

ANNEX 10-1: List of facilities provided by the GOK

Facility		Quantity
1 Office blocks (at CEMASTE A)	Administration	2
	Accounts	1
	Physics Department	1
	Chemistry Department	1
	Mathematics Department	1
	Biology Department	1
2 Science laboratories (24 participants seating capacity)	Biology	1
	Chemistry	1
	Physics	1
3 ICT Laboratory (40 participants seating capacity)		1
4 Lecture rooms	Biology	1
	Chemistry	1
	Physics	1
	Mathematics	1
5 Hostels (46 beds, double occupancy)		2
6 Kitchen		1
7 Dining hall (92 seating capacity)		1
8 Office Block (UON KSC)		1
9 Regional INSET Centres		18
10 Cluster INSET Centres*		4293
11 District INSET Centres		108
12 Staff House at CEMASTE A		13
13 Building at Kenya Science Campus		1
14 Storehouse at Kenya Science Campus		1
15 Container at Kenya Science Campus		1
16 Water and electricity supply at CEMASTE A and KSC		

Source: SMASE Project. (2011). "SMASE Project Information for Mid-term Evaluation 2011" Table 10.1.2., Project document.

*: Based on the number in the SMASE Project (2011) p. 36.

ANNEX 10-2: List of Counterpart of Ministry of Education

	Official Designation	Name	SMESE Designation
1	Permanent Secretary	Prof. James Ole Kiyapi	Project Director
2	Education Secretary	Prof. George I Godia	National Project Coordinator
3	Director, Field & Other Services	Mr. Nkanatha Kimathi	SMASE Desk Officer
4	Deputy Director, Field & Other Services, Primary INSET	Mr. Musyoka Nyamai	SMASE Desk Officer
5	Deputy Director, Field & Other Services, Secondary INSET	Mr. Garise Bakari Omara	SMASE Desk Officer
6	Senior Quality Assurance and Standards Officer, Field & Other Services, Primary INSET	Mr. Charles Kanja	SMASE Desk Officer

Source: Project document.

ANNEX 10-3: List of CEMASTEVA Staff

	Department	Designation	Name	Committee
1	Administration	Director	Ms. Cecilia Ngetich	-
2		Deputy director	Mr. Moses O. Kawa	-
3		Programme Coordinator	Mr. Patrick Kogolla	-
4	Biology	Dean-Biology Department	Ms. Mary W. Kariuki	ICT
5		Head of Department-Biology	Mr. Kiruja Kiria	Primary
6		Lecturer	Ms. Amina Sharbaidi	ICT
7		Lecturer	Ms. Lydia Muriithi	Secondary
8		Lecturer	Mr. Kizito Makoba	ICT
9		Lecturer	Mr. John Odhiambo	R&D
10		Lecturer	Mr. David Arimi	WECSA
11		Lecturer	Mr. Thuo Karanja	WECSA
12		Lecturer	Mr. Maina Nyingi	WECSA
13	Chemistry	Dean-Chemistry Department	Mr. Samuel K. Gachuhi	Primary
14		Head of Department-Chemistry	Mr. Joseph Kamau Mathenge	Secondary
15		Lecturer	Mr. Daniel Matiri	Secondary
16		Lecturer	Mr. Benjamin M. Kilongo	Secondary
17		Lecturer	Mr. Oduor Stephen	ICT
18		Lecturer	Mr. Ndelela Masoka	WECSA
19		Lecturer	Mr. Isaac Gathambiri	ICT
20		Lecturer	Mr. David Kireru	ICT
21		Lecturer	Ms. Gladys Masai	Secondary
22		Lecturer	Ms. Mercy Macharia	R&D
23		Lecturer	Mr. Richard Jakomanyo	WECSA
24		Lecturer	Mr. John Mungai Njoroge	Primary
25	Mathematics	Dean- Mathematics Department	Ms. Nancy Nui	Secondary
26		Head of Department- Mathematics	Mr. Matembo Lukongo	ICT
27		Lecturer	Mr. Francis Kamau	Primary
28		Lecturer	Mr. Simon Mugo	WECSA
29		Lecturer	Mr. Joseph Kuria	Primary
30		Lecturer	Ms. Priscilla Ombati	WECSA
31		Lecturer	Ms. Mary Wakhaya	R&D
32		Lecturer	Ms. Rahab Chiira	Secondary
33		Lecturer	Ms. Beatrice Macharia	Primary
34		Lecturer	Mr. Ogwel Ateng	ICT
35	Physics	Dean-Physics Department	Mr. Chesire Berenge	WECSA
36		Head of Department-Physics	Mr. Ernest N'geny	R&D
37		Lecturer	Mr. Tom Mboya	Secondary
38		Lecturer	Mr. George Gitau	WECSA
39		Lecturer	Mr. Makanda J.L	Primary
40		Lecturer	Mr. Paul Kibanya	Secondary
41		Lecturer	Mr. Philip Maate	ICT
42		Lecturer	Mr. Mutua Muyanga	Primary
43		Lecturer	Mr. Jacob Amimo	Primary
44		Lecturer	Ms. Beatrice Olutukei	Newly posted
45	Lecturer	Mr. Kosgey Kipngetich J.H	Primary	
46	Research and Development & ICT	Coordinator-Research and Development	Mr. Daniel Muraya	R&D
47		Dean - ICT	Mr. Kithaka Njogu	ICT
48		Head of Department - ICT	Mr. Paul Waibochi	ICT

Source: SMASE Project. (2011). "Information for Mid-term Evaluation 2011." Table 10.1., Project document.

ANNEX 10-4: List of CEMASTE A Non Academic Staff (As of 2011/10/01)

	Name	Designation	Note
1	Ms. Caroline Kiambi	Human Resource Officer	
2	Mr. J. Kihara Mwai	Administration Officer	
3	Ms. Jane Marete	Secretary	
4	Ms. Ann Wairimu	Secretary	Paied by JICA
5	Mr. Julius Kithusi	Administrative Assistant	
6	Mr. Paul Lamosi	ICT Lab Technician	
7	Mr. David Njoroge	Artisan	
8	Ms. Dolorosa A. Okumu	Head Housekeeper/Cateress	
9	Ms. Farida Nasaka	Waitress	
10	Mr. Geoffrey Omariba	Chef	
11	Ms. Margaret A. Abong'o	Laundry Assistant	
12	Ms. Florence K. Mbayia	Catering	
13	Ms. Miriam Delaila	Waitress	
14	Mr. Pauline Ratemo	Finance Officer	
15	Ms. Lucy Waweru	Accountant	
16	Mr. Stephene Kyengo	Accountant	
17	Mr. James Ribiru	Supply Chain Management Officer 1	
18	Mr. Alfred Njeru Mureithi	Supply Chain Management Officer 111	
19	Mr. Simiyu Kusimba	Driver	Paied by JICA
20	Mr. John Kinyanjui	Driver	Paied by JICA
21	Mr. Nahason Ngeno	Driver	Paied by JICA
22	Mr. Charles Wambugu	Driver	Paied by JICA
23	Mr. Geoffrey Kiuna	Driver	Paied by JICA
24	Mr. David Maina	Driver	Paied by JICA

Source: SMASE Project (2011). "Information for Mid-term Evaluation 2011." Table 10.1.
Interview with JICA Expert.

ANNEX 10-5: Number of PTTC personnel for primary INSET activities

	College	Principals	Dean of Curriculum	Mathematics trainer	Science trainer	Total
1	Asumbi	1	1	4	5	11
2	Bondo	1	1	0	0	2
3	Egoji	1	1	7	15	24
4	Eregi	1	1	6	7	15
5	Garissa	1	1	5	7	14
6	Kaimosi	1	1	7	10	19
7	Kamwenja	1	1	6	8	16
8	Kericho	1	1	6	11	19
9	Kitui	1	1	0	0	2
10	Machakos	1	1	8	8	18
11	Meru	1	1	4	9	15
12	Migori	1	1	4	9	15
13	Moi-Baringo	1	1	3	3	8
14	Mosoriot	1	1	7	10	19
15	Muranga	1	1	6	9	17
16	Narok	0	1	0	0	1
17	Shanzu	1	1	4	9	15
18	St. John Kilimambogo	1	1	5	8	15
19	St. Marks Kigari	1	1	5	9	16
20	Tambach	1	1	6	9	17
21	Thogoto	1	1	5	8	15
	Total	20	21	98	154	293

Source: SMASE Project. (2011). "Information for Mid-term Evaluation 2011." Table 3.9.

Note: PTTC Bondo, Kitui and Narok are not yet fully established. However, 8, 3 and 5 tutors, respectively, are trained at national INSET.

ANNEX 10-6: Number of cluster level personnel (based on the number of participantes in the regional workshops)

	Personnel	2009	2010	2011
1	TAC Tutor and others at cluster level personnel	1,113	897	–
2	Cluster Trainer	–	4,420	4,164

Source: SMASE Project. (2011). "Information for Mid-term Evaluation 2011." Table 3.4.

ANNEX 10-7: List of SMASSE District nad District Centers

Province	SMASSE District	District INSET Center
1 Central	1 Kirinyaga	1 Kiinyaga
		2 Karoti
		3 Kerugoya
		4 Karima Girls
		5 Nyanduaa High
		6 Nyahururu Boys
		7 Chinga
		8 Kangubiri
2 Coast	2 Nyandarua South 3 Nyandarua North	9 Nyeri High
		10 Tumu Tumu
		11 Gatanga
		12 Karinga
		13 Mary Hill
		14 St Joseph Githunguri
		15 Kiambu High
		16 Kirangari
3 Eastern	4 Nyeri North, Nyeri South	17 Ngarariga
		18 Muranga High
		19 Kahuhia Girls
		20 Njiri High
		21 Kamahuha Girls
		22 Matuga High
		23 Malindi High
		24 Coast GHS
4 N Eastern	5 Thika, Gatundu	25 Dr Krapp
		26 Bura Girls
		27 Kyeni Girls
		28 Nguviu Boys
		29 Mulango GHS
		30 Muthale Girls
		31 Machakos
		32 Masinga
5 Nairobi	6 Kiambu East	33 Tala
		34 Vyulya
		35 Consolata Gitaraka
		36 Kanjalu GSS
		37 St. Mary's GHS,
		38 Kaaga GHS
		39 Isiolo BHS
		40 Migwani BHS
6 Nyanza	7 Kiambu West, Muarang' a North	41 Chuka
		42 Makueni Boys
		43 St Joseph Kibwezi
		44 Precious Blood Kilungu
		45 Wajir Boys
		46 Buru Buru
		47 Jamhuri
		48 St. Georges
7 R Valley	8 Murang' a South	49 State House
		50 Kenya High
		51 Nyamonye Girls
		52 Asumbi GHS
		53 Mbita Boys
		54 Kisumu Girls
		55 Bishop Okoth Ojolla
		56 Ulanda GHS
8 N Eastern	9 Kwale, Msambweni, Kinango	57 Sironga
		58 Kebirigo
		59 Nyansiongo
		60 Ahero
		61 Nyakach
		62 Agoro Sare HS
		63 Ng'iya
		64 Rang'ala
9 Nairobi	10 Malindi, Lamu, Tana River, Tana Delta	65 Kisii High
		66 Sengera Girls
		67 Saemta Boys
		68 Moi, Siongiroi,
		69 Tenwek SS
		70 Kaplong GHS
		71 Tengecha Girls
		72 Kapsowar Girls
10 Nairobi	11 Mombasa, Kilindini	73 Kaptangat Girls
		74 Moi Tea Girls
		75 Londiani Girls
		76 Njonjo GHS
		77 Nanyuki Boys
		78 Mary Mount,
		79 Njoro BHS,
		80 Menengai HS,
11 Nairobi	12 Kilifi, Kaloleni	
12 Nairobi	13 Taita, Taveta	
13 Nairobi	14 Embu	
14 Nairobi	15 Kitui, Mutomo	
15 Nairobi	16 Machakos	
16 Nairobi	17 Yatta	
17 Nairobi	18 Kangundo	
18 Nairobi	19 Mwala	
19 Nairobi	20 Mbeere	
20 Nairobi	21 Tigania, Igembe	
21 Nairobi	22 Tharaka, Imenti South	
22 Nairobi	23 Meru Central, Imenti North	
23 Nairobi	24 Isiolo, Marsabit, Moyale, Chalbi, Lesamis, Garbatula	
24 Nairobi	25 Mwingi, Kyuso	
25 Nairobi	26 Chuka, Maara	
26 Nairobi	27 Makueni, Mbooni, Nzau, Kibwezi	
27 Nairobi	28 Wajir E, Wajir W, Wajir S, Wajir N, Garissa, Ijara, Fafi, Ladgera, Mandera E, Mandera C, Mandera W	
28 Nairobi	29 Nairobi East, Nairobi West, Nairobi North	
29 Nairobi	30 Bondo, Rarieda	
30 Nairobi	31 Homa Bay	
31 Nairobi	32 Suba	
32 Nairobi	33 Kisumu Municipality	
33 Nairobi	34 Kisumu West, Kisumu East	
34 Nairobi	35 Migori, Rongo, Kuria E, Kuria W	
35 Nairobi	36 Nyamira, Manga	
36 Nairobi	37 Masaba, Borabu	
37 Nairobi	38 Nyando	
38 Nairobi	39 Rachuonyo	
39 Nairobi	40 Siaya	
40 Nairobi	41 Kisii Central, Kisii South	
41 Nairobi	42 Gucha, Gucha South	
42 Nairobi	43 Bomet, Transmara	
43 Nairobi	44 Bureti, Sotik	
44 Nairobi	45 Marakwet	
45 Nairobi	46 Keliyo	
46 Nairobi	47 Kericho	
47 Nairobi	48 Kipkelion	
48 Nairobi	49 Laikipia E, Laikipia W, Samburu E, Samburu W	
49 Nairobi	50 Molo	
50 Nairobi	51 Nakuru	

	52 Nakuru North	81 Bahati GHS,
	53 Naivasha	82 Naivasha GHS
	54 Nandi Central	83 Kapsabet GHS
	55 Nandi North (Mosop)	84 Lemokwo Boys
	56 Nandi S, Nandi E, Tindaret	85 St. Mary's, Tachasis
	57 Narok N, Narok S	86 St. Mary GHS
	58 Transzoia W	87 St. Brigids
	59 Pokot W, Pokot N, Pokot C	88 Nasokol
	60 Transzoia E, Kwanza, Turkana	89 St. Mark Boys
	61 Eldoret W, Eldoret E, Wareng	90 Loreto Matunda
		91 Moi Eldoret
		92 Hill School
	62 Baringo E, Baringo N, Baringo C	93 Sacho High
	63 Kaibatek	94 Solian Girls
	64 Kajiado, Loitokitok	95 Moi Girls Isinya
8 Western	65 Bungoma East	96 Lugulu GHS,
	66 Bungoma South, Bungoma West	97 Cardinal Otunga,
		98 Bungoma HS,
	67 Bungoma North, Mt Elgon	99 Friends Kamusinga
	68 Teso	100 Kolanya
	69 Busia, Bunyala, Samia	101 St. Cecilia, Nangina
	70 Vihiga	102 Moi Girls Vokoli
	71 Hamisi	103 Kaimosi
	72 Emuhaya	104 Bunyore GHS
	73 Lugari	105 Bishop Njenga
	74 Butere, Mumias	106 Butere Girls
	75 Kakamega N, Kakamega C	107 Kakamega High
	76 Kakamega S, Kakamega E	108 Mukumu Girls

Source: CEMASTE. (2008). "Handbook on Management of District SMASSE Programmes." P. 36.

ANNEX 10-8: GOK Expenditure for SMASE activities

(Ksh.)

	2008/2009*	2009/2010	2010/2011	Total
Total Recurrent Expenditure	78,415,052.75	115,055,980.35	111,881,603.80	305,352,636.90
Districts**	276,442,200.00	300,003,000.00	341,824,000.00	918,269,200.00
Total	354,857,252.75	415,058,980.35	453,705,603.80	1,223,621,836.90

Source: CEMASTE A document for the CEMASTE A-BOG meeting.

*: Kenyan financial year starts in July.

** : Estimated figure based on a calculation of (the number of secondary students) x (Ksh. 200).

ANNEX 10-9: List of Experts

	Name	Category	Title	From	To
1	Mr. NAGANUMA Keiichi	Long-term expert	Chief Advisor	2009/01/01	2012/06/30
2	Ms. UCHIYAMA Hazuki	Long-term expert	Science Education	2009/01/01	2012/12/31
3	Mr. TANAKA Noriaki	Long-term expert	Project Coordinator	2009/05/09	2013/05/18
4	Mr. TAGUCHI Shimpei	Long-term expert	Mathematics Education	2009/06/22	2011/06/21
5	Mr. MATACHI Atsushi	Long-term expert	Academic Advisor	2010/08/10	2012/08/09
6	Mr. MATACHI Atsushi	Short-term expert	Academic Advisor	2009/01/11	2009/01/25
7	Mr. HATTORI Masahiro	Short-term expert	Evaluation	2009/02/28	2009/03/24
8	Mr. MITSUNAGA Norito	Short-term expert	Curriculum Development	2009/05/10	2009/08/06
9	Mr. MATACHI Atsushi	Short-term expert	Academic Advisor	2009/05/17	2011/06/05

Source: SMASE Project. (2011). "Information for Mid-term Evaluation 2011." Table 10.4, 10.5.

ANNEX 10-10: List of Studies

	Name of the Study	Name of the personnel	Category	Title	From	To
1	WECSA Technical Workshop	Ms. SUGAWARA Minako	-	Assistant Director, Basic Education Division II, Basic Education Group, Human Development Department, JICA	2009/05/19	2009/05/24
2	Contulting	Mr. ISHIHARA Shinichi	Leader	Dorector, Basic Education Division II, Basic Education Group, Human Development Department, JICA HQ	2009/07/17	2009/07/19
3	WECSA Conference	Mr. EGUCHI Hideo	Leader	Deputy Director General & Group Leader, Basic Education Group, Human Development Department, JICA HQ	2009/11/15	2009/11/25
		Mr. MATACHI Atsushi	-	Senior Advisor (Education), Human Development Department, JICA HQ	2009/11/15	2011/11/17
		Ms. SUGAWARA Minako	-	Assistant Director, Basic Education Division II, Basic Education Group, Human Development Department, JICA	2009/11/15	2009/11/25
4	WECSA Conference	Mr. SUEMORI Mitsuru	Leader	Senior Advisor, JICA	2010/12/5	2010/12/12
		Mr. SAKUMA Jun	-	Deputy Director General & Group Leader, Basic Education Group, Human Development Department, JICA HQ	2010/12/5	2010/12/12
		Mr. SHIMIZU Ippei	-	Special Advisor, Basic Education Division II, Basic Education Group, Human Development Department, JICA	2010/12/4	2010/12/12
5	Mid-term Review	Mr. SAKUMA Jun	Leader	Deputy Director General, Basic Education Group, Human Development Department, JICA HQ	2011/11/21	2011/12/01
		Ms. SUGAWARA Minako	Evaluation Planning	Assistant Director, Basic Education Division II, Basic Education Group, Human Development Department, JICA	2011/11/21	2011/12/01
		Ms. TUKAGOSHI Fumie	INSET Evaluation	Junior Expert, Basic Education Division II, Basic Education Group, Human Development Department, JICA HQ	2011/11/21	2011/12/01
		Ms. OTA Miho	Evaluation Analysis	Senior Consultant, Consulting Dpartment II (Human Resources Development), KRI International Corp.	2011/09/17	2011/10/16
		Mr. TANAKA Shinichiro	Evaluation Analysis	Senior Consultant, Education Development Division, PADECO Co., Ltd.	2011/10/29	2011/12/01

Source: Project document, JICA HQ document.

ANNEX 10-11: Training of Kenyan Counterpart Personnel

	Name	Venue	Category	Course Title	From	To
1	Ms. Beatrice Atieno Asyago	Japan	Country Focused	Country-Focused Training Course In-service Training (INSET) Management for Kenya	2009/11/17	2009/12/20
2	Mr. Francis Kipkoeh Kiplagat	Japan				
3	Mr. Alfred Moriasi Gari	Japan				
4	Ms. Martha Ekirapa	Japan				
5	Mr. Nelson Muraguri Mbekanya	Japan				
6	Ms. Catherine Nthiori Kinyinya	Japan				
7	Prof. Katia Samuel King'oo	Japan				
8	Ms. Ngetich Cecilia Chelangat	Japan	Country Focused	Improving Mathematics and Science Lessons in Primary School	2010/11/09	2010/12/11
9	Ms. Annie Kasau Kimanzi	Japan				
10	Mr. Eliud Munga Kaginya	Japan				
11	Mr. Salesius Guantai K. T. M'mwoga	Japan				
12	Mr. Jacob Njagi Njue	Japan				
13	Mr. Mohammed Hassan Adan	Japan				
14	Ms. Fatuma Khalif Ali	Japan				
15	Ms. Agnes Wanjiru Nanyingi	Japan				
16	Ms. Gladys Njeri Kabuku	Japan				
17	Ms. Margaret Wanja Mwangi	Japan				
18	Mr. John Kiriba Wamugunda	Japan				
19	Ms. Jane Wamuyu Thuo	Japan				
20	Ms. Juliana Rono Sigei	Japan				
21	Mr. Stephen Okumu	Japan				
22	Ms. Janet Vijedi	Japan				
23	Mr. Mark Ochieng Ongochi	Japan				
24	Mr. Atuti Nyaribo	Japan				
25	Ms. Inyanji Mmsava	Japan				
26	Mr. George Otieno Oloo	Japan				
27	Mr. Julius Kimathi Mbaya	Japan	Regional	Strengthening of Local Education for SMASE-WECSA for Sub-Saharan Africa	2009/01/13	2009/02/14
28	Ms. Lynette Gladys Nanjala Kisaya	Japan				
29	Ms. Mercy Makena M' Ibari	Japan	Young Leader	Young Leaders 2008 African Countries (English)/Education (Science and Mathematics)	2009/01/27	2009/02/13
30	Mr. Adan Abdul Abdullahi	Japan				
31	Mr. Alex Ombogo Obondi	Japan				
32	Ms. Mary Wangui Karaya	Japan				
33	Ms. Petronilla Mutunga Mutanu	Japan	Sectoral	Enhancing the Quality of Primary and Secondary Education in Sub-Saharan Africa	2009/03/16	2011/03/31
34	Mr. Benjamin Kiplimo Kemboi	Japan	General	Practice of Science Education for Secondary School	2009/08/04	2009/09/27
35	Mr. Eustace Njagi Mwaniki	Japan	Young Leader	Young Leaders for African Countries (English)/Basic Education Administration	2009/10/12	2009/10/29
36	Mr. Joseph Maina James	Japan				
37	Mr. Muli Tovi David	Japan				
38	Mr. Bernard Wakhu Rapando	Japan				
39	Ms. Halima Waqo Keyatte	Japan				
40	Mr. Paul Waibochi	Japan	Regional	Seminar for Educational Evaluation and Monitoring	2009/10/21	2009/11/14
41	Mr. Matemo Lukongo	Japan	Regional	Strengthening of Local Education for SMASE-WECSA for Sub-Saharan Africa	2010/01/11	2010/02/11
42	Mr. Harrison N. Nzoya	Japan				
43	Mr. Joseph Kamau	Japan				
44	Ms. Consolata Mueni Ngiti	Japan	Young Leader	Education (Science & Mathematics in Basic Education)	2010/01/26	2010/02/12
45	Mr. Stephen Busolo Kusimba	Japan				
46	Mr. Stephen Muchiri Gitau	Japan	Regional	Seminar for Educational Evaluation and Monitoring	2010/08/25	2010/09/18
47	Mr. John Owour Oyuga	Japan				
48	Mr. Joseph Ndirangu Kuria	Japan				
49	Mr. Philip Malinga Maate	Japan	Regional	Strengthening of Local Education for SMASE-WECSA for Sub-Saharan Africa	2011/01/16	2011/02/13
50	Mr. Daniel Mwangi Matiri	Japan	Regional	Improvement of Lesson Evaluation in Science for English-Speaking Sub-Saharan African Countries	2011/01/31	2011/02/26
51	Mr. Justus Hezron Kipngetchi Kosgei	Japan				
52	Mr. Nicholas Maina Nyingi	Japan				
53	Ms. Abdia Hassan Baraka	Japan	Young Leader	Science and Mathematics Education in Basic Education	2011/02/21	2011/03/10
54	Mr. Kipyegon Ronoh	Japan				
55	Ms. Jane Chakaya Makanga	Japan				
56	Mr. Joseph Kariamu Muchendu	Japan				
57	Ms. Priscilla Kamuto Ombati	Japan	Regional	Seminar for Mathematics Lesson Evaluation	2011/08/23	2011/09/17
58	Mr. James Walala Achieng	Japan	Regional	Improvement of Lesson Evaluation in Science for English-Speaking Sub-Saharan African Countries	2011/09/05	2011/10/01
59	Mr. John Mungai Njoroge	Japan				
60	Ms. Beatrice Mugere Olukutukeyi	Japan				
61	Mr. Owaga Damiano Okech	Malaysia	Country F	Secondary Science and Mathematics Teacher Educators Training for African Countries	2009/10/05	2009/10/30
62	Mr. Nyamu Ernest Mburu	Malaysia				
63	Ms. Macharia Beatrice Wmrimu Mathenge	Malaysia				
64	Mr. Makanda John Livingstone	Malaysia				
65	Ms. Nohabira Lydia Muriithi	Malaysia				
66	Mr. Kireru David Kihato	Malaysia				
67	Mr. Mugoh Simon Njeru	Malaysia				
68	Mr. John Kipyegon Chesiror	Malaysia				
69	Ms. Francisca Obare Hawala	Malaysia				
70	Mr. Nicholas Milina Nyingi	Malaysia				
71	Ms. Sikawa Violet Soila	Malaysia				
72	Mr. Benjamin Katana Kenga	Malaysia				

Source: SMASE Project. (2011). "Information for Mid-term Evaluation 2011." 10.2.2., Project document.

ANNEX 10-12: Materials and Equipment Procured by JICA

No.	Item	Specification	Supplier	Qty	KSH		Total Amount	Discount	Payment	JFY
					Unit Price	Sub Total				
1	Desktop Computer	Microsoft Windows XP or VISTA (pre-installed)	Total Solutions	30	80,000.00	2,400,000.00	2,400,000.00	0.00	2,400,000.00	2009
2	MS Office Academic	Microsoft Office Academic Version pre-installed		30						2009
3	Antivirus	Antivirus software pre-installed (latest version)		30						2009
4	UPS	Output Power Capacity: 400W / 650Va or more Output: 230V, 50Hz, single phase, Input Voltage: 160-282V		30						2009
5	Flip Chart Pads	Booklet (50 pieces of paper/chart), A1, White	Lino Stationers (K) Ltd	13,200	203.00	2,679,600.00	23,274,900.00	0.00	23,274,900.00	2009
6	Felt Pens	SNOWMAN MARKER (Assorted), G-12T, Assorted Colors (Original)		330,000	9.10	3,003,000.00				2009
7	Biro Pens	BIC Ball pen, Medium Writing, Black (4 pkt), Red (4 pkt), Blue (4 pkt)		660,000	8.00	5,280,000.00				2009
8	Writing Pads	Loose Leaf Pad (50 sheets/pad), A4, Ruled		132,000	26.65	3,517,800.00				2009
9	Spring Files	PVC Spring File, Standard Size, Assorted Colour		38,500	28.00	1,078,000.00				2009
10	Notebooks	Shorthand Notebook		132,000	18.00	2,376,000.00				2009
11	Cash Book	Receipt and Payment Cashbook, 25 pages/book		6,600	100.00	660,000.00				2009
12	Stock Register	Consumable store ledge, S1		6,600	175.00	1,155,000.00				2009
13	Inventory	Permanent and Expendable store Ledger, S2		6,600	175.00	1,155,000.00				2009
14	Paper Punch	Kangaro Paper Punch DP800 with calibrated guide bar		1,100	1,195.00	1,314,500.00				2009
15	Stapler	Kangaro Stapler HD-45	1,100	130.00	143,000.00	2009				
16	Staple	Kangaro Staples, 24/6-5M	1,100	60.00	66,000.00	2009				
17	Counter Book	Three Quire ruled	11,000	77.00	847,000.00	2009				
18	Printing Documents	32 pages and Binding	Impress Communication	20,100	60.95	1,225,095.00	1,225,095.00	0.00	1,225,095.00	2009
19	Document Wallet	Clear Bag/PVC		20,000	22.40	448,000.00				2009
20	Shorthand Note books	A5/100 pages ruled		1,667	260.00	433,420.00				2009
21	Biro pens	Pkts of 50 pcs		400	425.00	170,000.00				2009
22	Chalk	White (pkts of 12 pcs)		510	26.45	13,489.50				2009
23	2WD Motor Vehicle	Station Wagon, Petrol, 1495cc, 7 passengers or more, 5 speed manual, Right-handle Steering	TOYOTA EAST AFRICA LTD.	1	1,277,632.00	1,277,632.00	1,277,632.00	0.00	1,277,632.00	2009
24	Tyre	265/75R16 - GOODTEAR TYRES (AT/R 116T OW TL TYRE)	KINGSWAY TIRES LIMITED	16	28,400.00	454,400.00	573,400.00	79,089.65	484,310.35	2009
25	Tyre	265/70R16 - GOODTEAR TYRES (AT/SA 112T OWL TL TYRE)		4	23,500.00	94,000.00				2009
26	Tyre	185/Fox16 - GOODTEAR TYRES (GT2 88T SA TL TYRE)		4	6,250.00	25,000.00				2009
27	Photocopy	Kyocera Mita KM 5050, Network Print Connectively, Colour Scanning, Duplex, 2 x 500 sheet universal Paper tray	MFI OFFICE SOLUTION S Limited	2	544,970.35	1,089,940.70	1,089,940.70	0.00	1,089,940.70	2009
28	Copy Printer	High speed digital master-making / fully automatic stencil printing, 60ppm - 130ppm (5 steps variable), Scanning resolution: 300dpi X 600dpi, Print image resolution: 300dpi X 600dpi	MFI OFFICE SOLUTION S Limited	1	586,725.88	586,725.88	586,725.88	0.00	586,725.88	2009
29	Loose Leaf Pads	Loose Leaf Pad (50 sheets/pad), A4, Ruled	Image Plus Limited	131,897	26.25	3,462,286.25	18,997,733.00	0.00	18,997,733.00	2009
30	Biro Pens	BIC Ball pen, Medium Writing, Black (45,958 pcs), Red (45,958 pcs), Blue (45,958 pcs)		137,874	8.25	1,137,460.50				2009
31	Pencils	Original Staedtler HB110		263,268	19.00	5,002,082.00				2009
32	Erasers	Pelican Radiere Erasers BR180		65,977	5.25	346,379.25				2009
33	Document Wallets	Clear Bag/PVC, A4, Assorted Colour		65,977	17.00	1,121,609.00				2009
34	Spring files	PVC Spring File, Standard Size, Assorted Colour		65,977	30.00	1,979,310.00				2009
35	Flip Chart pads	Booklet (50 pieces of paper/chart), A1, White		20,476	202.50	4,146,390.00				2009
36	Felt Pens	SNOWMAN MARKER (Assorted), G-12T, Assorted Colors (Original)		61,476	11.00	676,236.00				2009
37	Blue tach	Original Blue Tack (100g)		10,236	110.00	1,125,960.00				2009
38	Projector	SONY VPL ES7, Dimensions (WxHxD): 314 x 109 x 269 mm (w/h/d) (without projecting parts), AC 100 to 240 V, 3.6 to 1.8 A, 50/60 Hz		Technology Today Limited	18	48,000.00				864,000.00
39	Extension Cable	Extension Reel 30m with 3 outlet sockets, 30m, With 3 outlet sockets	SEARS TOOLCRAFTS Ltd.	18	6,500.00	117,000.00	117,000.00	0.00	117,000.00	2009

40	USB	4GB Sandisk Flash Disk (Password Protected)	Total Solutions	18	2,450.00	44,100.00	44,100.00	0.00	44,100.00	2009				
41	Masking Tape	2" Inch, Cream Colour	Dolphin Stationers Ltd	180	76.00	13,680.00	5,819,384.80	0.00	5,819,384.80	2009				
42	Chalk (White)	Dustless Chalk, Medium Writing, White		180	28.00	4,680.00				2009				
43	Chalk (Colour)	Dustless Chalk, Medium Writing, Assorted Colour		180	34.50	6,210.00				2009				
44	Manila Paper	A1, White		2,160	8.85	19,116.00				2009				
45	Ruler	Plastic, 30cm		1,800	9.90	17,820.00				2009				
46	Geometrical Set	Genuine Oxford		360	108.00	38,880.00				2009				
47	Pair of Scissors	Plastic Handles, Middle Size		360	63.95	23,022.00				2009				
48	Squared Exercise Book	48 pages, 288pcs/ctn		2,304	6.45	14,860.80				2009				
49	Modeling Clay	Yellow		180	75.00	13,500.00				2009				
50	Manila Paper	A1		2,160	8.85	19,116.00				2009				
51	Printing Paper	A4, 80gsm		20,540	275.00	5,648,500.00				2009				
52	Primary Syllabus	MINISTRY OF EDUCATION PRIMARY EDUCATION SYLLABUS VOLUME TWO	Kenya Institute of Education	10,000	300.00	3,000,000.00	3,000,000.00	0.00	3,000,000.00	2009				
53	Foundation Science Std 6	Foundation Science Std 6	JIMCOO Book Services	5,000	202.00	1,010,000.00	9,865,000.00	0.00	9,865,000.00	2009				
54	Macmillan Primary Science Std 7	Macmillan Pri Science Std 7		5,000	365.00	1,825,000.00				2009				
55	Understanding Science Std 8	Understanding Science Std 8		5,000	240.00	1,200,000.00				2009				
56	Primary Mathematics Std 6	Primary Mathematics Std 6		5,000	358.00	1,790,000.00				2009				
57	Primary Mathematics Std 7	Primary Mathematics Std 7		5,000	398.00	1,990,000.00				2009				
58	Primary Mathematics Std 8	Primary Mathematics Std 8		5,000	412.00	2,060,000.00				2009				
59	Foundation Science Std 6	Foundation Science Std 6		5,000	365.00	1,825,000.00				2009				
60	Macmillan Primary Science Std 7	Macmillan Primary Science Std 7		5,000	255.00	1,275,000.00				3,100,000.00	20,000.00	3,080,000.00	2009	
61	Printing Paper	A4, 80gsm		Image Plus Limited	750	280.00				210,000.00	210,000.00	0.00	210,000.00	2009
62	Masking Tape	2" Inch, Cream Colour		Image Plus Limited	5,000	70.00				350,000.00	5,075,000.00	35,525.00	5,039,475.00	2010
63	White Chalk	Dustless Chalk, Medium Writing, White			5,000	22.00				110,000.00				2010
64	Color Chalk	Dustless Chalk, Medium Writing, Assorted Colour	5,000		28.00	130,000.00	2010							
65	Manila Paper	A1, White	120,000		7.40	888,000.00	2010							
66	Ruler	Plastic, 30cm	50,000		9.50	475,000.00	2010							
67	Geometrical Set	Genuine Oxford	10,000		110.00	1,100,000.00	2010							
68	Pair of Scissors	Plastic Handles, Middle Size	10,000		56.00	560,000.00	2010							
69	Squared Exercise Book	48 pages, 288pcs/ctn	60,000		5.70	342,000.00	2010							
70	Felt pens	SNOWMAN MARKER (Assorted), G-12T, Assorted Colors (Original)	60,000		13.00	780,000.00	2010							
71	Modeling Clay	Yellow	5,000		68.00	340,000.00	2010							
72	Jembe	2.5 Lbs, With Handle	Maja East Africa Ltd		5,000	269.00	1,345,000.00	1,345,000.00	0.00	1,345,000.00				2010
73	Fertilizer (CAN)	CAN, 1kg	CIIRA AGROVET SUPPLIER S	265	320.00	84,800.00	278,250.00	0.00	278,250.00	2010				
74	Fertilizer (DAP)	DAP, 1kg		265	200.00	53,000.00				2010				
75	Fertilizer (UREA)	UREA, 1kg		265	280.00	74,200.00				2010				
76	Fertilizer (NPK)	NPK, 1kg		265	250.00	66,250.00				2010				
77	Printing Paper	A4, 80gsm	Dolphin Stationers Ltd	6,320	275.00	1,738,000.00	6,233,617.20	0.00	6,233,617.20	2010				
78	Loose-leaf Pad	Loose Leaf Pad (50 sheets/pad), A4, Ruled		29,278	26.20	767,083.60				2010				
79	Biro (Black)	BiG Ball pen, Medium Writing		587	393.00	230,691.00				2010				
80	Biro (Blue)	BiG Ball pen, Medium Writing		587	393.00	230,691.00				2010				
81	Document Wallet	Clear Bag/PVC, A4, Assorted Colour		29,278	15.00	439,170.00				2010				
82	Flip Chart	Booklet (50 pieces of paper/chart), A1, White		2,314	175.00	404,950.00				2010				
83	Felt pens	SNOWMAN MARKER (Assorted), G-12T, Assorted Colors (Original)		1,172	125.00	146,500.00				2010				
84	Masking Tape	2" Inch, Cream Colour		1,172	65.30	76,531.80				2010				
85	Stock Register	Consumable store ledge, S1		5,000	220.00	1,100,000.00				2010				
86	Inventory	Permanent and Expendable store Ledger, S2		5,000	220.00	1,100,000.00				2010				
87	Printing Paper	A4, 80g/m		Image Plus Limited	4,300	335.00				1,440,500.00	3,654,311.00	0.00	3,654,311.00	2010
88	Loose-leaf Pad	A4, Ruled	17,965		32.00	574,880.00	2010							
89	Biro Pens (Black)	Ordinary, 50pcs/pkt	241		475.00	114,475.00	2010							
90	Biro Pens (Blue)	Ordinary, 50pcs/pkt	241		475.00	114,475.00	2010							
91	Biro Pens (Red)	Ordinary, 50pcs/pkt	241		475.00	114,475.00	2010							
92	Pencil	Pencil (Original Staedtler HB110)	1,004		264.00	265,056.00	2010							
93	Eraser	Pelican Radiera Erasers BR180	12,045		7.00	84,315.00	2010							
94	Document Wallet	Plastic, Clear Bag	12,045		17.00	204,765.00	2010							
95	Flip Chart Pads	A1 (Booklet), 50 Sheet/Pad	320		230.00	73,600.00	2010							
96	Manila Paper	A1, White	4,800		8.00	38,400.00	2010							
97	Manila Paper	A1, Assorted Colour	4,800		8.00	38,400.00	2010							
98	Felt Pens	Original, SNOWMAN, Assorted Colour, 12 pcs/pkt	704	180.00	126,720.00	2010								
99	30 cm Ruler	Plastic, 30cm	1,000	10.00	10,000.00	2010								
100	Geometrical Set	Genuine Oxford	200	110.00	22,000.00	2010								
101	Graph Paper	A4, Robin	10,000	2.80	28,000.00	2010								
102	Crayon	Wax Crayons, Non-Toxic	200	17.00	3,400.00	2010								
103	Blue Tack	Original Blue Tack (100g)	200	110.00	22,000.00	2010								
104	Paper Plate	Approx. 15 cm diameter, Thin Plastic	1,200	3.80	4,560.00	2010								
105	Meter Ruler	Wooden, Thin, 1 meter	200	21.00	4,200.00	2010								
106	Thread/ String	Standard	200	45.00	9,000.00	2010								
107	Set Square	Plastic, for Teacher	80	275.00	24,750.00	2010								

108	Divider (Compass)	Plastic, for Teacher	80	275.00	24,750.00				2010
109	Protractor	Plastic, for Teacher	90	285.00	25,650.00				2010
110	Glue	40gsm	200	86.00	17,200.00				2010
111	Cello tape	Medium size, 1" Inch	200	14.00	2,800.00				2010
112	Masking Tape	2" Inch, Cream Colour	200	50.00	10,000.00				2010
113	Polythene Paper	Transparent, A4	2,000	4.00	8,000.00				2010
114	Scalpel	Size 23	400	2.50	1,000.00				2010
115	Hand Lenses/Magnifying Glasses	Standard, Magnification more than 10	1,000	60.00	60,000.00				2010
116	Dry Cell	Size D	1,000	50.00	50,000.00				2010
117	Connecting Wire	Separate, Black and Red, 2 meter	2,000	8.00	16,000.00				2010
118	Torch Bulb	2.5v	2,000	47.00	94,000.00				2010
119	Steel Wool	Dish washing type	200	5.50	1,100.00				2010
120	Match Box	Safety matches	200	2.20	440.00				2010
121	Aluminum Foil	30cm X 5 Meter	200	80.00	16,000.00				2010
122	Memory Card	Standard Size	200	47.00	9,400.00				2010
123	Foundation Science Book 1	Foundation Science Book 1	50	227.00	11,350.00				2010
124	Foundation Science Book 2	Foundation Science Book 2	50	182.00	9,100.00				2010
125	Foundation Science Book 3	Foundation Science Book 3	50	256.00	12,800.00				2010
126	Foundation Science Book 4	Foundation Science Book 4	50	363.00	18,150.00				2010
127	Foundation Science Book 5	Foundation Science Book 5	19	297.00	5,643.00				2010
128	Foundation Science Book 6	Foundation Science Book 6	50	230.00	11,500.00				2010
129	Foundation Science Book 7	Foundation Science Book 7	50	230.00	11,500.00				2010
130	Foundation Science Book 8	Foundation Science Book 8	50	300.00	15,000.00				2010
131	Science On Line 1	Science On Line 1	50	295.00	14,750.00				2010
132	Science On Line 2	Science On Line 2	50	318.00	15,900.00				2010
133	Science On Line 3	Science On Line 3	50	291.00	14,550.00				2010
134	Science On Line 4	Science On Line 4	50	285.00	14,250.00				2010
135	Science On Line 5	Science On Line 5	50	308.00	15,400.00				2010
136	Science On Line 6	Science On Line 6	50	351.00	17,550.00				2010
137	Science On Line 7	Science On Line 7	50	346.00	17,300.00				2010
138	Science On Line 8	Science On Line 8	50	272.00	13,600.00				2010
139	Understanding Science Book 1	Understanding Science Book 1	50	180.00	9,500.00				2010
140	Understanding Science Book 2	Understanding Science Book 2	50	220.00	11,000.00				2010
141	Understanding Science Book 3	Understanding Science Book 3	50	270.00	13,500.00				2010
142	Understanding Science Book 4	Understanding Science Book 4	50	250.00	12,500.00				2010
143	Understanding Science Book 5	Understanding Science Book 5	50	320.00	16,000.00				2010
144	Understanding Science Book 6	Understanding Science Book 6	19	280.00	5,320.00				2010
145	Understanding Science Book 7	Understanding Science Book 7	50	210.00	10,500.00				2010
146	Understanding Science Book 8	Understanding Science Book 8	19	265.00	5,035.00				2010
147	Primary Science Book 1	Primary Science Book 1	0	280.00	0.00				2010
148	Primary Science Book 2	Primary Science Book 2	50	285.00	14,250.00				2010
149	Primary Science Book 3	Primary Science Book 3	50	270.00	13,500.00				2010
150	Primary Science Book 4	Primary Science Book 4	50	400.00	20,000.00				2010
151	Primary Science Book 5	Primary Science Book 5	50	300.00	15,000.00				2010
152	Primary Science Book 6	Primary Science Book 6	50	310.00	15,500.00				2010
153	Primary Science Book 7	Primary Science Book 7	19	370.00	7,030.00				2010
154	Primary Science Book 8	Primary Science Book 8	50	350.00	17,500.00				2010
155	Science In Action Book 1	Science In Action Book 1	50	260.00	13,000.00				2010
156	Science In Action Book 2	Science In Action Book 2	50	275.00	13,750.00				2010
157	Science In Action Book 3	Science In Action Book 3	50	270.00	13,500.00				2010
158	Science In Action Book 4	Science In Action Book 4	50	250.00	12,500.00				2010
159	Science In Action Book 5	Science In Action Book 5	50	330.00	16,500.00				2010
160	Science In Action Book 6	Science In Action Book 6	50	320.00	16,000.00				2010
161	Science In Action Book 7	Science In Action Book 7	50	350.00	17,500.00				2010
162	Science In Action Book 8	Science In Action Book 8	50	350.00	17,500.00				2010
163	Primary Mathematics Book 1	Primary Mathematics Book 1	50	302.00	15,100.00				2010
164	Primary Mathematics Book 2	Primary Mathematics Book 2	50	320.00	16,000.00				2010
165	Primary Mathematics Book 3	Primary Mathematics Book 3	50	230.00	11,500.00				2010
166	Primary Mathematics Book 4	Primary Mathematics Book 4	50	338.00	16,900.00				2010
167	Primary Mathematics Book 5	Primary Mathematics Book 5	50	398.00	19,900.00				2010
168	Primary Mathematics Book 6	Primary Mathematics Book 6	19	392.00	7,448.00				2010
169	Primary Mathematics Book 7	Primary Mathematics Book 7	19	445.00	8,455.00				2010
170	Primary Mathematics Book 8	Primary Mathematics Book 8	19	461.00	8,759.00				2010
171	Let's Learn Mathematics Book 1	Let's Learn Mathematics Book 1	50	370.00	18,500.00				2010
172	Let's Learn Mathematics Book 2	Let's Learn Mathematics Book 2	50	300.00	15,000.00				2010
173	Let's Learn Mathematics Book 3	Let's Learn Mathematics Book 3	50	280.00	14,000.00				2010
174	Let's Learn Mathematics Book 4	Let's Learn Mathematics Book 4	50	350.00	17,500.00				2010
175	Let's Learn Mathematics Book 5	Let's Learn Mathematics Book 5	50	475.00	23,750.00				2010
						1,056,540.00	264,135.00	792,405.00	
			Savani's Book Center Limited						

176	Let's Learn Mathematics Book 6	Let's Learn Mathematics Book 6		50	390.00	19,500.00				2010
177	Let's Learn Mathematics Book 7	Let's Learn Mathematics Book 7		50	395.00	19,750.00				2010
178	Let's Learn Mathematics Book 8	Let's Learn Mathematics Book 8		50	400.00	20,000.00				2010
179	Improve Your Mathematics Book 1	Improve Your Mathematics Book 1		50	315.00	15,750.00				2010
180	Improve Your Mathematics Book 2	Improve Your Mathematics Book 2		50	249.00	12,450.00				2010
181	Improve Your Mathematics Book 3	Improve Your Mathematics Book 3		50	315.00	15,750.00				2010
182	Improve Your Mathematics Book 4	Improve Your Mathematics Book 4		50	357.00	17,850.00				2010
183	Improve Your Mathematics Book 5	Improve Your Mathematics Book 5		50	391.00	19,550.00				2010
184	Improve Your Mathematics Book 6	Improve Your Mathematics Book 6		50	356.00	17,800.00				2010
185	Improve Your Mathematics Book 7	Improve Your Mathematics Book 7		50	427.00	21,350.00				2010
186	Improve Your Mathematics Book 8	Improve Your Mathematics Book 8		50	440.00	22,000.00				2010
187	Success Primary Mathematics Book 1	Success Primary Mathematics Book 1		50	265.00	13,250.00				2010
188	Success Primary Mathematics Book 2	Success Primary Mathematics Book 2		50	240.00	12,000.00				2010
189	Success Primary Mathematics Book 3	Success Primary Mathematics Book 3		50	295.00	14,750.00				2010
190	Success Primary Mathematics Book 4	Success Primary Mathematics Book 4		50	350.00	17,500.00				2010
191	Success Primary Mathematics Book 5	Success Primary Mathematics Book 5		50	360.00	18,000.00				2010
192	Success Primary Mathematics Book 6	Success Primary Mathematics Book 6		50	410.00	20,500.00				2010
193	Success Primary Mathematics Book 7	Success Primary Mathematics Book 7		50	395.00	19,750.00				2010
194	Success Primary Mathematics Book 8	Success Primary Mathematics Book 8		50	430.00	21,500.00				2010
195	Photocopier	Nashuatec / Kyocera, Copy Speed A4: 82-90 ppm, Document Finisher, Duplex enabled, Paper Feeder, Colour/Black & White Scanning, Document Processor, Network Printing	The Copy Cat Limited	2	1,290,000.00	2,580,000.00	2,580,000.00	0.00	2,580,000.00	2010
196	Tyre	265/75/R16 for Nissan Patrol, Good Year	Avenue Service Station (1977) Ltd.	3	35,000.00	105,000.00	214,800.00	40,382.40	174,417.60	2010
197	Tyre	185/65R/15 for Toyota Avanza, Good Year		1	10,300.00	10,300.00				2010
198	Tyre	215/70/R16 for Toyota RAV4, Good Year		1	19,500.00	19,500.00				2010
199	Tyre	8.25/R/16 for Isuzu Bus, Road Shine		2	40,000.00	80,000.00				2010
200	Desktop PC	Intel Core 2 Duo (2.9GHz) or better, HDD: 320GB or more, Monitor: 17 inch LCD flat Monitor or better, Mouse, Keyboard, DVD/CD Drive, USB port (ver 2.0, more than 2ports available)	Total Solutions	1	121,830.00	121,830.00	121,830.00	0.00	121,830.00	2010
201	Kyocera Toner (Black)	Colour Laser Printer Toner Cartridge for Kyocera Mita FS C5300DN	MFI OFFICE SOLUTION S Limited	1	25,620.00	25,620.00	124,530.00	0.00	124,530.00	2010
202	Kyocera Toner (Yellow)	Colour Laser Printer Toner Cartridge for Kyocera Mita FS C5301DN		1	32,970.00	32,970.00				2010
203	Kyocera Toner (Magenta)	Colour Laser Printer Toner Cartridge for Kyocera Mita FS C5302DN		1	32,970.00	32,970.00				2010
204	Kyocera Toner (Cyan)	Colour Laser Printer Toner Cartridge for Kyocera Mita FS C5303DN		1	32,970.00	32,970.00				2010
205	Toner (Black)	Colour Laser Printer Toner Cartridge for Nashuatec SPC 410DN	The Copy Cat Limited	1	12,458.00	12,458.00	106,262.00	0.00	106,262.00	2010
206	Toner (Yellow)	Colour Laser Printer Toner Cartridge for Nashuatec SPC 411DN		1	31,268.00	31,268.00				2010
207	Toner (Magenta)	Colour Laser Printer Toner Cartridge for Nashuatec SPC 412DN		1	31,268.00	31,268.00				2010
208	Toner (Cyan)	Colour Laser Printer Toner Cartridge for Nashuatec SPC 413DN		1	31,268.00	31,268.00				2010

Source: Project document.

ANNEX 10-13: JICA Expenditure for SMASE local activities in Kenya

(Ksh.)

	2008*	2009**	2010**	2011***	Total
Operational cost for activities in Kenya	2,645,468.61	11,093,487.45	19,607,624.25	9,193,380.35	42,539,960.66
Operational cost for regional activities	1,848,413.39	16,723,512.55	17,515,375.75	1,128,392.40	37,215,694.09
Cost for TCT (Air ticket, insurance, etc.)	0.00	13,863,699.65	16,851,950.30	0.00	30,715,649.95
Cost for TGT (Meal, accomodation, etc.; Payment to GEMASTE A)	0.00	20,114,596.90	20,510,318.00	0.00	40,624,914.90
Total	4,493,882.00	61,795,296.55	74,485,268.30	10,321,772.75	151,096,219.60

Source: Project document.

*: January-March 2009.

**: Japanese fiscal year starts April and terminate March of the next year.

***: From 01 April 2011 to 12 August 2011.

Category	Evaluation Items	Indicator	Necessary data	Data source	Method of data collection	Result of the mid-term review																																																														
Appropriateness of Project Management Structure	JCC	No. of JCC meeting.	No. of meeting.	Project documents	Literature review	(-) JCC meeting was called only once on 2011/05/23, although JCC was supposed to be held once a year. (-) 26 participants were gathered at the MOE. The discussion points were: 1) Background of the Project, 2) Progress of the implementation (primary INSET, secondary INSET, WECSA), 3) Challenges to be addressed (Lack of budget for primary INSET), 4) Programmed activities. However, there was not any specific conclusion at the meeting. (+) The Permanent Secretary proposed establishment of CEMASTEAs Reengineering Committee, and the discussion would be continued among parties concerned.																																																														
		Effectiveness of JCC.	Comments	Official documents, Project documents	Literature review	(-) "The JCC was inactive and there is a need to reactivate it." (MOE REF: QAS/T/1/48/36) dated 2011/03/31). (-) "Since the JCC meeting is only once a year, issues on project implementation that require immediate attention are not readily addressed." ("Memorandum to the JCC Meeting").																																																														
	National Planning Committee (NPC)	Function of NPC.	No. of meeting, Comments	Official documents, Experts, CEMASTEAs CP	Literature review, Interview	(+) Because of lack of frequency of the JCC, "there is need for a NPC involving MOE, JICA and CEMASTEAs on a monthly bases." ("Re-engineering of CEMASTEAs and S/WASE Programme" extraction). (+/-) "The decision making should be made at BOG with MOE and JICA, whereas the NPC should only concentrate issued of implementation activities." (Interview with CEMASTEAs CP). (-) "The NPC should be held more often than it has been." (Interview with JICA Expert).																																																														
		Communication between JICA Experts and CEMASTEAs staff.	Comments	Official documents, CEMASTEAs CP	Literature review, Questionnaire to CEMASTEAs CP, Interview	(-) "There is sometimes inadequate consultation between CEMASTEAs and JICA Experts" (MOE REF: QAS/T/1/48/36) dated 2011/03/31). (-) "JICA subject specialists were not being properly utilized." ("Assessment Report for CEMASTEAs"). Some of CEMASTEAs CP expressed that the role of some JICA Experts are not well understood by CEMASTEAs CP (Interview with CEMASTEAs CP). (-) The following table shows the evaluation by CEMASTEAs staff on Project management structure. They consider that communication and consultation between Academic staff of CEMASTEAs and JICA experts is less adequate (Do you think that the Project management structure in CEMASTEAs is appropriate in terms of the following criteria?) (Questionnaire survey to CEMASTEAs CP).																																																														
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Kenyan side		Communication between MOE Experts and CEMASTEAs.	Comments	Official documents, Project documents	Literature review	(+) A team of Quality Assurance and Standards Officers of MOE and two school auditors from the Provincial Director of Education's office assessed the CEMASTEAs on March 22 and 23, 2011 (MOE REF: QAS/T/1/48/36) dated 2011/03/31). The assessment report promoted understanding of the actual situation and challenges of CEMASTEAs in the MOE authorities ("Self-evaluation report for the mid-term review" elaborated by JICA Experts). (-) "There was a commendable to strengthen relationship between CEMASTEAs and QAS in the field. This linkage was lacking with the Directorate of Quality Assurance and Standards at the Headquarters, ME and KNEC. Due to the poor linkages, the institute was unable to monitor the implementation of the INSETs effectively." ("Assessment Report for CEMASTEAs").																																																														
		Communication between CEMASTEAs and DPC, FTTC, DEO and schools.	Comments	CEMASTEAs administration, CEMASTEAs CP, District participants	Interview	(+) It was not observed any difficulties in terms of communication between CEMASTEAs and local parties (Interview with CEMASTEAs administration). (-) Delay of communication about activities from CEMASTEAs sometimes caused difficulty in local parties to organize activities (Interview with primary Head teachers). (-) Feedback and response from DEOs to CEMASTEAs were sometimes delayed (Interview with CEMASTEAs CP).																																																														

	Management and administrative capacity of CEMASTEIA.	Comments	Official documents, Project documents, CEMASTEIA administration, CEMASTEIA CP	Literature review, Interview	Comments
JICA side	Communication among JICA HQ, Kenya office and project.	Comments	Project document	Literature review	<p>(+/-) "Due to the delay of submission of the reports, the JICA HQ sometimes was not be informed timely about progress of activities. However, with the assistance of the JICA Kenya office and holding TV meetings, the communication was basically maintained" ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p>
District management structure for primary INSET	Function and effectiveness of DPC, and Coordination capacity of DPC at district level.	Comments	Project documents, District participants	Literature review, Interview	<p>(-) Expanded DPCs as outlined in the Project Document have not been operationalized ("SMASE Project Information for Mid-term Evaluation 2011" p. 163).</p> <p>(+/-) "Funding of primary activities comes from MOE through CEMASTEIA to DEO" (Interview with district management personnel).</p>
	Alternative measure when DPC is not working.	Comments	Project documents, CEMASTEIA CP, District participants	Literature review, Interview	<p>(+) MOE district officials (DEO and DQASO) and TAG Tutors have been implementing the primary INSET.</p> <p>(+) There was no difficulty to implement INSET in the MOE administration structure at district level (Interview to district management personnel).</p> <p>(-) There was a difficulty in obtaining clear statistics on the number of schools, clusters, zones and districts for planning purpose ("Memorandum to the JCC Meeting"). It affected the provision of materials, and there was shortage of materials in some districts ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p> <p>(-) It was difficult for PTTTCs to coordinate with approximately 10 districts each to implement regional activities (Interview with CEMASTEIA CP).</p>
	Coordination with PTTTC.	Comments	Project documents, Experts, CEMASTEIA administration, CEMASTEIA CP	Literature review, Interview	<p>(+) "As the DPC is not working for primary INSET, CEMASTEIA is coordinating directly with PTTTCs with assistance of MOE" (Interview with CEMASTEIA administration).</p> <p>(-) "It is difficult for PTTTCs to coordinate with approximately 10 DEOs" (Interview with CEMASTEIA CP).</p> <p>(-) PTTTCs do not have administrative authority over Cluster Trainers who are under DEO's supervision. Therefore, they cannot control effectively teachers without discipline" (Interview with CEMASTEIA CP).</p> <p>(-) The delay of holding INSET and its payment resulted in dissatisfaction of PTTTC principals in 2010 ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p> <p>(-) "It is still observed that some PTTTCs are not satisfied with financial arrangement for Regional INSET" (Interview with JICA Experts).</p>
District management structure for secondary INSET; DPC	Function and effectiveness of DPC.	Comments	CEMASTEIA administration, District participants	Interview	<p>(+) There were no serious issues noted in the function and effectiveness of DPC in implementing secondary INSET in three visited districts, according to interview with secondary school Principals and district management personnel.</p> <p>(+/-) The "Handbook on Management of District SMASSE Programmes" will be reviewed after issuing new Education Act and TSC Act (Interview with CEMASTEIA administration).</p>
	Coordination capacity of DPC at district level.	Comments	District participants	Interview	<p>(+) There were no major issues in terms of coordination by DPC at district level in the visited districts, according to interview with secondary Principals and district management personnel.</p>
	Actual situation of the personnel trained in the Phase 2.	Comments	Project documents	Literature review	<p>(-) Due to the post election problems and creation of new districts after the year 2008, many DEOs, Chairmen of DPCs and District Trainers were newly appointed. Activities implemented in phase 2 were not continued ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p>

Budget expenses	CEMASTE A	Budget for CEMASTE A.	Comments	Official documents, Project documents, CEMASTE A administration	Literature review, Interview
	Primary level	Budget for Regional INSET.	Comments	Project documents	Literature review
		Budget for Cluster INSET.	Comments	Project documents, Experts, CEMASTE A administration, CEMASTE A staff	Literature review, Interview
	Secondary level	SMASSE Fund.	Comments	Official documents, Project documents	Literature review
Appropriateness of Training System (Technical aspect)	Primary INSET	% of trained teacher.	INSET record	CEMASTE A CP, District participants	Interview

(-) SMASSE Project budget was not factored in the MOE printed estimates in the fiscal year 2009/2010, which delayed implementation (Interview with CEMASTE A administration).
 (+) However, SMASSE budget was reflected in 2010/2011 and 2011/2012 to develop activities (Interview with CEMASTE A administration).
 (-) Increase of districts from 150 to 285 has been affecting budget provision: 1) The number of participants in DEO and DQASO workshop has increased; 2) "A one-time workshop for all DEOs has to be held since their workshop for policy decisions, but CEMASTE A lacks capacity to accommodate and therefore alternative venue has to be hired" ("Memorandum to the JCC Meeting"). This requires a revision of unit cost of meal and accommodation.
 (-) Due to the inflation, unit costs have increased for all INSETs and workshops. "This compromises quality of service" ("Re-engineering of CEMASTE A and SMASSE Programme" extract).
 (-) "Cost of goods and services has gone up since 2009, which requires an increase of accommodation/meals allowance. More, PTTC Principals reported that it is not possible to give the standard service befitting the participants" ("Memorandum to the JCC Meeting").
 (-) "Some distances travelled by participants require more than Ksh. 2,000 as transport. Moreover, some participants have to travel for more than one day to reach to PTTC. Therefore, it is necessary to revise transportation reimbursement for specific regions" ("Memorandum to the JCC Meeting").
 (-) "There are several items with no budget provisions: 1) transportation for participants for actualization, 2) collection of materials from Nairobi, 3) provision of specimens and other consumables" ("Memorandum to the JCC Meeting").
 (-) "Many schools forming a cluster in such areas are sometimes over 50 km apart (Note: in ASAL and other hardship areas), which requires funds for residential INSET" ("Memorandum to the JCC Meeting").
 (-) "There is no budgetary provision to districts: 1) collection of materials for workshops and INSET from Nairobi, 2) track the progress of activities by the DEOs office" ("Memorandum to the JCC Meeting").
 (-) "Cluster trainers, Head teachers of Cluster centres and TAC Tutors who oversee the Cluster INSET have no provision for lunch" ("Memorandum to the JCC Meeting").
 (+/-) The reasons that the payment was sometimes delayed were: 1) a delay of disbursement of MOE/Treasury, 2) a delay of communication of DEO with necessary documents (Interview with CEMASTE A non academic staff).
 (-) Due to the refund system of primary INSET, part of teachers attended training with neither lunch nor tea. It caused dissatisfaction among teachers (Interview with CEMASTE A administration).
 (+) "The SMASSE Fund management is based on guidelines that stakeholders developed during the project period and have since been published by MOE and CEMASTE A in 2008" ("Re-engineering of CEMASTE A and SMASSE Programme" extract).
 (+/-) In 2008, the Free Day Secondary Education (FDSE) Programme started. "Funding of SMASSE activities, according to FDSE policy, is to be drawn from tuition vote head (Circular Reference No. MOE/OI/9/1/44 dated 2008/01/09). Regarding the amount of the fund, the circular does not allocate specific amount of the tuition money to SMASSE activities. From past experiences, an allocation of up to a maximum of Ksh 200 per learner has been adequate to fund district SMASSE activities" ("Handbook on Management of District SMASSE Programmes").
 (-) "The SMASSE District Fund is currently not audited and is therefore prone to mismanagement. It is therefore necessary for MOE to put in place audit mechanisms and strengthen management of District INSET by enforcing accountability" ("Memorandum to the JCC Meeting").
 (+/-) The target figure was 80,000, but the actual number of participants was 55,393 in 2010. The shortfall could be attributed partly to some 12 districts, mostly in the Arid and Semi Arid Land (ASAL) region, which did not conduct INSET. This is because distances between schools could not allow for non-residential INSET, and the funds for Cluster INSET did not cater for residential training according to "Memorandum to the JCC Meeting". Another reason was that there were schools in which number of teachers was less than three (The Project invited 3 teachers from each school.) (Interview with CEMASTE A CP).
 (-) According to the interview to Head teachers, the participants were not only mathematics and science teachers from grade 6 to 8. More, there were many changes of participants due to various reasons in some districts (Interview with district management personnel).
 (-) According to the data provided by TAC Tutors or Head teachers, the continuation ratio of teachers at Cluster training in 2011 was approximately 10% in Machakos district and 87% at 5 schools in Naivasha district, and in Kiyo South district, 25 teachers out of 76 participants in 2010 participated in 2011 (the total number of participants in 2011 was 51.) (Interview to district management personnel).

<p>Effect of the INSET at teachers' level.</p>	<p>Comments</p>	<p>District participants</p>	<p>Questionnaire to Teachers. Questionnaire to district management personnel</p>	<p>(+) The following table shows the perception of district participants about SMASE INSET (Do you think the SMASE INSET contributes to the improvement of mathematics and science lessons?). The result shows that the SMASE INSET significantly contributes to the improvement of mathematics and science education (Questionnaire survey to Teachers, Questionnaire survey to district management personnel).</p> <table border="1"> <thead> <tr> <th colspan="2">Contribution of SMASE</th> <th colspan="2">Significantly contributes</th> <th colspan="2">Slightly contributes</th> <th colspan="2">Not contributes at all</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>21</td> <td>95.5</td> <td>1</td> <td>4.6</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>22</td> <td>100.0</td> </tr> <tr> <td>31</td> <td>83.8</td> <td>4</td> <td>10.8</td> <td>1</td> <td>2.7</td> <td>1</td> <td>2.7</td> <td>1</td> <td>2.7</td> <td>37</td> <td>100.0</td> </tr> <tr> <td>Total</td> <td>52</td> <td>88.1</td> <td>5</td> <td>8.5</td> <td>1</td> <td>1.7</td> <td>1</td> <td>1.7</td> <td>1</td> <td>59</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers, Questionnaire survey to district management personnel</p>	Contribution of SMASE		Significantly contributes		Slightly contributes		Not contributes at all		N/A		Total		f	%	f	%	f	%	f	%	f	%	f	%	21	95.5	1	4.6	0	0.0	0	0.0	0	0.0	22	100.0	31	83.8	4	10.8	1	2.7	1	2.7	1	2.7	37	100.0	Total	52	88.1	5	8.5	1	1.7	1	1.7	1	59	100.0
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<p>Evaluation on Cluster Trainers.</p>	<p>Comments</p>	<p>Project document, Experts, CEMASTE A CP, District participants, International organizations</p>	<p>Literature review, Questionnaire to CEMASTE A CP, Interview</p>	<p>(+) According to the observation of JICA Experts, the Cluster training was implemented with an expected level of quality ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts). (-) However, "the level of knowledge and facilitation skill of Cluster Trainers was not uniformed" ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts). (-) According to CEMASTE A counterparts, INSET at Cluster level had weakness such as inconsistency of Cluster Trainers and unbalanced number of mathematics trainers and science ones (Interview with CEMASTE A CP). (-) In 5 zones in Machakos district, 14 trainers out of 24 continued to be trainer in 2011; 15 out of 17 continued in Naivasha district, and; only 1/4 of trainers continued in Kiyo South district (Interview with district management personnel). (+/-) A staff of Aga Khan Foundation suggested to make use of TAC Tutors for the purpose of assisting Cluster Trainers (Interview with international organizations). (-) The following table shows an evaluation of CEMASTE A CP on Cluster Trainers' capacities (same question as above) (Questionnaire survey to CEMASTE A CP).</p> <table border="1"> <thead> <tr> <th rowspan="2">Capacities</th> <th colspan="2">Completely developed</th> <th colspan="2">Mostly developed</th> <th colspan="2">Not developed at all</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Cluster trainers Knowledge</td> <td>2</td> <td>7.4</td> <td>23</td> <td>85.2</td> <td>2</td> <td>7.4</td> <td>0</td> <td>0.0</td> <td>27</td> <td>100.0</td> </tr> <tr> <td>Cluster trainers Facilitation</td> <td>1</td> <td>3.7</td> <td>21</td> <td>77.8</td> <td>5</td> <td>18.5</td> <td>0</td> <td>0.0</td> <td>27</td> <td>100.0</td> </tr> <tr> <td>Cluster trainers Motivation</td> <td>0</td> <td>0.0</td> <td>7</td> <td>25.9</td> <td>19</td> <td>70.4</td> <td>1</td> <td>3.7</td> <td>27</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to CEMASTE A CP</p>	Capacities	Completely developed		Mostly developed		Not developed at all		N/A		Total		f	%	f	%	f	%	f	%	f	%	Cluster trainers Knowledge	2	7.4	23	85.2	2	7.4	0	0.0	27	100.0	Cluster trainers Facilitation	1	3.7	21	77.8	5	18.5	0	0.0	27	100.0	Cluster trainers Motivation	0	0.0	7	25.9	19	70.4	1	3.7	27	100.0						
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Primary workshop	Secondary INSET	Effect of the INSET at teachers' level.																																																					
<p>(Head teachers) Contribution of the WS to make principals assist Cluster training and in-school training.</p> <p>(TAC Tutor) Contribution of the WS to make TAC Tutors organize and monitor Cluster training.</p> <p>District INSET organized by DPC.</p>	<p>Head Teachers' comments</p> <p>TAC Tutors' comments</p> <p>District INSET record, Comets</p> <p>Project documents, Experts, CEMASTECP, District participants</p>	<p>Interview</p> <p>Questionnaire to district management personnel</p> <p>Questionnaire to district management personnel</p> <p>Literature review, Interview</p> <p>Questionnaire to Teachers, Questionnaire to district management personnel</p>																																																					
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<p>(+) "Activities of the planning and implementation of M&E have been well developed by CEMASTECP staff. The results of M&E were shared with district parties." (Interview with CEMASTECP CP).</p> <p>(-) However, "use of feedback to improve the next INSET is insufficient in CEMASTECP" (Interview with CEMASTECP CP).</p> <p>(-) Lack of practices of information and knowledge management was recognized by the CEMASTECP administration in the process of preparation to receive the Mid-term Review Study (Interview with CEMASTECP administration).</p> <p>(+/-) "There is a format to collect information from districts, but the feedback system has not fully functioned yet due to the delay of information. Moreover, some district management personnel need workshop in writing reports to enhance quality reporting from the base." (Interview with CEMASTECP CP)</p> <p>(+) Head teachers (17 samples) consider that the workshop content that they attended is Completely adequate (50%) or Mostly adequate (42%) (Do you think that the workshop that you attended was adequate in terms of the following criteria: Content?) (Questionnaire survey to district management personnel).</p> <p>(+) TAC Tutors (9 samples) consider that the workshop content they attended is Completely adequate (34%) or Mostly adequate (56%) (Do you think that the workshop that you attended was adequate in terms of the following criteria: Content?) (Questionnaire survey to district management personnel).</p> <p>(-) Secondary INSET was supposed to be implemented by Kenyan side, in other words, it was not considered as Project activity. In addition, the training at district level was supposed to be planned and implemented independently by DPCs. However, it seems a challenge for DPCs and to be needed supports from CEMASTECP/Project, according to the interview with CEMASTECP CP and district participants.</p> <p>(+/-). Reference data) The number of participants in District INSET during phase 2 is 16,363 (2004), 16,251 (2005), 14,690 (2006) and 14,581 (2007) ("SMASSE Phase 2 Final Report" elaborated by JICA Experts).</p> <p>(+/-) In visited 3 district, 62 out of 105 teachers that were supposed to attend INSET participated in the training in 2011 in Machakos district; in Naivasha district, the number of participants in INSET was 176 in 2010 and 172 in 2011, and in Keijo South, the number was 166 (2005; cycle 2), 184 (2006; cycle 3), 178 (2007; cycle 4), 151 (2008; non-up), 58 (2009; content developed by DPC), no INSET in 2010 and 162 in 2011 with content developed by CEMASTECP (Interview with teachers and district management personnel).</p> <p>(-) The number of participants in secondary INSET in 2009 was 7,771. This decrease was due to the appointment of new DEOs and DQASOs, and the guideline, i.e., "Handbook on Management of District SMASSE Programme", was not properly shared ("2nd Progress Report" elaborated by JICA Expert). According to the interview with CEMASTECP CP, the reason of decrease was that most DPC could not develop new training content and implement only "Mop-up" for newly employed teachers (Interview with CEMASTECP CP). According to the Representative of District Trainers, they could develop training content technically, but they felt they had no time (Interview with a Representative of District Trainers).</p> <p>(-) In 2010, 4,616 teachers (2,345 in April and 2,271 in August) participated in SMASSE District INSET ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p>																																																							
<p>(+) The following table shows the perception of district participants about SMASSE INSET (Do you think the SMASSE INSET contributes to the improvement of mathematics and science lessons at secondary level?) (Questionnaire survey to teachers, Questionnaire survey to district management personnel).</p>																																																							
<table border="1"> <thead> <tr> <th colspan="2">Contribution of SMASSE</th> <th colspan="2">Significantly over/under</th> <th colspan="2">Slightly contributes</th> <th colspan="2">Net contributes at all</th> <th colspan="2">Total</th> </tr> <tr> <th></th> <th>F</th> <th>%</th> <th>F</th> <th>%</th> <th>F</th> <th>%</th> <th>F</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Secondary Teachers</td> <td>11</td> <td>44.0</td> <td>12</td> <td>48.0</td> <td>0</td> <td>0.0</td> <td>2</td> <td>8.0</td> <td>25</td> <td>100.0</td> </tr> <tr> <td>Management personnel</td> <td>17</td> <td>70.8</td> <td>6</td> <td>25.0</td> <td>1</td> <td>4.2</td> <td>0</td> <td>0.0</td> <td>24</td> <td>100.0</td> </tr> <tr> <td>Total</td> <td>28</td> <td>57.1</td> <td>18</td> <td>36.7</td> <td>1</td> <td>2.0</td> <td>2</td> <td>4.1</td> <td>49</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers, Questionnaire survey to district management personnel</p>			Contribution of SMASSE		Significantly over/under		Slightly contributes		Net contributes at all		Total			F	%	F	%	F	%	F	%	%	Secondary Teachers	11	44.0	12	48.0	0	0.0	2	8.0	25	100.0	Management personnel	17	70.8	6	25.0	1	4.2	0	0.0	24	100.0	Total	28	57.1	18	36.7	1	2.0	2	4.1	49	100.0
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M&E on the INSET and feedback.	Comments	CEMASTEA administration, CEMASTEAs CP, District participants	Interview Same as the Primary INSET. (-) "There was sometimes confusion about to which institution, MOE or CEMASTEAs, the report should be sent" (Interview with district management personnel).																																												
Secondary workshop	(Principals) Contribution of the WS by the project to the classroom practice and in-school training.	Secondary principals	Interview (+) "The workshop for Principals facilitates understanding of SWASE INSET and ASEI-PDSI" (Interview with secondary Principals). (+/-) "It should be more strengthened, because it is not still sufficient for Principals without mathematics and science orientation to assist newly recruited teachers" (Interview with secondary Principals).																																												
Evaluation (Primary level) on training by trainees (Administrative aspect)	PTTC lecturers. Trainees' evaluation on the training	PTTC lecturers	Questionnaire to PTTC lecturers (+) The following table shows the result of the Questionnaire survey to PTTC lecturers (Do you think that the SWASE INSET that you received was adequate in terms of the following criteria?). Sample size is very limited (Questionnaire survey to PTTC lecturers). <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Management and logistics</td> <td>2</td> <td>50.0</td> <td>2</td> <td>50.0</td> <td>0</td> <td>0.0</td> <td>4</td> <td>100.0</td> </tr> <tr> <td>Duration</td> <td>2</td> <td>50.0</td> <td>2</td> <td>50.0</td> <td>0</td> <td>0.0</td> <td>4</td> <td>100.0</td> </tr> <tr> <td>Content</td> <td>2</td> <td>50.0</td> <td>2</td> <td>50.0</td> <td>0</td> <td>0.0</td> <td>4</td> <td>100.0</td> </tr> </tbody> </table> Source: Questionnaire survey to PTTC lecturers		Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	Management and logistics	2	50.0	2	50.0	0	0.0	4	100.0	Duration	2	50.0	2	50.0	0	0.0	4	100.0	Content	2	50.0	2	50.0	0	0.0	4	100.0
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Cluster Trainers.	Trainees' evaluation on the training	Official documents, Experts, District participants	Literature review, Questionnaire to Teachers, Interview (-) It was reported a prevail dissatisfaction among Cluster trainers in terms of payment and administrative treatment to them (Interview with JICA Experts). (-) "Menu offered during SWASE INSET was not standardized in all colleges" ("Re-engineering of CEMASTEAs and SWASE Programme" extract). (-) "Hostels cleanliness is not good. Uncomfortable beds, facilities need facelift" ("Re-engineering of CEMASTEAs and SWASE Programme" extract).																																												
DEOs, DOASOs, TAC Tutors.	Trainees' evaluation on the training	District participants	Questionnaire to district management personnel (+) The following table shows the result of the Questionnaire survey to district management personnel (Do you think that the workshop that you attended was adequate in terms of the following criteria?) Most of them were satisfied with the content of the workshop (Questionnaire survey to district management personnel). (-) However, they were not very much content in terms of Timing of the workshop (Questionnaire survey to district management personnel). <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Evaluation on participated workshop (Administration personnel)</td> <td>4</td> <td>25.0</td> <td>9</td> <td>56.3</td> <td>3</td> <td>18.8</td> <td>16</td> <td>100.0</td> </tr> <tr> <td>Primary Training</td> <td>2</td> <td>12.5</td> <td>8</td> <td>50.0</td> <td>6</td> <td>37.5</td> <td>16</td> <td>100.0</td> </tr> <tr> <td>Content</td> <td>6</td> <td>37.5</td> <td>9</td> <td>56.3</td> <td>1</td> <td>6.3</td> <td>16</td> <td>100.0</td> </tr> </tbody> </table> Source: Questionnaire survey to district management personnel		Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	Evaluation on participated workshop (Administration personnel)	4	25.0	9	56.3	3	18.8	16	100.0	Primary Training	2	12.5	8	50.0	6	37.5	16	100.0	Content	6	37.5	9	56.3	1	6.3	16	100.0
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<p>Primary Head teachers.</p>	<p>Trainees' evaluation on the training</p>	<p>District participants</p>	<p>Questionnaire to district management personnel</p>	<p>(+/-) Head teachers also said that the management and logistics and content were adequate but the timing was not very much adequate about the workshop that they received (Questionnaire survey to district management personnel).</p> <table border="1"> <thead> <tr> <th colspan="2">Evaluation on participated workshop (Head teachers)</th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>50.0</td> <td>5</td> <td>41.7</td> <td>1</td> <td>8.3</td> <td>12</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>41.7</td> <td>4</td> <td>33.3</td> <td>3</td> <td>25.0</td> <td>12</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>50.0</td> <td>5</td> <td>41.7</td> <td>1</td> <td>8.3</td> <td>12</td> <td>100.0</td> <td></td> <td></td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p>	Evaluation on participated workshop (Head teachers)		Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	f	%	6	50.0	5	41.7	1	8.3	12	100.0			5	41.7	4	33.3	3	25.0	12	100.0			6	50.0	5	41.7	1	8.3	12	100.0												
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<p>Primary teachers.</p>	<p>Trainees' evaluation on the training</p>	<p>District participants</p>	<p>Questionnaire to Teachers, Interview</p>	<p>(+) Teachers who attended SMASE INSET showed their satisfaction in content according to the interview to teachers (Interview with teachers). (-) However, teachers showed their dissatisfaction, especially in management and logistics. This result was supported by various interviewees and by Questionnaire survey to teachers shown below.</p> <table border="1"> <thead> <tr> <th colspan="2">SMASE INSET Trainees</th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>17.6</td> <td>8</td> <td>47.1</td> <td>6</td> <td>35.3</td> <td>0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>17</td> <td>100.0</td> </tr> <tr> <td>6</td> <td>35.3</td> <td>8</td> <td>47.1</td> <td>3</td> <td>17.7</td> <td>0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>17</td> <td>100.0</td> </tr> <tr> <td>5</td> <td>29.4</td> <td>12</td> <td>70.6</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>17</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	SMASE INSET Trainees		Completely adequate		Mostly adequate		Mostly inadequate		N/A		Total		f	%	f	%	f	%	f	%	f	%	f	%	3	17.6	8	47.1	6	35.3	0	0.0	0.0	0.0	17	100.0	6	35.3	8	47.1	3	17.7	0	0.0	0.0	0.0	17	100.0	5	29.4	12	70.6	0	0.0	0	0.0	0	0.0	17	100.0
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<p>(Secondary level) District Trainers.</p>	<p>Trainees' evaluation on the training</p>	<p>District participants</p>	<p>Questionnaire to Teachers</p>	<p>(+/-) The following table is District Trainers' evaluation on National INSET (Do you think that the SMASE INSET you received was adequate in terms of following criteria?) (Questionnaire to Teachers). It is not observed any strong tendency, but the content is considered better than the other criteria.</p> <table border="1"> <thead> <tr> <th colspan="2">SMASE INSET District trainer</th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0.0</td> <td>5</td> <td>62.5</td> <td>1</td> <td>12.5</td> <td>2</td> <td>25.0</td> <td>8</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>12.5</td> <td>4</td> <td>50.0</td> <td>1</td> <td>12.5</td> <td>2</td> <td>25.0</td> <td>8</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>25.0</td> <td>4</td> <td>50.0</td> <td>0</td> <td>0.0</td> <td>2</td> <td>25.0</td> <td>8</td> <td>100.0</td> <td></td> <td></td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	SMASE INSET District trainer		Completely adequate		Mostly adequate		Mostly inadequate		N/A		Total		f	%	f	%	f	%	f	%	f	%	f	%	0	0.0	5	62.5	1	12.5	2	25.0	8	100.0			1	12.5	4	50.0	1	12.5	2	25.0	8	100.0			2	25.0	4	50.0	0	0.0	2	25.0	8	100.0		
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<p>DEOs, DQASOs.</p>	<p>Trainees' evaluation on the training</p>	<p>District participants</p>	<p>Questionnaire to district management personnel</p>	<p>(+/-) The following table is DEO and DQASOs' evaluation on National workshop (Do you think that the workshop you attended was adequate in terms of following criteria?) (Questionnaire to district management personnel). It is not observed any strong tendency, but the content is considered better than the other criteria.</p> <table border="1"> <thead> <tr> <th colspan="2">Evaluation on participated workshop (Administration personnel)</th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>33.3</td> <td>4</td> <td>66.7</td> <td>0</td> <td>0.0</td> <td>6</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>33.3</td> <td>3</td> <td>50.0</td> <td>1</td> <td>16.7</td> <td>6</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>50.0</td> <td>3</td> <td>50.0</td> <td>0</td> <td>0.0</td> <td>6</td> <td>100.0</td> <td></td> <td></td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p>	Evaluation on participated workshop (Administration personnel)		Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	f	%	2	33.3	4	66.7	0	0.0	6	100.0			2	33.3	3	50.0	1	16.7	6	100.0			3	50.0	3	50.0	0	0.0	6	100.0												
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<p>Secondary Principals.</p>	<p>Trainees' evaluation on the training</p>	<p>District participants</p>	<p>Questionnaire to district management personnel</p>	<p>(+/-) The following table is Principals' evaluation on the workshop for Principals (Do you think that the workshop you attended was adequate in terms of following criteria?) (Questionnaire to district management personnel). It is not observed any strong tendency, but the content is considered better than the other criteria.</p> <table border="1"> <thead> <tr> <th colspan="2">Evaluation on participated workshop (Principals)</th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>30.8</td> <td>7</td> <td>55.8</td> <td>2</td> <td>15.4</td> <td>13</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>30.8</td> <td>8</td> <td>61.5</td> <td>1</td> <td>7.7</td> <td>13</td> <td>100.0</td> <td></td> <td></td> </tr> <tr> <td>7</td> <td>53.8</td> <td>4</td> <td>30.8</td> <td>2</td> <td>15.4</td> <td>13</td> <td>100.0</td> <td></td> <td></td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p>	Evaluation on participated workshop (Principals)		Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	f	%	4	30.8	7	55.8	2	15.4	13	100.0			4	30.8	8	61.5	1	7.7	13	100.0			7	53.8	4	30.8	2	15.4	13	100.0												
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<p>Secondary teachers.</p>	<p>Trainees' evaluation on the training</p>	<p>Official documents, District participants</p>	<p>Literature review, Questionnaire to Teachers, Interview</p>	<p>(-) Cultural sensitivity on the use of students' dormitories/mattresses during INSET ("Re-engineering of CEMASTEAs and SMASE Programme" extract). (-) Resistance by participants to reside at the INSET Centres ("Re-engineering of CEMASTEAs and SMASE Programme" extract). (-) "The enforcement by some DEOs to teachers to participate in INSET sometimes causes antipathy toward SMASE INSET" (Interview with teachers). (+/-) In Questionnaire survey, there is no strong tendency among teachers, but the content is less appreciated than the other criteria, different from the other district participants. (-) This result is supported by result of interview to teachers: "After cycle 4, the content is always repeated, and there is almost nothing new except ICT integration" (Interview with teachers).</p>
<p>Willingnes s/Relucta nce to participat e in INSET</p>	<p>Incentives for teachers to participate in the INSET.</p>	<p>District participants</p>	<p>Questionnaire to Teachers, Interview</p>	<p>(+) Primary teachers show absolutely high motivation to participate in SMASE INSET (Would you like to participate more in SMASE INSET?) (Questionnaire to Teachers). (-) An ex District Trainer mentioned about secondary INSET: "Once the way of teaching improved, but it is going back to the traditional way. The reason could be enforcement of participation in INSET, which lead to negative attitude of teachers. It is also true to finish all the syllabus is a great challenge for all teachers" (Interview with district management personnel). (-) Various interviewees mentioned the problem of secondary INSET training was implemented during vacation, attendance was not being certificated and attended teachers were not promoted nor given any annual increment of salary, and not receiving any out of pocket allowance. A district's personnel expressed this situation: "Secondary mathematics and science teachers feel punished because the other subjects' teachers do not have to attend INSET during vacation period" (Interview with teachers and district management personnel).</p>
<p>Secondary teachers.</p>	<p>Trainees' evaluation on the training</p>	<p>Official documents, District participants</p>	<p>Literature review, Questionnaire to Teachers, Interview</p>	<p>(-) "Teachers show their dissatisfaction with not receiving any certificate after INSET" (Interview with district management personnel). (-) Teachers need a motivation to make them persist throughout (the four INSET course). They also need to show evidence of participation during interviews ("Re-engineering of CEMASTEAs and SMASE Programme" extract). (-) "The INSET should not be imposed. The timing (during the school term or in the vacation) and enforcement of the training is the major problems of the SMASE" (Comment of MOE official at the CEMASTEAs Re-engineering Committee in Project document).</p>

SMASE INSET Trainers	Completely adequate		Mostly inadequate		N/A		Total	
	f	%	f	%	f	%	f	%
Management	6	35.3	9	52.9	2	11.8	0	0.0
Secondary	6	35.3	9	52.9	2	11.8	0	0.0
Duration	3	17.6	11	64.7	3	17.6	0	0.0
Content	3	17.6	11	64.7	3	17.6	0	0.0

Source: Questionnaire survey to Teachers

Motivation	Absolutely would like		If there are certain change		Not at all		Total	
	f	%	f	%	f	%	f	%
Primary	18	81.8	4	18.2	0	0.0	22	100.0
Secondary	8	32.0	14	56.0	3	12.0	25	100.0

Source: Questionnaire survey to Teachers

Category	Evaluation items	Indicator	Necessary data	Data source	Method of data collection	Findings of the mid-term review	Evaluation																														
Relevance Necessity	Relevance to the needs of the Kenyan society	Primary and secondary	Comments	Project documents, research paper, Media reports, MOE officials	Literature review, Interview	<p>(+) It is necessary for teacher to continue attending INSET to adjust to the change of society" (Interview with Director of FOS).</p> <p>(+) Since 1988, through the Sessional Paper No. 6 of 1988, the Kenyan government has showed its emphasis on the teacher education; "there is urgent need to develop and promote teacher education programme if the administration of education in the country is to succeed and national development is to be accelerated". (Kafu (2011) "Teacher Education in Kenya: Emerging Issues", International Journal of Curriculum and Instruction Vol. 1(1), pp.43-52, April 2011).</p> <p>(+) During a sensitization workshop for the leadership of the Kenya Primary School Heads Association (KEPSHA) held at CEMASTEIA in August 2010, KEPSHA acknowledged the importance of INSET and pledged to support implementation of primary INSET, in spite of challenges that were being experienced in implementation of Cluster INSET at that time ("SMASE Project Information for Mid-term Evaluation 2011", p.160).</p> <p>(+/-) "The so-called 'Free Primary Education Funds scam' disclosed in September 2009 has discredited the Kenyan Ministry of Education. The entire Ministry is now under investigations the corruption scandal is reaching Nairobi courtrooms". (afrol News 16/03/2010, http://afrol.com/articles/35665 cited on 28/07/2011).</p>	(+)																														
	Relevance to the needs of target groups	Training effect on teaching methods	Teachers' comments	Teachers	Questionnaire to Teachers	<p>(+) Teachers recognize the effect of SMASE INSET. ("Do you think that teachers changed their teaching methods through SMASE INSET?")</p> <table border="1"> <thead> <tr> <th rowspan="2">Teaching methods</th> <th colspan="2">Significantly changed</th> <th colspan="2">Not changed at all</th> <th rowspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>5</td> <td>27.8</td> <td>12</td> <td>66.7</td> <td>17</td> </tr> <tr> <td>Secondary</td> <td>2</td> <td>16.7</td> <td>19</td> <td>79.2</td> <td>21</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1</td> <td>4.2</td> <td>1</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	Teaching methods	Significantly changed		Not changed at all		Total	f	%	f	%	Primary	5	27.8	12	66.7	17	Secondary	2	16.7	19	79.2	21				1	4.2	1			
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		Difference from the other INSET programs	Teachers' comments	Teachers	Questionnaire to Teachers	<p>(+) Especially primary teachers appreciate the SMASE INSET in comparison with the other INSET programs. ("Do you think that the INSET that you received is better than other INSET programme/university training programmes?")</p> <table border="1"> <thead> <tr> <th rowspan="2">SMASE INSET</th> <th colspan="2">Significantly better</th> <th colspan="2">More or less the same</th> <th colspan="2">Worse</th> <th rowspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>16</td> <td>72.7</td> <td>5</td> <td>22.7</td> <td>1</td> <td>4.6</td> <td>22</td> </tr> <tr> <td>Secondary</td> <td>11</td> <td>44.0</td> <td>14</td> <td>56.0</td> <td>0</td> <td>0.0</td> <td>25</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	SMASE INSET	Significantly better		More or less the same		Worse		Total	f	%	f	%	f	%	Primary	16	72.7	5	22.7	1	4.6	22	Secondary	11	44.0	14	56.0	0	0.0	25	
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Relevance to the Kenya's governmental policies		Development policies	Vision 2030, OECD (2010) "JAPAN DAC Peer Review"	Official documents, Project documents	Literature review	<p>(-) Vision 2030 announces the "Human Resources Development" as one of 10 foundations; "Kenya intends to create a globally competitive and adaptive human resource base to meet the requirements of a rapidly industrializing economy". (Kenya Vision 2030 The Popular Version p. 9). Moreover, "Vision 2030 states that more resources will be devoted to scientific research, technical capabilities of the workforce, and in raising the quality of teaching mathematics, science and technology in schools, polytechnics and universities" ("SMASE Project Information for Mid-term Evaluation 2011" p. 159).</p> <p>(+) "Japan had made efforts to ensure that a Japanese education project (SMASSE in Kenya) was aligned with governments' overall strategies and that information about the project was widely shared" ("JAPAN DAC Peer Review" p. 112).</p>																															

	Education policies	Sessional Paper No. 1 of 2005, Master Plan on Education and Training (1997-2010)	Official documents; Project documents	Literature review	<p>(+) Sessional Paper No. 1 of 2005 "A Policy Framework for Education, Training and Research" is still valid as a policy framework for education. It states that "The current situation calls for an urgent development of a comprehensive in-service training programme to empower teachers to deliver the changes that have been made in the existing school curricula."</p> <p>(+) "The Sessional Paper No. 1 of 2005 provides a clear focus on teacher development and utilization, under which INSET is a priority area" (KESPP p. 131). SMASE document cites: The Sessional Paper No. 1 of 2005 asserts that "pre-service training alone cannot prepare teachers for the challenges of lifelong teaching and learning that lie ahead in this rapidly changing society (MOE, 2005, p. 206)" ("SMASE Project Information for Mid-term Evaluation 2011" p. 155).</p> <p>(+) SMASE document also mentioned: "The Master Plan on Education and Training (1997-2010) identified lack of concentration on the development of intellectual abilities and skills through nurturing communication, mathematical, scientific, technological and social abilities as the cause of poor achievement in key subjects in the curriculum. It acknowledges that it is essential to update the teachers pedagogical skills and knowledge of content through regular and continuous INSET among others" ("SMASE Project Information for Mid-term Evaluation 2011" p. 155).</p>
Relevance to the Japan's governmental policies	ODA policies	ODA Charter, ODA Mid-term Policy	Official documents	Literature review	<p>(+) Japan's Official Development Assistance (ODA) Charter mentions its assistance priority to education for the purpose of poverty reduction: "Japan will give high priorities to providing assistance to sectors such as education, ..." (ODA Charter (August 2003) I, Philosophy 3, Priority Issues (1) Poverty Reduction).</p> <p>(+) Japan's Medium-term Policy on ODA states that: "People will be regarded not just as a target of assistance but also as the promoters of development in their society". For that sake, it mentioned the provision of education service (ODA Medium-term Policy on ODA (February 2005) 2. Regarding the Perspective of "Human Security" iii. Assistance that Emphasizes Empowering of People).</p> <p>(+) The Government of Japan announced its Country Assistance Program for Kenya in 2000 in which Human resource development is one of the five areas mentioned in (4) Aid Guidelines for Priority Areas and Challenges (Country Assistance Program for Republic of Kenya p. 9).</p> <p>(+) Tokyo International Conference on African Development (TICAD IV) Yokohama Action Plan announced its focus on basic education, providing assistance to train and retrain primary and secondary school teachers and support the establishment and expansion of teacher training system and organizations (TICAD IV (2008) "Yokohama Action Plan").</p> <p>(+) JICA's rolling plan for Kenya includes "Human Resource Development" as a priority area. Under the development issues "Improvement of the Quality of Basic Education", it states that "Japan will assist on the establishment and stabilization of In-service Training (System) targeting mathematics and science teachers of primary and secondary schools in Kenya. Japan will also focus on the quality improvement of mathematics and science education mainly through SMASE" (Japan's ODA: Rolling Plan for Kenya as of April 30, 2009).</p>

(+)

<p>Relevance of the program approach in the education assistance in Kenya</p>	<p>Relevance of the INSET as a measure to improve the quality of science and mathematics education.</p> <p>Relevance of the selection of target group (6-12 science and mathematics teachers).</p>	<p>Japan's country assistance policy on education</p> <p>BEGIN: Assistance for Education in Low-income Countries, Japan's Education Cooperation Policy 2011-2015, JICA's position paper on education</p>	<p>Official documents</p> <p>Literature review</p>	<p>(+) At the Kanazaki Summit in June 2002, Japan announced "BEGIN: Basic Education for Growth Initiative", which is Japan's strategy for supporting basic education in developing countries. BEGIN presents that one of the priority areas is Assistance for improving quality of education, including assistance for science and mathematics education and teacher training (BEGIN 3. Priority Areas). (+) Kenya is also an eligible for Assistance for Education in Low-income Countries, Japan's another strategy for supporting basic education. (+) As a new Japan's education cooperation policy, Japan announced that "We will continue to actively support basic education to ensure that all children and youth not only have access to but also can complete quality education with sound learning outcomes" (Japan's Education Cooperation Policy 2011-2015 3. Focus Areas (1) Quality Education for All - Improving the Comprehensive Learning Environment and Strengthening the Support to the Fast Track Initiative (FTI)). (+) JICA announced its commitment to education assistance and participation in global initiatives to achieve the Millennium Development Goals (MDGs) by 2015 in its position paper. In the paper, JICA emphasized its priority to be given to primary and secondary education and its focus on the strengthening of teachers' capacities through training. Moreover, in order to foster researchers and high-level human resources who can lead innovations in science and technology, JICA declared the intensification of support to science and mathematics education (JICA (2010) "JICA's Operation in Education Sector - Present and Future-").</p>																																
<p>Relevance of the program approach in the education assistance in Kenya</p>	<p>The necessity of assistance to achieve quality education through strengthening INSET.</p> <p>Whether teachers are conscious of their necessity to improve teaching methods.</p>	<p>Official documents</p> <p>MOE officials, Teachers</p>	<p>Literature review</p> <p>Questionnaire to Teachers, Interview</p>	<p>(+) "Primary Teacher In-service Training" and "INSET Secondary Investment Programme" were part of the Kenya Education Sector Support Programme (KESSP) (2005-2010)'s investment programmes. Both are also included in the KESSP2 draft. In the KESSP, it is mentioned the "urgent need to improve teachers capacities" and CEMASTE's establishment and JICA's assistance to establish INSET centres at district level (KESSP p. 205). The KESSP2 draft says: "With the assistance of JICA, the Ministry has established a two-tier cascade system of INSET for mathematics and science subjects, with CEMASTE as the National centre and 108 District INSET centres ..." (KESSP2 draft). (+/-) "It is also necessary for teachers in charge of standard (grade) 1-4 to attend mathematics and science INSET" (interview with Director of FOS, MOE). (+) Especially, primary teachers are conscious of their necessity to improve their teaching methods. ("Do you think that teachers are conscious of their necessity to improve their teaching methods?")</p> <table border="1"> <thead> <tr> <th colspan="2">Necessity</th> <th colspan="2">Slightly conscious</th> <th colspan="2">Not conscious at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>13</td> <td>72.2</td> <td>5</td> <td>27.8</td> <td>0</td> <td>0.0</td> <td>18</td> <td>100.0</td> </tr> <tr> <td>13</td> <td>54.2</td> <td>11</td> <td>45.8</td> <td>0</td> <td>0.0</td> <td>24</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	Necessity		Slightly conscious		Not conscious at all		Total		f	%	f	%	f	%	f	%	13	72.2	5	27.8	0	0.0	18	100.0	13	54.2	11	45.8	0	0.0	24	100.0
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<p>Japan's technical comparative advantage.</p>	<p>Japan's development assistance experience in the science and mathematics education.</p>	<p>Research paper</p>	<p>Literature review</p>	<p>(+) JICA has implemented many cooperation projects with a focus on improving access, quality and management in the field of basic education. ... Assistance in mathematics and science education has been at the main of JICA's technical cooperation projects in basic education. For example, of such projects in 2005, two out of every three (22 out of 33) were associated with mathematics and science education" ("Philosophy and Significance of JICA's Assistance in Mathematics and Science Education" p. 7).</p>																																

Causal relation	Change of Important Assumptions and Conditions of the Project	Effect of the Free Day Secondary Education Programme.	Comments	Official documents, District participants	Literature review, Interview	(-) "Due to the introduction of the Free Day Secondary Education Programme, the number of students increased dramatically, but the number of teachers did not increase proportionally. The shortage of teachers affect teaching/learning process; the classroom with more than 80 students exists" (Interview with secondary Principals) (+/-) "Kenya has introduced a free secondary schooling education programme with a target of raising student enrolment to 1.4 million by the end of this year" MOE (2011). "Free Secondary Education" http://www.education.go.ke cited on 27/07/2011. Due to the increase of students as a result of aforementioned policies, lack of teachers is evident. "The union wants the current 18,000 teachers employed on contract taken on a permanent basis, and a further 10,000 new ones employed to meet the existing staff shortage" (Daily Nation 12/09/2011). "Teachers strike shuts down public schools" http://www.nation.co.ke/News/Teachers , cited on 12/09/2011). As a result, public schools were shut down. (+/-) Central government spending for the secondary education increased from Ksh. 16.27 billion in 2003/4 to 33.77 in 2008/9. For the primary education increased from Ksh. 42.65 billion (2003/4) to 68.18 (2008/9) (Ministry of State for Planning, National Development and Vision 2030 (2010) "Public Expenditure Review Policy for Prosperity 2010").
Effectiveness	Primary level	Change of precondition	Comments	Project documents, District participants	Literature review, Interview	(-) "Teachers' unions have been interfering SMASE INSET in some districts" (Interview with district management personnel at Machakos district). (-) Negative publicity on secondary INSET as raised by a teachers' union created a bad publicity for SMASE INSET in general ("SMASE Project Information for Mid-term Evaluation 2011" p. 161). (+/-) Permanent Secretary established a committee to address issues raised by teachers' union. In the meantime, CEMASTEVA planned to hold a meeting with representative of KNUJ and KUPPT, but it was postponed (Interview with CEMASTEVA OP).
	Secondary level	(a) Lesson Innovation Index (target figure: 3.0)	-	Evaluation grid (Achievement)	-	(+/-) It is necessary to review the validity of the evaluation tool and the target figure, because the figure was already achieved at the baseline survey in 2009.
		(b) ASEI/PDSI Check List (target figure: 2.0)	Comments	Project documents	Literature review	(+/-) The project proposes the unification of two indicators due to the progress of student-centred lessons ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts). Therefore, it is necessary to analyze its validity and target figure among parties. (-) The figures show significant improvement in the lesson.
		(c) Lesson Observation Index (target figure: 2.0)	-	Evaluation grid (Achievement)	-	(+) The figures show significant improvement in student participation in the class. (+/-) However, it is necessary to review the validity of evaluation tool and target figure, because the figure was already achieved at the baseline survey in 2009, converting the scale from 0-2 to 0-4 established in the original plan.
Causal relation	Whether the Outputs are sufficient to achieve the Project Purpose.	(a) ASEI/PDSI Check List (target figure: 3.0)	Comments	Evaluation grid (Achievement), Project documents	Literature review	(+/-) The project proposes the unification of two indicators due to the progress of student-centred lessons ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts). Therefore, it is necessary to analyze its validity and target figure among parties.
		(b) Lesson Observation Index (target figure: 3.0)	-	Evaluation grid (Achievement)	-	(+/-) The indicator will be analyzed in the final evaluation.
		(c) Student Participation Index (target figure: 3.0)	Comments	Evaluation grid (Achievement), Project documents	Interview	(+) According to the interview to district management personnel, it was not found any inconveniences in the process of implementation of INSET.
		(Secondary level) Whether WS for principals are sufficient to make Kenyan side continue implementing INSET	Comments	Project documents	Literature review	(-) "It is necessary to identify necessary activities by Kenyan side as part of important assumptions or to elaborate and share a complex PDM for secondary INSET among parties" ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).

Evaluation Grid: Kenya Component
Evaluation by the Five Criteria

ANNEX 12

Efficiency	Important Assumption	Whether other programs adversely affect teachers' participation.	Comments	Evaluation grid (Achievement), District participants	Interview	Comments	Evaluation grid (Achievement), Experts	Interview	Comments	Evaluation grid (Achievement), District participants	Interview
1. A system of Regional Trainers is established at CEMASTEAs.	1. A system of Regional Trainers is established at CEMASTEAs.	1(a) 4 cycles of training materials and programs for the National INSET for the primary education are trained at 250 Regional Trainers are trained at 1(b) Over 250 Regional Trainers are trained at 1(c) National INSET for the primary education at CEMASTEAs obtain mean of over 3 on the scale of 0 to 4 in the Quality of INSET Assessment Index.	Comments	Evaluation grid (Achievement), Experts	Interview	Comments	Evaluation grid (Achievement), Experts	Interview	Comments	Evaluation grid (Achievement), District participants	Interview
2. A system of Regional and Regional workshop is established at PTTOs.	2. A system of Regional and Regional workshop is established at PTTOs.	2(a) Regional INSET for Cluster Trainer at PTTOs is carried out four times. 2(b) At least 5,600 Cluster Trainers are trained. 2(c) Over 1,000 TAG Tutors and 8 provincial, 140 district and 1,000 Zone QASOs are trained.	Comments	Evaluation grid (Achievement), Project documents, CEMASTEAs CP	Literature review, Interview	Comments	Evaluation grid (Achievement), Project documents, CEMASTEAs CP	Literature review, Interview	Comments	Evaluation grid (Achievement), Project documents, CEMASTEAs CP	Literature review, Interview
3. Existing system of cluster INSET is strengthened.	3. Existing system of cluster INSET is strengthened.	2(d) Regional Trainers obtain mean of over 2.5 on the scale of 0 to 4 in the overall assessment of Capacity Building Index at the Regional INSET at PTTOs. 2(e) Regional INSET at PTTOs obtain mean of over 2.5 on the scale of 0 to 4 in the Quality of INSET Assessment Index. 3(c) A guideline/manual on management of M/S INSET for primary school teacher is developed.	Comments	Evaluation grid (Achievement)	Interview	Comments	Evaluation grid (Achievement)	Interview	Comments	Evaluation grid (Achievement)	Interview

(+)

Achievement of Outputs at secondary level	4. Secondary M/S teachers' ASE/PDSI practices in classroom are enhanced.	3(b) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	Comments	Evaluation grid (Achievement), Project documents	Literature review
	4(a) INSET and workshop contents for introducing lesson study are developed.	4(a) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	-	Evaluation grid (Achievement)	-
	4(b) 360 principals are trained at National workshop.	4(b) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	-	Evaluation grid (Achievement)	-
	4(c) Over 6,000 Principals are trained at District workshop.	4(c) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	-	Evaluation grid (Achievement)	-
	5(a) At least 8 newsletters are published and distributed.	5(a) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	-	Evaluation grid (Achievement)	-
	5(b) At least 2 titles on ASE/PDSI practices are published and distributed.	5(b) At least 60,000 primary school teachers drawn from every cluster in the country participate in Cluster INSET.	-	Evaluation grid (Achievement)	-
Positive and negative factors for the achievement of the Outputs	Overall		Comments	Project documents	Literature review
			The JCC was inactive, and issues on project implementation that require immediate attention are not readily addressed ("Memorandum to the JCC Meeting").		
			MOE has set up a technical committee to make come up with ways of enhancing the effectiveness of SMASE INSET activities. This committee has proposed to make CEMASTEa a national body that will harmonize and coordinate provision of content mastery and pedagogical skills upgrading INSETs in the country ("SMASE Project Information for Mid-term Evaluation 2011", p. 155).		
			Lack of budgetary provisions in the Project Document for operation costs has hampered effective operations during Cluster INSET and generated complaints and might compromise project effectiveness ("SMASE Project Information for Mid-term Evaluation 2011", p. 155).		
			Lack of counterpart funding in 2008/2010 financial year led to difficulties in implementing INSETs and workshops in that year ("SMASE Project Information for Mid-term Evaluation 2011", p. 155).		
Primary level	For INSET implementation		Comments	Project documents	Literature review
Secondary level	For strengthening of ASE/PDSI at class in secondary education.		KESP2 draft document	Official documents	Literature review
CEMASTEA	For strengthening of CEMASTEa function.		Comments	Project documents	Literature review
			Every PC is connected to Internet at CEMASTEa ("Self-evaluation Report for Mid-term Review" elaborated by JICA Experts).		
			CEMASTEA staff sufficiently developed their ICT capacity attending NJIC training ("Self-evaluation Report for Mid-term Review" elaborated by JICA Experts).		
			CEMASTEA does not find any reasons to publish newsletter other than PDM ("Self-evaluation Report for Mid-term Review" elaborated by JICA Experts).		

Result of Inputs (quantity, timing, utilization)	Kenyan side	Building, offices and other facilities	Comments	Official documents, Project documents	Literature review																																											
					<p>(-) "The SMASE UON KSC office had been suffered from a huge storage space for training material for a half year" ("Self-evaluation Report for the Mid-term Review" elaborated by JICA Experts).</p> <p>(-) "The only complaint by teachers was about poor facilities" ("Re-engineering of CEMASTEIA and SMASE Programme" extraction).</p> <p>(-) "Science rooms have no basic laboratory equipment and apparatus. No gas system was installed" at PTTC ("Re-engineering of CEMASTEIA and SMASE Programme" extraction).</p> <p>(-) "Most of them (Cluster centres) lack basic infrastructure." The Cluster INSET centres face the following challenges: Dilapidated discussion rooms; Uncomfortable furniture-usually pupils' desks; No storage facilities for INSET materials... ("Re-engineering of CEMASTEIA and SMASE Programme" extraction).</p>																																											
	Personnel		Comments	Official documents, CEMASTEIA CP	<p>(-) "The expected staffing was 60 lecturers as approved by the Directorate of Personnel Management, but there was a shortage of 11 (Note: 12) trainers" ("Assessment Report for CEMASTEIA").</p> <p>(+) "All the lecturers had a first degree in science and all of them were qualified teachers. Majority had a masters degree in various fields. Several others were pursuing second degrees" ("Assessment Report for CEMASTEIA").</p> <p>(-) "The national trainer's requirement should be rationalized with a view to ensuring adequate staffing in both primary and secondary INSET" ("Assessment Report for CEMASTEIA").</p> <p>(+/-) The following table shows perception of CEMASTEIA CP, according to the Questionnaire survey. ("Were the quantity, specification and input timing of the following inputs of the Project adequate?")</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>CEMASTEIA Academic staff</td> <td>7</td> <td>23.9</td> <td>16</td> <td>50.3</td> <td>4</td> <td>14.8</td> <td>0</td> <td>0.0</td> <td>27</td> <td>100.0</td> </tr> <tr> <td>CEMASTEIA Non-ac staff</td> <td>5</td> <td>18.5</td> <td>13</td> <td>48.1</td> <td>8</td> <td>29.6</td> <td>1</td> <td>3.7</td> <td>27</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to CEMASTEIA CP</p>		Completely adequate		Mostly adequate		Mostly inadequate		N/A		Total		f	%	f	%	f	%	f	%	f	%	CEMASTEIA Academic staff	7	23.9	16	50.3	4	14.8	0	0.0	27	100.0	CEMASTEIA Non-ac staff	5	18.5	13	48.1	8	29.6	1	3.7	27	100.0
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	Budget expenses		Comments	Official documents, CEMASTEIA CP	<p>(-) "Late disbursement of approved funds to CEMASTEIA occasioning delays in payments on Regional INSET, Cluster INSET, and district workshops" ("Re-engineering of CEMASTEIA and SMASE Programme" extraction).</p> <p>(-) "GOK Counterpart funds for the year 2009/2010 were not provided for in the budget" ("Re-engineering of CEMASTEIA and SMASE Programme" extraction).</p> <p>(-) 60% of CEMASTEIA CP considers the primary INSET funding inadequate. Three CP mention excess of secondary SEMINSE Fund (Questionnaire survey to CEMASTEIA CP).</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>GOK expenses for Primary</td> <td>2</td> <td>7.4</td> <td>8</td> <td>29.6</td> <td>16</td> <td>59.3</td> <td>1</td> <td>3.7</td> <td>27</td> <td>100.0</td> </tr> <tr> <td>GOK expenses for Secondary</td> <td>14</td> <td>51.9</td> <td>10</td> <td>37.0</td> <td>3</td> <td>11.1</td> <td>0</td> <td>0.0</td> <td>27</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to CEMASTEIA CP</p>		Completely adequate		Mostly adequate		Mostly inadequate		N/A		Total		f	%	f	%	f	%	f	%	f	%	GOK expenses for Primary	2	7.4	8	29.6	16	59.3	1	3.7	27	100.0	GOK expenses for Secondary	14	51.9	10	37.0	3	11.1	0	0.0	27	100.0
	Completely adequate		Mostly adequate		Mostly inadequate		N/A		Total																																							
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Japanese side	Experts	Comments	CEMASTE A CP	Questionnaire to CEMASTE A CP																																																															
	Experts			<p>(+) Dispatch of JICA Expert was realized in accordance with the plan. (+/-) The table above shows the level of appreciation of CEMASTE A CP on "Dispatch of JICA Experts" (Questionnaire survey to CEMASTE A CP). (-) CEMASTE A CP express their necessity of JICA Expert with skill/expertise, like those who were dispatched in previous phases (Table below: if your choice is either "mostly adequate" or "mostly inadequate", please choose the terms (you choose more than one choice)). (Questionnaire survey to CEMASTE A CP).</p> <table border="1"> <thead> <tr> <th colspan="2">Completely adequate</th> <th colspan="2">Mostly adequate</th> <th colspan="2">Mostly inadequate</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>11.1</td> <td>18</td> <td>66.7</td> <td>6</td> <td>22.2</td> <td>27</td> <td>100.0</td> </tr> <tr> <td>6</td> <td>22.2</td> <td>14</td> <td>51.9</td> <td>7</td> <td>25.9</td> <td>27</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to CEMASTE A CP</p> <table border="1"> <thead> <tr> <th colspan="2">Long-term Expert</th> <th colspan="2">Short-term Expert</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>22.2</td> <td>4</td> <td>14.8</td> </tr> <tr> <td>20</td> <td>74.1</td> <td>11</td> <td>40.7</td> </tr> </tbody> </table> <p>Their experience/skill</p> <table border="1"> <thead> <tr> <th>Category</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Their behavior</td> <td>6</td> <td>22.2</td> </tr> <tr> <td>A period of stay</td> <td>5</td> <td>18.5</td> </tr> <tr> <td>Timing of stay</td> <td>4</td> <td>14.8</td> </tr> <tr> <td>Others</td> <td>2</td> <td>7.4</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to CEMASTE A CP</p>	Completely adequate		Mostly adequate		Mostly inadequate		Total		f	%	f	%	f	%	f	%	3	11.1	18	66.7	6	22.2	27	100.0	6	22.2	14	51.9	7	25.9	27	100.0	Long-term Expert		Short-term Expert		f	%	f	%	6	22.2	4	14.8	20	74.1	11	40.7	Category	f	%	Their behavior	6	22.2	A period of stay	5	18.5	Timing of stay	4	14.8	Others	2	7.4
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Cost	Cost effectiveness of the training	Comments	Documents	Literature review																																																															

Program assistance	Synergy effect of the other donor programmes	Whether the synergy effect of the other donor programs can be expected for primary INSET.	Donor programmes, Comments	Donors' documents, International organizations	Literature review, Interview	<p>(-) "SMASE Project and DFID project, which promotes high attendance of teachers at classroom, have synergy effect, because either one of them without another does not make any impact on the improvement of the education" (Interview with DFID Advisor).</p> <p>(+) "UNICEF expects SMASE Project and CEMASTEAs lead the harmonization of INSET activities in Kenya" (Interview with UNICEF officials).</p> <p>(-) "UK freezes Kenya school funding (until \$1m) amid fraud allegations" (BBC News (2009) issued on 13/12/2009 at http://news.bbc.co.uk, cited on 26/07/2011). DFID officially announced in its operational plan, "DFID Kenya makes limited use of Government systems to distributed aid" (DFID Kenya (2011) "Operational Plan 2011-2015", p. 2).</p> <p>(-) "The US has suspended \$7m of funding for free primary schools in Kenya until fraud allegations are investigated, the US ambassador in Nairobi has said" (BBC News (2010) issued on 26/01/2010 at http://news.bbc.co.uk, cited on 26/07/2011).</p>																														
Causal relation	Activities	Whether Activities are sufficient to achieve Outputs.	Comments	Experts	Interview	<p>(+) "Secondary activities originally planned in the PDM were sufficient to achieve verifiable indicators of Output 4." (Interview with JICA Experts)</p> <p>(-) "However, it was not sufficient to achieve narrative summary of Output 4, i.e., 'Secondary mathematics and science teachers' ASEI/PDSI practices in classroom are enhanced'" (Interview with JICA Experts).</p> <p>(+/-) "Secondary activities other than workshop for Principals were considered as those which would be implemented by Kenyan side. However, as there was not any statement regarding those activities in PDM, CEMASTEAs staff did not pay much attention to them" (Interview with JICA Experts).</p> <p>(-) "Input originally planned in the Project Document were not sufficient to achieve Outputs, because there were several items with no budget provision, especially funding for residential INSET in ASAL and other hardship areas" (Interview with CEMASTEAs CP).</p> <p>(-) Counterparts at CEMASTEAs and key trainers are not motivated enough, according to the CEMASTEAs counterparts observation.</p>																														
Impact	Achievement of the Overall Goal: Capability of young Kenyans in Mathematics and Science is upgraded.	Achievement of the Overall Goal: Possibility to collect necessary data: Principals' assistance to teachers.	Comments	Evaluation grid (Achievement) Experts Teachers	Interview Questionnaire to Teachers	<p>(No applicable to this mid-term review).</p> <p>(+/-) "SMASE Project plans to implement the SPIAS in 2012" (Interview with JICA Expert).</p> <p>(-) According to Questionnaire survey to teachers, an improvement in terms of Principal's assistance to teachers is observed (Questionnaire survey to Teachers).</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Much more than before</th> <th colspan="2">Slightly more than before</th> <th colspan="2">No change</th> <th rowspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>10</td> <td>45.5</td> <td>3</td> <td>36.4</td> <td>4</td> <td>18.2</td> <td>22</td> </tr> <tr> <td>Secondary</td> <td>6</td> <td>24.0</td> <td>14</td> <td>56.0</td> <td>5</td> <td>20.0</td> <td>25</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p> <p>(+/-) Any new activities were not mentioned at interview with Head teachers, Principals and Teachers (Interview with district participants) and in the response to questionnaires (Questionnaire to Teachers, Questionnaire to district management personnel).</p> <p>(+/-) CEMASTEAs CP mentioned that CEMASTEAs workshop contents for secondary Principals did not touch the assistance by family members/community (Interview with CEMASTEAs CP).</p>		Much more than before		Slightly more than before		No change		Total	f	%	f	%	f	%	Primary	10	45.5	3	36.4	4	18.2	22	Secondary	6	24.0	14	56.0	5	20.0	25
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Evaluation Grid: Kenya Component
Evaluation by the Five Criteria

ANNEX 12

Causal relation	Any elements other than Quality of Mathematics and Science education to upgrade Capacity of young Kenyans in Mathematics and Science.	Whether the improvement of the quality of lessons, as a result of INSET, contributes to the quality of learning of students.	Comments	District participants	Questionnaire to Teachers. Questionnaire survey to district management personnel	+																																																																																
						<p>(+) Everyone who responds to the Questionnaire survey to teachers and district management personnel recognizes that improvement of the quality of lessons, as a result of INSET, contributes to the quality of learning of students (table above: Questionnaire to Teachers, table below: Questionnaire to district management personnel) (Do you think that the improvement of the quality of lessons, as a result of the SMASE INSET, contributes to the quality of learning of students?).</p> <table border="1"> <thead> <tr> <th colspan="2">SMASE INSET</th> <th colspan="2">Significantly contributes</th> <th colspan="2">Not contributes at all</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th></th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th></th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>21</td> <td>95.5</td> <td>1</td> <td>4.5</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>22</td> </tr> <tr> <td>Secondary</td> <td>11</td> <td>44.0</td> <td>12</td> <td>48.0</td> <td>0</td> <td>0.0</td> <td>2</td> <td>8.0</td> <td>25</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to 7 teachers</p> <table border="1"> <thead> <tr> <th colspan="2">SMASE INSET</th> <th colspan="2">Significantly contributes</th> <th colspan="2">Not contributes at all</th> <th colspan="2">N/A</th> <th colspan="2">Total</th> </tr> <tr> <th></th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th></th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>27</td> <td>73.0</td> <td>9</td> <td>24.3</td> <td>0</td> <td>0.0</td> <td>1</td> <td>2.7</td> <td>37</td> </tr> <tr> <td>Secondary</td> <td>18</td> <td>75.0</td> <td>6</td> <td>25.0</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>24</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p> <p>(+)</p>	SMASE INSET		Significantly contributes		Not contributes at all		N/A		Total			f	%	f	%	f	%	f	%		Primary	21	95.5	1	4.5	0	0.0	0	0.0	22	Secondary	11	44.0	12	48.0	0	0.0	2	8.0	25	SMASE INSET		Significantly contributes		Not contributes at all		N/A		Total			f	%	f	%	f	%	f	%		Primary	27	73.0	9	24.3	0	0.0	1	2.7	37	Secondary	18	75.0	6	25.0	0	0.0	0	0.0	24
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Primary	27	73.0	9	24.3	0	0.0	1	2.7	37																																																																													
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		Other elements: Text books, Students' attendance, Students learning at home.				<p>(+) According to opinions of teachers, other elements such as provision of text books, students' attendance and students' learning at home has been improved (Questionnaire to Teachers) (Do you think that there is any improvement recently in terms of the following items?).</p> <table border="1"> <thead> <tr> <th rowspan="2">Other elements</th> <th colspan="2">Significantly improved</th> <th colspan="2">Slightly improved</th> <th colspan="2">Not improved at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Availability of textbooks</td> <td>15</td> <td>59.1</td> <td>9</td> <td>40.9</td> <td>0</td> <td>0.0</td> <td>24</td> <td>100.0</td> </tr> <tr> <td>Attendance of students</td> <td>17</td> <td>77.3</td> <td>5</td> <td>22.7</td> <td>0</td> <td>0.0</td> <td>22</td> <td>100.0</td> </tr> <tr> <td>Sufficient time to do homework</td> <td>10</td> <td>45.5</td> <td>7</td> <td>31.8</td> <td>5</td> <td>22.3</td> <td>22</td> <td>100.0</td> </tr> <tr> <td>Availability of textbooks</td> <td>16</td> <td>64.0</td> <td>9</td> <td>36.0</td> <td>0</td> <td>0.0</td> <td>25</td> <td>100.0</td> </tr> <tr> <td>Attendance of students</td> <td>16</td> <td>64.0</td> <td>9</td> <td>36.0</td> <td>0</td> <td>0.0</td> <td>25</td> <td>100.0</td> </tr> <tr> <td>Sufficient time to do homework</td> <td>8</td> <td>32.0</td> <td>13</td> <td>52.0</td> <td>4</td> <td>16.0</td> <td>25</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p>	Other elements	Significantly improved		Slightly improved		Not improved at all		Total		f	%	f	%	f	%	f	%	Availability of textbooks	15	59.1	9	40.9	0	0.0	24	100.0	Attendance of students	17	77.3	5	22.7	0	0.0	22	100.0	Sufficient time to do homework	10	45.5	7	31.8	5	22.3	22	100.0	Availability of textbooks	16	64.0	9	36.0	0	0.0	25	100.0	Attendance of students	16	64.0	9	36.0	0	0.0	25	100.0	Sufficient time to do homework	8	32.0	13	52.0	4	16.0	25	100.0									
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Impacts	Any impacts except Overall Goal.	Positive impact: influence on other subjects, other teachers, etc.	KESP2 draft document Comments	Official documents, MOE officials	Literature review, Interview	<p>(+) KESP2 draft "1.0 (B) Secondary Teacher In-service" states as strategy: "Expanding INSET to include languages, humanities and leadership programmes for INSET implementation for school managers" (KESP2 draft p. 210).</p> <p>(+) "INSET provision should be extended to other subject, ECD and SNE" ("Re-engineering of CEMASTEA and SMASE Programme" extraction).</p> <p>(+) "Improving teaching capacity in mathematics and science is an urgent matter. However, in the future, it should be expanded to the other subjects" (Interview with Director of FOS, MOE).</p>																																																																																
		Negative impact: any negative reaction caused by INSET.	Comments	Project document	Literature review	<p>(-) The Standard dated on 2011/04/28 indicated the possibility of the misuse of SMASSE District Fund: KUPPET called on a strike not to participate in the INSET and demanded an audit on SMASE INSET ("5th Progress Report" elaborated by JICA Experts).</p> <p>(-) "It is necessary to seriously analyze and discuss the validity to expand the INSET to the other subject, because there might be no effect on poor performance in mathematics and science" (Comment of a MOE official on 2011/06/22 at the Re-engineering Committee, stated in a report to JICA).</p>																																																																																
Sustainability	Annually implemented INSET	Any policy to implement INSET.	Comments	Official documents, MOE officials	Literature review, Interview	<p>(-) The Technical Committee on Re-engineering CEMASTEA states lack of clear policy guideline and legal framework for INSET provision as one of several challenges for CEMASTEA and SMASE INSET ("Re-engineering of CEMASTEA and SMASE Programme" extraction).</p> <p>(+) "The MOE has already started drafting of INSET policy. After promulgation of the new Education Act, it will be continued" (Interview with Director of QAS, MOE).</p>																																																																																

						<p>(+) "On realizing that some of the challenges facing the implementation of SMASE INSET are due to lack of explicit policy guidelines, the MOE set up a Technical Committee that is currently drawing up appropriate policy recommendations whose implementations will lead to a well harmonized INSET provision for all teachers coordinated by a restructured CEMASTEAs" ("SMASE Project Information for Mid-term Evaluation 2011" p. 160).</p> <p>(+) "MOE considers the INSET very important" (Interview with Director of FOS, MOE).</p> <p>(+/-) "I agree with the Handbook on Management of District SMASSE Programme in terms of conducting INSET annually. However, it is necessary to review its duration (10 days for secondary mathematics and science teachers)" (Interview with MOE officials).</p>
						<p>(+/-) "The direction of the Education Reform under the new Constitution, which promotes administrative decentralization with creation of County governments, is not still clear. It will be presented in December 2011" (Interview with Director of FOS, MOE).</p> <p>(+/-) "The current DPC should be replaced with County Planning Committee with members appointed by the County Director of Education" ("Re-engineering of CEMASTEAs and SMASE Programme" extraction).</p>
						<p>(+) "CEMASTEAs was established under Section 15(2) of the Education Act Cap. 211 of the Laws of Kenya in 2004, and the Board of Governors was established under Legal Notice No. 96 of 2006" ("CEMASTEAs Strategic Plan 2009-2013").</p> <p>(-) "CEMASTEAs was registered as a school which does not reflect the mandate and functions of the centre and hence the need for the management to apply for re-registration of the institute" (MOE REF: QAS/7/1/48/36) dated 2011/03/31).</p> <p>(-) "The land coverage was 13 acres with no title deed, although there was a letter of allotment No. LR 11601224 and a site plan which had been prepared in 2006 by the Ministry of Lands. The school should hasten the acquisition of a title deed to avoid loss of land through grabbing" ("Assessment Report for CEMASTEAs").</p> <p>(+/-) "For this institution to function with the required effectiveness and efficiency it is necessary that the legal order be revisited with a view of giving it a "SAGA status" ("Assessment Report for CEMASTEAs").</p>
Organizational	Legal status and function of CEMASTEAs in the future	Present legal framework and under actual Education Reform.	Official documents	Literature review, Interview	Project documents, MOE officials	<p>(+) "CEMASTEAs management has developed a Strategic Plan (2009-2013) to guide implementation of activities" ("SMASE Project Information for Mid-term Evaluation 2011" p. 162).</p> <p>(+) "Signed Performance Contract with the MOE to ensure effective delivery of services" ("SMASE Project Information for Mid-term Evaluation 2011" p. 162).</p> <p>(+) As BOG members, "there was a Permanent Secretary Representative as well as representatives from KE, TSC, National Council for Science and Technology, Kenya Education Staff Institute and Kenyatta University" ("Assessment Report for CEMASTEAs").</p> <p>(-) "The BOG met too frequently and failed to discuss the performance of the INSET, but instead concentrated too much on financial matters. Consequently a lot of money was spent on BOG meeting allowances. ... A new BOG should be put in place" (MOE REF: QAS/7/1/48/36) dated 2011/03/31).</p> <p>(-) "Information management system should be strengthened in CEMASTEAs" (CEMASTEAs administration).</p>
						<p>(-) "Although the schedule of activities during INSETs were well defined, there was no daily schedule for the trainers. ... There is a need to prepare the daily schedule of duties for staff members and this be followed with proper supervision" (MOE REF: QAS/7/1/48/36) dated 2011/03/31).</p> <p>(-) "There has been a decrease in the number of academic staff due to some leaving to teach in universities" ("SMASE Project Information for Mid-term Evaluation 2011" p. 162).</p> <p>(-) "Decrease in number of non-academic staff" ("SMASE Project Information for Mid-term Evaluation 2011" p. 162).</p> <p>(-) The possible reasons are 1) due to the Structural Adjustment Programme introduced by World Bank and IMF in 1988, there is a severe shortage of teachers in Kenya, and 2) there is a possibility that TSC is looking at if CEMASTEAs will be a SAGA in the future so that it has not provided staff for CEMASTEAs (Interview with CEMASTEAs administration).</p> <p>(-) Assessment report of MOE also mentioned: "The recruitment of the National Trainers was not balanced since there were more trainers with secondary training background and yet they were to train on primary school trainers" (MOE REF: QAS/7/1/48/36) dated 2011/03/31).</p> <p>(-) "None of the Deans of the Department was formally appointed by the TSC. All were internally appointed" ("Assessment Report for CEMASTEAs").</p>
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INSET management system at district level	Recurrent budget of CEMASTEAs	Comments	Official documents	Literature review	(+/-) "Funding for INSET is on content mastery and pedagogical skills upgrading in the counties shall be disbursed through FPE and PDSE on per capita basis" ("Re-engineering of CEMASTEAs and SMASE Programme" extraction).																																																																																																																																																							
INSET management system at district level	Management capacity of administrators to continue INSET after finishing the project.	Comments	MOE officials, CEMASTEAs OP, District participants	Questionnaire to CEMASTEAs OP, Interview	(-) It was not observed any difficulty to implement the INSET at district level in terms of implementation structure and management capacity of administrators (Interview with district management personnel). (-) However, "it is necessary to analyze the role of PTTGs in the future, because their role is not to train in-service teachers but to train pre-service teachers" (Interview with MOE official). (+) The following shows CEMASTEAs OP's evaluation on the management capacity of administrators. ("Do you think that the management personnel have developed/are developing capacities to continue organizing INSET after the termination of the Project?") (Questionnaire survey to CEMASTEAs OP).																																																																																																																																																							
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(Primary INSET system)	(General) Whether Primary INSET system is working.	Comments	Official documents, Experts	Literature review, Interview	(+) "For the cascaded INSET, it was observed that SMASE training was good" ("Reengineering of CEMASTEAs and SMASE Programme"). (+/-) "There is a question among parties, including several MOE officials, whether PTTGs should play an important role in the INSET system as their mandate is not that of the INSET. It should be analyzed in depth to make an INSET strategy in the future" (Interview with JICA Expert).																																																																																																																																																							
	(Regional INSET) Whether PTTG lectures will continue the role.	Comments	Project documents, Experts, CEMASTEAs administration, District participants	Literature review, Interview	(-) "PTTG Principals have not yet signed a MOU" ("SMASE Project information for Mid-term Evaluation 2011" p. 162). (-) Tambach PTTG Principal showed his interest to continue working with SMASE INSET (Interview with PTTG Principal). (+) "PTTG lecturers are considered the most adequate as regional trainers, because they can serve as trainers in their vacation. On the other hand, education administrators such as DEOs, TAC Tutors and DQASOs are generally very busy. More, DEOs and DQASOs are categorized as general public servant so that the facilitation fee for them will be higher than the fee for PTTG lecturers" (Interview with CEMASTEAs administration). (+/-) The reasons that the Project selected PTTG lecturers as regional trainers instead of TAC Tutors were: 1) the number of TAC Tutors (approximately 1,100 in the nation) was not enough considering the expected number of Cluster Trainers (approximately 3,000); 2) Not all the TAC Tutors were mathematics and science oriented (Interview with JICA ex Expert).																																																																																																																																																							
(Secondary INSET system)	(Cluster INSET) Whether TAC Tutors organize and monitor the Cluster training. (Budget) Whether the actual funding system contributes to the sustainability of the (Management) Whether DPC organize the District training.	Comments	Project documents	Literature review	(+) "Cluster INSET centres, however, are already recognized by MOE since they were developed by an earlier INSET programme of the MOE" ("SMASE Project Information for Mid-term Evaluation 2011" p. 162). (-) CEMASTEAs OP and district management personnel consider that the SMASE District Fund should be established for primary INSET purpose (Interview with CEMASTEAs OP and district management personnel). (+) "The handbook on SMASE District INSET that was developed by stakeholders and released by MOE in 2008, recognizes District INSET Centres" ("SMASE Project information for Mid-term Evaluation 2011" p. 162).																																																																																																																																																							

	(Budget) Use of SMASSE Fund.	Comments	Project documents	Literature review	
Technical	Content of INSET	Comments	Official documents, MOE officials, CEMASTE A CP	Literature review, Interview	(+) Secondary INSET is continuously financed by SMASSE District Fund (Interview with district management personnel). (-) "The SMASSE District Fund is currently not audited and is therefore prone to mismanagement. It is therefore necessary for MOE to put in place audit mechanisms and strengthen management of District INSET by enforcing accountability" ("Memorandum to the JCC Meeting"). (-) "CEMASTE A was not consulting major stakeholders, namely, KIE, QAS and KNEC in the preparation of the INSET curriculum for training and learning materials. The institute should engage the relevant stakeholders for ownership of the curriculum and the implementation of the same" (MOE REF: QAS/7/1/4836) dated 2011/03/31). (+/-) "It is necessary for CEMASTE A to coordinate with TSC, KIE and KNEC in elaboration of INSET curriculum. Receiving inputs from KNEC, it should collaborate with KIE which is responsible organization in curriculum, and the elaborated curriculum should be recognized by the government and TSC. Thus TSC will be able to consider CEMASTE A INSET as official one which will be considered in teachers' promotion" (Interview with Director of QAS, MOE). (+/-) "The INSET curriculum recognized for promotion by TSC means to introduce an INSET differentiated by teachers' experience. Thus, it will not receive any complaint from teachers as to repetition of contents" (Interview with Director of QAS, MOE). (+) CEMASTE A invited selected PTTG lecturers and Cluster Trainers to produce INSET materials (Interview with CEMASTE A CP).
	Whether trainers has been developed/are developing capacities to continue INSET (including development of the content) after finishing the project.	Comments	Project documents, CEMASTE A CP	Literature review, Questionnaire to CEMASTE A CP	(+) "All the trainers (CEMASTE A counterparts) had benefited from short courses in Japan and Malaysia to build their capacity" ("Assessment Report for CEMASTE A"). (-) "The academic staff at CEMASTE A has accumulated experience in INSET provision and majority of them have enhanced their academic qualifications beyond the 1st degree. Almost all have been trained in Japan and a third country" ("SMASSE Project Information for Mid-term Evaluation 2011" p. 162). (-) "Only a handful of staff have been trained in Japan on lesson study which they are expected to roll out and supervise its implementation in the whole country" ("SMASSE Project Information for Mid-term Evaluation 2011" p. 162). (-) "CEMASTE A has established a department of Research and Development and staff with training in Education Evaluation assigned to run it. This is in line with the Centre's Strategic Plan (2009-2013)" ("SMASSE Project Information for Mid-term Evaluation 2011" p. 162). (-) 33% of the questionnaire counterpart says that motivation is not developed at all, according to counterparts' self-evaluation (Questionnaire survey to CEMASTE A CP, see detail in Implementation Process of the Grid). (+) CEMASTE A CP say that PTTG lecturers developed (22%) or mostly developed (70%) their knowledge (Questionnaire survey to CEMASTE A CP). (+) According to CEMASTE A CP, PTTG lecturers developed (11%) or mostly developed (78%) their facilitation skill (Questionnaire survey to CEMASTE A CP). (-) 50% of CEMASTE A CP observes that PTTG lecturers has not developed motivation to continue serving as trainer (Questionnaire survey to CEMASTE A CP). (+) According to CEMASTE A CP, Cluster Trainers developed (7.4%) or mostly developed (85%) their knowledge (Questionnaire survey to CEMASTE A CP). (+) CEMASTE A CP say that Cluster Trainers developed (3.7%) or mostly developed (78%) their facilitation skill (Questionnaire survey to CEMASTE A CP). (-) 70% of CEMASTE A CP observes that Cluster Trainers has not developed motivation to continue serving as trainer (Questionnaire survey to CEMASTE A CP). (+) According to CEMASTE A CP, District Trainers developed (18%) or mostly developed (78%) their knowledge (Questionnaire survey to CEMASTE A CP). (+) According to CEMASTE A CP, District Trainers developed (18%) or mostly developed (74%) their facilitation skill (Questionnaire survey to CEMASTE A CP). (-) 60% of CEMASTE A CP observes that District Trainers has not developed motivation to continue serving as trainer (Questionnaire survey to CEMASTE A CP).
			Evaluation grid (Implementation process)	-	(-/-)
	(Primary) PTTG lecturers: Regional Trainers		Evaluation grid (Implementation process)	-	
	Cluster Trainers		Evaluation grid (Implementation process)	-	
	(Secondary) District Trainers		Evaluation grid (Implementation process)	-	

<p>Social, Cultural and Environmental</p>	<p>Incentive for teachers to continue participating in INSET.</p>	<p>Whether there are any incentives for mathematics and science teachers to continue participating in INSET annually.</p>	<p>Comments</p>	<p>MOE officials, District participants</p>	<p>Questionnaire to Teachers, district management personnel, interview</p>	<p>(-) At the moment, there is not any financial-related incentives for teachers. As a result, the motivation of teachers, especially of secondary teachers, is not very high according to teachers perception (table above; Questionnaire to Teachers) and district management personnel (table below; Questionnaire to district management personnel) (Do you think that primary teachers/secondary mathematics and science teachers are motivated to participate in SMASE INSET?). (+/-) MOE would not respond to the demand of issuing valued certification or promotion of teachers, because it implies a tremendous increase of payment to teachers. The INSET is considered as an obligation for all the teachers" (interview with Director of FOS, MOE).</p> <p>Teachers</p> <table border="1"> <thead> <tr> <th colspan="2">Significantly motivated</th> <th colspan="2">Slightly motivated</th> <th colspan="2">Not motivated at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>44.4</td> <td>9</td> <td>50.0</td> <td>1</td> <td>5.6</td> <td>18</td> <td>100.0</td> </tr> <tr> <td>1</td> <td>4.2</td> <td>14</td> <td>58.3</td> <td>9</td> <td>37.5</td> <td>24</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p> <p>Teachers</p> <table border="1"> <thead> <tr> <th colspan="2">Significantly motivated</th> <th colspan="2">Slightly motivated</th> <th colspan="2">Not motivated at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>27.0</td> <td>19</td> <td>51.4</td> <td>7</td> <td>18.9</td> <td>36</td> <td>100.0</td> </tr> <tr> <td>1</td> <td>4.2</td> <td>18</td> <td>75.0</td> <td>5</td> <td>20.8</td> <td>24</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p>	Significantly motivated		Slightly motivated		Not motivated at all		Total		f	%	f	%	f	%	f	%	8	44.4	9	50.0	1	5.6	18	100.0	1	4.2	14	58.3	9	37.5	24	100.0	Significantly motivated		Slightly motivated		Not motivated at all		Total		f	%	f	%	f	%	f	%	10	27.0	19	51.4	7	18.9	36	100.0	1	4.2	18	75.0	5	20.8	24	100.0
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<p>Social, Cultural and Environmental</p>	<p>Whether social needs to promote mathematics and science education and capacity development of respective teachers exists in the future.</p>	<p>Whether social needs to promote mathematics and science education and capacity development of respective teachers exists in the future.</p>	<p>Comments</p>	<p>District participants</p>	<p>Questionnaire to Teachers, district management personnel</p>	<p>(+) 100% of primary teachers says that they should attend SMASE INSET. Thus, the necessity to develop teacher capacity is well understood by stakeholders (table above; Questionnaire to teachers) and district management personnel (table below; Questionnaire to district management personnel) (Do you think that primary teachers/secondary mathematics and science teachers should attend more INSET in mathematics and science?)</p> <p>SMASE INSET</p> <table border="1"> <thead> <tr> <th colspan="2">Absolutely should attend</th> <th colspan="2">On need they would like</th> <th colspan="2">Not necessary at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>100.0</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>22</td> <td>100.0</td> </tr> <tr> <td>10</td> <td>40.0</td> <td>8</td> <td>32.0</td> <td>4</td> <td>16.0</td> <td>22</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to Teachers</p> <p>M&S INSET</p> <table border="1"> <thead> <tr> <th colspan="2">Absolutely should attend</th> <th colspan="2">On need they would like</th> <th colspan="2">Not necessary at all</th> <th colspan="2">Total</th> </tr> <tr> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> <th>f</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>97.3</td> <td>0</td> <td>0.0</td> <td>0</td> <td>0.0</td> <td>36</td> <td>100.0</td> </tr> <tr> <td>22</td> <td>91.7</td> <td>1</td> <td>4.2</td> <td>1</td> <td>4.2</td> <td>24</td> <td>100.0</td> </tr> </tbody> </table> <p>Source: Questionnaire survey to district management personnel</p>	Absolutely should attend		On need they would like		Not necessary at all		Total		f	%	f	%	f	%	f	%	22	100.0	0	0.0	0	0.0	22	100.0	10	40.0	8	32.0	4	16.0	22	100.0	Absolutely should attend		On need they would like		Not necessary at all		Total		f	%	f	%	f	%	f	%	36	97.3	0	0.0	0	0.0	36	100.0	22	91.7	1	4.2	1	4.2	24	100.0
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