and State level is covered by the Nigerian side and is disbursed appropriately, which shows the financial sustainability of the Project.</li> <li>● Without paying allowance to the participants, the cost of INSET is held down to a minimum level, which enhances the financial sustainability.</li> </ul> <p><b>【Technical Aspect】</b></p> <ul style="list-style-type: none"> <li>● The result of monitoring and evaluation on the quality of INSET shows that National and State Trainers are capable enough to conduct training sessions with a certain quality. However, some</li> </ul>

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		<p>Trainers have identified difficulties in conducting training in such aspects like time management. Thus, continuous capacity building of Trainers is required.</p> <ul style="list-style-type: none"><li>● Many NCU/SCU members and Trainers mentioned about the difficulties they have in monitoring and evaluation, especially in data analysis and report writing. Further capacity building is required in this field.</li></ul>
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### 2-3. Conclusion

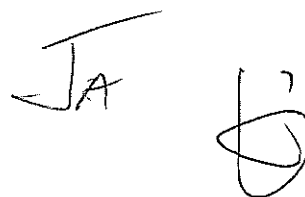
. The political commitment to continuous training for teachers in order to secure the quality of education is also shown in several education policy papers such as the National Policy on Education, 10 Year Strategic Plan for the Federal Ministry of Education (FME) and National Framework produced by FME. At the same time, NEEDS-2 also gives priority to science, technology and innovation as cross cutting issues which impacts on the state of economy and people. As a foundation of science and technology, the importance of mathematics and science in primary education cannot be overemphasized. Thus, the strengthening of teaching ability of primary level teachers in mathematics and science, which is the aim of the Project, is highly relevant to the policy priority as well as the needs of teachers in the field in Nigeria.

The Project is being implemented as planned and most of the outputs are being produced as expected. Core Teachers have been continuously trained through INSET and their ability is attaining the target level of the Project Purpose. These Core teachers are expected to be the human resources in cascading INSET down to local level for the teachers in the field. The result of monitoring and evaluation conducted by the Project clearly demonstrates the effectiveness of the INSET in strengthening the teaching skills of teachers. It also shows the strong possibility of the INSET to contribute to the improvement in pupils' academic ability in the future. Thus, it can be said that an effective INSET model is on the way to be established through the Project activities.

Since the effectiveness of the INSET is being demonstrated, efforts to expand the benefit are recommended. At this time, each of the 3 pilot states is developing an action plan to cascade the INSET down to local level for the teachers in the field. This process should be encouraged and supported by all the stakeholders.

Although the Project has already produced some visible outcomes, quality of education improves only gradually. Taking this into account, long-term efforts and commitment are required to sustain and further improve the quality of INSET.

The Project still has a remaining period of one year and two months. During this period, the Project is expected to address the challenges as recommended in the next page, and make further achievements which are expected to accelerate improvement of education in Nigeria.

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### 3. RECOMMENDATIONS

The Team has made the following recommendations for further improvement of the Project.

#### 3-1. Recommendations for further improvement of the Project activities

##### (1) Strengthening the coordinating and implementing units at National level

As the INSET forms a cascade-system, the quality of the National INSET is definitely important as the original source of inputs to the lower level. Thus, strengthening the function of coordinating and implementing units at National level is necessary to further improve the quality of the INSET. It is recommended that the following measures are taken to establish a strong structure at the National level.

- **Appointment of Full-time National Trainers**

Presently, NCCE is the National Training Centre, and officers of NCCE are working as National Trainers on part-time basis. Appointment of National Trainers on full-time basis who will contribute towards further improvement in quality of the National INSET and other activities of the Project is necessary.

- **Giving Clear Mandate to the National INSET Centre**

NCCE has so far made great contribution to the successful progress of the Project as the National INSET Centre. However, it is not within the primary mandate of NCCE to implement INSET. In order to establish a sustainable INSET system, it is recommended that an appropriate National body, the National Teachers' Institute (NTI), should host the National INSET Centre.

##### (2) Continuous Capacity Development of members of the Coordinating Units and Trainers

The capacity of Coordinating Units and Trainers at both National and State levels have reached the level to provide quality INSET. However, there is still room for improvement especially in the areas of ICT, monitoring and evaluation. Thus, continuous capacity development of the human resources for quality INSET is recommended.

##### (3) Continuous effort to provide high-quality INSET to attract the participants with non-pecuniary incentives

Although the Team recognizes the difficulty of changing the long-standing practice of paying high priced allowances in training programs by international donors, it is necessary to minimize the cost for INSET in order to establish a sustainable system. Instead of paying allowances to motivate teachers to attend INSET, non-pecuniary incentives should be provided. So far, the high-quality INSET has been the incentive for participants to keep participating in the INSET. It is strongly recommended that in due course, Teachers' Registration Council of Nigeria (TRCN) re-certification of science and mathematics teachers will consider INSET certificates such as SMASE INSET.



### **3-2. Recommendations for the expansion of the Project**

#### **(1) Cascading down the INSET to local level for all the teachers in the field**

The Project is on its way to establish an effective INSET model for the teachers in the field in the 3 pilot states. The result of this Mid-term Evaluation demonstrates the effectiveness of the INSET in strengthening the teaching skills of teachers. However, at this time, only 600 Core Teachers out of the 70,000 teachers in the 3 pilot states have participated in the INSET and have benefited directly. In order to expand the benefit to all the teachers and establish a complete INSET model, efforts to cascade the INSET down to local level is required. As each of the 3 pilot states have already been working on the development of the action plan to implement INSET at local level, the next step will be to finalize the action plan and carry it out. All the stakeholders are strongly recommended to monitor and support this process so that at least a tryout of the local level INSET model will be carried out in the 3 pilot states within the remaining period of the Project.

#### **(2) Further Discussion on Strategies to Scale-up the INSET to Other States in the Future**

Once the effective INSET models for teachers in the field are established in the 3 pilot states, the next step will be to scale-up the INSET to other states in order to expand the benefit to teachers nationwide. Some other states have already expressed their interest in introducing the INSET model developed by the Project. It is recommended that FME further discusses the strategy to scale-up INSET nationwide by incorporating private schools in future.

#### **(3) Sustainable Funding of the INSET at Basic Education Level**

It is recommended that to ensure sustainable funding for SMASE INSET, FME further discusses with UBEC for the utilization of the teacher development fund.

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## ANNEXES

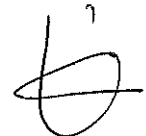
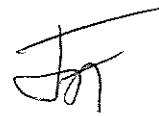
### ANNEX 1. Inputs to the Project

- 1-1. List of Japanese and Third Country Experts
- 1-2. List of Machinery and Equipment Provided by JICA
- 1-3. List of Participants in Training in Japan, Malaysia and Kenya
- 1-4. List of Nigerian Counterparts
- 1-5. List of Land, Buildings and Facilities
- 1-6. Budget Expenditure

### ANNEX 2. Project Design Matrix

### ANNEX 3. Evaluation Grid

- 3-1. Achievements of the Project
- 3-2. Process of the Project Implementation
- 3-3. Evaluation by the Five Criteria
- 3-4 Result of the Questionnaire Survey



## ANNEX 1 Inputs to the Project

### 1-1. List of Japanese and Third Country Experts (as of 30 Jun 2008)

#### (1) List of Japanese Expert

No.	Name	Field	From	To
1	Mr. Ippei Shimizu	INSET Management / Project Coordination	10 Nov 2006	9 Nov 2008

#### (2) List of Third Country Expert (Technical Support from SMASE-WECSA)

No	Name	Position	Scope of Work	From	To
1	Mr. Kogilla Patric Aluma	National Trainer in Chemistry Education, CEMASTE A Kenya SMASSE CP	1) To finalize the preparation for National INSET Cycle 1 training materials, 2) To finalize the development of M and E tools and 3) To supervise National Trainers to train State Trainers.	15 Nov 2006	8 Dec 2006
2	Mr. Odindo Fred Osen a	National Trainer in Mathematics Education, CEMASTE A Kenya SMASSE CP			
3	Mr. Michael Waitutu	National Trainer in Monitoring and Evaluation Task, CEMASTE A Kenya SMASSE CP	1) To advise entire M&E framework of SMASE Nigeria project, 2) To develop analytic program (excel format) for 1st cycle of State INSETs, 3) To provide technical support for analyzing collected date and writing M&E report and 4) To supervise M&E methodology and division of duties for SMASE Nigeria project.	31 Jan 2007	5 Feb 2007
4	Mr. Hiromasa Hattori	JICA Expert, Monitoring and Evaluation, Kenya SMASSE			
5	Mr. Kogolla Patrick Aluma	National Trainer in Chemistry Education, CEMASTE A Kenya SMASSE CP	1) To supervise content development of INSET Cycle 2, 2) To finalize the preparation for INSET Cycle 2 training materials and 3) To modify M & E tools for INSET Cycle 2.	14 Feb 2007	15 Mar 2007
6	Mr. Kogolla Patrick Aluma	National Trainer in Chemistry Education, CEMASTE A Kenya SMASSE CP	1) To supervise State Trainers to facilitate sessions during State INSETs cycle 2, 2) To advice State Coordinati ers to manage State INSETs cycle 2 and 3) To facilitate SCUs and State Trainers to conduct M & E in State INSETs cycle2.	1 Aug 2007	1 Sep 2007
7	Mr. Kogolla Patrick Aluma	National Trainer in Chemistry Education, CEMASTE A Kenya SMASSE CP	1) To assure quality of materials for: (a) State INSET management workshop for Local Government Education Officials in pilot states	14 Oct 2007	21 Oct 2007



8	Mr. Masoka Moses Ndelela	National Trainer in Chemistry Education, CEMASTE A Kenya SMASSE CP	and (b) SMASE Sensitization Seminar for non-pilot states, 2) To supervise National Trainers to develop and implement ASEI lesson demonstration and 3) To advice and guide NCU and SCU to operate above mentioned advocacy programmes.	14 Oct 2007	15 Nov 2007
9	Mrs. Wemali Evelyn Nambiri	National Trainer in Primary Science Education, CEMASTE A Kenya SMASSE CP	1) To supervise content dev. for National INSET cycle 3, 2) To finalize the preparation for INSET cycle 3 training materials (manual and handouts) and 3) To refine M & E tools for the INSET cycle 3.	17 Feb 2008	15 Mar 2008
10	Mrs. WAKHAYA Mary Nambindo	National Trainer in Mathematics Education, CEMASTE A Kenya SMASSE CP			
11	Mrs. WAKHAYA Mary Nambindo	National Trainer in Mathematics Education, CEMASTE A Kenya SMASSE CP	1) To give advice to National Trainers for the preparation of INSET before and during National INSET Cycle 3, 2) To guide National Trainers to train State Teachers (trainees) in National INSET Cycle 3, 3) To support NCU to manage National INSET cycle 3 and 4) To facilitate NCU and National Trainers to conduct M&E and their report writing in National INSET cycle3.	13 Apr 2008	10 May 2008

**ANNEX 1-2. List of Machinery and Equipment Provided by JICA (as of 30 Jun 2008)**

Item	Specification (Model Name/No, Manufacturer )	Quantity	Unit Price (NGN)	Sub Total	Delivery Date	Sight (KD: Kaduna, NG: Niger, PL: Plateau)	Condition
Desktop PC	HP nx6210 (Computer)	6	100,000	600,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×3	Repair is needed
Desktop PC	HP L1706 (Screen)	6	45,000	270,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×3	Good
Notebook PC	HP nx 6110	1	160,000	160,000	Dec.2 006	NCCE×1	Repair is needed
Printer	HP laser-Jet 1320	5	42,000	210,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×2	Good
Projector	DELL 1100MP	3	150,000	450,000	Dec.2 006	PL×1, KD×1, NG×1	Good
UPS	Power 1500 VA	6	18,500	111,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×3	Good
Stabilizer	2000VA	6	4,500	27,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×3	Good
Digital camera	Cyber Pix E-660P	3	35,000	105,000	Dec.2 006	PL×1, KD×1, NG×1	Good
OHP		4	98,000	392,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×1	Good
Projector screen		4	48,000	192,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×1	Good
White board		3	38,000	114,000	Dec.2 006	PL×1, KD×1, NG×1	Good
Video camera	Sonny DCR HC20E	3	205,000	615,000	Dec.2 006	PL×1, KD×1, NG×1	Good
Photocopier	Cannon IR2016	4	350,000	1,400,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×1	Good
Metal stand	Stand Desk	4	15,000	60,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×1	Good
Cabinet		5	25,000	125,000	Dec.2 006	PL×1, KD×1, NG×1, NCCE×2	Good
Generator	YAMAHA (Voltage: 220V, Rated output: 5.0kVA)	3	110,000	330,000	Dec.2 006	PL×1, KD×1, NG×1	Good
Mattress		600	2,922	1,752,978	Dec.2 006	PL×200, KD×200, NG×200	Good
Pillow		600	589	353,430	Dec.2 006	PL×200, KD×200, NG×200	Good
Treated mesquite net	Treated (pesticide)	600	900	540,000	Dec.2 006	PL×200, KD×200 and NG×200	Good
NASENI Primary Science Kit and its Accessories		3	100,000	300,000	Dec.2 006	NCCE×1, JICA×2	Good

Notebook PC	HP 7300nx	4	252,500	1,010,000	Jan. 2008	(PL×1, KD×1, NG×1 FME×1)	Equipment has not been delivered from JICA to C/P agencies yet.
Vehicle	Toyota High Aice	1	4,222,222	4,222,222	May. 2008	(FME and/or NCCE)	Good
Total				<b>13,339,630</b>			

**ANNEX 1-3. List of Participants in Training in Japan, Kenya and Malaysia**

**(1) List of Participants in Training in Japan (as of 30 Jun 2008)**

No	Name	Position or Profession	Course Title	Venue	From	To
1	Mr. J. C. Aguiyi	SMASE Assistant National Coordinator (FME)	INSET Management Training for SMASSE WECSA	JICA Chugoku	15 Jan 2007	17 Feb 2008
2	Mr. Chukwuma Ugwuanyi	SMASE National Trainer (NCCE)	Improving Teaching Methods in Science and Mathematics in Primary Education	JICA Sapporo	9 Oct 2007	23 Nov 2007
3	Mr. S. A. Odo	SMASE Assistant National Coordinator (FME)	Strengthening of Local Education for SMASSE-WECSA for Sub-Sahara Africa	JICA Sapporo	15 Jan 2008	16 Feb 2008
4	Mr. Abubakar Dantsoho	Assistant State Coordinator (Niger SUBEB)				
5	Mr. Umar Iro	SMASE Assistant National Coordinator (UBEC)	INSET Management Training for SMASSE WECSA	JICA Chugoku	5 Feb 2008	9 Mar 2008
6	Mr. Musa. D. Ibrahim	Assistant State Coordinator (Kaduna SUBEB)				

**(2) List of Participants in Third Country Training in Kenya (as of 30 Jun 2008)**

**(Technical Support from SMASE-WECSA)**

✂The list includes 44 participants in training programs held before the Project started in Aug 2006.

No.	Name	Position or Profession	From	To
<b>1. 2 Weeks Observation of ASEI/PDSI Training in Kenya X 5 Participants</b>				
1	Mr. J. C. Aguiyi	JICA Desk Officer	Feb 2004	Feb 2004
2	Mr. S. A. Amin	Education Officer FME		
3	Mr. Maman Ole	Deputy Director NCCE		
4	Mr. Uguwanyi Chukwuma	Research Officer NCCE		
5	Mr. Hikaru Kusakabe	Project Formulation Advisor JICA Nigeria		
<b>2. Third Country Training Programme in Kenya X 6 Participants</b>				
6	Mr. J. C. Aguiyi	Principal Education Officer FME	Nov 2004	Dec 2004
7	Mrs. Jakko Grace Olunmi.K.	Principal Education Officer FME		
8	Mr. Oluwaniyi Steve. O.	Research Officer NMC		
9	Mr. S. A. Odo	Assistant Chief Education Officer		
10	Mr. Abubakar Dantsoho	Science Coordinator Niger SUBEB		
11	Mr. Joshua Simon	Science Coordinator Kaduna SUBEB		
<b>3. High Power Delegation on Inspection Tour to Kenya SMASSE Project X 11 Participants</b>				

12	Mr. Isaiha Auta	Director FME	Feb 2005	Feb 2005
13	Prof (Mr.) Sam Ale	Directo NMC		
14	Dr (Mr.) Kabir Isyaku	Executive Secretary NCCE		
15	Prof (Mr.) Charles Onocha	Deputy Executive Secretary UBEC		
16	Hon (Mr.) Solomon Dangfa	Chairman Plateau SUBEB		
17	Mr. Alh. Nasir A. Ndafogi	Deputy Chairman Niger SUBEB		
18	Mr. Alh. Haruna Makarfi	Director Schools Services Kaduna SUBEB		
19	Mr. J. C. Aguiyi	Desk Officer JICA FME		
20	Mr. S. O. Oluwaniyi	Research Officer NMC		
21	Mr. Hikaru Kusakabe	Project Formulation Advisor JICA		
22	Mr. M. K. Ayandele	Programme Officer JICA		
<b>4. Inspection Tour to Kenya SMASSE Project x 3 Participants</b>				
23	Dr. (Mr.) Akale	Director Academic Services NCCE	Jul 2005	Jul 2005
24	Dr. (Mr.) Ojo	Deputy Director Academic Services NCCE		
25	Dr. (Mrs.) Yaroson	Provost FCE, Zaria		
<b>5. Third Country Training Programme in Kenya X 19 Participants</b>				
26	Mrs. Abdulhamid Zulaihat	Lecturer COE, Minna	Nov 2005	Dec 2005
27	Mr. Barwa Adamu Beji	Lecturer COE, Minna		
28	Mr. Joseph O. John	Lecturer FCE, Kontagora		
29	Mr. Nasir Abdullahi	Lecturer FCE, Kontagora		
30	Mr. Ahmed Eneji	Lecturer FCE, Zaria		
31	Mr. Falalu Mohammed Kabir	Lecturer FCE, Zaria		
32	Mr. Aku Ayuba Ambi	Lecturer COE, Gidanwaya		
33	Mr. Yakubu Ali Dallatu	Lecturer COE, Gidanwaya		
34	Mr. Toscanini Mark	Lecturer FCE Pankshin		
35	Mr. Abram Dangpe	Lecturer FCE Pankshin		
36	Mrs. Rinmak Ruth	Lecturer COE Gindiri		
37	Mr. Bimohor Bakayil	Lecturer COE Gindiri		
38	Mr. Abdul Shehu	Science Officer Schools Board, Kano		
39	Mr. Abdullahi Y. Gulam	Teacher Suma Sec Sch Argungu, Kebbi State		
40	Mr. Michael N. Onyeka	Teacher ATTA Comp Sec Sch Njaba, Imo State		
41	Mr. Bashir Ibrahim Dambatta	Teacher, CAS, Kano		
42	Mr. Kalu Obasi Kalu	ACEO, FME		
43	Mr. Akinyemi, Akinniran O.	Education Officer Ondo State Teaching Service Commission, Akure		

44	Mrs. Patricia Ngozi Okoro	Senior Education Officer, FME		
<b>6. OJT for SMASE National Trainers for INSET Material Development in Kenya X 4 Participants</b>				
45	Mr. Moses Ade-Afolabi	Programme Officer NCCE	Aug 2006	Sep 2006
46	Mr. Godwin A. Ohaimire	Programme Officer NCCE		
47	Mr. Ugwuanyi Chukwuma, L	Chief Research Officer NCCE		
48	Dr. (Mr.) Alapa Stephen, O	Programme Officer NCCE		
<b>7. OJT for SMASE State Trainers for INSET Material Development in Kenya X 12 Participants</b>				
49	Mrs. Abdulhamid Zulaihat	Lecturer COE, Minna	Aug 2006	Sep 2006
50	Mr. Barwa Adamu Beji	Lecturer COE, Minna		
51	Mr. Joseph O. John	Lecturer FCE, Kontagora		
52	Mr. Nasir Abdullahi	Lecturer FCE, Kontagora		
53	Mr. Ahmed Eneji	Lecturer FCE, Zaria		
54	Mr. Falalu Mohammed Kabir	Lecturer FCE, Zaria		
55	Mr. Aku Ayuba Ambi	Lecturer COE, Gidanwaya		
56	Mr. Yakubu Ali Dallatu	Lecturer COE, Gidanwaya		
57	Mr. Toscanini Mark	Lecturer FCE Pankshin		
58	Mr. Abram Dangpe	Lecturer FCE Pankshin		
59	Mrs. Rinmak Ruth	Lecturer COE Gindiri		
60	Mr. Bimohor Bakayil	Lecturer COE Gindiri		
<b>8. INSET Centre Management Training in Kenya for INSET Centre Managers X 3 Participants</b>				
61	Dr. (Mrs.) Modinat	Principal Queen Amina College, Kaduna	Aug 2006	Sep 2006
62	Sister (Ms.) Florence Golam	Principal St Luis College, Jos		
63	Mr. Mallam Abdulhamid S.B. Wali	Centre Manager ETF Community Resource Centre, Minna		
<b>9. Third Country Training Programme in Kenya for 6 Participants</b>				
64	Mr. Venfa Donchak	Teacher (Maths) Plateau SUBEB	Oct 2006	Oct 2006
65	Mr. Isaac Gwada	Teacher (Maths) Kaduna SUBEB		
66	Mrs. Fatimo Jella, M	Supervisor (Maths) Niger SUBEB		
67	Mrs. Obinatu Blessing, N	Research Officer (UBEC)		
68	Mr. Bashir Mamman	Principal Education Officer (NTI)		
69	Mrs. Zipporah Panguru, A	Research Officer (UBEC)		
<b>10. INSET Management Training in Kenya for SMASE Nigeria X 11 Participants</b>				
70	Mr. J. C. Aguiyi	Chief Education Officer	May 2007	Jun 2007
71	Mrs. Esther Mojirola Okebukola	Assistant Director (FME)		
72	Mr. S. A. Odo	Assistant Director (FME)		
73	Mr. Bobai Yohanna Mashan	Director (Kaduna SUBEB)		

74	Mr. M. I. Daudu	Deputy Director (Kaduna SUBEB)		
75	Mrs. Mohammed Lemu Hauwa	Director (Niger SUBEB)		
76	Mr. Abubakar Dantsoho	Deputy Director (Niger SUBEB)		
77	Mr. Izam Yohanna Makeri	Director (Plateau SUBEB)		
78	Mr. Phar Dick Jeremiah	Plateau SUBEB		
79	Mr. Ippei Shimizu	INSET Management Advisor		
80	Mr. M. K. Ayandele	JICA		
<b>11. Third Country Training Programme in Kenya X 16</b>				
81	Mr. Phar Dick Jeremiah	Plateau SUBEB	Sep 2007	Oct 2007
82	Mrs. Atajan Jemima Ayuba	Plateau SUBEB		
83	Mrs. Jamo Lydia Elisha	Plateau SUBEB		
84	Mr. Nakiwa Nababa	Plateau SUBEB		
85	Mr. Goewam Victor	Plateau SUBEB		
86	Mrs. Sallah Mariyam saidu	Niger SUBEB		
87	Mr. Awesu Musa Bababida	Niger SUBEB		
88	Mr. Babafada Abdulmumini	Niger SUBEB		
89	Mr. Ibrahim Musa Daudu	Kaduna SUBEB		
90	Mr. Balarabe Jibril	Kaduna SUBEB		
91	Mr. Adamu Sansanatu	Kaduna SUBEB		
92	Mr. Kurah Monday	Kaduna SUBEB		
93	Mr. Alhassan Najmuddeen	Kaduna SUBEB		
94	Dr. Alapa Stephen Ochefu	Principal Programme Officer (Maths) NCCE		
95	Mr. Moses Afolabi Adebayo	Principal Programme Officer (Int. Sci.) NCCE		
96	Mr. Ohaimire Godwin Ahmadu	Principal Programme Officer (Physics) NCCE		

**(3) List of Participants in Third Country Training in Malaysia (as of 30 Jun 2008)**

No	Name	Position or Profession	Course Title	Venue	From	To
1	Mrs. A. ZULAIHAT	State College of Education, Minna, Niger State	Promoting Higher Order Thinking Skills (HOTS) in Secondary Science Learning via Information and Communication Technology (ICT) / Higher Order Thinking and Creative Problem Solving in Student-Centered Secondary Mathematics Classroom/ Enhancing Scientific and Technological Literacy (STL) in a Constructivist Learning Environment	RECSAM	Jan 2008	Feb 2008
2	Mr. J. E. Ahamed	Federal Colleges of Education, Zaria, Kaduna State				
3	Mr. A. K. D. Dangpe	Federal College of Education, Pankshin, Plateau State				

4	Dr. (Mr.) S. O. Alapa	SMASE National Trainer	Customized course for Ugandan, Zambian and Nigerian Teacher Trainers/Educators: Interactive pedagogy for enhancing active teaching and learning in science and mathematics education	RECSAM	Jun 2008	Jun 2008
5	Mr. Y. A. Dallatu	SMASE Kaduna State Trainer				
6	Mr. N. Alhassan	SMASE Kaduna State Trainer				
7	Mr. B. A. BEJI	SMASE Niger State Trainer				
8	Mr. M. T. Mark	SMASE Plateau State Trainer				



**ANNEX 1-4-1. List of Nigerian Counterparts (National Level)**

**(1) National Coordinating Unit (NCU)**

No.	Name	Position	Profession	From	To
1	Mrs. C. A. Uzoka	SMASE National Coordinator	Deputy Director, Department of Basic and Secondary Education, Federal Ministry of Education	Aug 2006	Apr 2008
2	Mrs. B. U. Okpa	SMASE National Coordinator	Deputy Director, Department of Basic and Secondary Education, Federal Ministry of Education	May 2008	Present
3	Mrs. E. M. Okebukola	SMASE Assistant Coordinator	Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education	Aug 2006	Present
4	Mr. S. A. Odo	SMASE Assistant Coordinator	Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education	Aug 2006	Present
5	Mr. J. C. Aguiyi	SMASE Assistant Coordinator	Chief Education Officer, Department of Basic and Secondary Education, Federal Ministry of Education	Aug 2006	Present
6	Mrs. F. A. Chuku	SMASE Assistant Coordinator	Assistant Director, Department of Basic and Secondary Education, Federal Ministry of Education	May 2008	Present
7	Mr. Umar Iro	SMASE Assistant Coordinator	Assistant Planning/Research Officer, Universal Basic Education Board	Aug 2006	Present

**(2) National Trainers**

1	Mr. C. Ugwuanyi	SMASE National Trainer	Department of Planning and Research, National Commission for Colleges of Education	Aug 2006	Present
2	Dr. S. O. Alapa	SMASE National Trainer	Department of Academic Service, National Commission for Colleges of Education	Aug 2006	Present
3	Mr. M. Ade-Afolabi	SMASE National Trainer	Department of Academic Service, National Commission for Colleges of Education	Aug 2006	Present
4	Mr. G. Ohaimire	SMASE National Trainer	Department of Academic Service, National Commission for Colleges of Education	Aug 2006	Present

**ANNEX 1-4-2. List of Nigerian Counterparts (State Level)**

**(1) Kaduna State**

**i) Kaduna State Coordinating Unit**

No.	Name	Position	Profession	From	To
1	Mr. Y. M. Bobai	SMASE State Coordinator	Director, Department of Inspectorate, Kaduna State Universal Basic Education Board	Aug 2006	present
2	Mr. M. I. Daudu	SMASE Assistant State Coordinator	Deputy Director, Department of Inspectorate, Kaduna State Universal Basic Education Board	Aug 2006	present

**ii) Kaduna State Trainers**

1	Mr. M. K. Falalu	SMASE State Trainer	Federal Colleges of Education, Zaria, Kaduna State	Aug 2006	present
2	Mr. J. E. Ahamed	SMASE State Trainer	Federal Colleges of Education, Zaria, Kaduna State	Aug 2006	present
3	Mr. A. A. Aku	SMASE State Trainer	Kaduna State College of Education, Gidan- waya Kaduna State	Aug 2006	present
4	Mr. Y. A. Dallatu	SMASE State Trainer	Kaduna State College of Education, Gidan-waya Kaduna State	Aug 2006	present
5	Mr. S. Joshua	SMASE State Trainer	Classroom Teacher, Kaduna SUBEB	Mar 2007	present
6	Mr. N. Alhassan	SMASE State Trainer	Classroom Teacher, Kaduna SUBEB	Mar 2007	present
7	Mr. B. Jibril	SMASE State Trainer	Classroom Teacher, Kaduna SUBEB	Mar 2007	present
8	Mr. M. Kurah	SMASE State Trainer	Classroom Teacher, Kaduna SUBEB	Mar 2007	present

**(2) Niger State**

**i) Niger State Coordinating Unit**

1	Mrs. H. A. Mohammed Lemu	SMASE State Coordinator	Director, Department of School Service, Niger State Universal Basic Education Board	Aug 2006	present
2	Mr. Abubakar Dantsoho	SMASE Assistant State Coordinator	Chief Education Officer, Department of School Service, Niger State Universal Basic Education Board	Aug 2006	present

**ii) Niger State Trainers**

1	Mr. J. J. OTHMAN	SMASE State Trainer	Federal College of Education, Kontagora, Niger State	Aug 2006	present
2	Mr. A. NASIRU	SMASE State Trainer	Federal College of Education, Kontagora, Niger State	Aug 2006	present
3	Mr. B. A. BEJI	SMASE State Trainer	State College of Education, Minna, Niger State	Aug 2006	present
4	Mrs. A. ZULAIHAT	SMASE State Trainer	State College of Education, Minna, Niger State	Aug 2006	present

5	Ms. F. J. Manu	SMASE State Trainer	Classroom Teacher, Niger SUBEB	Mar 2007	present
6	Ms. M. S. Sallah	SMASE State Trainer	Classroom Teacher, Niger SUBEB	Mar 2007	present
7	Mr. M. B. Bida	SMASE State Trainer	Classroom Teacher, Niger SUBEB	Mar 2007	present
8	Mr. A. M. BabaFada	SMASE State Trainer	Classroom Teacher, Niger SUBEB	Mar 2007	present
9	Mrs. L. Muazu	SMASE State Trainer	Classroom Teacher, Niger SUBEB	Mar 2007	present

### (3) Plateau State

#### i) Plateau State Coordinating Unit

1	Mr. Y. M. Izam	SMASE State Coordinator	Director, Department of School Service, Plateau State Universal Basic Education Board	Aug 2006	present
2	Mr. D. J. Phar	SMASE Assistant State Coordinator	Chief Education Officer, Department of School Service, Plateau State Universal Basic Education Board	Aug 2006	present

#### ii) Plateau State Trainers

1	Mr. M. T. Mark	SMASE State Trainer	Federal College of Education, Pankshin, Plateau State	Aug 2006	present
2	Mr. A. K. D. Dangpe	SMASE State Trainer	Federal College of Education, Pankshin, Plateau State	Aug 2006	present
3	Mr. B. A. Bakalyill	SMASE State Trainer	State College of Education, Gindiri, Plateau State	Aug 2006	present
4	Mrs. R. H. L. Rinmak	SMASE State Trainer	State College of Education, Gindiri, Plateau State	Aug 2006	present
5	Mr. Venfa Domchak	SMASE State Trainer	P. P. Sch; Gazum Langtang North	Mar 2007	present
6	Mrs. A. Jemimah	SMASE State Trainer	SUBEB Model School Gyero Road Jos South	Mar 2007	present
7	Mrs. L. Jamo	SMASE State Trainer	LGEA Primary School Gassa, Barkin – Ladi	Mar 2007	present
8	Mr. G. Victor	SMASE State Trainer	LGEA Primary School Dan Tanko, Miango, Bassa LGA	Mar 2007	present

## ANNEX 1-5. List of Land, Buildings and Facilities

### (1) Project Office and National INSET Centre

No.	Building/Facilities	Venue
1	SMASE Project Office	National Commission for Colleges of Education 5th Floor
2	SMASE Project Desk	Federal Ministry of Education 2nd Floor
3	SMASE National INSET Centre	National Commission for Colleges of Education

### (2) State INSET Centres

No.	Venue of LState INSET Centre	Region
1	Niger State INSET Centre	Community Education Resource Centre, Minna
2	Kaduna State INSET Centre	Queen Amina College, Kaduna
3	Plateau State INSET Centre	St Louis College, Jos

## ANNEX 1-6. Budget Expenditure

### (1) Budget Sharing on Operational Cost for Main Activities\* (per Annum, NGN)

	2006	2007	2008	Total
Federal Government (FME)	0	1,480,400	0	1,480,400
Federal Government (NCCE)	977,200	1,369,200	1,161,300	3,507,700
Federal Government (UBEC)	0	1,620,000	0	1,620,000
SUBEBs	22,200,000	18,767,400	117,000	41,084,400
Others (COEs, LGEAs and States)	439,200	620,000	120,000	1,179,200
JICA**	25,506,500	11,520,000	910,000	37,936,500
<b>Total</b>	<b>49,122,900</b>	<b>35,377,000</b>	<b>2,308,300</b>	<b>86,808,200</b>

\* Cost for other activities such as M&E, third-country training, publication of newsletters are not included in this table.

\*\* Salary and travel expenses for Japanese Expert is not included in this table.

### (2) Budget Expenditure on Operational Cost for Main Activities\* (per Activity, NGN)

	National INSET C1	State INSET C1	National INSET C2	State INSET C2	INSET Mgmt WS	Advocacy Seminar	National INSET C3	Total
Federal Government (FME)	0	0	0	420,000	530,400	530,000	0	1,480,400
Federal Government (NCCE)	641,200	336,000	977,200	392,000	0	0	1,161,300	3,507,700
Federal Government (UBEC)	0	0	0	0	1,620,000	0	0	1,620,000
SUBEBs (NG, KD & PL)	0	22,200,000	1,087,200	17,404,800	275,400	0	117,000	41,084,400
Others (COEs, LGEAs and States)	120,000	319,200	120,000	0	500,000	Accommodation and Transport	120,000	1,179,200
JICA**	5,696,000	19,810,500	910,000	6,150,000	2,650,000	1,810,000	910,000	37,936,500
<b>Total</b>	<b>6,457,200</b>	<b>42,665,700</b>	<b>3,094,400</b>	<b>24,366,800</b>	<b>5,575,800</b>	<b>2,340,000</b>	<b>2,308,300</b>	<b>86,808,200</b>

\* Cost for other activities such as M&E, third-country training, publication of newsletters are not included in this table.

\*\* Salary and travel expenses for Japanese Expert are not included in this table.

## ANNEX 2. Project Design Matrix (PDM)

**Project Title:** Strengthening of mathematics and science education (SMASE) in Nigeria  
**Executing Bodies:** Federal Ministry of Education, National Commission for Colleges of Education (NCCE), Universal Basic Education Commission (UBEC), State Universal Education Boards (SUBEBs) of Kaduna / Niger / Plateau and Japan International Cooperation Agency (JICA)  
**Target Area:** Kaduna State, Niger State, and Plateau State  
**Duration:** 3 years (2006 - 2009)

Version No.4.0 (August 11, 2006)

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
<p><b>Super goal</b>            The capability of primary school pupils in mathematics and science education is upgraded.</p>	Improved pupils' performance in mathematics and science.	= 1. Performance record of pupils in school examinations 2. National Assessment of UBE program. 3. Impact Survey	
<p><b>Overall goal</b>            Teaching skills of primary teachers in mathematics and science are upgraded.</p>	Positive change of teachers' attitude and improved performance in subject mastery, pedagogical skills and resource utilization as well as pupils' participation in classroom activities.	Quality Assurance Reports  Monitoring of Learning Achievement Reports	
<p><b>Project Purpose</b>            Ability of Core Teachers to provide INSET for teachers in primary mathematics and science is enhanced.</p>	By the end of the project, ability of Core Teachers will improve in :  1. Lesson observation index obtained more than x on 1-5 scale of $x \geq 3$ . 2. Teachers' participation index obtained more than y on 1-5 scale of $y \geq 3$ . 3. Attitude of teachers to the teaching of mathematics and science index obtained more than z on 1-5 scale of $z \geq 3$ . 4. Mastery ICT mode of instruction	Project monitoring and evaluation reports.	Core teachers will not leave the teaching field for another profession after training.  The socio - political situation in the Pilot states will not affect the INSET framework.
<p><b>Output(s):</b>            1. The bodies / units to implement the INSET at National and State level are established.</p>	By the end of the project, 1(a) National Coordinating Unit is established. 1(b) 4 National Trainers are trained. 1(c) 4 National Trainers fully work for the Project. 1(d) A National INSET centre is established using existing	Project Monitoring and evaluation reports	National and State trainers will not leave teaching field for another profession.  Other training will not interfere

<p>2. The INSET for State Trainers and Core Teachers is conducted and assessed.</p> <p>3. Supporting system for INSET is strengthened.</p>	<p>facilities.</p> <p>1(e) State Coordinating Unit is established.</p> <p>1(f) 24 State Trainers work for the Project.</p> <p>1(g) State INSET Centres are established using existing facilities.</p> <p>By the end of the project,</p> <p>2(a) 24 State Trainers are trained.</p> <p>2(b) 600 Core Teachers are trained.</p> <p>2(c) training manuals and materials are developed.</p> <p>2(d) 3 monitoring and evaluation tools are developed.</p> <p>By the end of the project,</p> <p>3(a) Over 3 news letters are published.</p> <p>3(b) Sensitization workshops for stakeholders are conducted.</p>		<p>with the training and other activities of the Project.</p> <p>There will be prompt release of funds for the project by the Federal and the State governments.</p>
<p><b>Activities</b></p> <p>1-1 To equip the National / State Coordinating Units.</p> <p>1-2 To set TOR and recruitment criteria for National Trainers.</p> <p>1-3 To recruit National Trainers.</p> <p>1-4 To conduct training for National Trainers.</p> <p>1-5 To provide the equipment and materials for National INSET.</p> <p>1-6 To set TOR for State Trainers.</p> <p>1-7 To recruit State Trainers.</p> <p>1-8 To provide the equipment and materials for State INSET.</p> <p>1-9 To set criteria for selecting trainees for State INSET.</p> <p>2-1 To develop training manuals, materials, monitoring &amp; evaluation tools.</p> <p>2-2 To print and circulate INSET Training materials to the State INSET centres.</p> <p>2-3 To conduct training for State Trainers (12-24 participants).</p> <p>2-4 To conduct monitoring &amp; evaluation of National INSET.</p> <p>2-5 To conduct training at the State INSET Centre (200 participants per state / 600 participants in the three states).</p> <p>2-6 To conduct monitoring and evaluation of State INSET.</p>	<p><b>Inputs:</b></p> <p>1. <u>Federal Government of Nigeria:</u></p> <p>a. Office space and facilities necessary for the project at the National level</p> <p>b. Expenses for monitoring and evaluation at the federal level</p> <p>c. Assignment of National Trainers to the project</p> <p>d. Assignment of Administrative Personnel to the project</p> <p>e. Expenses necessary for the implementation of the project at the National level (Running cost for training)</p> <p>2. <u>State Government:</u></p> <p>a. Office space and facilities necessary for the project at the State level</p> <p>b. Expenses for monitoring and evaluation at the state level</p> <p>c. Assignment of State Trainers to the project</p> <p>d. Assignment of Administrative Personnel to the project</p> <p>e. Expenses necessary for the implementation of the project at the State level (Running cost for training).</p>		<p>Federal, state and local governments will continue to support the project.</p> <p>INSET activities will be priority assignment for officers involved.</p> <p>SMASSE – WECSA will continue to support SMASE Nigeria.</p> <p>Teachers trained will not leave the teaching profession.</p>

<p>3-1 To conduct training on National INSET management facilitation workshop.</p> <p>3-2 To conduct INSET management workshop for local officials.</p> <p>3-3 To conduct sensitization / advocacy workshop for relevant State officials from the States.</p> <p>3-4 To publish Newsletter on activities of the project.</p> <p>3-5 To promote and popularize the activities of the project through the media as the need arises.</p>	<p>3. <u>Japanese Side:</u></p> <p>a. Training of counterparts in Kenya, Japan or any other country</p> <p>b. Dispatch of short / long term expert if necessary</p> <p>c. Provision of equipment, materials and machinery</p> <p>d. Expenses necessary for the implementation of the Project.</p>		
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## ANNEX 3. Evaluation Grid

### ANNEX 3-1: Achievements of the Project

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<b>Achievement of Super Goal</b>		
<b>【Super Goal】</b> The capability of primary school pupils in mathematics and science education is upgraded.	The future possibility of improving the pupils' capability in mathematics and science.  Measures to monitor the improvement of pupils' capacity in mathematics and science	<ul style="list-style-type: none"> <li>○ Considering that it has been only 1 year and 10 months since the Project started, and only 600 CTs out of the 70,000 teachers in the 3 pilot states have participated in the training, it is too early to measure the impact of the Project on academic achievement of pupils at this stage.</li> <li>○ However, some stakeholders have identified increase in students' participation, interest and performance in CTs' lessons based on ASEI-PDSI approach. The Evaluation Team also observed active participation of pupils in CT's lesson. This shows the potential of achieving the Super Goal in the future if all teachers in the field participate in the INSET and practice ASEI-PDSI approach in their classes.</li> <li>○ In the future, pupils' capacity in mathematic and science can be measured by the result of the Monitoring Learning Achievement (MLA) conducted by FME every 3 years.</li> </ul>
<b>Achievement of Overall Goal</b>		
<b>【Overall Goal】</b> Teaching skills of primary teachers in mathematics and science are upgraded.	The future possibility for implementing INSET at local level in the pilot states.  The future possibility for upgrading teaching skills of primary teachers in mathematics and science.	<ul style="list-style-type: none"> <li>○ State INSET Management Workshops for LGEA officers have been implemented in the 3 pilot states. In the Workshop, each state developed a draft of action plan for local level INSET.</li> <li>○ Technical meetings have been held in each pilot state to make the action plan more feasible.</li> <li>○ The latest version of the action plan of each of the 3 pilot states has been presented in the 3<sup>rd</sup> National Steering Committee.</li> <li>○ Considering that it has been only 1 year and 10 months since the Project started, and only 600 CTs out of the 70,000 teachers in the 3 pilot states have participated in the training, it is too early to measure the impact of the Project on the teaching skills of the teachers in the field in the 3 pilot states at this stage.</li> <li>○ The attitude and teaching skills of CTs who have participated in the INSET have improved compared to untrained teachers. This indicates the strong possibility of achieving the Overall Goal in the future, if the INSET is cascaded down to local level and all teachers in the field participate in the INSET.</li> </ul>
<b>Achievement of Project Purpose</b>		
Ability of Core Teachers to provide INSET for teachers in primary mathematics and science is enhanced.	1. Lesson Observation Index obtained more than 3.0 on 1-5 scale.	<ul style="list-style-type: none"> <li>○ The results of Classroom Impact Surveys conducted by the Project are shown in the tables below. Classroom Impact Surveys have been carried out in each pilot state a certain time after the State INSET for the purpose of monitoring the impact of the INSET on the teaching skills of CTs. In each state/survey, NTs observed mathematics or science lessons of 5 CTs and 5 other untrained teachers and evaluated the "Quality of lesson" and "Practice of ASEI-PDSI Approach".</li> </ul> <p>(1) Quality of Teaching (1-5 scale, Target Value: 3.0)            *Quality of teaching in classroom is rated based on the monitoring and evaluation tool "Classroom Observation Instrument". The tool rates the quality of teaching on the following 3 aspects; (a) Teaching Procedures, (b) Fundamental Techniques and (c) Classroom Management.            ** The Project defined the rating as;</p>

1.0 ≤ M < 3.0 the teacher needs effort  
 3.0 ≤ M < 4.5 the teacher is attaining  
 4.5 ≤ M ≤ 5.0 the teacher has attained

(1)-1 Kaduna State

	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	3.2	1.9	1.3
May 2008	3.7	2.2	1.5

(1)-2 Niger State

	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	2.8	2.1	0.7
May 2008	3.1	1.9	1.2

(1)-3 Plateau State

	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	2.7	2.0	0.7
May 2008	3.9	2.1	1.8

Source: The Project M&E Report

(2) Practice of ASEI-PDSI Approach (1-5 scale, Target Value: 3.0)

\* Practice of ASEI-PDSI approach is rated based on the Monitoring and Evaluation Tool "ASEI-PDSI Checklist" developed by the Project.

\*\* The Project defined the rating as;

1.0 ≤ M < 3.0 the teacher needs effort  
 3.0 ≤ M < 4.5 the teacher is attaining  
 4.5 ≤ M ≤ 5.0 the teacher has attained

(2)-1 Kaduna State

	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)
June 2007	3.3	1.75	1.55
May 2008	3.6	2.2	1.4

	<p>(2)-2 Niger State</p> <table border="1" data-bbox="252 309 375 1182"> <thead> <tr> <th></th> <th>(a) Core Teachers (Trained)</th> <th>(b) Other Teachers (Untrained)</th> <th>(a)-(b)</th> </tr> </thead> <tbody> <tr> <td>June 2007</td> <td>2.95</td> <td>1.9</td> <td>1.05</td> </tr> <tr> <td>May 2008</td> <td>3.1</td> <td>1.8</td> <td>1.3</td> </tr> </tbody> </table> <p>(2)-3 Plateau State</p> <table border="1" data-bbox="403 309 526 1182"> <thead> <tr> <th></th> <th>(a) Core Teachers (Trained)</th> <th>(b) Other Teachers (Untrained)</th> <th>(a)-(b)</th> </tr> </thead> <tbody> <tr> <td>June 2007</td> <td>2.75</td> <td>1.6</td> <td>1.15</td> </tr> <tr> <td>May 2008</td> <td>3.75</td> <td>1.8</td> <td>1.95</td> </tr> </tbody> </table> <p>Source: The Project M&amp;E Report</p> <ul style="list-style-type: none"> <li>○ The results of the Survey conducted in May 2008 show that both “Quality of Teaching” and “Practice of ASEI-PDSI Approach” have reached the target value of 3.0 in every pilot state. However, they are still in the “attaining level” which is <math>3.0 \leq M &lt; 4.5</math>, which shows room for further improvement.</li> <li>○ The results of the Survey conducted in May 2008 show significant increase compared to that of June 2007 in every pilot state.</li> <li>○ The results of CTs show significant difference with that of other untrained teachers in every pilot state.</li> <li>○ Positive practices have been observed in the lesson conducted by Core Teacher as follows: <ul style="list-style-type: none"> <li>- More time and efforts are spent on lesson preparation;</li> <li>- Group work and experiments are frequently conducted, which strongly encourages students to participate actively in lessons;</li> <li>- Appropriate questions are given frequently which stimulate the pupils’ interest and thought;</li> <li>- Pupils are called by their names, which make them more comfortable to answer; and</li> <li>- Summary and conclusion of the lesson are made by involving pupils, which deepen their understanding</li> </ul> </li> </ul>		(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)	June 2007	2.95	1.9	1.05	May 2008	3.1	1.8	1.3		(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)	June 2007	2.75	1.6	1.15	May 2008	3.75	1.8	1.95	
	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)																							
June 2007	2.95	1.9	1.05																							
May 2008	3.1	1.8	1.3																							
	(a) Core Teachers (Trained)	(b) Other Teachers (Untrained)	(a)-(b)																							
June 2007	2.75	1.6	1.15																							
May 2008	3.75	1.8	1.95																							
<p>2. Teachers’ Participation Index obtained more than 3.0 on 1-5 scale.</p>	<ul style="list-style-type: none"> <li>○ The results of monitoring and evaluation on CTs’ participation in State INSET are shown in the tables below. NTs observed and rated the level of participation of CTs in State INSET based on the M&amp;E Tool “Session Observation Questionnaire” developed by the Project.</li> <li>(1) Participation in State INSET (Target Value: 3.0)</li> <li>*The Project defined the rating as; <ul style="list-style-type: none"> <li><math>1.0 \leq M &lt; 3.0</math> needs effort</li> <li><math>3.0 \leq M &lt; 4.5</math> attaining</li> <li><math>4.5 \leq M \leq 5.0</math> attained</li> </ul> </li> <li>**M&amp;E for State INSET Cycle 2 was not conducted in Niger.</li> </ul>																									

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<p>1. The bodies / units to implement the INSET at National and State level are established.</p>	<p>1(a) National Coordinating Unit (NCU) is established</p> <p>1(b) 4 National Trainers are trained</p> <p>1(c) 4 National Trainers fully work for the Project</p> <p>1(d) A National INSET centre is established using existing facilities</p> <p>1(e) State Coordinating Unit (SCU) is established.</p> <p>1(f) 24 State Trainers (STs) work for the Project.</p>	<ul style="list-style-type: none"> <li>○ NCU has been established. Five (5) officers of DBSE (included one NC) and 1 officer of UBEC were appointed as members of NCU.</li> <li>○ Three (3) members of NCU have been trained in Kenya. Two (2) members of NCU have been trained in Japan.</li> <li>○ NCU is successfully managing the Project at National level so far.</li> <li>○ Four (4) officers of NCCE have been assigned as NTs.</li> <li>○ All NTs have been trained in Kenya. One (1) NT has been trained in Japan and another in Malaysia both in addition to participating in the training in Kenya.</li> <li>○ NTs have successfully implemented National INSET and other related activities such as material development and M&amp;E. They work for the Project on part-time basis, having their regular tasks as officers of NCCE.</li> <li>○ The Project required that NTs should be fully assigned to the Project. This will contribute to further improvement of the Project.</li> <li>○ National INSET Centre has been established in NCCE. NCCE has been equipped with necessary machinery and materials.</li> <li>○ SCU has been established in each of the 3 pilot states, namely Kaduna, Niger and Plateau. Two SUBEB officers in each state was assigned as the member of SCU.</li> <li>○ All members of SCU have been trained in Kenya. Two (2) of them have also been trained in Japan.</li> <li>○ SCUs in each pilot state are successfully managing the Project activities at State level so far.</li> <li>○ Twenty-five (25) STs (Kaduna: 8, Niger: 9, Plateau: 8) have been assigned by the SUBEB of the 3 pilot states. First, 12 lectures of Federal and State College of Education were assigned, and after the State INSET Cycle 1, 13 teachers were added.</li> <li>○ The number of STs in Niger (9) is more than the original plan of 8. One (1) ST was added for the purpose of enhancing effective cooperation between SCU and STs.</li> </ul>												

	1(g) State INSET Centres are established using existing facilities.	<p>○ State INSET Centers have been established in each pilot states using the existing resources in each pilot state as below. The State INSET Centers have been equipped with necessary machinery and materials.</p> <p>The List of State INSET Centers</p> <table border="1" data-bbox="363 362 450 1178"> <tr> <td>Niger State INSET Centre</td> <td>Community Education Resource Centre, Minna</td> </tr> <tr> <td>Kaduna State INSET Centre</td> <td>Queen Amina College, Kaduna</td> </tr> <tr> <td>Plateau State INSET Centre</td> <td>St Louis College, Jos</td> </tr> </table> <p>Source: The Project M&amp;E Report</p> <p>○ Heads of each State INSET Centre have been trained in Kenya.</p> <p>○ State INSET Centers have been fully utilized by SCU members and STs for INSET related activities such as; holding meetings, printing materials, conducting State INSET, drafting project report and so on.</p>	Niger State INSET Centre	Community Education Resource Centre, Minna	Kaduna State INSET Centre	Queen Amina College, Kaduna	Plateau State INSET Centre	St Louis College, Jos																												
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2. The INSET for State Trainers and Core Teachers is conducted and assessed.	2(a) 24 State Trainers are trained.	<p>○ Twenty-four (24) STs have been trained in Kenya. Seven (7) STs have also been trained in Malaysia.</p> <p>○ Number of STs participated in the National INSET is shown in the table below.</p> <p>The Number of Participated STs in the National INSET</p> <table border="1" data-bbox="721 622 874 1191"> <thead> <tr> <th></th> <th>Time</th> <th>Expected No.</th> <th>Participated No.</th> </tr> </thead> <tbody> <tr> <td>Cycle 1</td> <td>Nov. 2006</td> <td>*12</td> <td>12</td> </tr> <tr> <td>Cycle 2</td> <td>Mar.-Apr 2007</td> <td>*25</td> <td>25</td> </tr> <tr> <td>Cycle 3</td> <td>Apr.-May 2008</td> <td>25</td> <td>**23</td> </tr> </tbody> </table> <p>* At the beginning of the Project, the number of ST was 12. After Cycle 1, 13 CTs were assigned as STs to make the total number 25.</p> <p>** One ST could not participate in because of childbirth and another could not complete all the programs because of attending other seminars.</p> <p>Source: The Project M&amp;E Report</p> <p>○ Monitoring and evaluation exercises on the quality of INSET have been conducted for Cycle 2 and 3. The result is summarized in the table below.</p> <p>Quality of National INSET</p> <table border="1" data-bbox="1145 174 1279 1191"> <thead> <tr> <th></th> <th>Quality of Session</th> <th>NT's ability to implement INSET</th> <th>Understanding of Contents by the ST</th> <th>Quality of Service</th> <th>NT's ability to Facilitate Sessions</th> </tr> </thead> <tbody> <tr> <td>Cycle 2</td> <td>3.9</td> <td>2.9</td> <td>3.3</td> <td>2.4</td> <td>2.9</td> </tr> <tr> <td>Cycle 3</td> <td>3.9</td> <td>3.2</td> <td>3.5</td> <td>2.7</td> <td>3.4</td> </tr> </tbody> </table> <p>* Quality of INSET is rated based on the monitoring and evaluation tools developed by the Project.</p> <p>** The Project defined the rating as; 1.0 ≤ M &lt; 3.0 needs effort</p>		Time	Expected No.	Participated No.	Cycle 1	Nov. 2006	*12	12	Cycle 2	Mar.-Apr 2007	*25	25	Cycle 3	Apr.-May 2008	25	**23		Quality of Session	NT's ability to implement INSET	Understanding of Contents by the ST	Quality of Service	NT's ability to Facilitate Sessions	Cycle 2	3.9	2.9	3.3	2.4	2.9	Cycle 3	3.9	3.2	3.5	2.7	3.4
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Cycle 1	4.1	3.7	4.1	3.8	2.9																																																		
Cycle 2	4.1	3.9	4.2	4.1	2.9																																																		
<p>2(c) 6 training manuals and materials are developed. (2 manual and handout sets for 3 INSET Cycles)</p>	<p>○ The report of Kenyan third country experts refers to the quality of State INSET to have satisfactory quality even when compared to that of Kenya.</p> <p>○ Three (3) sets of training materials, 1 for each INSET Cycle, have been developed as shown in the table below. The 3 sets consist of 3 training manuals and 36 handouts.</p>																																																						



		<ul style="list-style-type: none"> <li>• Management of an INSET Centre</li> <li>• Team Building</li> <li>• Facilitation of INSET Session II</li> <li>• Organisation of the Instructional Process: PDSI II</li> <li>• Methods for Effective Delivery of ASEI Lessons</li> <li>• Communication Skills</li> <li>• Resource Utilisation for Effective Teaching/Learning of Mathematics and Science</li> <li>• Subject: Science (3sets)</li> <li>• Subject: Mathematics (3sets)</li> <li>• Monitoring and Evaluation</li> </ul> <p><b>Cycle 3 (Theme: Actualization of ASEI-PDSI approach in classroom)</b></p> <p>9 handouts</p> <ul style="list-style-type: none"> <li>• Rational and Objective of Cycle 3</li> <li>• State INSET Cycle 2 Report</li> <li>• Technical Training Report Outside Nigeria</li> <li>• Student-Centred Teaching/Learning of Mathematics and Science</li> <li>• Bringing in Mathematics and Science Lessons</li> <li>• Improvisation of Instructional Materials for Teaching Mathematics and Science in Primary School</li> <li>• Actualisation of ASEI-PDSI in Classroom: Primary Mathematics and Science</li> <li>• Mathematics and Science Syllabi Analysis: Primary 4-6</li> <li>• State INSET Action Plan Format</li> </ul>
	<p>2(d) 3 monitoring and evaluation tools are developed.</p>	<p>Source: The Project M&amp;E Report</p> <p>○ Three (3) sets of monitoring and evaluation tools, one for each cycle, have been developed. The set consists of 11 types of instruments as shown in the table below.</p> <p>M&amp;E Instruments (as of Feb. 2007)</p> <ul style="list-style-type: none"> <li>• Classroom Observation</li> <li>• ASEI/PDSI Checklist</li> <li>• Pupils Participation Questionnaire</li> <li>• Session Evaluation</li> <li>• Session Observation Questionnaire</li> <li>• Ability of Trainers to implement INSET</li> <li>• INSET Feedback Questionnaire</li> <li>• INSET Check List 1 (Quality of Facilitator)</li> <li>• INSET Check list 2 (Preparedness)</li> <li>• Pre INSET Questionnaire</li> <li>• Post INSET Questionnaire</li> </ul> <p>Source: The Project M&amp;E Report</p> <p>○ NCU and NT identified that Pupils Participation Questionnaire needs improvement to be more appropriate for measuring Pupils' attitude.</p> <p>○ Data input templates have been developed to analyze the data efficiently.</p>

<p>3. Supporting system for INSET is strengthened.</p>	<p>3(a) Over 3 news letters are published.</p> <p>3(b) Sensitization workshops for stakeholders are conducted.</p>	<p>○ The first project newsletter was published in March 2007 for the purpose of advocating the Project. About 3,000 copies were distributed to stakeholders.</p> <p>○ An article on the SMASE Advocacy Seminar appeared in newspaper. The was seminar was also introduced through radio media.</p> <p>○ In Niger, posters were made and distributed to CTs for the purpose of advocating ASEI-PDSI in the schools.</p> <p>○ State INSET Management Workshops for LGEA officers has been implemented by NCU and SCU in each of the 3 pilot states. Each state developed a draft of action plan to cascade the INSET down to local level for teachers in the field.</p> <p>Number of Participants in State INSET Management Workshops</p> <table border="1" data-bbox="523 555 641 1187"> <thead> <tr> <th>State</th> <th>Date</th> <th>Participated No.</th> </tr> </thead> <tbody> <tr> <td>Niger</td> <td>Oct 2007</td> <td>50</td> </tr> <tr> <td>Kaduna</td> <td>Oct 2007</td> <td>45</td> </tr> <tr> <td>Plateau</td> <td>Oct 2007</td> <td>46</td> </tr> </tbody> </table> <p>Source: The Project M&amp;E Report</p> <p>○ SMASE Advocacy Seminar has been conducted for Commissioners and SUBEB officers from non-pilot states.</p> <p>○ Some non-pilot states showed strong interest in introducing the INSET model developed by the Project. Officers from non-pilot states were advised to visit the pilot states to observe the implementation process of the INSET.</p> <p>Number of Participants in SMASE Advocacy Seminar</p> <table border="1" data-bbox="880 654 944 1187"> <thead> <tr> <th>Date</th> <th>Participated No.</th> </tr> </thead> <tbody> <tr> <td>Nov 2007</td> <td>59</td> </tr> </tbody> </table> <p>Source: The Project M&amp;E Report</p>	State	Date	Participated No.	Niger	Oct 2007	50	Kaduna	Oct 2007	45	Plateau	Oct 2007	46	Date	Participated No.	Nov 2007	59
State	Date	Participated No.																
Niger	Oct 2007	50																
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Nov 2007	59																	
<p><b>Inputs Provided</b></p>																		
<p>Inputs</p>	<p><u>Japanese Side:</u></p> <ol style="list-style-type: none"> <li>1. Training of counterparts in Kenya, Japan or any other country</li> <li>2. Dispatch of short / long term expert if necessary</li> <li>3. Provision of equipment, materials and machinery</li> <li>4. Expenses necessary for the implementation of the Project.</li> </ol> <p><u>Federal Government of Nigeria:</u></p> <ol style="list-style-type: none"> <li>1. Office space and facilities necessary</li> </ol>	<p>○ The following inputs were provided as planned (As of May 2008. See Annex 1 for details.)</p> <p><u>Japanese Side:</u></p> <ol style="list-style-type: none"> <li>1. Training of counterparts in Japan(6), Kenya (52*) and Malaysia (8)</li> <li>2. Long term expert (INSET Management Advisor) (1). Short term expert from Kenya (11)</li> <li>3. Equipment, materials and machinery: N 13,339,630</li> <li>4. Operational cost for the Project: N 24,466,000 (As of Mar 2008)</li> </ol> <p>*44 have participated in the third country training in Kenya before the Project started, which makes a total number of 96.</p> <p><u>Federal Government of Nigeria:</u></p> <ol style="list-style-type: none"> <li>1. SMASE Project office, Project Desk and National INSET Centre</li> </ol>																

	<p>for the project at the National level</p> <ol style="list-style-type: none"> <li>2. Expenses for monitoring and evaluation at the Federal level</li> <li>3. Assignment of National Trainers to the project</li> <li>4. Assignment of Administrative Personnel to the project</li> <li>5. Expenses necessary for the implementation of the project at the National level (Running cost for training)</li> </ol> <p><u>State Government:</u></p> <ol style="list-style-type: none"> <li>1. Office space and facilities necessary for the project at the State level</li> <li>2. Expenses for monitoring and evaluation at the state level</li> <li>3. Assignment of State Trainers to the project</li> <li>4. Assignment of Administrative Personnel to the project</li> <li>5. Expenses necessary for the implementation of the project at the State level (Running cost for training).</li> </ol>	<ol style="list-style-type: none"> <li>2. Expenses for monitoring and evaluation</li> <li>3. National Trainers (4)</li> <li>4. National Coordinating Unit members (6)</li> <li>5. Operational cost for the main activities of the Project at the National level: N 6,608,100</li> </ol> <p><u>State Government:</u></p> <ol style="list-style-type: none"> <li>1. State INSET Centers in Niger, Kaduna and Plateau</li> <li>2. Expenses for monitoring and evaluation</li> <li>3. State Trainers (25 / Niger 9, Kaduna 8, Plateau 8 )</li> <li>4. State Coordinating Unit members (6 / 2 for each State)</li> <li>5. Operational cost for the main activities of the Project at the State and LGEA level: N 42,263,600</li> </ol>
<b>Precondition</b>		
Federal, State and Local Government will continue to support the Project.		<ul style="list-style-type: none"> <li>○ In the 3<sup>rd</sup> National Steering Committee (NSC), commitment to the Project was shown by the members of the Committee including FME, NCCE, UBEC, SUBEB of the pilot states and other concerned institutions.</li> <li>○ A Local Government in Niger offered a motorbike to LGEA for monitoring and evaluation of schools in order to support the Project.</li> </ul>
INSET activities will be priority assignment for officers involved.		<ul style="list-style-type: none"> <li>○ The efforts made by NCU/SCU members, NTs and STs have contributed to the successful implementation of the Project so far.</li> <li>○ National Trainers work for the project on part-time basis having regular tasks as NCCE officers. For further improvement of the Project, stakeholders are aware of the need to have full-time NTs, especially the INSET is to be expanded in future.</li> </ul>
SMASE-WECSA will continue to support SMASE Nigeria.		<ul style="list-style-type: none"> <li>○ Technical support through third country training and dispatch of third country experts were provided timely by SMASSE Kenya under the framework of SMASE-WECSA.</li> <li>○ So far, SMASSE Kenya has offered the opportunity of third country training in Kenya to 96</li> </ul>

		(including 44 who were trained before the Project started) Nigerians. SMASSE Kenya has also dispatched 11 third country experts to Nigeria in order to support the implementation of the Project.
Teachers trained will not leave the teaching profession.		○ It was reported that resignation rate of primary school teachers is not so high in the pilot states.

### ANNEX 3-2: Process of the Project Implementation

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study																														
Implementation of planned activities	Record of implemented activities	<p>○ All activities in the PDM have been implemented appropriately as planned (See Annex 2 for PDM). Major activities implemented are show in the table below.</p> <table border="1" data-bbox="427 338 703 1189"> <tr> <td colspan="3">Major Activities of the Project</td> </tr> <tr> <td>National INSET Cycle1</td> <td>2006</td> <td>Nov</td> </tr> <tr> <td>State INSET Cycle1</td> <td></td> <td>Dec</td> </tr> <tr> <td>National INSET Cycle2</td> <td></td> <td>Mar-Apr</td> </tr> <tr> <td>Classroom Impact Survey for INSET Cycle1</td> <td></td> <td>Jun</td> </tr> <tr> <td>State INSET Cycle2</td> <td>2007</td> <td>Aug</td> </tr> <tr> <td>INSET Management Workshop</td> <td></td> <td>Oct</td> </tr> <tr> <td>SMASE Advocacy Seminar</td> <td></td> <td>Nov</td> </tr> <tr> <td>National INSET Cycle3</td> <td>2008</td> <td>Apr-May</td> </tr> <tr> <td>Classroom Impact Survey for INSET Cycle2</td> <td></td> <td>May</td> </tr> </table> <p>Source: The Project M&amp;E Report</p>	Major Activities of the Project			National INSET Cycle1	2006	Nov	State INSET Cycle1		Dec	National INSET Cycle2		Mar-Apr	Classroom Impact Survey for INSET Cycle1		Jun	State INSET Cycle2	2007	Aug	INSET Management Workshop		Oct	SMASE Advocacy Seminar		Nov	National INSET Cycle3	2008	Apr-May	Classroom Impact Survey for INSET Cycle2		May
Major Activities of the Project																																
National INSET Cycle1	2006	Nov																														
State INSET Cycle1		Dec																														
National INSET Cycle2		Mar-Apr																														
Classroom Impact Survey for INSET Cycle1		Jun																														
State INSET Cycle2	2007	Aug																														
INSET Management Workshop		Oct																														
SMASE Advocacy Seminar		Nov																														
National INSET Cycle3	2008	Apr-May																														
Classroom Impact Survey for INSET Cycle2		May																														
Relation between stakeholders	Is there good relationship among stakeholders?	<p>○ Japanese Expert and Nigerian CPs are frequently sharing information and exchanging ideas. This timely and effective communication has facilitated the implementation process of the Project.</p> <p>○ The result of interviews show that most of the Nigerian CPs rely on and have good relationship with the Japanese expert.</p> <p>○ National Steering Committee (NSC) and State Steering Committee (SSC) have been carried out almost periodically though sometimes the NSC had been postponed.</p>																														
Ownership of Stakeholders		<p>○ Nigerian counterparts at both National and State level are highly motivated and committed to the Project. Active participation to Project activities, appropriate disbursement of Project budget and efforts made toward developing the strategy to cascade the INSET down to local level for teachers in the field demonstrates the strong commitment of the Nigerian counterparts. The ownership and commitment of the Nigerian counterparts has facilitated the implementation process.</p> <p>○ Training in Kenya, Malaysia and Japan contributed to enhance the motivation and ownership of the Nigerian CPs.</p>																														
Relation between other donors	Is there any cooperation relationship or unnecessary duplication of activities with other donors?	<p>○ International Development Partners (IDPs) supporting the education sector in Nigeria are show in the table in the next page. Although there are several IDPs implementing projects on INSET for primary school teachers, there have rarely been harmonisations between different projects so far. However, FME is aware of the need for harmonisation, and is trying to tackle this issue to establish an effective INSET system.</p> <p>○ In general, other donors provide participants with high priced allowance in INSET programs. This long-standing practice of IDPs has been one reason for some participants of the INSET to complain about no allowances, low priced accommodation and transportation fee.</p>																														

Main IDPs' activities in the education sector in Nigeria	
IDP	Activities / Issues to be Addressed
World Bank	<ul style="list-style-type: none"> <li>Quality of basic education</li> <li>Capacity development in management &amp; planning</li> <li>Monitoring and evaluation</li> <li>Quality and relevance of science and technology education at Federal Post-Basic Education Institutions</li> </ul>
DFID	<ul style="list-style-type: none"> <li>Girls' basic education</li> <li>Capacity development in management, planning and inspectorate</li> <li>Support for Federal institutional reforms</li> </ul>
USAID	<ul style="list-style-type: none"> <li>Developing teachers' English literacy skills and their instructional skills</li> <li>INSET on student-centred instructional methods</li> <li>Community participation</li> <li>Development of an educational framework</li> <li>Development of a multi-media implementation approach</li> <li>Engage parents and caregivers in their children's educational, social and emotional development.</li> </ul>
UNESCO	<ul style="list-style-type: none"> <li>Procurement of mathematics and science teaching material at the selected schools and intuitions</li> <li>Implementation of teacher's training on the use of the teaching materials</li> <li>INSET on Effective learning Technique</li> </ul>
Source: World Bank-DFID-USAID Nigeria Education Policy Note	
Monitoring and Evaluation (M&E) on the progress and achievement of the Project	<p>M&amp;E on the quality of National and State INSET</p> <ul style="list-style-type: none"> <li>○ Instruments to monitor and evaluate the quality of INSET have been developed using the M&amp;E tools of SMASSE-Kenya as a base making necessary adjustments to meet the situation in Nigeria.</li> <li>○ M&amp;E has been carried out for all INSET. The results of M&amp;E have been shared with the stakeholders in feedback meetings for further improvement of the Project. The results have also been summarized in M&amp;E reports although sometimes they came out late..</li> <li>○ INSET at both National and State level have been monitored by the Third Country Experts (TCE) from SMASSE-Kenya. The result of M&amp;E by TCE was shared with the Nigerian CPs in feedback meeting and through their reports. The recommendations made by TCE were actualized to improve the quality of INSET.</li> <li>○ Some CPs identified the difficulties they have in conducting M&amp;E activities, especially in data analysis and report writing.</li> </ul>
	<p>M&amp;E on the quality of lessons</p> <ul style="list-style-type: none"> <li>○ Instruments to monitor and evaluate the quality of lessons have been developed using the M&amp;E tools of SMASSE-Kenya as a base making necessary adjustments to meet the situation in Nigeria.</li> <li>○ Classroom Impact Survey for INSET Cycle 1 (June 2007) and Cycle 2 (May 2008) have been carried out by using M&amp;E tools developed by the Project. After the survey at each pilot state, NTs held a small meeting with teachers and education secretaries (head of LGEA) for the purpose of sharing the result of M&amp;E and giving necessary advice to improve the quality of lessons.</li> <li>○ "Pupils Participation Questionnaire" developed by the Project has not been used because of the</li> </ul>

Prevention and Contribution Factor to Implementation Progress, Output and Project purpose achievement		<p>difficulties pupils have in answering the questions. If the questionnaire is to be used, appropriate modification is required.</p> <p><input type="radio"/> Incessant strikes, shortage of materials, large class size etc. were observed in some places. These factors could be a challenge for the effective implementation of ASEI-PDSI approach.</p> <p><input type="radio"/> It was reported that some participants in INSET demand allowance or complain to the amount of money paid for transportation, accommodation and meal.</p> <p><input type="radio"/> Although the demand and complaints are managed appropriately by the CPs so far, payment of high priced allowance and other money to participants is a potential risk factor to make the INSET system difficult to sustain financially. This issue should be addressed appropriately taking into account the sustainability of the INSET system.</p>
	Potential Challenges	
	Allowance for Participants in INSET	

## ANNEX 3-3. Evaluation by the Five Criteria

### Relevance: High

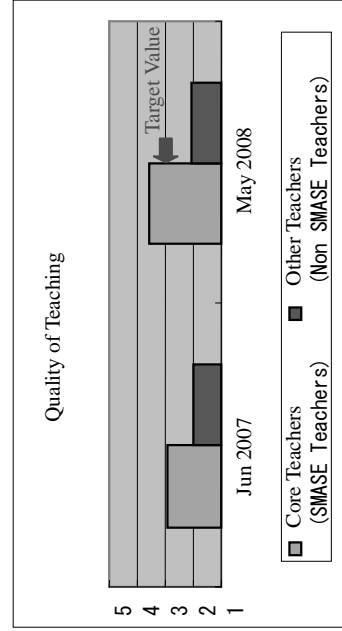
Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<p><b>Necessity</b></p> <p>Does the Project Goal correspond with the needs of target group?</p>	<p>Does the Project correspond with the needs of the Core Teachers?</p> <p>Does the Project correspond with the needs of pupils?</p>	<p><input type="radio"/> The result of the questionnaire survey shows that:</p> <ul style="list-style-type: none"> <li>- All CTs agree that State INSET is very useful in upgrading their teaching ability;</li> <li>- 96% of CTs agree that State INSET is useful in upgrading their knowledge and skills required to conduct INSET at local level in the future ; and</li> <li>- 94% of CTs agree that they want to participate in State INSET continuously.</li> </ul> <p><input type="radio"/> In the interview, many CTs suggest that the interest and participation of pupils in mathematics and science lessons has been improved after introducing the ASEI-PDSI approach.</p> <p><input type="radio"/> 97% of CTs have already observed the improvement of pupils' performance in their mathematics and science classes.</p>
<p><b>Priority</b></p> <p>Consistency of Overall Goal and Project Purpose with the National Development Policy of Nigeria</p>	<p>Does improving the quality of basic education in the field of mathematics and science through strengthening the ability of teachers have priority in the policy of the Government of Nigeria?</p>	<p><input type="radio"/> The political commitment to continuous training for teachers in order to secure the quality of education is also shown in several education policy papers such as the National Policy on Education, 10 Year Strategic Plan for the Federal Ministry of Education (FME) and National Framework produced by FME. At the same time, NEEDS-2 also gives priority to science, technology and innovation as cross cutting issues which impacts on the state of economy and people. As a foundation of science and technology, the importance of mathematics and science in primary education cannot be overemphasized.</p> <p><input type="radio"/> The Government of Nigeria has been making efforts to improve the teachers' quality at the primary education level under the framework of Universal Basic Education (UBE).</p> <p><input type="radio"/> The SMASE Project is providing support to the "Federal Ministry of Education 10 Years Strategic Plan (2007)" in promoting revitalization of Science and Technology Education in order to achieve Nigeria's vision of becoming one of the top largest economies in the world by 2020.</p>
<p>Consistency with the cooperation policy of Japan and the JICA country program</p>	<p>Is there any important change concerning the cooperation policy of Japan and the JICA country program after the Project started?</p>	<p><input type="radio"/> There has been no major change in the cooperation policy of Japan and the JICA country program.</p> <p><input type="radio"/> Basic education is one of the priority sectors of JICA Country Program on Nigeria.</p> <p><input type="radio"/> In total, 10 SMASSE-type projects have been implemented in Africa, which shows the commitment of Japan to improve mathematics and science education in Africa.</p>
<p><b>Suitability as a Means</b></p> <p>Is the approach appropriate?</p>	<p>Is INSET an appropriate activity to improve quality of mathematics and science education?</p> <p>Is the cascade training system an appropriate approach for INSET?</p>	<p><input type="radio"/> According to the result of questionnaire, all STs and CTs suggest that the SMASE Project is effective in improving pupils' achievement in mathematics and science.</p> <p><input type="radio"/> INSET corresponds to the needs of teachers to improve teaching skills as many of them are unqualified or under-qualified in Nigeria. According to the National statistics (2005), the ratio of qualified teachers in the 3 pilot states (Kaduna 50%, Niger 39%, Plateau 51%) is below the national level of 59 %.</p> <p><input type="radio"/> The cascade system is functioning effectively in transmitting ASEI-PDSI approach from the national to state level. It is also an effective system in covering the huge number of teachers in the 3 pilot states.</p>

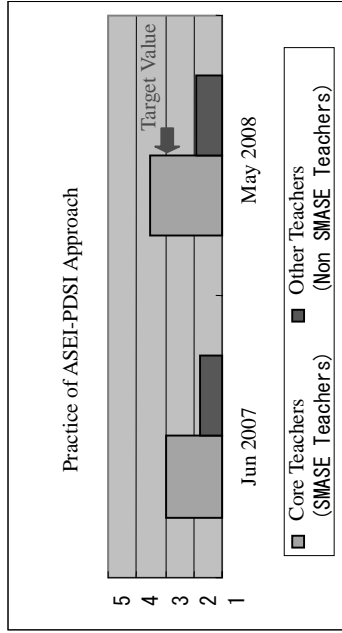


		<ul style="list-style-type: none"> <li><input type="radio"/> Moreover, the cascade system is an important factor for the expansion of ASEI approach to local level by using trained CTs.</li> <li><input type="radio"/> Japan has plenty of experience in supporting African countries to establish cascade INSET systems.</li> <li><input type="radio"/> CTs were selected from each LGEA considering the future implementation of INSET at local level.</li> <li><input type="radio"/> Even though the selection of CTs is appropriate, some SCU members mentioned that the interview to the candidates of State INSET should be conducted in order to confirm their motivation for being a CT.</li> <li><input type="radio"/> The number of CTs who have participated in State INSET Cycle 1 (574) and Cycle 2 (569) is slightly less than the target number of 600.</li> <li><input type="radio"/> Through Third Country Training and Third Country Experts, the experience of Kenya was shared with Nigeria which was very useful in planning and implementing the Project because of the similarity in educational system and situation as same African countries.</li> <li><input type="radio"/> Third Country Experts who monitored the INSET gave practical suggestions based on the experiment of the SMASSE project in Kenya and other African countries which contributed to the improvement of the INSTE quality.</li> <li><input type="radio"/> ASEI-PDSI is a useful approach to actualize the “practical, exploratory and experimental methods” mentioned in the National Policy on Education. Most stakeholders have noticed that INSET provided by the Project which focuses on ASEI-PDSI approach is much more practical than other INSET programs conducted by other donors.</li> <li><input type="radio"/> In the interview, many stakeholders suggested that teachers do not have enough knowledge and skills to teach mathematics and science. The INSET met the teachers need to improve their knowledge and skills in mathematics and science.</li> <li><input type="radio"/> Japan has plenty of experience in technical cooperation in Africa in the field of mathematics and science education, including 10 SMASSE-type projects.</li> <li><input type="radio"/> In the planning and implementation of the Project, the experiences in other projects and the network (SMASE-WECESA) built as a result of Japan’s cooperation in Africa have been utilized.</li> <li><input type="radio"/> The key concepts of the Project comes from the experience of education in Japan such as; continuous teachers’ training, peer learning of teachers, student centered approach, improvisation in creating materials etc.</li> </ul>
Does Japan have advantage in technical cooperation in this field?	<p>Have the experience from similar projects been utilized in the Project?</p> <p>Have the experience of developing education in Japan been utilized in the Project?</p>	

**Effectiveness: High**

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<b>The Prospect of the Project Purpose Achievement</b>		
Is the Project Purpose appropriate?	Is the Project Purpose realistic?	<ul style="list-style-type: none"> <li>○ Most Outputs have already been produced and the teaching skills and attitude of CTs have already reached the target level of the Project Purpose. However, activities focusing on the development of the skills of Core Teachers to use computers and projectors for making presentation have not been conducted so far, which needs to be addressed within the remaining period of the Project.</li> <li>○ The result of the questionnaire shows that 99% of CTs think they are well-prepared to conduct INSET at local level as trainers. Thus, it can be said that the 3 pilot states are on their way to achieve the Project Purpose of developing human resources to provide INSET for teachers in the field at local level.</li> <li>○ The level of Project Purpose was set based on the result of the Baseline Survey, also taking into account the experience of other projects.</li> </ul>
Is the Project Purpose appropriate?	Is the level of the Project Purpose appropriate?	
<b>Cause and Effect Relations</b>		
Do Outputs contribute to the achievement of Project Purpose?	Is State INSET contributing to strengthening ability of Core Teachers to provide INSET at local level?	<ul style="list-style-type: none"> <li>○ The attitude and teaching skill of CTs is showing improvement. After implementation of State INSET Cycle 2, indicators of teaching skills and attitude of CTs have already reached the level of the Project Purpose set in the PDM. They also show significant difference with that of other untrained teachers, which demonstrates the effectiveness of the INSET.</li> <li>○ The result of monitoring and evaluation exercises shows that the teaching skills of CTs are improving as the Project goes on, as shown in the figures below. It also shows clear difference between the teaching skill of Core Teachers and that of other untrained teachers, which demonstrates the effectiveness of the INSET on improving teaching skills of teachers.</li> </ul>





Source: The Project M&E Report

- The result of questionnaire survey shows that:
  - All CTs agree that State INSET is very useful in upgrading their teaching ability;
  - 93% of CTs have practiced ASEI-PDSI activities in their classes;
  - 96% of CTs agree that State INSET is useful in upgrading their knowledge and skills required to conduct INSET at local level in the future ; and
  - 94% of CTs agree that they want to participate in State INSET continuously.
- Positive practices have been observed in the lesson conducted by Core Teacher as follows:
  - More time and efforts are spent on lesson preparation;
  - Group work and experiments are frequently conducted, which strongly encourages students to participate actively in lessons;
  - Appropriate questions are given frequently which stimulate the pupils' interest and thought;
  - Pupils are called by their names, which make them more comfortable to answer; and
  - Summary and conclusion of the lesson are made by involving pupils, which deepen their understanding
- CTs identified the useful contents learnt in State INSET as follows:
  - Teaching method in mathematic and science;
  - Planning ASEI lesson and preparing a lesson note;
  - Using the teaching material and improvisation;
  - Conducting group work and discussion; and
  - Conducting the peer teaching and class harmonisation.

	<p>Is the supporting system of INSET contributing to strengthen the teaching ability of teachers?</p>	<ul style="list-style-type: none"> <li>○ State INSET Management Workshops for LGEA officers were conducted in the 3 pilot states. In the workshops, strong needs for quality INSET have been identified. Each State developed a draft of action plan to cascade down the INSET to local level in the workshop. The action plan had been discussed through a series of technical meetings, and was presented in the 3<sup>rd</sup> National Steering Committee (July 2008) by SUBEB of each state. Thus, it can be said that the State INSET Management Workshop was very effective in sensitizing the importance of INSET to the stakeholders at local level.</li> <li>○ SMASE Advocacy Seminar was conducted for education officers in non-pilot states. Commissioners, SUBEB chairman and director of school service of 28 non-pilot states attended the seminar. Some states showed interest in introducing INSET system developed by the Project. In the communiqué of Advocacy Seminar, participants reported the following observations: <ul style="list-style-type: none"> <li>- The SMASE Project has good quality, which is advisable for all the states; and</li> <li>- ASEI-PDSI is an appropriate principle to be adopted by all teachers.</li> </ul> </li> <li>○ Some LGEA and head teachers of schools are starting to support the teachers in practicing ASEI-PDSI approach in classrooms. It was reported that in several schools, the head teacher organized a workshop for CTs to share their experience with other teachers. A Local Government in Niger offered a motorbike to LGEA for the purpose of supporting the Project through strengthening the monitoring system of teachers.</li> </ul>
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## Efficiency: High

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<b>Degree of Outputs Achievement</b> Are Outputs achieved as planned?		<ul style="list-style-type: none"> <li>- Most Outputs were produced as planned and most indicators have already reached the target level. Refer to 3-1 for details.</li> </ul>
<b>Cause and Effect Relationship</b> Are activities effective to generate Outputs?	<p>Have training in Japan, Kenya and Malaysia contribute to strengthen the ability of CPs?</p> <p>Does the National INSET contribute to strengthen the ability of STs?</p> <p>Does Monitoring and Evaluation contribute to improve the quality of INSET?</p> <p>Does State INSET Management Workshop contribute to strengthen the supporting system at local level?</p>	<ul style="list-style-type: none"> <li>○ In the questionnaires and interviews, all NTs and STs identified the effectiveness of the training in Japan, Kenya and Malaysia in improving their ability.</li> <li>○ The knowledge and skills acquired in the training in Japan or third-country which NTs and STs mentioned are shown as follows: <ul style="list-style-type: none"> <li>- INSET planning</li> <li>- Teaching material and improvisation</li> <li>- Concept of ASEI-PDSI approach</li> <li>- INSET facilitation</li> </ul> </li> <li>○ The knowledge and skills NTs and STs want to acquire in the training in Japan or third-country in the future are shown as follows: <ul style="list-style-type: none"> <li>- Use of ICT</li> <li>- Selection of teaching method</li> <li>- Project document reporting</li> <li>- Monitoring and evaluation</li> <li>- Student assessment</li> </ul> </li> <li>○ The result of questionnaire survey shows that all STs agreed that National INSET is useful in upgrading their knowledge and skills as trainers.</li> <li>○ The result of monitoring and evaluation shows that National INSET was very effective in improving the attitude of STs.</li> <li>○ In terms of Monitoring and Evaluation, the results of interviews and questionnaires shows that: <ul style="list-style-type: none"> <li>- All NT and 95% of STs support that Monitoring and Evaluation Tools developed in the Project are effective in evaluating the quality of mathematics and science lessons;</li> <li>- All NTs and STs agree that Project Monitoring and Evaluation Tools developed in the Project are effective in evaluating the quality of National and State INSET; and</li> <li>- All NTs and STs suggest that the results of Monitoring and Evaluation are appropriately fed back to improve quality of State INSET.</li> </ul> </li> <li>○ Each State developed a draft of action plan to cascade down the INSET to local level in the workshop. The action plan had been discussed through a series of technical meetings, and was presented in the 3<sup>rd</sup> National Steering Committee (July 2008) by SUBEB of each state. Thus, it can be said that the State INSET Management Workshop was very effective in sensitizing the importance of INSET to the stakeholders at local level.</li> </ul>

	<p>Does SMASE Advocacy Seminar contribute to strengthen the supporting system nationwide?</p> <p>Do newsletter and other publicities contribute to promote understanding INSET to stakeholders?</p> <p>Are the number, specialties and dispatch timing of experts appropriate?</p> <p>Are the specification, quantity, and installation timing of equipment appropriate?</p> <p>Is the local activity budget of both Japanese side and Nigerian side appropriate?</p>	<p>○ SMASE Advocacy Seminar was conducted for education officers in non-pilot states. Commissioners, SUBEB chairman and director of school service of 28 non-pilot states attended the seminar. Some states showed interest in introducing INSET system developed by the Project. In the communiqué of Advocacy Seminar, participants reported the following observations, which shows the effectiveness of the seminar in promoting the understanding toward INSET among the participants:</p> <ul style="list-style-type: none"> <li>- The SMASE Project has good quality, which is advisable for all the states; and</li> <li>- ASEI-PDSI is an appropriate principle to be adopted by all teachers.</li> </ul> <p>○ The newsletter and other publicity activities contribute to improve the recognition of the SMASE Project among the stakeholders.</p> <p>○ The combination of one (1) Japanese Long-term Expert and Third Country Short-Term Experts has functioned effectively. Although the number of Japanese Expert was minimal, the Outputs have been attained in high level.</p> <p>○ Dispatch of the Third Country Experts was timely and effective. Their Monitoring and Evaluation reports were full of practical suggestions and were made use to improve INSET quality.</p> <p>○ Most of the procured materials and machinery have been maintained appropriately and utilized to produce the Outputs. However some equipment needs to be repaired.</p> <p>○ The project budget from both Japanese and Nigerian side has been disbursed as a plan.</p>
<b>Factors which have affected the efficiency of the implementation process of the Project</b>		
<p>Are quality, quantity, and timing of inputs suitable from the attained Outputs?</p>	<p>Does the Project utilize the technical support of SMASE-WECSA effectively?</p> <p>Does the Project utilize effectively the existing facilities etc.?</p>	<p>○ The effective use of inputs (Third Country Training, Third Country Experts) from SMASSE-Kenya enabled the Project to reduce the inputs from Japan.</p> <p>○ Project Monitoring and Evaluation Tools and training modules were developed efficiently based on those of SMASSE-Kenya with appropriate modification according to the Nigerian context.</p> <p>○ Existing facilities of NCCE has been utilized for the National INSET Centre</p> <p>○ A Community Education Resource Centre and 2 State Collage of Education have been utilised for the State INSET Centers.</p> <p>○ Some participants complain about the payment they receive for accommodation and transportation during the INSET. One reason for this complaint is the long-standing practice of paying high priced allowances in training programs by international donors.</p> <p>○ By not paying allowances to the participants, the Project has succeeded to conduct INSET more cost-effectively compared to other INSET programs in Nigeria. Although no allowances, most of the participants are satisfied and willing to participate in continuously because of the high quality of INSET. The Project is making continuous effort to maintain and further improve the quality of INSET.</p> <p>○ The certificate given at the end of INSET works as additional incentive for promoting the participation without paying allowances.</p>
<p>Are local resource used effectively?</p> <p>Allowances</p>		

### Impact: Positive Impact Observed

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<p><b>Achievement possibility of Overall Goal and Super Goal</b></p> <p>Is achievement of Overall Goal and Super Goal expected from the present situation of the Project?</p>	<p>Possibility of the INSET at local level for all the teachers in the field to be conducted</p> <p>Possibility of the achievement of the Overall Goal</p> <p>Possibility of the achievement of the Super Goal</p>	<ul style="list-style-type: none"> <li><input type="radio"/> The implementation of INSET at local level is necessary for the achievement of the Overall Goal and Super Goal.</li> <li><input type="radio"/> State INSET Management Workshops for LGEA officers have been implemented in the 3 pilot states. In the Workshop, each state developed a draft of action plan for local level INSET.</li> <li><input type="radio"/> Technical meetings have been held in each pilot state to make the action plan more feasible.</li> <li><input type="radio"/> The latest version of the action plan of each of the 3 pilot states has been presented in the 3<sup>rd</sup> National Steering Committee.</li> <li><input type="radio"/> The attitude and teaching skills of CTs who have participated in the INSET have improved compared to untrained teachers. This indicates the strong possibility of achieving the Overall Goal of upgrading the teaching skills of teachers in the field in the future, if the INSET is cascaded down to local level and all teachers participate in the INSET.</li> <li><input type="radio"/> Some stakeholders have identified increase in students' participation, interest and performance in CTs' lessons based on ASEI-PDSI approach. The Evaluation Team also observed active participation of pupils in CT's lesson. This shows the potential of achieving the Super Goal of upgrading the capacity of pupils in mathematics and science in the future if all teachers participate in the INSET and practice ASEI-PDSI approach in their classes.</li> </ul>
<p><b>Extended Effect</b></p> <p>Is there any expansion of effects?</p>	<p>Impact on other teachers</p> <p>Impact on other subjects</p> <p>Impact on non-pilot states</p> <p>Impact on Pre-Service Education and Training (PRESET)</p>	<ul style="list-style-type: none"> <li><input type="radio"/> The result of questionnaire survey show that 81% of CTs have already shared their knowledge and skills acquired in State INSET with their colleague teachers.</li> <li><input type="radio"/> 53% of CT has applied ASEI-PDSI activities to other subjects than mathematics and science, which is expected to contribute to the improvement in quality of lessons in all subjects.</li> <li><input type="radio"/> In the interview, many CTs answered that ASEI-PDSI is applicable to all subjects and is useful in improving the quality of teaching and learning in all subjects.</li> <li><input type="radio"/> Education officers of non-pilot states participated in SMASE Advocacy Seminar. Some states have shown their interest in introducing the INSET system developed by the Project.</li> <li><input type="radio"/> While most State Trainers apply ASEI-PDSI approach to Pre-Service Education and Training (PRESET) in their Collage of Education, the positive impact on the enhancement of PRESET by the ASEI approach is expected.</li> </ul>

## Sustainability: Average

Evaluation Items	Necessary Information and Data (Indicators)	Findings of Study
<p><b>Policy Aspects</b></p> <p>Continuation of the policy support</p>	<p>Are strengthening of quality of basic education and focus of mathematics and science education being the priority of the national strategy?</p> <p>Do the FME and state government have strategy concerning continuation and expansion of INSET to the local level and non-pilot states?</p>	<p>○ The importance of teachers' training for quality basic education as well as science and technology are stipulated in the national policy of Nigeria, which assures the continuous commitment of the Government of Nigeria to the Project.</p> <p>○ The strategy for expansion of INSTE at local level and non-pilot states has been discussed in the 3<sup>rd</sup> National Steering Committee (July 2008).</p>
<p><b>Organization and Financial Aspects</b></p> <p>INSET management system</p> <p>INSET Centres</p> <p>Budget allocation</p>	<p>Does the Project team (NCU, SCU and Team of Trainers) manage INSET as their major duty?</p> <p>Is NCCE an appropriate institute to host the National INSET Centre?</p> <p>Is the responsibility of each organization in relation to INSET implementation clear?</p> <p>Maintenance of equipment</p> <p>Strategy to secure the budget required for INSET</p>	<p>○ At National level, NCU and NCCE is managing and implementing the INSET. However, the mandate of NCCE to implement INSET is not clear. NCU is making effort to have a National INSET Centre with clear mandate for a sustainable INSET system.</p> <p>○ Presently, National Trainers work for the project on part-time basis. However, for further improvement of the Project activities, full-time National Trainers are needed, especially if the INSET is to be expanded.</p> <p>○ At state level, SCU and the Team of State Trainers are managing and implementing the INSET with high ownership and commitment in each of the 3 pilot states.</p> <p>○ The priority mandate of NCCE is Pre-Service Education and Training (PRESET).</p> <p>○ NCU is making effort to have a National INSET Centre with clear mandate for a sustainable INSET system, and it is suggested that National Teachers' Institute (NTI) which has the mandate to implement INSET is to be the appropriate institution to host the National INSET Centre.</p> <p>○ The responsibility of each organization in implementing INSET is clearly determined. Each organization has been cooperatively working together to provide quality INSET.</p> <p>○ Most of the procured materials and machinery have been maintained appropriately and utilized. However some equipment needs to be repaired.</p> <p>○ The running cost for the INSET at both National and State level is covered by the Nigerian side and is disbursed appropriately, which shows the financial sustainability of the Project.</p> <p>○ Without paying allowance to the participants, the cost of INSET is held down to a minimum level, which enhances the financial sustainability.</p> <p>○ FME is trying to make use of the teacher development fund to sustain and expand the INSET system.</p>
<p><b>Technical Aspects</b></p> <p>Are the Nigerian CPs capable enough to continuously provide</p>	<p>Ability to manage INSET</p>	<p>○ NCU has successfully managed the 3 cycles of National INSET. SCU has successfully managed the 2 cycles of State INSET. The result of monitoring and evaluation shows the quality of INSET is satisfactory and is improving as the project goes on.</p>



quality INSET?		<p><input type="radio"/> However, some participants showed dissatisfaction toward the services of INSET such as accommodation, transportation fee and quality of food.</p>
	Ability to facilitate INSET sessions	<p><input type="radio"/> The result of monitoring and evaluation on the quality of INSET shows that National and State Trainers are capable enough to conduct training sessions with a certain quality.</p> <p><input type="radio"/> However, the quality of INSET is still in the “attaining level” which is <math>3.0 \leq M &lt; 4.5</math>, which shows room for further improvement.</p> <p><input type="radio"/> Some NTs and STs have identified difficulties in conducting training in such aspects like time management.</p> <p><input type="radio"/> Activities focusing on the development of the skills of Core Teachers to use computers and projectors for making presentation have not been conducted so far, which needs to be addressed within the remaining period of the Project.</p>
	Ability to exercise monitoring and evaluating	<p><input type="radio"/> In the interview, some member of NCU/SCU, NT and ST mentioned about the difficulties in monitoring and evaluation, especially in data analysis and report writing.</p>
	Ability to developing training materials	<p><input type="radio"/> The result of questionnaire survey shows all STs and 97% of CTs agree that the training materials (handouts and any other materials provided) prepared for National and State INSET were appropriate and effective.</p>

## ANNEX 3-4. Result of the Questionnaire Survey

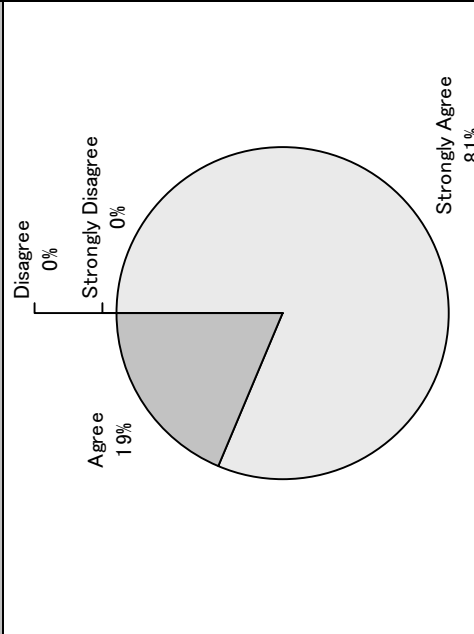
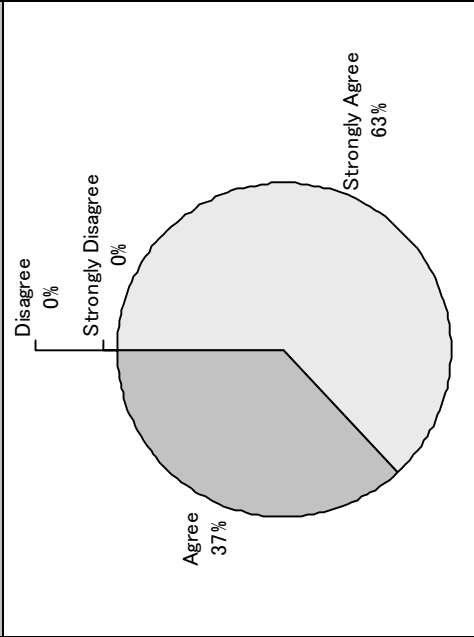
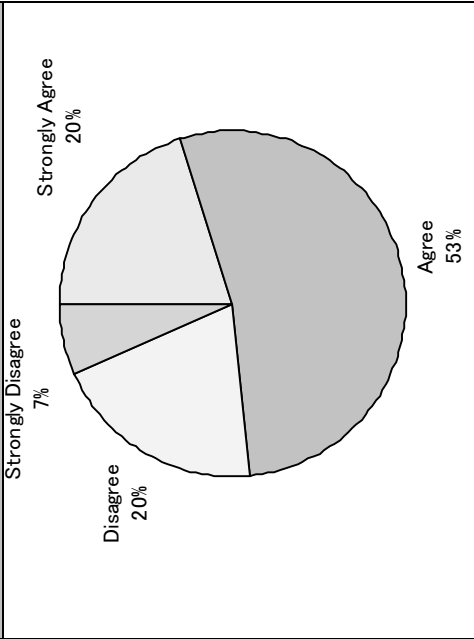
### (1) Purpose of the Survey

To identify the impact of SMASE Nigeria Project

### (2) Methodology of the Survey

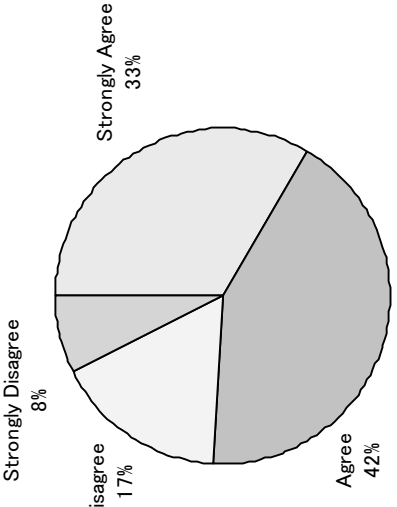
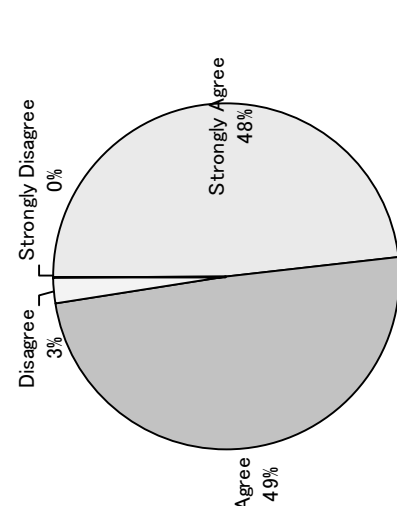
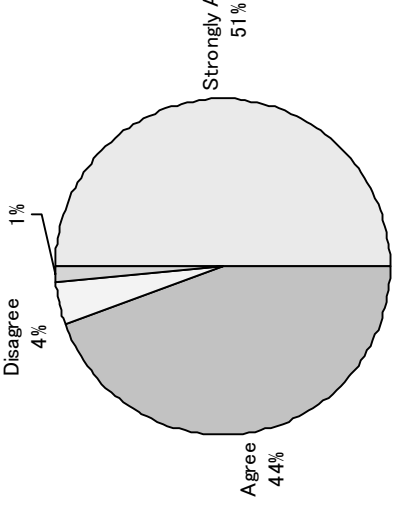
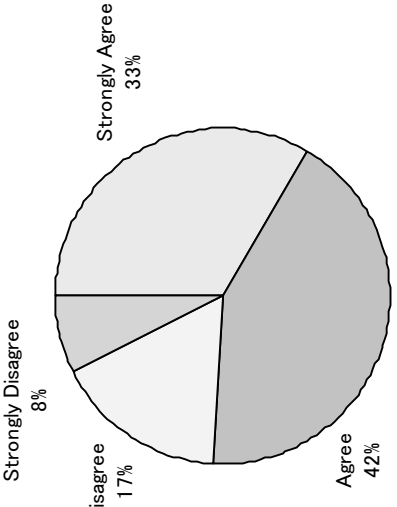
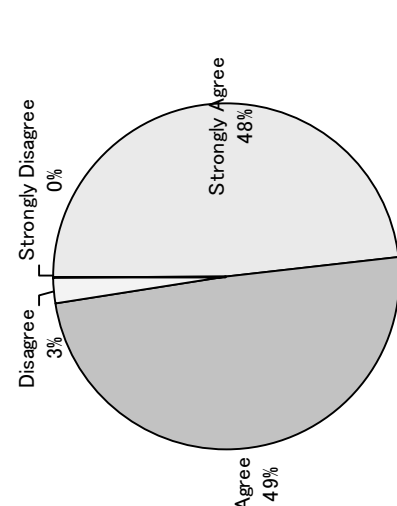
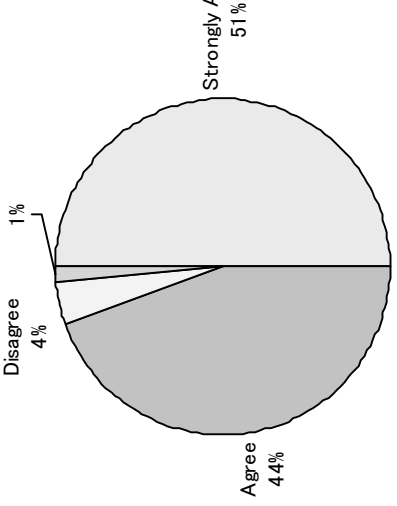
Two (2) Questionnaire Sheets were developed by the Team, one for STs and the other for CTs. Twenty (20) STs (out of 25) and 81 CTs (out of about 600) filled in the questionnaire. The answer sheets were collected and analyzed by the Team. The question sentences are shown in (3) with the results.

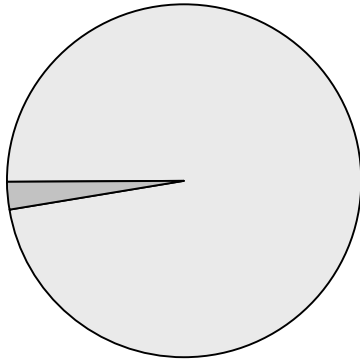
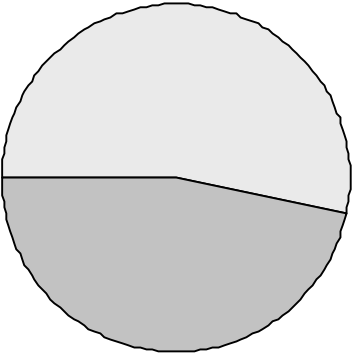
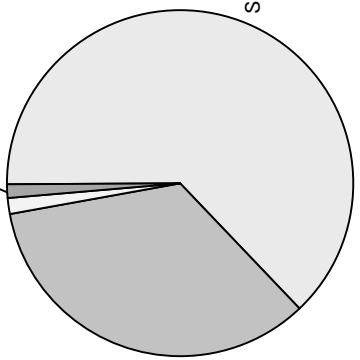
### (3) Result of the Questionnaire Survey to STs

1. Third-country training in Kenya was useful in upgrading my knowledge and skills required as a State Trainer.	2. National INSET is useful in upgrading my knowledge and skills as a State Trainer.	3. I have observed some difficulties/ problems in National INSET.
 <p>Disagree 0% Strongly Disagree 0% Agree 19% Strongly Agree 81%</p>	 <p>Disagree 0% Strongly Disagree 0% Agree 37% Strongly Agree 63%</p>	 <p>Strongly Disagree 7% Disagree 20% Strongly Agree 20% Agree 53%</p>

<p>4. I have some difficulties/problems in conducting State INSET.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Strongly Disagree</td> <td>19%</td> </tr> <tr> <td>Disagree</td> <td>31%</td> </tr> <tr> <td>Agree</td> <td>37%</td> </tr> <tr> <td>Strongly Agree</td> <td>13%</td> </tr> </tbody> </table>	Response	Percentage	Strongly Disagree	19%	Disagree	31%	Agree	37%	Strongly Agree	13%	<p>5. The training materials (handouts and any other materials provided) prepared for National INSET were appropriate and effective.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>74%</td> </tr> <tr> <td>Strongly Agree</td> <td>26%</td> </tr> </tbody> </table>	Response	Percentage	Strongly Disagree	0%	Disagree	0%	Agree	74%	Strongly Agree	26%	<p>6. I want to participate in National INSET continuously.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>22%</td> </tr> <tr> <td>Strongly Agree</td> <td>78%</td> </tr> </tbody> </table>	Response	Percentage	Strongly Disagree	0%	Disagree	0%	Agree	22%	Strongly Agree	78%
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<p>7. SMASE Nigeria is very effective in improving teachers' ability in teaching mathematics and science.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>0%</td> </tr> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>20%</td> </tr> <tr> <td>Strongly Agree</td> <td>80%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	0%	Strongly Disagree	0%	Agree	20%	Strongly Agree	80%	<p>8. SMASE Nigeria is very effective in improving the students' achievement in science and mathematics.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>0%</td> </tr> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>47%</td> </tr> <tr> <td>Strongly Agree</td> <td>53%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	0%	Strongly Disagree	0%	Agree	47%	Strongly Agree	53%	<p>9. Monitoring &amp; Evaluation (M&amp;E) tools developed in the Project are effective in evaluating the quality of mathematics and science lessons.</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>5%</td> </tr> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>58%</td> </tr> <tr> <td>Strongly Agree</td> <td>37%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	5%	Strongly Disagree	0%	Agree	58%	Strongly Agree	37%
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<p>10. Project M&amp;E tools developed in the Project are effective in evaluating the quality of National and State INSET.</p> <p>Disagree 0% Strongly Disagree 0% Agree 56% Strongly Agree 44%</p>	<p>11. The results of M&amp;E are appropriately fed back to improve quality of State INSET</p> <p>Disagree 0% Strongly Disagree 0% Agree 60% Strongly Agree 40%</p>	<p>12. I am happy to work as a State Trainer in SMASE Nigeria.</p> <p>Disagree 0% Strongly Disagree 0% Agree 19% Strongly Agree 81%</p>
<p><b>(4) Result of the Questionnaire Survey to CTs</b></p>		
<p>1. State INSET is very useful in upgrading my teaching ability</p> <p>Disagree 0% Strongly Disagree 0% Agree 38% Strongly Agree 62%</p>	<p>2. State INSET is useful in upgrading my knowledge and skills required to conduct INSET at local level in the future.</p> <p>Disagree 4% Strongly Disagree 0% Agree 50% Strongly Agree 46%</p>	<p>3. I am well-prepared to conduct training at local level as a trainer in the future.</p> <p>Disagree 1% Strongly Disagree 0% Agree 54% Strongly Agree 45%</p>

<p>4. I have observed some difficulties/problems in State INSET.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Strongly Disagree</td> <td>8%</td> </tr> <tr> <td>Disagree</td> <td>17%</td> </tr> <tr> <td>Agree</td> <td>42%</td> </tr> <tr> <td>Strongly Agree</td> <td>33%</td> </tr> </tbody> </table>	Response	Percentage	Strongly Disagree	8%	Disagree	17%	Agree	42%	Strongly Agree	33%	<p>5. The training materials (handouts and any other materials provided) prepared for State INSET were appropriate and effective.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>3%</td> </tr> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>49%</td> </tr> <tr> <td>Strongly Agree</td> <td>48%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	3%	Strongly Disagree	0%	Agree	49%	Strongly Agree	48%	<p>6. I want to participate in State INSET continuously.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>4%</td> </tr> <tr> <td>Strongly Disagree</td> <td>1%</td> </tr> <tr> <td>Agree</td> <td>44%</td> </tr> <tr> <td>Strongly Agree</td> <td>51%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	4%	Strongly Disagree	1%	Agree	44%	Strongly Agree	51%
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<p>7. I have already shared my knowledge or skills acquired in State INSET with my colleague teachers.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>19%</td> </tr> <tr> <td>Yes</td> <td>81%</td> </tr> </tbody> </table>	Response	Percentage	No	19%	Yes	81%	<p>8. ASEI-PDSI activities are very effective in improving students' achievement in mathematics and science.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Disagree</td> <td>0%</td> </tr> <tr> <td>Strongly Disagree</td> <td>0%</td> </tr> <tr> <td>Agree</td> <td>39%</td> </tr> <tr> <td>Strongly Agree</td> <td>61%</td> </tr> </tbody> </table>	Response	Percentage	Disagree	0%	Strongly Disagree	0%	Agree	39%	Strongly Agree	61%	<p>9. I have already practiced ASEI-PDSI activities in my class.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>7%</td> </tr> <tr> <td>Yes</td> <td>93%</td> </tr> </tbody> </table>	Response	Percentage	No	7%	Yes	93%								
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Response	Percentage																																		
No	7%																																		
Yes	93%																																		

<p>10. I observed the improvement of students' achievement in mathematics and science class</p>	 <p>A pie chart with two segments. The larger segment, representing 'Yes', is light gray and labeled 'Yes 97%'. The smaller segment, representing 'No', is dark gray and labeled 'No 3%'.</p>
<p>11. I have applied ASEI-PDSI activities to the subjects other than mathematics and science.</p>	 <p>A pie chart with two segments. The larger segment, representing 'Yes', is light gray and labeled 'Yes 53%'. The smaller segment, representing 'No', is dark gray and labeled 'No 47%'.</p>
<p>12. I am happy to work as a Core Teacher in SMASE Nigeria.</p>	 <p>A pie chart with four segments. The largest segment, representing 'Agree', is light gray and labeled 'Agree 35%'. The next largest, representing 'Strongly Agree', is dark gray and labeled 'Strongly Agree 6.3%'. Two very small segments represent 'Disagree' (1%, light gray) and 'Strongly Disagree' (1%, dark gray).</p>