
COMPONENT C

CHAPTER 10

IMPROVING SCHOOL FACILITIES FOR IMPLEMENTING CCA

10.1 Overview of Component C Study

The objectives of the MBESS Component-C are to:

- 1) Formulate an improvement plan for primary school buildings (hereinafter referred to as IPPSB) that aims to develop an organisational, financial, and administrative framework, as well as optional designs for the construction/renovation of school buildings, in order to expand physical access to basic education in the Townships selected, one each in the four different geographically areas, namely Delta zone, Coastal zone, Dry zone, and Cool & Hilly zone, and

- 2) Help to strengthen the planning and management capability of Myanmar counterpart personnel so that the Government of Myanmar will be capable of independently preparing a master plan for improving primary schools throughout the country.

The study has been carried out in three phases. In the first phase, four model townships were chosen to represent the four different geographically regions in Myanmar. The study team surveyed the physical facilities of all of the primary schools in the townships, analysed the data obtained to identify the needs and the priorities for construction, prepared some prototype designs, and calculated project costs. From the results of the study, a draft IPPSB was prepared as a part of the MBESS Progress Report, which was presented at the workshop on 27 August 2001. Based on comments made at the workshop, the IPPSB was revised to form a part of MBESS Interim Report.

In the second phase, the know-how obtained through the work in the first phase was transferred to the Government of Myanmar. The study team prepared a manual for formulating IPPSB, so that the Government of Myanmar could carry out similar surveys and formulate IPPSBs independently. The manual was presented at workshops held on 7, 8, and 9 of December 2001. The latter half of the workshop was devoted to on-site training for the engineering staff members of the Ministry of Education at three primary schools in Yangon, during which they showed their capability of doing the survey. Then, the government of Myanmar organised special teams and carried out the physical survey in four additional townships of the delta zone, covering 642 primary schools in total. Furthermore, it is planned to survey six more townships within this year, although the dates have yet to be decided.

Then, in the third phase, based on the results of the IPPSB, a renovation project for eight schools in Dala Township was executed under Japan's Grassroots Grant Assistance from March 2002, and is to be completed by the end of September 2002. The study team technically supported the project and reviewed project execution including detailed designs, costs, procurement system, work program, and project management system, in order to obtain useful supplemental information to the IPPSB report.

The results of each of the studies in the phases above have been presented in the separate volumes attached to the MBESS Final Report as listed below:

- 1) Report on IPPSB for Four Model Townships in Myanmar
- 2) Manual for IPPSB
- 3) Report on Eight Primary School Renovation Project in Dala Township

Summaries of each follow next in this chapter. For further details, readers should refer to the relevant full document.

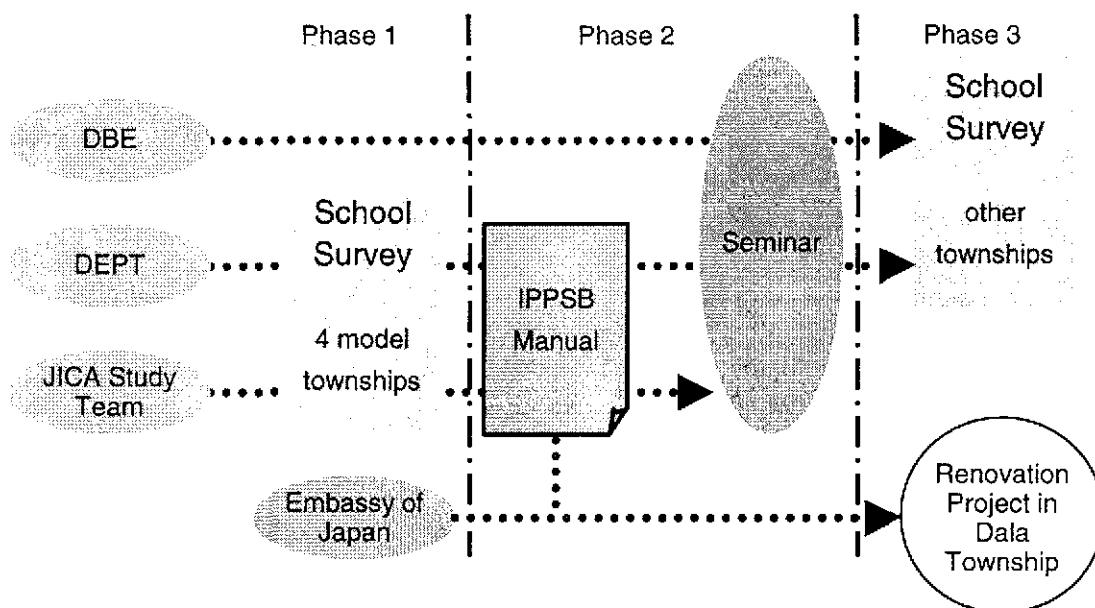


Figure 10-1: Overall Flow of Component C Study

10.2 Summary of IPPSB for Four Model Townships

10.2.1 Study Methods

The Study was carried out in the following steps:

- 1) Studying general information regarding Primary School Facilities nation-wide
- 2) Selecting model townships to be covered by IPPSB, one each in the four geographically different areas, namely: Cool & Hilly zone, Coastal zone, Delta zone, and Dry zone
- 3) School Mapping Survey in the Selected Townships

The Study team or the appointed local research assistant(s) visited each of the primary schools in the townships to be covered by the Study to collect information on:

 - 3-1) Physical Conditions of the Existing Facilities
 - 3-2) Use of the Facilities
 - 3-3) Key Educational Data on the Schools

- 3-4) Construction Management System Applied by the Communities
 3-5) Financing of Construction/ Maintenance by the Community

- 4) Preparation of Prototype Designs for Primary School Classrooms
 5) Unit Cost Calculation for Prototype Designs
 6) Identification of Priorities for Construction and Renovation of Primary School Physical Facilities in Each of the Townships
 7) Project Cost Calculation
 8) Preparation of IPPSB

10.2.2 General Conditions of Physical Facilities of Primary Schools

There are over 35,000 primary schools nation-wide with an average of one primary school for every 1,500 persons. The numbers of primary, middle, and high schools distributed nation-wide by states and divisions are shown in Table 10-1.

Table 10-1: Number of Schools (1995 and 2000)

State/Division	1995				2000				Growth 2000/1995			
	Primary	Middle	High	Total	Primary	Middle	High	Total	Primary	Middle	High	Total
Kayin S.	1,109	75	25	1,209	1,125	81	25	1,231	101.4	108.0	100.0	101.8
Tanintharyi D.	1,002	59	25	1,086	1,006	59	29	1,094	100.4	100.0	116.0	100.7
Bago D.	3,954	220	91	4,265	3,945	226	95	4,266	99.8	102.7	104.4	100.0
Mon S.	1,192	85	47	1,324	1,195	85	54	1,334	100.3	100.0	114.9	100.8
Rakhine S.	2,503	131	42	2,676	2,502	134	46	2,682	100.0	102.3	109.5	100.2
Ayeyarwady D.	5,637	268	94	5,999	5,609	268	102	5,979	99.5	100.0	108.5	99.7
Lower Total	15,397	838	324	16,559	15,382	853	351	16,586	99.9	101.8	108.3	100.2
Kachin S.	1,155	78	36	1,269	1,178	86	39	1,303	102.0	110.3	108.3	102.7
Kayah S.	329	33	9	371	338	34	11	383	102.7	103.0	122.2	103.2
Chin S.	1,109	75	25	1,209	1,058	83	24	1,165	95.4	110.7	96.0	96.4
Sagaing D.	3,931	196	77	4,204	3,827	191	83	4,101	97.4	97.4	107.8	97.5
Magway D.	3,595	182	64	3,841	3,594	184	70	3,848	100.0	101.1	109.4	100.2
Mandalay D.	3,955	219	103	4,277	4,071	230	112	4,413	102.9	105.0	108.7	103.2
Shan S.	4,116	200	76	4,392	4,196	208	94	4,498	101.9	104.0	123.7	102.4
Upper Total	18,190	983	390	19,563	18,262	1,016	433	19,711	100.4	103.4	111.0	100.8
Yangon Total	2,208	227	148	2,583	2,235	238	159	2,632	101.2	104.8	107.4	101.9
Practicing Sch.	n.a.	n.a.	n.a.	n.a.	14	5	0	19				
Total	35,795	2,048	862	38,705	35,893	2,112	943	38,948	100.3	103.1	109.4	100.6

In February 1992, Myanmar Education Research Bureau issued the report "Education Sector Study, Working Paper Series, No.5.2: A comprehensive Survey of Education Facilities." Since then, no such comprehensive survey on the subject has been carried out. According to the report, the conditions of the educational facilities were, and are still likely to be, as stated below:

Most of the primary school buildings are made of non-durable construction materials such as bamboo and timber. More than half of the primary school buildings in hilly and dry zones are bamboo buildings and more than half of the primary school buildings in coastal and delta zones

are timber buildings. Brick nogging buildings account for about 20% of the whole.

Spacious school campus areas are commonly seen in hilly zones where the average campus area is about five acres. On the other hand, the coastal area has less than one acre of school compound on average. The average classroom space per student is between 13 sqft and 14 sqft. Exceptionally, the hilly zone had about 20 sqft/student on average.

10.2.3 Selected Model Townships

In consultation with DEPT, JICA Team selected four townships, Dala, Gwa, Myinmu, and Theinni, each of them to represent the four geographical areas in Myanmar, namely Delta zone, Coastal zone, Dry Zone and Cool & Hilly zone, respectively. A comparison of the general characteristics of the selected townships is shown in **Table 10-2**.

Table 10-2: Key Indicators of the Selected Townships and the Geographical Zones

Particulars	Unit	Delta Zone	Dala Township	Coastal Zone	Gwa Township	Dry Zone	Myinmu Township	Cool & Hilly Zone	Theinni Township
Area	km ²	84,710	10	92,416	2,292	176,462	776	322,965	1,224
Avg. Max. Temp	°C	33	33	32	30	33	34	28	29
Avg. Min. Temp	°C	22	22	21	20	21	21	18	15
Humidity	%	76	75	79	78	70	69	73	73
Avg. Rainfall	mm	2,586	2,668	5,045	4,640	1,066	710	2,068	1,281
Population	no	17,438,000	80,721	6,602,000	67,400	16,610,000	135,901	8,358,000	30,350
Population Density	pcx/km ²	206	7,992	71	29	94	175	26	25
Avg. Household size	pcx	5	5	5	5	5	7	6	5
No. of Primary Schools	no	11,799	24	4,692	108	11,474	89	7,859	42
No. of Primary School Teacher	pcx	55,340	119	18,205	199	52,706	250	23,794	116
No. of Primary School Student	pcx	1,677,362	9,867	572,732	4,994	1,678,431	10,726	771,338	4,319
Student per Teacher	ratio	30	83	31	25	32	43	32	37
Student per School	pcx	142	411	122	46	146	121	98	103
Population per Student	ratio	10	8	12	13	10	13	11	7

Source: Ministry of National Planning and Economic Development, *Statistical Year Book 2000*, Yangon

10.2.4 Methods of School Mapping Survey

A questionnaire form was prepared in four parts. The first contains questions to gather general information such as the location of the site, year of establishment, and accessibility for students and teachers. The second part covers key educational data on the school, such as number of classes, students and teachers, and number of households served by the school. The third part identifies existing physical conditions of the school including conditions and sizes of buildings

and school compound, and available quantity of classroom furniture. The last part is for collecting information about the management organisation and the financial resources of the school.

The survey contains a qualitative evaluation of the physical conditions of facilities. To arrive at fairly consistent judgements by surveyors, an evaluation guideline was developed. The conditions of the building elements were assessed in six categories, namely: *1. Good, 2. Acceptable, 3A. Need Minor Repair, 3B. Need Major Repair, 4A. Need Replacement, 4B. Need Urgent Replacement.* Then, the results of the assessment of the building elements were synthesised with each of the buildings as a whole classified in the same six categories, 1, 2, 3A, 3B, 4A, and 4B, as follows:

- Grade 1:** Most of the building elements are rated as 1, with few exceptional elements rated as 2 or 3A.
- Grade 2:** Most of the building elements are rated as 1 or 2, with some non-structural components rated as 2, 3A, 3B or 4A.
- Grade 3A:** Most of the building elements are rated as better than 3A and non-structural members are rated worse than 3A. Some other elements such as finishing, doors, and windows may be classified as 3B or 4A.
- Grade 3B:** Most of the building elements are rated as better than 3B, and some vertical and/or horizontal structural members are rated worse than 3B, but with foundations in acceptable condition. Some other non-structural elements such as floor, ceiling, doors, and windows may be classified as 4A. The building life can be extended economically by repairing rather than by replacing the whole building.
- Grade 4A:** The building elements are in a similar condition as Grade 3B stated above, but with damaged foundations or structural timbers heavily damaged by termites. The life-cycle cost with further repair would exceed that of replacement.
- Grade 4B:** Most of the building elements are in worse condition than 4A, providing an extremely uncomfortable environment and, in many cases, fatal danger to the users. There is no doubt that the life-cycle cost with further repair would exceed that of replacement.

10.2.5 Findings of School Mapping Survey

The following tables show the summary of data collected by school mapping survey.

(1) Number of Students

Average numbers of total students in Dala, Gwa, Myinmu, and Theinni are 396, 39, 118, and 90, respectively. This shows that, in the three townships except Dala, most schools are smaller than assumed for the *Standard Designs of Schools of MOE*.

Table 10-3: Number of Students by Grade and Sex per School

Township		KG	G1	G2	G3	G4	total	average
Dala (valid data 23)	boys	1,079	1,003	911	862	813	4,668	203.0
	girls	977	963	903	832	755	4,430	192.6
	total	2,056	1,966	1,814	1,694	1,568	9,098	395.6
	average	89.4	85.5	78.9	73.7	68.2	395.6	
Gwa (valid data 106)	boys	603	419	416	340	310	2,088	19.7
	girls	577	432	353	321	316	1,999	18.9
	total	1,180	851	769	661	626	4,087	38.7
	average	11.1	8.0	7.3	6.2	5.9	38.6	
Myinmu (valid data: 84)	boys	1,232	871	957	820	725	4,605	55.5
	girls	1,252	1,037	1,097	1,004	815	5,205	62.7
	total	2,484	1,908	2,054	1,824	1,540	9,810	118.2
	average	29.9	23.0	24.8	22.0	18.6	118.2	
Theinni (valid data: 41)	boys	580	427	351	275	239	1,872	45.7
	girls	510	398	347	310	276	1,841	44.9
	total	1,090	825	698	585	515	3,713	90.6
	average	26.6	20.1	17.0	14.3	12.6	90.6	
Total (4T/S) (valid data: 254)	boys	3,494	2,720	2,635	2,297	2,087	13,233	52.1
	girls	3,316	2,830	2,700	2,467	2,162	13,475	53.1
	total	6,810	5,550	5,335	4,764	4,249	26,708	105.2
	average	26.8	21.9	21.0	18.8	16.7	105.2	

Source: JICA Study Team

(2) Number of Teachers**Table 10-4: Number of Teachers per School**

	No. of schools (valid data)	male	female	total	average no. of teachers/ school
Dala	23	22	203	225	9.8
Gwa	108	102	138	240	2.2
Myinmu	88	128	256	384	4.4
Theinni	42	10	117	127	3.0
Total	261	262	714	976	3.7

Source: JICA Study Team

(3) Average Student/Teacher Ratio**Table 10-5: Student/Teacher Ratio**

Township	No. of schools (valid data)	student / teacher
Dala	23	41.4
Gwa	108	17.3
Myinmu	87	26.1
Theinni	42	29.3
Total	260	27.8

Source: JICA Study Team

(4) Enrolment**Table 10-6: Net Enrolment Ratio**

	population of age 5 to 9			No. of students of age 5 to 9			net enrolment ratio (%)		
	boys	girls	total	boys	Girls	total	boys	girls	total
Dala	5,579	5,326	10,905	5,281	5,044	10,325	94.7	94.7	94.7
Gwa	1,551	1,668	3,219	1,516	1,591	3,107	97.7	95.3	96.5
Myinmu	data not available								
Theinni	1,606	1,560	3,166	1,244	1,205	2,449	77.5	77.2	77.4
Total	8,736	8,554	17,290	8,041	7,840	15,881	92.0	91.7	91.9

Source: JICA Team based on Enrolment Activity Report, by TEOs, for Year 2000

Note: A document by TEO of Gwa also states that Total NER in 2000 is 83%

(5) Number of Classroom Buildings

In all the townships, on average, a school has less than two classroom building blocks, and in Gwa, all of the schools have just one each. Of the 359 buildings in total, only five are in good condition (Grade 1), 42 are acceptable (Grade 2), 122 need minor repair (Grade 3A), 74 need major repair (Grade 3B), 45 need replacement (Grade 4A), and 57 need urgent replacement (Grade 4B).

Table 10-7: Number of Building Blocks by Condition

	No. of schools (valid data)	number of buildings by overall condition							total	average no of building
		1	2	3A	3B	4A	4B	Under Const.		
Dala	24	1	7	17	10	3	4	4	46	1.9
Gwa	108	0	2	28	31	17	29	1	108	1.0
Myinmu	89	0	26	56	20	21	15	7	145	1.6
Theinni	42	4	7	21	13	4	9	2	60	1.4
Total	263	5	42	122	74	45	57	14	359	1.4

Source: JICA Study Team

(6) Classroom Floor Areas**Table 10-8: Classroom Area Size by Condition**

	No. of schools (valid data)	total floor area (sqft)								floor area/ school	floor area/ student
		1	2	3A	3B	4A	4B	Under Const.	total		
Dala	24	1,920	7,600	37,915	21,340	9,120	6,960	8,480	93,335	3,889	9.7
Gwa	108	0	3,880	29,561	31,192	12,441	24,288	1,200	102,562	950	24.3
Myinmu	89	0	34,886	78,056	19,888	15,804	9,550	15,681	173,864	1,954	17.4
Theinni	42	4,400	13,048	28,284	16,960	2,916	11,516	0	77,124	1,836	20.7
Total	263	6,320	59,414	173,816	89,380	40,281	52,314	25,361	446,885	1,699	16.3

Source: JICA Study Team

(7) Teachers' Room**Table 10-9: Condition of Teachers' Rooms**

	No. of schools (valid data)	No. of schools with teachers' room	% of schools with teachers' room	average area (sqft)	area/ teacher (sqft)
Dala	24	23	95.8	398.3	42.4
Gwa	108	5	4.6	264.7	55.2
Myinmu	89	49	55.1	301.4	56.0
Theinni	42	30	71.4	308.9	94.6
Total	263	107	40.6	322.6	57.5

Source: JICA Study Team

(8) Toilets**Table 10-10: Number of Usable Toilets**

	No. of schools (valid data)	No. of schools with toilets	% of schools with toilets	No. of schools with usable toi- lets	% of schools with usable toilets
Dala	24	23	95.8	18	75.0
Gwa	108	42	38.9	12	11.1
Myinmu	89	67	75.3	59	66.3
Theinni	42	35	83.3	30	71.4
Total	263	167	63.5	119	45.3

Source: JICA Study Team

Note: Usable toilets were those classified in Condition 1, 2, 3A and 3B.

Table 10-11: Condition of Toilets

	No. of schools (valid data)	1	2	3A	3B	4A	4B	Under Const.	total	usable toilet booth
Dala	24	15	19	20	30	12	8	14	118	84
Gwa	108	0	2	6	6	38	10	0	62	14
Myinmu	89	0	59	58	29	13	4	3	166	146
Theinni	42	0	35	26	26	21	1	3	112	87
Total	263	15	115	110	91	84	23	20	458	331

Source: JICA Study Team

(9) Water Supply Facilities**Table 10-12: Availability of Water Supply in the School Compound**

	No. of schools (valid data)	No. of schools with wa- ter supply	% of schools with water supply
Dala	24	13	54.2
Gwa	103	12	11.7
Myinmu	74	27	36.5
Theinni	42	8	19.1
Total	243	60	24.7

Source: JICA Study Team

(10) Electricity

In Gwa, Myinmu, and Theinni, electricity is supplied to no schools. In Dala, 19 out of 24 schools have electricity supplied, out of which, six schools have electricity only in the teacher's

room. The classrooms are often too dark for children to study. This problem, however, can be solved by letting more sunlight into the building. Also, the electric power supply is frequently cut off in rural areas. Therefore, it is neither feasible nor appropriate to provide electric installations to primary schools in rural areas.

(11) School Compound

Table 10-13: Average Area of School Compound

	No. of schools (valid data)	average land area per school (acre)	average land area per school (sqft)	average land area per student (sqft)
Dala	23	1.415	61,629	152
Gwa	96	0.380	16,566	420
Myinmu	84	1.432	62,366	547
Theinni	40	1.783	77,661	890
Total	243	1.073	46,710	434

Source: JICA Study Team

Table 10-14: Boundary Fence

	No. of schools (valid data)	No. of schools by fenced ratio			total length (ft)	fencing %
		all	partially	none		
Dala	24	5	11	8	7,036	68.5
Gwa	89	23	25	41	14,462	68.5
Myinmu	85	20	19	46	21,397	63.9
Theinni	40	20	12	8	21,378	83.6
Total	238	68	67	103	64,272	71.0

Source: JICA Study Team

(12) Classroom Furniture

Table 10-15: Number of Students with Furniture

	No. of schools (valid data)	number of seats	number of students of the school with furniture data	student coverage (%)
Dala	24	3,030	9,758	31.6
Gwa	82	1,969	3,167	62.2
Myinmu	76	6,384	8,732	73.1
Theinni	38	2,415	3,380	71.5
Total	209	12,824	20,089	63.8

Source: JICA Study Team

10.2.6 Prototype Designs of Primary School

(1) Facilities Covered by the Plan

In preparing the proposed prototype designs, the following facilities were assumed as basic requirements.

- a) Classrooms
- b) Office for Teachers
- c) Store
- d) Library/ Multipurpose Room
- e) Toilets and Water supply

- f) Boundary Fence
- g) Simple playground or space for outdoor teaching and garden area
- h) Classroom Furniture

In the case of small schools where separate spaces for teachers and stores may be too generous, the minimum requirements are assumed as follows:

- a) Classrooms
- b) General Room for Office, Library, Store
- c) Toilet
- d) Boundary Fence
- e) Classroom Furniture

(2) Design Principles

In preparing the prototype designs, the following items have been taken into consideration:

- a. Accepting the Child-Centred Approach with furniture layouts for group learning methods.
- b. Flexibility of classroom space by installing movable partitions to accept fluctuations in the number of students, various teaching methods as well as multipurpose use by communities.
- c. Decreasing spaces for traffic by reducing corridors or using them for other purposes as well.
- d. Use of local construction methods and materials, thus aiming at easy construction and maintenance by local communities.
- e. Suitable designs for local weather conditions through the effective use of natural ventilation and sunlight, preventive measures for severe heat in summer, storms and floods in rainy season, etc.
- f. Structural safety and durability by applying anti-termite treatments for timber, stronger foundations, etc.
- g. Consideration of traditional life-styles seen in the traditional building designs such as high raised timber deck floor, bamboo mat walling and ceiling, etc.

(3) Particular Considerations for Each of the Four Townships

1) Dala

- Effective use of land, which is relatively small for most of the schools in the township.
- When replacing the entire building, a reinforced concrete frame structure may be applied; at least for the foundation to support the buildings safely on black cotton soil, and for the superstructure as well if sufficient initial funds are available.

2) Gwa

- Many of the schools are of a much smaller scale than is assumed for the standard designs. When applying multi-class teaching, some different planning concepts should be introduced.
- When renovating existing buildings, the timber roof trusses, which are relatively weak compared to the strong timber posts, should be reinforced.

- Well-seasoned timbers of large sections, as used for the posts in the existing buildings, are getting scarce nowadays. When replacing an entire building, reinforced concrete frame structures may be applied if sufficient initial funds for it are available.

3) Myinmu

- Better skills for using timber and bamboo products are found in this area than in the other townships. Because of this and the availability of bricks as well as the dry weather, the standard design of MOE with a brick nogging structure is more suitable for the dry zone than in the other three geographical zones.


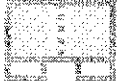




4) Theinni

- Most of the school compounds are on hilly sloped land. Lime bricks rather than burnt bricks are readily available. Due to fluctuations in the number of students often seen, flexibility of classroom space distribution is important.

(4) Plans for Classroom Blocks

For the purpose of replacing or extending the existing I-shaped classroom blocks, the I-shaped standard design of MOE with the necessary number of additional classrooms can easily be applied, in which case the design codes referred to are BR (or BRF or LB) 40-X. When replacing schools that have fewer students than assumed for existing standard designs, four plan types with the following numbers of seats were developed, namely: 40, 80, 120, and 160. For each of these, some structural options are considered, which gives 25 basic variations of the prototype designs as shown in **Tables 10-16**. The classroom area per seat should be 12 sqft or slightly more.

Table 10-16: Proposed Plan Variations of Primary Schools

Seats	Plan Shape	Brick Nogging (BR)	Brick Nogging with RC Foundation (BRF)	Lime Brick Nogging (LB)	Reinforced Concrete (RC-A)	Floor-Raised Timber Walling (TB)	Floor-Raised Reinforced Concrete (RC-B)
40	PS-BR40  36' x 22'	○	○	○	○	○	○
80	PS-BR80  40' x 32'	○		○	○	○	○
120	PS-BR120  60' x 40'	○	○	○	○	○	○
160	PS-BR160  72' x 50'	○			○		
40X-I-1	PS-BR40X-I-1  30' x 20(X+1)'	○	○	○	○		
40X-I-2	PS-BR40X-I-2  2 x 30' x 20(X+1)'		○		○		



Classroom Space

10.2.7 Unit Cost Analysis

The unit costs of the buildings and other facilities have been estimated in the following manner:

- 1) The quantities of works were calculated by applying the “Analysis of rates “ issued by Public Works in the Government of Myanmar (also known as Yellow Book), and
- 2) Base net unit costs for the buildings were calculated by multiplying the quantities and the unit prices applied by Yangon City Development Committee (2000-2001). Then, in July 2002, after the interim review of the School Renovation Project in Dala Township, the unit prices were revised on the basis of experience,
- 3) Based on the unit net costs in Yangon, the unit net costs of the buildings in each of the model townships are obtained by applying the relevant regional factors.

Then, the total unit costs are obtained by adding the costs for temporary works, contractor’s overhead, engineering services, site preparation etc., to the net unit costs depending on the construction implementation system.

10.2.8 Options for Primary School Improvement Plan

(1) Prioritisation of Primary School Needs for Physical Improvement

Based on the total classroom areas, as well as other physical conditions of the existing classroom buildings, the need to construct/renovate primary school physical facilities have been assessed under the following principles (see **Figure 10-2**):

Priority 1: A school is classified as Priority 1 when:

- 1-1) The existing classroom area per student is less than 9.6 sqft, or
- 1-2) The worst existing classroom block is judged as 4B

Priority 2: A school is classified as Priority 2 when:

- 2-1) The worst existing classroom block is judged as 4A

Priority 3: A school is classified as Priority 3 when:

- 3-1) The existing classroom area per student is between 9.6 and 12 sqft, or
- 3-2) The worst existing classroom block is judged as 3B

Priority 4: A school is classified as Priority 4 when:

- 4-1) The existing classroom area per student is 12 sqft or more, or
- 4-2) The worst existing classroom block is judged as 3A

Priority 5: All schools other than those stated above are classified as Priority 5

The results of the prioritisation are shown in **Table 10-17**.

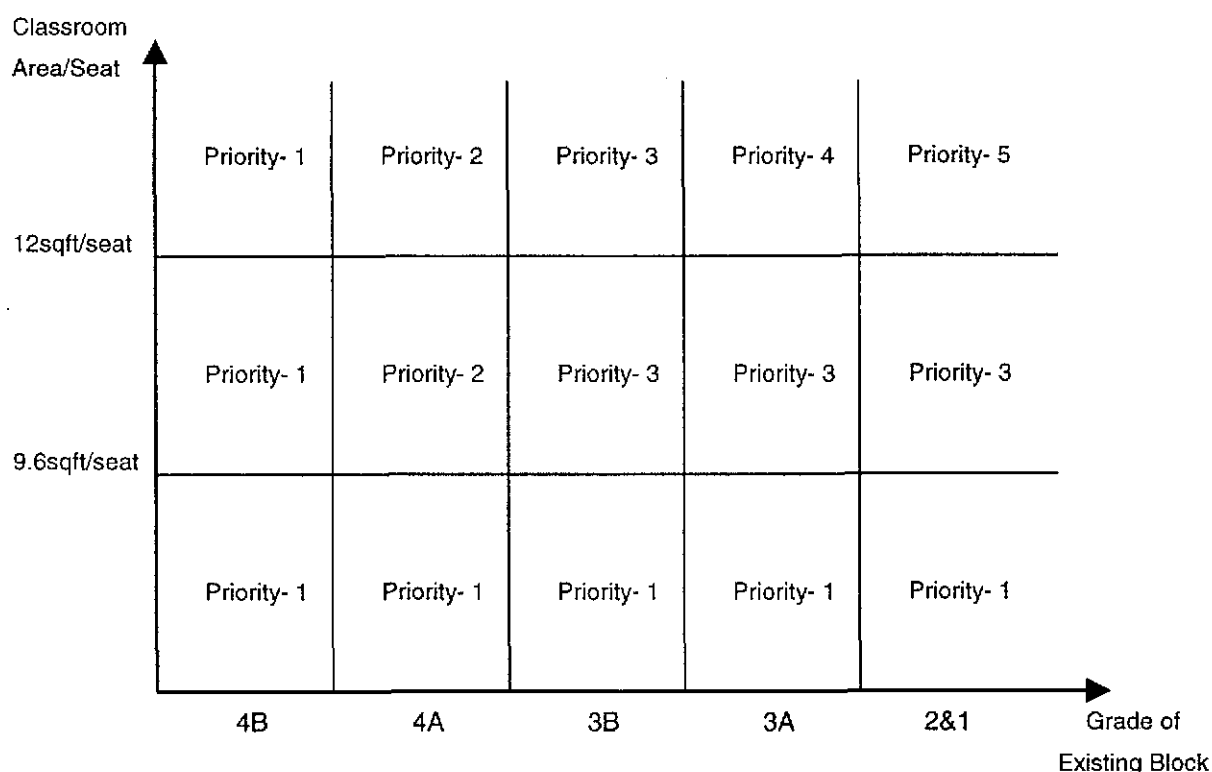


Figure 10-2: Prioritisation Criteria for School Needs for Physical Improvement

Table 10-17: Numbers of Primary Schools by Implementation Priority

Name of Township	Dala	Gwa	Myinmu	Theinni	Total
Total Number of Primary Schools	24	108	89	42	263
Number of schools for Priority 1	12	30	16	8	66
Number of schools for Priority 2	2	17	8	3	30
Number of schools for Priority 3	8	32	22	13	75
Number of schools for Priority 4	2	26	35	11	74
Number of schools for Priority 5	0	3	8	7	18

(2) Facilities to be Constructed/Renovated

Priority 1 schools

- 1) If the existing classroom area per student is less than 9.6 sqft, a classroom block(s) is to be constructed so that the total classroom area per student is 12 sqft or more,
- 2) An existing block(s) judged as 4B (and 4A as well, if any) is to be replaced with a new one(s) to meet the requirement as stated in 1) above,
- 3) An existing block(s) judged as 3B or 3A if any, is also to be renovated so that the block is classified as 2, and
- 4) Necessary facilities such as teachers’ office, store, toilets, water supply system, classroom furniture, and boundary fences are to be provided.

Priority 2 schools

- 1) An existing block(s) judged as 4A is to be replaced with a new one so that the total classroom area per student is 12 sqft or more,
- 2) An existing block(s) judged as 3B or 3A if any, is also to be renovated so that the block is classified as 2, and
- 3) Necessary facilities such as teachers office, store, toilets, water supply system, classroom furniture and boundary fences are to be provided.

Priority 3 schools

- 1) If the existing classroom area per student is between 9.6 and 12 sqft, a classroom block(s) is to be constructed so that the total classroom area per student is 12 sqft or more,
- 2) An existing block(s) judged as 3B or 3A if any, is to be renovated so that the block is classified as 2, and
- 3) Necessary facilities such as toilets, water supply system, classroom furniture, and boundary fences are to be provided.

Priority 4 schools

- 1) An existing block(s) judged as 3A is to be renovated so that the block is classified as 2, and
- 2) Necessary facilities such as toilets, water supply system, classroom furniture, and boundary fences are to be provided.

Priority 5 schools

- 1) Necessary facilities such as toilets, water supply system, classroom furniture, and boundary fences are to be provided.

The results of the assessment are shown in **Tables 10-18**.

Table-10-18: Needs of Construction in All the Four Model Townships in Total

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Total
No. of primary schools	66	30	75	74	18	263
No. of bldg. blocks to be constructed for each design for addition or replacement of 4A, 4B	40x I-2 (no. of clrm)	5(44)	1(12)	0	0	6(56)
	40x I-1 (no. of clrm)	6(21)	1(6)	2(3)	0	9(30)
	40	38	23	7	0	68
	80	7	2	0	0	9
	120	10	1	1	0	12
	160	1	2	0	0	3
	Total classroom floor area (sqft)	72,480	26,880	6,240	0	0
Floor areas to be major repaired (sqft) 3B	Brick nogging	11,480	0	21,184	0	32,664
	Lime brick nogging	810	0	5,436	0	6,246
	Timber walling	0	0	35,459	0	35,459
	Bamboo walling	3,336	0	10,955	0	14,291
	Total	15,626	0	73,034	0	88,660
Floor areas to be minor repaired (sqft) 3A	Brick nogging	20,874	960	22,107	40,905	84,846
	Lime brick nogging	1,710	0	2,360	18,548	22,618
	Timber walling	1,024	2,268	8,264	39,383	50,939
	Bamboo walling	810	829	486	13,288	15,413
	Total	24,418	4,057	33,217	112,124	0
No. of toilet booths to be constructed	179	67	132	95	19	492
No. of seat units to be supplied	2,952	565	1,928	1,417	305	7,167
No. of teacher's desk & chair units to be supplied	472	168	298	264	65	1,267
No. of teaching walls to be supplied	189	79	20	0	0	288
Length of boundary fence to be constructed (ft)	30,407	16,025	33,696	32,404	10,509	123,040
No. of water supply to be provided	90	23	62	56	12	243

(3) Options for Agent and Funding Source

In Myanmar, communities have been playing key roles in building primary school physical facilities. Further efforts should be made to enhance effective community participation as has been piloted by the Project for Improving Access of Children, Women and Men of Poorest Communities to Primary Education for All under the support of UNDP/UNESCO. On the other hand, because of the urgent need for primary school physical improvements, as well as the limited funding sources of the Government of Myanmar, some additional funding support may be sought from foreign aid. Therefore, various systems ranging from A to E for project implementation by funding source, as well as by the agent in charge of design, procurement of materials, construction work and/or supervision have been analysed as described below.

A (Traditional Construction by Communities)

	Community	Gov. of Myanmar	Foreign Aid	Remarks
Design	○			
Materials	○			
Construction	○			
Supervision	○			
Inspection		○		

The communities do all the work regarding construction/renovation on their own and the Government only undertakes inspection.

B (Construction under MOE)

	Community	Gov. of Myanmar	Foreign Aid	Remarks
Design		○		
Materials	○	*		* Some Funding Support
Construction	○	*		* Some Funding Support
Supervision	○			
Inspection		○		

The communities do the construction work according to the MOE standard design with some funding support from the government.

C (Construction with Foreign Aid –A: turnkey basis)

	Community	Gov. of Myanmar	Foreign Aid	Remarks
Design		*	○	* Agreement
Materials			○	
Construction			○	
Supervision			○	
Inspection		○		

A foreign donor(s) does all the construction work on a turnkey basis applying designs agreed upon with MOE. The MOE's involvement is limited. This is feasible for a donor with a single year budgetary system.

D (Construction by Foreign Aid -B with Community Participation/UNDP)

	Community	Gov. of Myanmar	Foreign Aid	Remarks
Design		○		
Materials	○		○*	*Cement, CGIS, Nails
Construction	○		○*	*Some Funding support
Supervision	○		○*	*Monitoring

A foreign donor(s) and the communities share the costs, and the communities do the construction work with technical support from the Donor. MOE headquarters' involvement is limited. The donor's comprehensive involvement is needed for several years to directly deal with TEOs and the communities.

E (Construction with Foreign Aid –C: Provision of Construction Materials with Foreign Aid and Construction with Community Participation)

	Community	Gov. of Myanmar	Foreign Aid	Remarks
Design		○	*	* Recommendations
Materials	○*	○Transport	○	*Locally available at site
Construction	○	*		* Some Funding Support
Supervision		○	*	* Monitoring
Inspection		○		

A foreign donor provides major construction materials and the communities do the construction work with technical support from MOE. The MOE needs more intensive involvement. This is feasible for a donor with a single year budgetary system.

(4) Project Components that Are Suitable for Each Implementation System(A-E)

Suitable implementation systems (A-E) for each of the project components are assessed as shown in **Table 10-19**.

Table 10-19: Suitable Implementation Systems by Project Components

Implementation System	A*1	B*1	C	D	E
Classroom Construction	△*1	△*1	⊙	⊙	○
Classroom Renovation	○*1	○*1	△*2	○	X*3
Furniture	△*1	○*1	⊙	⊙	○
Toilet	△*1	○*1	⊙	⊙	○
Water Supply	○*1	△*1	△*2	○	X*3
Boundary Fence	○*1	△*1	△*2	○	X*3
Remarks	Poor Engineering	Needs more funding input by the Government	Suits a single fiscal year budgetary system	Comprehensive input by the donor for several years	Needs more management input from the Government

*1: Insufficient Funding *2: Difficulty in Project Control *3: Difficulty in Project Control

⊙: Well Suited ○: Suitable △: Possible ×: Difficult

(5) Recommended Options

Although the implementation of System-D stated above has many advantages for covering every component, it would not be easy to find such an international donor. The consultant has prepared two implementation options: Option-1 with a combination of A, B, and C systems, and Option-2 with A, B, and E as shown in **Table 10-20**.

Table 10-20: Comparison of Options-1 and 2

	Option-1 (A+B+C)	Option-2 (A+B+E)
Common concepts	1) Foreign Donor covers construction of classroom and toilet, furniture provision for Priorities schools 1 and 2. 2) Communities cover renovation of classrooms of 3A blocks, water supply, and boundary fence on their own. 3) The Government of Myanmar supports the communities by covering all other project components.	
Major Differences	Construction of Classrooms by a foreign donor(s) on turnkey basis (System-C)	Provision of materials by a foreign donor(s) for Construction by Communities under the project management of Government of Myanmar (System-E)
Total Cost (Kyat)	3,775,080,000	2,604,010,000
Cost borne by Communities	703,970,000	818,110,000
Cost borne by Government	394,680,000	709,050,000
Cost borne by Foreign Donor(s)	2,676,430,000	1,076,850,000
Time Schedule	Immediate Implementation/ 29 months in total	Implementation after preparation for several months/ 36 months or more in total
Organisation	Easy modifications of existing engineering section in MOE, if any.	New engineering sections in MOE to be established
Others	RC constructions to be applied where it is beneficial to obtain safer and durable buildings	Conventional School structures are to be applied so that construction is by communities with minimum guidance

10.3 Introduction to the Manual for IPPSB

The main objectives of the Manual are to:

- 1) present the useful know-how obtained by the JICA Study Team when preparing the IPPSB in the four model township, and
- 2) propose how to strengthen the primary school physical planning and management capability of Myanmar counterpart personnel so that the know-how will be effectively used by the Government of Myanmar in independently preparing the master IPPSB nation-wide.

When preparing a master IPPSB for more than 300 townships, it would be more efficient to use the existing educational management systems rather than follow exactly the same procedures as taken by the JICA Study Team. From this point of view, the Manual has been prepared through discussions with counterparts of the Government of Myanmar. As will be seen in the chapters that follow, however, the Manual will naturally contain many items yet to be developed by the Government of Myanmar.

10.3.1 Overview of IPPSB Preparation

The cycle of the IPPSB preparation process in a particular area can be divided into the five major stages shown in **Figure 10-3**.

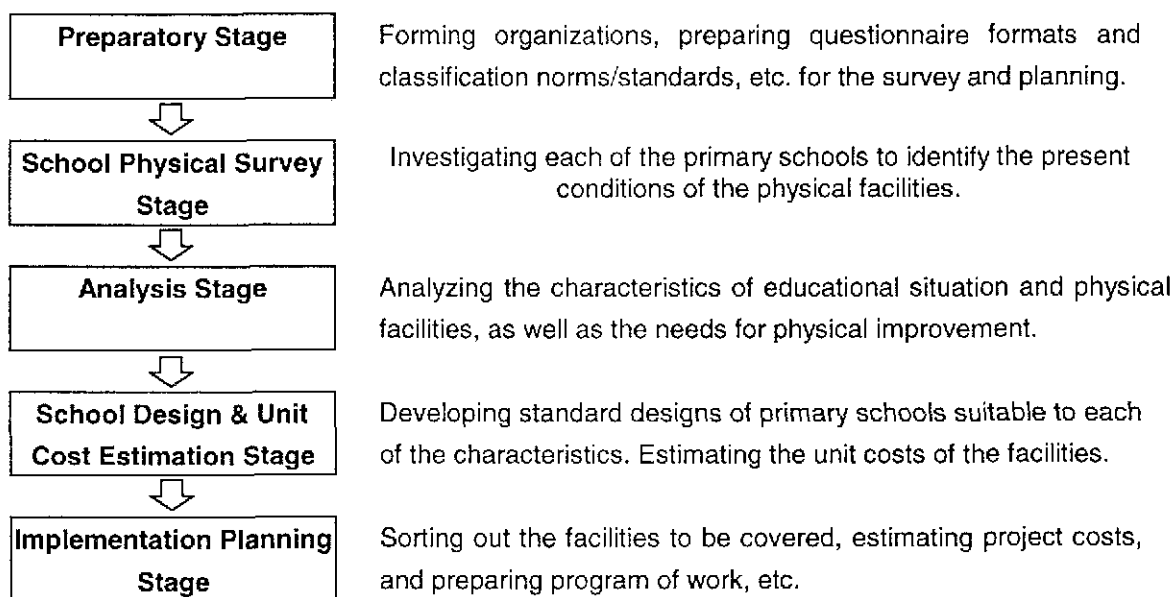


Figure 10-3: Major Planning Stages of IPPSB

(1) Preparatory Stage

The engineering sections will have to be strengthened to develop the master IPPSB. First, a steering committee should be formed, inviting the members from concerned departments to discuss and develop policies, including how to reinforce engineering sections in DEPT/DBEs. Some tentative proposals are given in Chapter 2.

In Myanmar, the Educational Management Information System (EMIS) has been initiated by

DEPT. This, if properly co-ordinated with the data-collecting system at local levels, will be very useful for school mapping exercises including handling data on primary school physical facilities. Hence, it is recommended that DEPT:

- 1) review the EMIS to include the data on physical facilities proposed in this manual,
- 2) improve the present form of School Control Book in primary schools, and
- 3) develop a Township Control Book Form.

The examples of 2) and 3) stated above are also presented in Chapter 2.

(2) School Physical Survey Stage

In addition to collecting information through the control books, site surveys at every school in each township are to be carried out by surveyors with the technical background to collect *detailed information on the physical situations of primary schools*. There are two options. One is to use existing manpower resources such as TEO/ATEO and Township Engineers in the local authorities through co-ordination and reinforcement. The other is to form about ten physical survey teams under the central IPPSB Project Unit and dispatch them to target townships phase-by-phase in the project. The former would need a complicated system of training for every one of the many teams in the country. The latter would probably be more practical and beneficial for securing efficiency and consistency of the surveys.

(3) Data Analysis Stage

A comprehensive database for school mapping exercises is to be covered by the entire EMIS. *This manual, therefore, deals with the analysis of physical facilities in existing schools only, which should eventually be integrated into the EMIS.*

By inputting the data from the school control books and those from school physical surveys into the database, the present situation as well as the needs for physical improvement of schools will easily be analysed. The structure of the database, as well as various examples of tools for presenting the results such as table formats and maps, are presented in Chapter 4.

(4) School Design and Unit Cost Estimation Stage

The existing standard designs of MOE are applicable to many cases in most areas of the country. However, in rural areas, many schools are much smaller than assumed in any of the standard designs. Furthermore, while the structures of the standard designs are most suitable in the Dry Zone, some improvements or modifications are necessary in other geographical zones; for instance, reinforcement of foundations in the Delta Zone, where the soil is often too weak to support the foundations of existing designs. In addition, better plan types may be developed to accommodate the child-centred learning methods that are to be introduced in the near future. Accordingly, some additional prototype designs have been proposed. The proposed prototype designs of primary school facilities are presented in this chapter. The prototype designs are still at a preliminary stage. Detailed designs will be necessary for application.

Unit costs of the designs are also presented so that the planner can assess the project costs easily.

It is required to appraise not only the initial construction cost but also the total life-cycle cost based on the assumed life-span of the building. The methods by which the unit costs have been obtained are also presented so that they can be reviewed and revised from time to time by the planner in charge.

(5) Implementation Planning Stage

Methods and examples of preparing implementing options for IPPSB are presented including how to prioritise project components, seek appropriate agencies, allocate funds, and prepare work programs. Preparing a master IPPSB to cover the entire country would take years. **Figure 10-4** shows the entire work-flow for preparing IPPSB. The column at the left side shows the five major stages: 1) Preparation, 2) School Physical Survey, 3) Data Analysis, 4) Design & Unit Costs, and 5) Implementation Planning. The next column shows the relevant contents of the manual. The other columns show the flow of major work items to be done at each of the levels from central government through local authorities to individual schools.

Figure 10-5 shows an example of the program for the master IPPSB. After forming a task force or a steering committee and a project implementation unit with an engineering section(s) in DEPT or DBEs for initiating the master IPPSB, a tentative master plan may be prepared from data on educational facilities that can easily be collected from township education offices. Meanwhile, preparations should be made for detailed physical surveys of the schools. Then, based on the results of the school physical surveys that follow, the master plan will be revised and developed year by year. Along with the processing of school physical surveys, IPPSB in the surveyed areas may be implemented, while seeking appropriate funding sources as well as community participation.

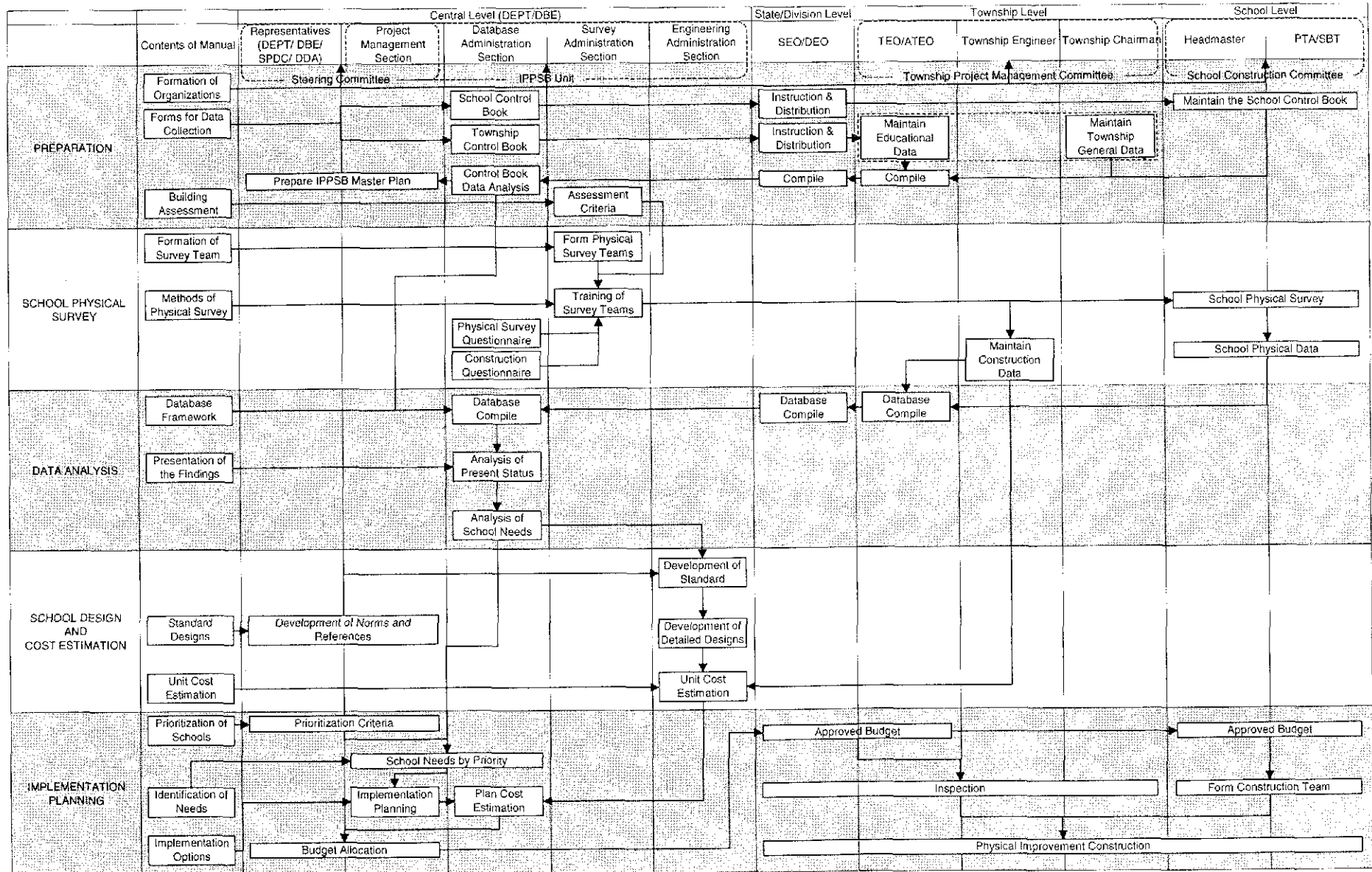


Figure 10-4: Flow of Improvement Planning for Primary School Building (IPPSB)

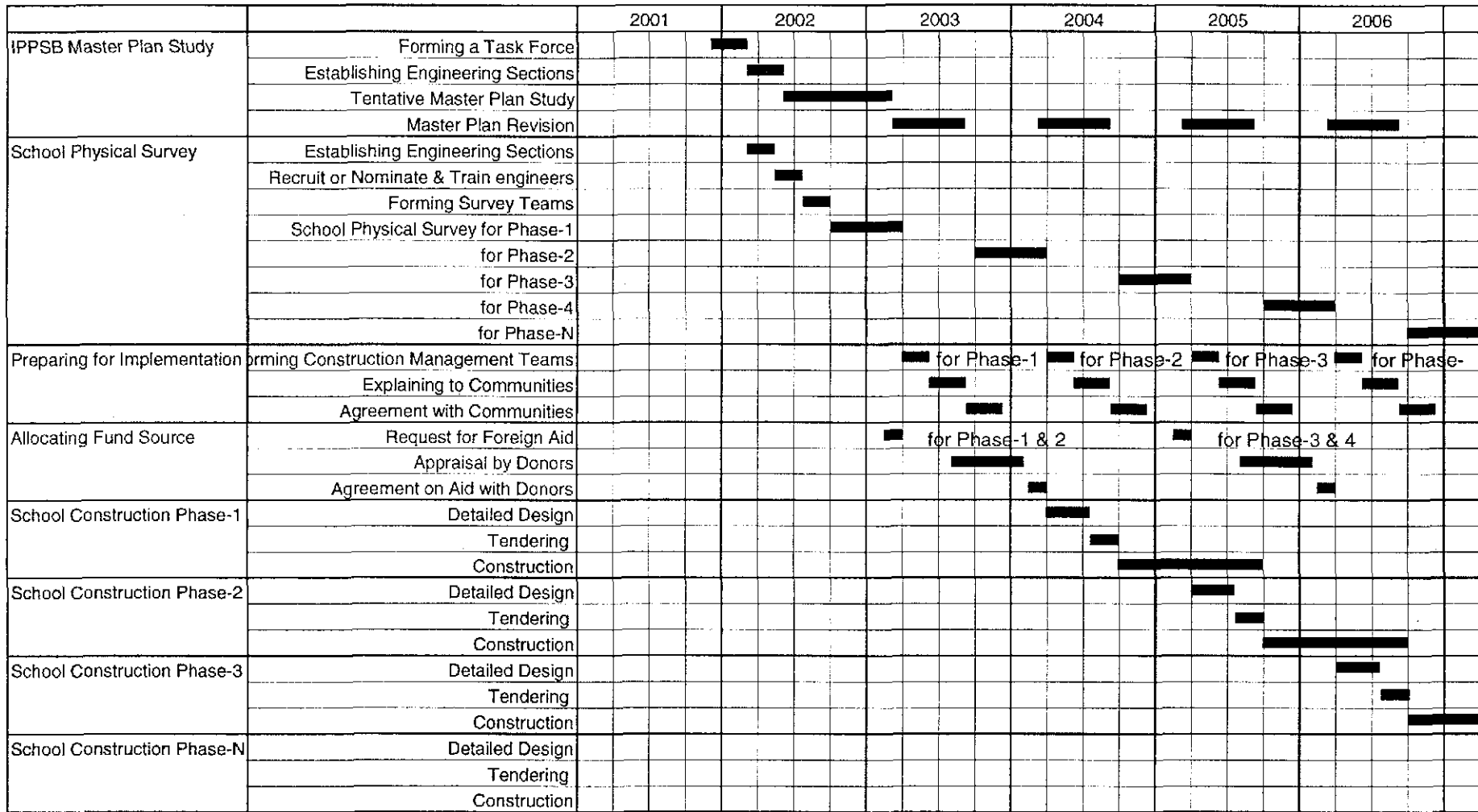


Figure 10-5: Tentative Program of Implementing Master IPPSB

10.3.2 How to Use This Manual

Figure 10-6 shows the contents and the composition of the manual. It also lists works that have yet to be done by MOE regarding preparation and implementation of the master IPPSB. Along with the chapters and the sections shown in the first and second columns, relevant work flow charts are shown in the third column. In the fourth column, relevant topics described and materials given are shown. In the fifth column, database forms, frameworks and output products are shown. Then in the last column, the items yet to be done by the Government of Myanmar outside the scope of this manual are shown.

Chapter 1 of the manual overviews the entire IPPSB to cover all of the townships in the country. Chapter 2 proposes what preparations would be necessary for the Government of Myanmar to independently develop the master IPPSB. Chapters 3 to 6 explain the processes actually taken by the JICA Study Team in the relevant study stages in preparing the IPPSB in the four model townships. However, some modifications have been made to make the manual suitable for general application. Most of the back data and software frameworks used in the study are presented in the Appendix. The entire contents are compiled in a package of software files and presented in a CD-ROM, so that planners/surveyors can easily use or modify them when carrying out similar studies.

This manual is for a broad range of audiences: high-ranking officials of the Government of Myanmar, educational facility planners and other technical staff members both in the central government and local authorities, potential stakeholders like community leaders, officials from the donor agencies working in the Basic Education Sector, etc.

Policymakers with very limited time may read only Chapters 1 and 2. Given a reasonable time, most of the audience would find the contents of the main body of the manual easy to understand. However, the actual handling of data analysis, design drawings, cost calculations, improvement plan preparation, etc. are for an audience with a technical background in construction engineering and with some basic knowledge of personal computer operation. The software packages used are MS Word, MS Excel, and Auto CAD Architectural Desktop 3.3.

Chapter	Section	Contents			Works Yet to be Done by MOE	
		Work Flow Charts	Related Topics and Materials	Output Products		
2	PREPARATION	2.1	Formation of Project Management Organizations	management organization chart	formation of organizations	
		2.2	Preparation of Forms for Data Collection	baseline data form collection flow	baseline data form examples	continuous operation of data collection in every school preparation of IPPSB master plan programme
		2.3	Existing Building Condition Assessment	assessment criteria matrix	example photos of gradings	
3	SCHOOL PHYSICAL SURVEY	3.1	Formation of School Physical Survey Team	procedure of the school physical survey physical survey team formation chart	formation of school physical survey team	
		3.2	Methods of School Physical Survey		school physical survey form	workshop for training school physical survey teams joint survey to share common judgement in assessment school physical survey
4	DATA ANALYSIS	4.1	Database	analysis form for physical data analysis form for construction/renovation needs		
		4.2	Presentation of the Findings	physical conditions analysis flow construction needs analysis flow	presentation of findings of physical data presentation of construction/renovation needs	integration of data on physical survey into EMIS data analysis maintenance of the database
5	SCHOOL DESIGN AND COST ESTIMATION	5.1	Standard Designs	prototype designs design in CAD system	review on norms and regulations for educational facilities detailed design development	
		5.2	Unit Cost Estimation	unit cost calculation procedure unit cost estimation form	bills of quantities for each prototype designs continuous review on unit costs detailed cost estimation	
6	IMPLEMENTATION PLANNING	6.1	Prioritization of Schools	prioritization criteria analysis form for prioritization	continuous review on criteria	
		6.2	Identification and Classification of Construction/Renovation Needs	procedure of prioritization & needs identification	presentation of priority outcome (quantities of facilities needed)	
		6.3	Implementation Options	plan cost calculation procedure	implementation plan options plan cost calculation form fund source allocation by implementation plan	sample IPPSB program application to foreign donors development of community participated construction system preparation of IPPSB program

Figure 10-6: Composition of the Manual

10.4 Summary of the Report on Interim Review of Primary School Renovation Project in Dala Township

10.4.1 Outline Contents of the Project

(1) Implementing Organisation

Dala Township School Consortium consists of the following primary schools:

- State Primary School No. 2, Dala Township
- State Primary School No. 3, Dala Township
- State Primary School No. 5, Dala Township
- State Primary School No. 9, Dala Township
- State Primary School No. 13, Dala Township
- State Primary School No. 14, Dala Township
- State Primary School No. 19, Dala Township
- State Primary School No. 20, Dala Township

(2) Project Title

Eight Primary Schools Renovation Project in Dala Township

(3) Amount of the Funds Provided by Grassroots Grant Assistance

US\$ 75,125 (United States Dollars Seventy-five thousand one-hundred and twenty-five only)

(4) Project Cost

Requested cost to be financed by the grant:	50,600,000 Kyat
Estimated cost to be financed by community:	1,500,000 Kyat
Total estimated cost of the entire project:	52,100,000 Kyat

(5) Date Grant Contract Signed

The Grassroots Grant Contract for “Eight Primary Schools Renovation Project” was signed on 6th March 2002 at the Embassy of Japan in Myanmar.

(6) Project Area

Dala Township is in the Southern District of Yangon Division, located on the other bank of Yangon River, about half a mile south of Yangon City Centre. It stretches from east to west. The topography of Dala Township is a broad and flat plain and the weather is very similar to that of Yangon. There are six major creeks and many small creeks, which are used for water drainage as well as irrigation for the agricultural farming. The brief statistics of the Dala township as of Year 2000 is as follows:

Total Area:	3.9 sq. Miles (10.10 sq. Km)
Average Temperature:	35.33 Degree Centigrade
Number of Wards:	23 Wards
Population:	80,721 Persons (40,068 Male and 40,653 Female)
Number of Houses:	13,008 Houses
Number of Households:	16,275

Number of High Schools: 2 Schools
Number of Middle Schools: 4 Schools
Number of Primary Schools: 24 Schools
Number of Monastic Schools: 6 Schools

(7) Scope of Works

The following work items will be included in the scope of works of the project:

Sr.	Work Items	Financial Source
1	General Renovation of School Buildings	Grant
2	Upgrading of Water Supply and Toilet Facilities	Grant
3	School Furniture	Grant
3	Consulting and Engineering Services	Grant
4	Renovation of Other Items	Community
5	Project Management and Support	Community

(8) Program of Works

Starting Date of the Project: 1st April 2002
Proposed Completing Date of the Project: 30th September 2002
Expected Duration of the Project: 6 months

10.4.2 Project Management System

As a test application of the IPPSB, the JICA study team initiated a project with Grassroots Grant Assistance from Japan to renovate schools in Dala. Based on the physical data on primary schools in the township, the targets of the project were selected to be the eight schools that needed major repairs. For the efficient management of the project, it was proposed that a consortium of the schools be established to be the agency responsible for implementing the project. Upon making an agreement between the schools, the school consortium was formed on 5th November 2001 and U Thein Tun, headmaster of State Primary School Number 19 was elected as the head of the school consortium.

Then a consultant was selected as the project consultant from among three candidates recommended by the JICA Study Team. The project consultant prepared the necessary documents for the application of Grassroots Grant Assistance, which was submitted to the Embassy of Japan in January 2002. Officials from the Embassy of Japan visited the selected schools on 6th February 2002. Through several discussions between the Embassy of Japan and the Consortium, the application was revised to the satisfaction of both parties, and a Grassroots Grant Contract was signed by them on 6th March 2002 at the Embassy of Japan, Yangon.

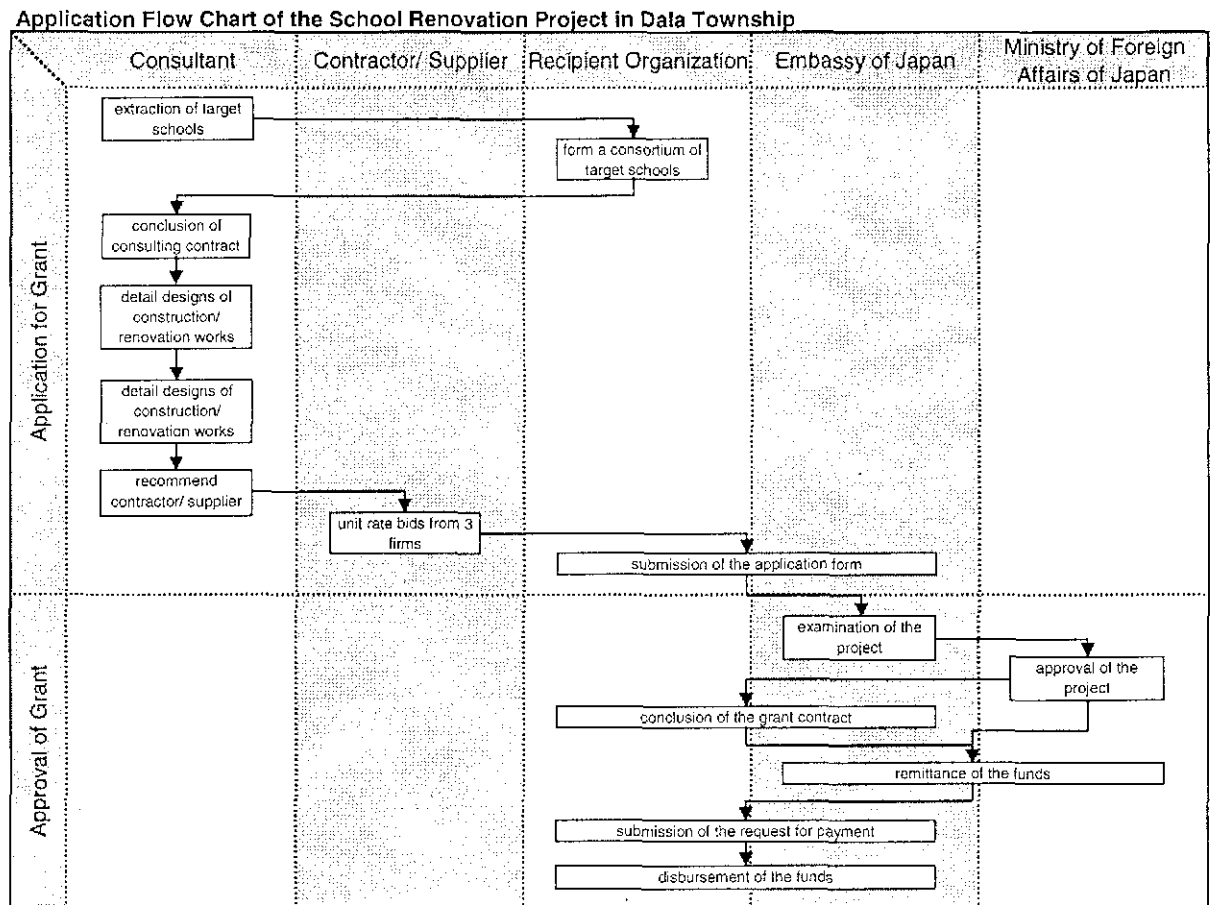


Figure 10-7: Application Flow Chart of the School Renovation Project in Dala Township

10.4.3 Management Organisation

(1) Organisation of the Project

The entire organisation for implementing the project is shown in **Figure 10-8**. The executing agency is a consortium of the eight schools. The project fund is mainly from the embassy of Japan, which is controlling the project in accordance with the grant contract made with the consortium. The project consultant is providing professional services for design, procurement, and supervision of work, while the MBESS team is technically supporting the consultant as an advisor.

On the other hand, the Township Education Officer is supporting the consortium as an advisor on various managerial matters. Initially, the township education officer (TEO) did not attend the meeting of the school consortium. Soon after starting project implementation, however, the township education officer and the assistant township education officer were invited as advisors. Their involvement was very helpful for the consortium to handle project management smoothly.

The consortium is giving separate contracts for the procurement of materials and labour one by one along with the progress of the work at each of the schools.

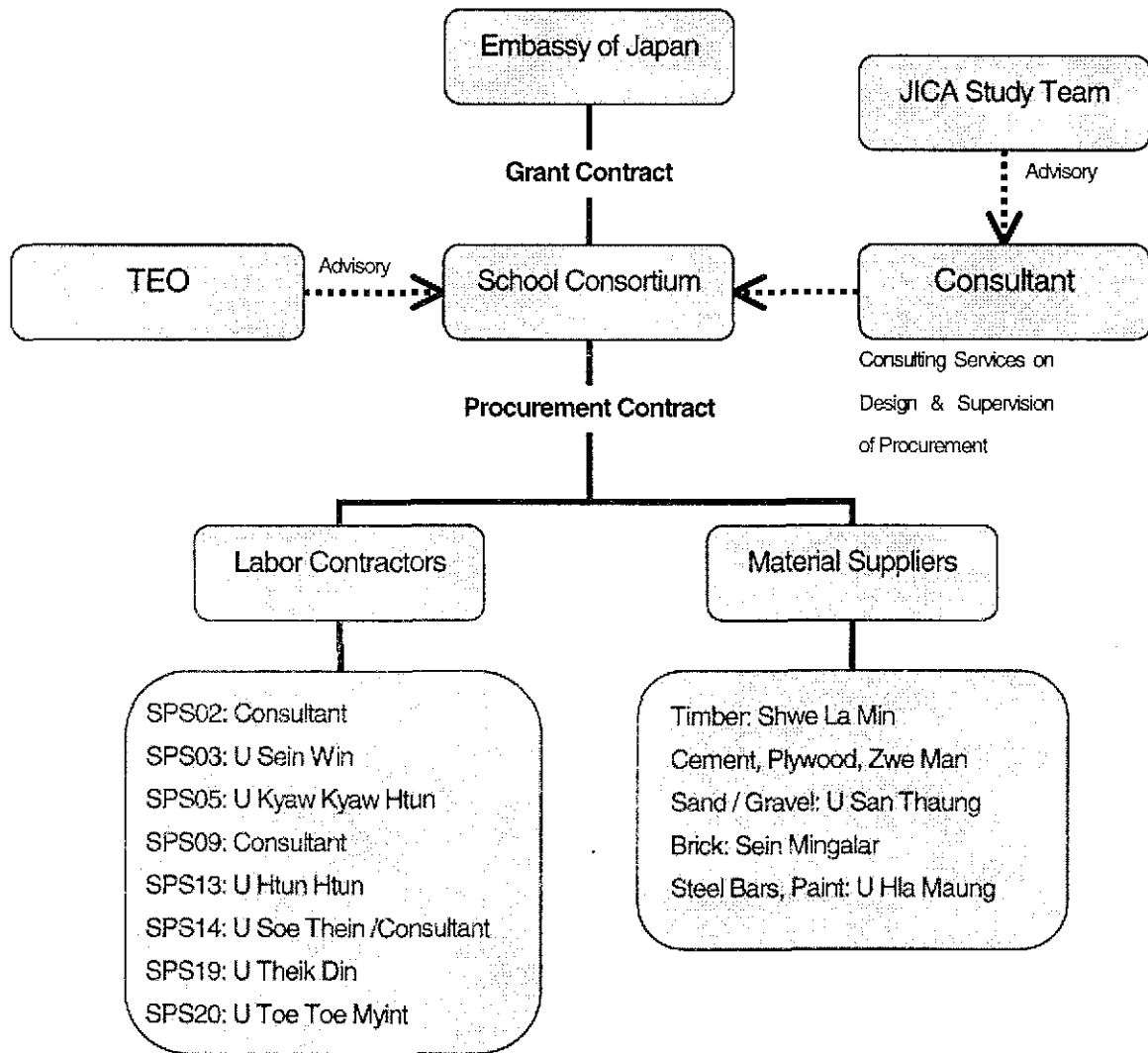


Figure 10-8: Entire Organisation for Implementing the Project

10.4.4 Progress of the Project to Date

(1) Performance of Works to Date

At the beginning of project implementation, building works were given priority because the schools had to reopen in early June. Both toilet and compound works faced some delays, because most of the school compounds were flooded in the rainy season. In total, 65% of the building works have been completed while only 23% and 51% of the works for toilets and compound facilities had been completed as of July 18. The progress of the project as of July 18 is shown in the tables below.




Table 10-21: Progress of the Project

As of: July 18, 2002

PERCENTAGE OF PROGRESS										
Description	SPS02	SPS03	SPS05	SPS09	SPS13	SPS14	SPS19	SPS19A	SPS20	Avg. % for Each Work
Works for Building	70%	71%	74%	34%	73%	68%	67%	57%	68%	65%
Works for Water & Toilet	41%	30%	30%	41%	5%	0%	18%		17%	23%
Works for Compound	57%	66%	66%	35%	64%	46%	13%		61%	51%
Average % for Each School	65%	67%	66%	37%	63%	59%	59%	57%	63%	59%

PROGRESS FOR SCHOOL RENOVATION WORK

Category	Renovation Item	% Complete	April				May				June				July				August				September							
			Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4				
SPS02	Building	70%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	41%	[Gantt chart showing progress from April to September]																											
	Compound	57%	[Gantt chart showing progress from April to September]																											
SPS03	Building	71%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	30%	[Gantt chart showing progress from April to September]																											
	Compound	66%	[Gantt chart showing progress from April to September]																											
SPS05	Building	74%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	30%	[Gantt chart showing progress from April to September]																											
	Compound	66%	[Gantt chart showing progress from April to September]																											
SPS09	Building	34%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	41%	[Gantt chart showing progress from April to September]																											
	Compound	35%	[Gantt chart showing progress from April to September]																											
SPS13	Building	73%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	5%	[Gantt chart showing progress from April to September]																											
	Compound	64%	[Gantt chart showing progress from April to September]																											
SPS14	Building	68%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	0%	[Gantt chart showing progress from April to September]																											
	Compound	46%	[Gantt chart showing progress from April to September]																											
SPS19	Building 19	67%	[Gantt chart showing progress from April to September]																											
	Building 19A	18%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	13%	[Gantt chart showing progress from April to September]																											
	Compound	57%	[Gantt chart showing progress from April to September]																											
SPS20	Building	68%	[Gantt chart showing progress from April to September]																											
	Water and Toilets	17%	[Gantt chart showing progress from April to September]																											
	Compound	61%	[Gantt chart showing progress from April to September]																											

Planned 
 Completed Work 
 Remaining Work 

10.4.5 Review of Grassroots Project

(1) Changes from the Original Plan

There are only a few changes in the specification and the scope of work.. However, given the nature of renovation projects, there had to be many changes made to the scope of work quantities after demolition of existing deteriorated components.

To compensate for the sharp price escalation of materials such as cement and timber, it was decided that the hardwood for non-structural members should be Htaukkyant, a lesser known species, instead of Pyinkado. It is a cheaper hardwood alternative with acceptable qualities.

(2) Unit Cost Analysis

During implementation of the project, most of the major material prices escalated as can be seen in the following diagram.

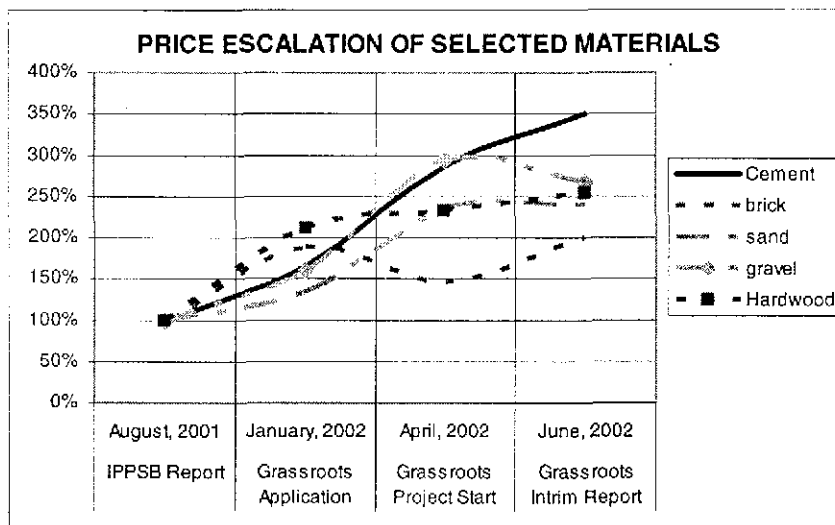


Figure 10-9: Price Changes in Selected Materials

(3) Unit Cost of Classroom Building Construction

The following table and figure show a comparison of the construction cost for DBE standard PS(1)4BNF four classrooms constructed of brick nogging with reinforced foundation estimated in the IPPSB report and the two classrooms constructed of brick nogging with reinforced foundation financed under the Grassroots Grant Assistance in Dala Township. Due to inflation, the prices of most materials have doubled in a year.

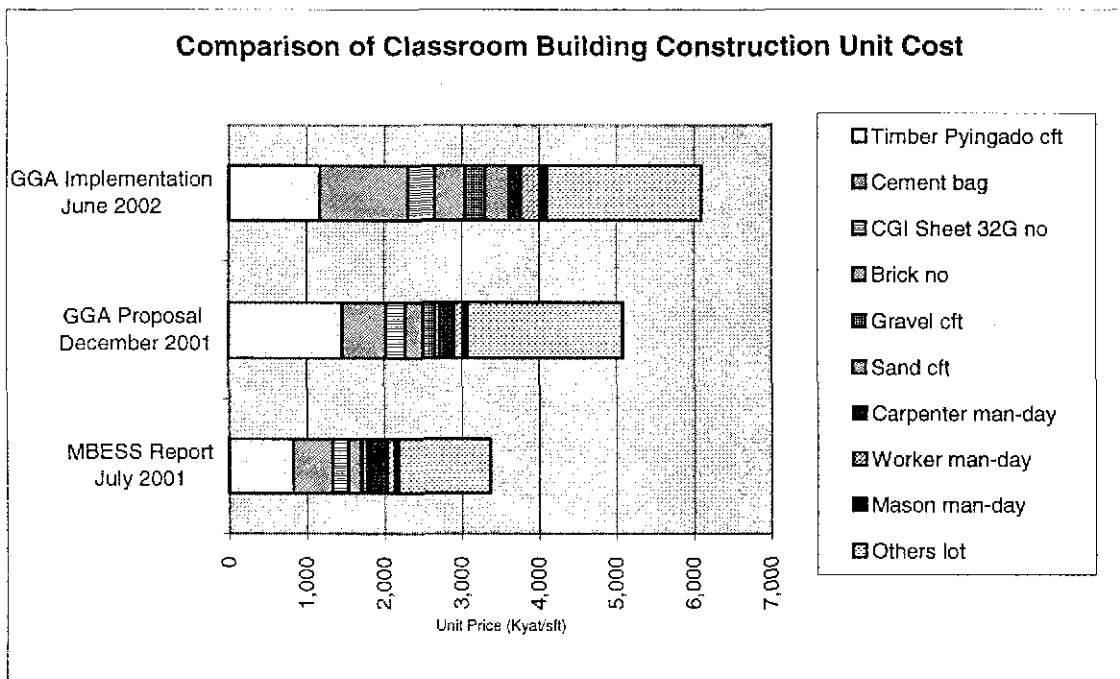


Figure 10-10: Comparison of Classroom Building Construction Unit Cost

(4) Cost for Classroom Building Renovation Works

After the detailed survey, it was found that one of the classroom buildings of school no. 9 should be reconstructed rather than renovated from the point of view of the life-cycle cost. The following table shows a cost comparison between estimated major repairs and construction of a new building. It shows that a new building is more economical in view of life-cycle cost.

Table 10-22: Life Cycle Cost of PS(1)2 School Building

Project Phase	Expected Life Added (years)	Total Floor Area (sqft)	Major Repair Cost (kyat)	New Building Cost (kyat)	Unit L.C.C. over Life Span (kyat/sqft/yr)	Note
Major Repair for Timber Building	10	1,200	2,632,804		219	From preliminary GGA Estimate
New Construction with Brick Nogging Building	30	1,200		5,196,000	144	From actual implementation

(5) Funding by Communities

A questionnaire form for collecting funding records of the project primary schools was prepared and distributed to each school on 10th June 2002. Out of eight schools, seven returned the forms. The types of funding are classified into three groups as:

- Department of Basic Education
- Individual Donation
- Community Funding

Among the seven schools, Department of Basic Education assisted in constructing new buildings for three schools and a new toilet for one school during the recorded period. The average annual funds per student are 366 Kyat from DBE, 268 Kyat from the individual donation, and 161 Kyat from the community. School funding for each school is as shown in the following table and figures:

10.4.6 Review of IPPSB Report

(1) Characteristics and Problems of Primary School Buildings in Dala Township

The main problems of the buildings in the region are due to foundation settlement because of the soft ground. Cracks in the ground floor, differential settlement of vertical members, and wall cracks are frequently seen in many school buildings.

Most of the primary school buildings are initiated by local communities and are built with locally available resources: funds, materials, labour, techniques, etc. In many cases, school buildings were not properly constructed due to lack of funds or insufficient technical support. For example, many brick nogging school buildings in Dala township do not have proper timber frames in their walls, which are indispensable to secure the rigidity of the walls. There is little or no appropriate maintenance system for school buildings. Although many school buildings in Dala are made of timber, which need regular painting to protect them from the weather, most of the school buildings are not painted regularly.

(2) Review of Rating

Rating for Reinforced Foundation for Soft Soil

In the IPPSB, it is suggested the 30% of the normal building cost should be added to the cost of the

ings in Dala to cover the cost for foundation reinforcement. A comparison of the building costs of a brick nogging building having a normal foundation and having a reinforced foundation based on the actual costs of implementation is shown in the following table.

Table 10-23: Comparison of Unit Cost of School Buildings in Dala

Building	Description	L (ft)	B (ft)	Area (sqft)	Total Cost (kyat)	Unit Cost (kyat/sqft)	% Compare
PS (1)4-BN	Standard 4 Classroom with Brick Nogging Building	80	30	2,400	7,944,993	3,310	100%
SPS09	Standard 2 Classroom with Reinforced Brick Nogging Building	40	30	1,200	5,196,224	4,330	130.80%

Rating for Renovation

During implementation, School No.9 was newly constructed and actual funding for the brick-nogging building has been obtained. The unit rate for repairing other buildings was calculated from the unit cost for constructing School No.9.

Table 10-24: Unit Repair Cost for Each School Building

	SPS02	SPS03	SPS05	SPS09	SPS13	SPS14	SPS19	SPS19A	SPS20	Total Except SPS09
Building Cost (kyat)	2,857,052	2,581,157	2,376,054	5,196,000	2,922,684	5,632,873	2,759,564	4,068,056	2,555,061	25,752,501
Floor Area (sqft)	3,600	3,624	1,800	1,200	2,080	4,820	3,000	3,120	3,000	25,044
Unit Repair Cost (ks/sqft)	795	712	1,320	4,330	1,405	1,169	920	1,304	852	1,028
% Repair	18%	16%	30%	100%	32%	27%	21%	30%	20%	24%

In the IPPSB report, the renovation cost was estimated to be 32% of the new building cost. During preparation of the proposal, the percentage of the renovation cost over new building cost was calculated as 30%. According to the actual implementation data of the project, the average renovation cost is 24%. A comparison of the major repair rate at each project phase is presented in the following table.

Table 10-25: Comparison of Major Repair Rate

Project Phase	Major Repair Cost (kyat)	Total Floor Area (sqft)	Major Repair Unit Cost (kyat/sqft)	New Building Unit Cost (kyat)	% for Major Repair	Note
IPPSB Report (July 2001)			813	2,539	32%	Refer to MBESS report
GGA Proposal (Dec. 2001)	27,379,915	25,044	1,093	3,618	30%	Refer to GGA proposal
GGA Implementation (June 2002)	25,752,501	25,044	1,028	4,330	24%	Refer to GGA Interim Report

10.4.7 Recommendations

(1) How to Proceed with Small School Construction Projects with Foreign Funds

Use of IPPSB Reports

The IPPSB report has been found to be very useful for selecting an appropriate group of targets, even for small projects such as the renovation project in Dala Township. The IPPSB reports either by MBESS study team or by DEPT should be used for initiating similar projects in the future.

Project Implementation Agency (School Consortium)

Given the scale of external funding available, the construction needs of a school may be too small to form a project from an efficient managerial point of view. In such a case, it is recommended to form a consortium of schools so that the total project cost approaches the funds available. This will save considerable costs and management time for both the donor and the recipient.

Consulting Services

Executing this kind of project is not an easy task for the newly established consortium. It needs to obtain the professional services of a consultant(s) for negotiations with donors, reporting to donors, building designs, procurement of materials, supervision of construction work, etc. In addition, it has faced various problems such as sharp price escalation of materials and labour, inevitable alterations of renovation work items and quantities, etc. Without the technical support from the consultant, the project in Dala would not have been as successful as it is. A consultant should be involved at a very early stage of the project. The forms for Construction Project Management that have been developed for the Project in Dala will also provide good reference.

Intervention of TEO

In forming a consortium of schools and in the various managerial work thereafter, the Township Education Officer (TEO) played important roles by taking the initiative as an advisor to the consortium of the schools. TEOs should be involved at the very early stages of the projects.

Community Participation

When implementing school construction projects with external funds, Community participation in school construction projects should be encouraged in every possible way. This will help not only achieve more physical outputs within the same input of external funds, but also give the community the initiative in implementing the project, as well as in running the facilities thereafter. One way of achieving this might be to introduce the concept of a counterpart fund. Each of the schools that benefit from the external funds would collect a small amount of counterpart funds, which would be pooled and used not for the school directly but to improve primary schools in general, for instance, for renovating other schools in the same school family that have not benefited from the external funds. The amount of such a counterpart fund should be carefully determined not to put too heavy a burden on the communities.

(2) How to Improve the IPPSB Report

Review of Unit Costs

In the past year, the prices of most of the construction materials and skilled labour have been inflated sharply. Accordingly, the costs for IPPSB should be reviewed using the latest prices.

Review of Criteria for Evaluating Existing Buildings

The new combination of prices of construction materials and labour may affect the life-cycle cost analysis of the buildings. Accordingly, the evaluation of the existing buildings, as well as the designs for new construction, should be reviewed.

SUGGESTIONS AND RECOMMENDATIONS

CHAPTER 11

STEPS AFTER MBESS

This last chapter will discuss what concrete steps should be taken after MBESS is completed. Since MBESS has focused its attention on the introduction of the child-centered education into Myanmar, the future steps to be deliberated here will necessarily be in that particular direction. The arguments which follow are therefore limited in scope but it does not mean that we have neglected other issues or problems associated with the basic education of Myanmar.

This chapter is organized as follows. It first reviews Myanmar policy on long-term development of basic education as elaborated in the 30-Year Long-Term Plan. The review will confirm the high priority placed on the quality of education. Then the chapter summarizes main problem areas and specific tasks identified by each Component. A table summarizing the findings will also indicate what tasks MBESS has tackled and where external assistance will be most needed and effective. Based on the summary table, the argument will turn to some basic considerations to make in figuring out the concrete steps. MBESS experiences strongly suggest that a permanent body be established under DEPT to further carry out the mission of CCA/LCA extension. The final section will describe the Education Development Center as proposed to that end.

11.1 The 30-Year Long-Term Plan

The Ministry of Education in 2001 adopted the 30-Year Long-Term Plan for the development of basic education in Myanmar. The plan lists national priorities as follows:

- 1) Creating an education system for modernization and development of the country
- 2) Basic education for all
- 3) Improving the quality of basic education
- 4) Providing access to pre-vocational education and vocational education at different basic education levels
- 5) Improving access to teaching learning and communication technology leading towards e-education
- 6) Producing all-round developed citizens
- 7) Capacity building for educational management
- 8) Carrying out basic education activities in collaboration with community
- 9) Improving non-formal education activities
- 10) Improving educational research

As indicated in the list above, quality of education should remain a foremost issue for the Myanmar government. Under Item 3, the plan further indicates three priority areas: 1) improving the basic education curriculum and syllabus to be in line with the changing world; 2) undertaking educational assessment and supervision; and 3) improving teacher education. It is clear from the above that quality improvement in basic education should be tackled on three

fronts simultaneously: contents of learning (curricula, textbooks, teacher’s guides), teaching-learning process in classroom (child-centered teaching and assessment) and teachers (pre-service and in-service training). These aspects should continue to be the foci of attention with regard to educational quality for the coming years.

11.2 Summary of Problem Areas

In Chapters 6, 9 and 10 above, main problem areas were identified and described for Components A, B and C, respectively. Note that those problem areas were only identified with respect to the CCA concept and its extension; problems not related to CCA were not touched on.

Table 11-1 summarizes the main problem areas and specific tasks identified above. The table also indicates possible concrete actions and bodies responsible for them. Some actions which MBESS has already initiated are so indicated (shaded areas in the table). As is seen, there still remain a number of tasks to be done to get the CCA concept across to the teachers throughout the country.

The last column of the table shows those tasks and actions for which external assistance may be effective or necessary for implementation. Clearly, the Myanmar government should carry out a number of tasks for itself to promote CCA in the country. This is not surprising because introducing CCA necessitates various systemic changes in the current educational administration, which are sole responsibility of the Myanmar government. It should be stressed that initiative and leadership should come from DEPT for the whole effort of CCA promotion even though external assistance, technical or financial, should be sought after where appropriate.

Table 11-1: CCA-Related Problem Areas and Tasks

Component	Problem Area	Task	Suggested Action	Suggested Responsibility	Possible External Assistance
A	Teacher's In-Service Training	1 Training in CCA understanding	CCA workshop	EDC	✓
		2 Training on teaching methodology (including science experiments)	CCA workshop	EDC	✓
		3 Training on developing teaching/learning materials	CCA workshop	EDC	✓
		4 Training on class management	In-service training	EDC	✓
		5 Training on assessment/evaluation	In-service training	EDC	✓
	Curriculum and Textbook	1 Setting grade-wise objectives	Curriculum revision	DEPT	✓
		2 Reviewing contents of the textbooks	Curriculum revision/ Textbook revision	DEPT	✓
		3 Flexible teaching practice	Curriculum revision/ Textbook revision	DEPT	
	Teachers'		Restructuring	MOE	

	Remuneration		remuneration system			
B	Program Quality	1	Program sequence, length and medium of instruction	Program reform	DEPT	
		2	Trainee's schedule	Program reform	DEPT	
		3	Monitoring and supervision of block teaching	Program reform	DEPT	
		4	External efficiency of pre-service teacher education	Research/ Program reform	DEPT	
	Teacher Quality	1	Low status of primary level teaching and the pay scale	Restructuring remuneration system	MOE	
		2	Lack of science education	Program reform	DEPT	
		3	Professional development of teacher educators	Study abroad	DEPT	✓
		4	Training in learner-centered approaches (LCA) for teacher educators	LCA workshop	EDC	✓
	Physical Facilities and Equipment	1	Buildings and classrooms	Teacher demand projection/ Additional Education Colleges and classrooms	DEPT	✓
		2	Facility and equipment	Science laboratory Library	DEPT	✓
3		Instructional materials	Provision and utilization	DEPT	✓	
C	School Survey	1	Continuation of the school survey to cover remaining townships		DEPT DBE 1 DBE 2 DBE 3	
		2	Identification of high priority schools for renovation		DEPT DBE 1 DBE 2 DBE 3	
	Rehabilitation/Re novation	1	National master-planning for rehabilitation/renovation		DEPT DBE 1 DBE 2 DBE 3	
		2	Securing financial sources		DEPT	✓
		3	Community counterpart fund	Pilot trial	DEPT DBE 1 DBE 2 DBE 3	

- Note: 1) DBE: Department of Basic Education
 DEPT: Department of Educational Planning and Training
 EDC: Education Development Center (see text for details)
 MOE: Ministry of Education
- 2) Shaded areas indicate tasks that MBESS has dealt with.

11.3 Steps after MBESS: Some Considerations

MBESS experiences suggest that a few considerations are due in defining the appropriate steps after MBESS.

(1) Integration of Components A and B

When CCA is concerned, there are three main target groups: primary school teachers, teacher educators at Education Colleges and Education College students (future teachers). All the three groups need to be exposed to the concept. However, since the three groups use different materials and need different training for the extension, they tend to be dealt with separately under separate authority and programs. This tendency should be avoided. To be effective, the CCA extension programs for the three groups should be closely integrated to ensure their mutual consistency. Thus, as far as CCA is concerned, MBESS' distinction between Components A and B will lose the meaning. In the future activities, the two components should be integrated.

(2) Integration of Development and Extension

According to the original terms of reference for the JICA Study Team, its main responsibility was defined as the development of CCA-based teacher's guides and textbooks for Education College trainees. CCA extension was not explicitly mentioned or, at best, treated as a secondary objective. The JICA Study Team, however, quickly realized in Phase 1 that the development of CCA materials alone would never fully succeed in introducing that concept into Myanmar, where most people have no idea what child-centered teaching is. Development and extension should go hand in hand like two wheels if this alien concept is ever to take root. This is why the JICA Study Team initiated to organize the CCA workshops at the end of Phase 1 and continued to hold them throughout subsequent two phases. In the future actions, development and extension should be tightly interwoven to achieve the objective.

(3) DEPT as the Responsible Authority

The best way to fulfill the two requirements above is for a single authority to develop appropriate materials for each of the three target users and administer the CCA extension programs respectively for them. Naturally, DEPT of the Ministry of Education is the most suitable authority for these tasks. If DEPT is to take the responsibility, an integrated system for CCA development and extension can be established. **Table 11-2** schematically shows the integrated system.

Table 11-2: Integrated System for CCA Development and Extension

Target Group	Body in Charge of	
	Material Development	Extension/Training
Primary school teachers	DEPT	DEPT
Teacher educators	DEPT	DEPT
Education College students	DEPT	Education Colleges

Note, however, that this system is meant to be a temporary one. DEPT, as the single authority for CCA extension, will take up most of the tasks because at present in Myanmar there are few

resource teachers and officers who are thoroughly familiar with the concept. They have to work as a national core team under DEPT to implement the extension programs nationwide. However, after some time a second generation of resource teachers and teacher educators will become available. Then, the system should be modified as in **Table 11-3**:

Table 11-3: Integrated System for CCA Development and Extension (Future)

Target Group	Body in Charge of	
	Material Development	Extension/Training
Primary school teachers	DEPT/Education Colleges	Education Colleges
Teacher educators	DEPT/Education Colleges	Education Colleges
Education College students	DEPT/Education Colleges	Education Colleges

For the time being, as the necessary first step, the system indicated in Table 12-2 should be installed in the Myanmar educational administration.

(4) A Permanent Body under DEPT

While the CCA workshops are proving highly appropriate and effective in the Myanmar context, one limitation has also become evident: there is no permanent body in the Myanmar administrative system in general and under DEPT in particular that is capable to take over the work done so far by the *ad hoc* working groups. This limitation is particularly acute when extension of CCA is concerned. Since extension is a long-term undertaking, *ad hoc* organizations are not up to the task.

Under the present administrative system, DEPT of the Ministry of Education is the primary body responsible for the above aspects. As part of its mandate, it develops curricula, textbooks and teacher's guides with its own staff officers. Naturally, it also is strongly concerned with improving teaching methods and materials. As a matter of fact, many working group members are DEPT officers. However, while DEPT is responsible for and capable of the development aspect, its staff are fully engaged with routine duties and not quite capable of field extension work.

If DEPT is to be responsible for CCA extension both for primary school teachers and teacher educators at Education Colleges, it needs a permanent body or unit specifically set up for the task. This is also the simplest and surest way to realize the integrated system for CCA development and extension described above. To this end, the JICA Study Team proposes to establish the Education Development Center under DEPT as a special body in charge of the CCA development and extension. Some details will be given later in Section 11-4.

(5) Need to Seek for Various Financial Sources

With regard to Component C, there is no doubt that rehabilitation and renovation of primary school buildings is an urgent issue. However, to address this issue requires a massive investment. According to the school survey done by MBESS' Component C, about 30% of primary schools are classified as "priority" to receive some physical rehabilitation. If this rate is applied nationally, it is estimated that over 10,000 primary schools await immediate attention. Given the limited budget size of national government, external assistance is essential to cope

with this situation.

One prospective source of finance is the grant assistance from the Japanese government. This program has already financed a number of projects in various countries to build or rebuild a sizable group of primary schools. In view of the sheer necessity to address the overall situation and its urgency, the JICA Study Team strongly recommends both the Myanmar government and the Japanese government to initiate a similar grant project in Myanmar.

Even if a Japanese grant becomes available for this purpose, however, it will be far from sufficient to cover all the needy schools throughout the country. Clearly, the Myanmar government should seek other financial sources as well for those schools. One possibility is official development assistance from other countries or donor agencies. Another is NGOs in Europe, America and Japan.

In pursuing possible external assistance, it will be extremely helpful for the Myanmar government to have a national master plan for the primary school renovation. This master plan should describe the current state of the primary school buildings in the country, classify them according to the necessity for improvement, identify priority schools for renovation, estimate the required costs, and show a medium-term program for implementation. Such a plan will help the government to justify its renovation projects when proposed to prospective donors. The effort currently underway by DEPT and DBE1, 2 and 3 to survey primary schools in selected townships is an indispensable step towards such a national master plan.

11.4 Solution: Basic Education Resource Development Center

In view of the high priority placed on educational quality and considering the fact that enthusiastic requests continue to come in for additional CCA workshops in local cities, it is necessary and justified to establish a government body to take over the functions of the MBESS working groups. This new body shall meet the following requirements:

- Permanent
- Staffed with core specialists of CCA- and LCA-based teaching methods and materials
- Capable of carrying out both development and extension work
- Aiming at primary school teachers and teacher educators as the direct targets and Education College students as the indirect targets

One concrete solution that may satisfy the above conditions is to establish the **Basic Education Resource Development Center** at the **Yankin Education College** under the jurisdiction of DEPT. The project to be proposed in this document aims at the establishment of the Center and the support to its activities. An organizational chart of DEPT showing the Center's position is attached as Appendix. Some descriptions of the project will follow.

Project title

Basic Education Resource Development Center Project at Yankin Education College

Objectives

The Basic Education Resource Development Center has three objectives:

- 1) To develop and improve CCA- and LCA-based textbooks, teacher's guides, teaching methods including scientific experiments, and teaching materials and aids appropriate for the Myanmar schools;
- 2) To disseminate CCA- and LCA-based teaching methods (including scientific experiments) to primary school teachers, teacher educators, government officers, Education College students, etc. throughout the country; and
- 3) To improve the quality of basic education of Myanmar.

Location

The Center will be housed in the current Education Resource Center building of the Yankin Education College.

This particular location has several advantages over other possibilities. First, its closeness to the Yankin Education College is highly beneficial because many teacher educators at the College participated in MBESS either as LCA trainees or as working group members or both. Second, the location is also close to the Practicing Lower Secondary School of Yankin Education College, which has served as the pilot primary school for MBESS. Under the strong support of the principal, a number of primary teachers there also participated in MBESS as working group members or resource teachers. Third, the location is roughly at the center of the greater Yangon area and convenient for activity participants from DEPT, DBE1 and 3, two other Education Colleges in Yangon, and other institutions in the city. Being underutilized, the existing 3-story building as the Education Resource Center is readily available for the new Center's use and large enough to accommodate various functions envisioned for the future.

Required inputs

The Center will require following inputs as the minimum resources for its operation.

- 1) **12 specialist staff:** CCA/LCA specialists in charge of development and extension. This personnel may be transferred from DEPT, Yankin Education College or primary schools either on a permanent or a temporary basis. Twelve specialists consist of:
 - 1 head
 - 1 basic science specialist
 - 1 social studies specialist
 - 1 general studies specialist

- 1 English language specialist
 - 1 Myanmar language specialist
 - 1 mathematics specialist
 - 1 teacher education specialist (educational theory)
 - 1 teacher education specialist (educational psychology)
 - 1 vocational education specialist (industrial art, home economics, agriculture and animal husbandry)
 - 1 extension service coordinator
 - 1 research and innovation specialist
- 2) **3 foreign experts:** Experts on CCA/LCA development and extension dispatched with external assistance. The three fields of expertise are:
- Curriculum development
 - Teaching and evaluation methods
 - Extension and monitoring
- 3) **10 administrative staff including 2 drivers**
- 4) **Building:** The building existing on the Yankin Education College compound may be used for the Center's exclusive use.
- 5) **Furniture:** Basic office furniture like desks, chairs, shelves, sofas, tables, curtains, etc.
- 6) **Equipment:** Telephone lines and sets, fax machine, air conditioners, computers, printers, photocopier, video camera, TV monitor, videotape recorder, OHP, projector, large-size screen, microphones, speakers, etc.
- 7) **Automobile:** 2 minibuses mainly for extension services (mobile teams).
- 8) **Library:** A new collection of CCA-related books, materials, videotapes, etc. of recent publication.
- 9) **Conference room:** 200 seat capacity equipped with a state-of-the-art audio-visual system.
- 10) **Funds:** An adequate amount of budget for non-salary expenditure (excluding initial investment listed above).

Responsibility

Table 11-4 summarizes a proposed arrangement for how to share responsibility for the above inputs:

Table 11-4: Project Inputs and Responsibility

Input	Item	Responsibility
Specialist staff	-	DEPT
Foreign experts	-	External assistance
Administrative staff	-	DEPT
Building	-	Yankin Education College
Furniture	-	DEPT
Equipment	Telephone lines and sets	DEPT
	Others	External assistance
Automobile	Minibuses	External assistance
	Maintenance (including insurance, gas and routine maintenance)	DEPT or external assistance
Library	Book collection	External assistance
	Furniture	External assistance
Conference room	Furniture	External assistance
	Audio-visual equipment	External assistance
Funds	-	DEPT and external assistance

Possible JICA Assistance

DEPT has already submitted a request for JICA to dispatch a team of experts to continue works initiated by MBESS. The expert team may be stationed at the Education Development Center and work together with the Center's Myanmar specialists. This arrangement is highly desirable because the experts can readily take those particular advantages of the Center as described earlier. JICA could also assist the Center providing basic facilities and equipment needed to carry out its mission. If each and every school in Myanmar comes to practice CCA, it should be called a revolutionary change in Myanmar's education. The mission of the Education Development Center is thus of historic significance. If successful, JICA's assistance to the Center and to its cause will be long remembered by generations of Myanmar people.

