添付資料

添付資料一覧

添付資料 2-1：州／管区別、教育段階別の教員 1 人当たり児童・生徒数（2012 年 8 月時点）..... A2-1

添付資料 2-2：教育省組織図 A2-2

添付資料 2-3：教育省高等教育局（下ミャンマー）組織図..... A2-3

添付資料 2-4：教育省高等教育局（下ミャンマー）管轄下の組織及び高等教育機関..... A2-4

添付資料 2-5：教育省高等教育局（上ミャンマー）組織図..... A2-5

添付資料 2-6：教育省高等教育局（上ミャンマー）管轄下の組織及び高等教育機関..... A2-6

添付資料 2-7：教育省基礎教育局 1 (DBE1) 組織図..... A2-7

添付資料 2-8：教育省基礎教育局 2 (DBE2) 組織図..... A2-8

添付資料 2-9：教育省基礎教育局 3 (DBE3) 組織図..... A2-9

添付資料 2-10：教育省教育計画訓練局 (DEPT) 組織図..... A2-10

添付資料 2-11：基礎教育関連組織図.....A2-11

添付資料 2-12：Myanmar Education Research Bureau 組織図..... A2-12

添付資料 2-13：Myanmar Examination Board 組織図..... A2-13

添付資料 3-1：Report on Information Sharing Workshop..... A3-1

添付資料 3-2：Minutes of Meeting on the Report of Information Sharing Workshop A3-7

添付資料 3-3：Teacher Education Review in Myanmar, Technical input for CESR working Group..... A3-14

添付資料 3-4：National Curriculum Review in Myanmar, Technical input for CESR working Group..... A3-24

添付資料 4-1：教育統計サマリー A4-1

添付資料 4-2：州／管区別高校卒業・大学入学試験結果..... A4-3

添付資料 4-3：Location of Teacher Education and Training Institutes in Myanmar..... A4-5

添付資料 4-4：School Inspection System of DBE1&2&DBE3..... A4-6

添付資料 5-1：主な職業技術に関わる教育訓練を実施している公的機関とその概略..... A5-1

添付資料 5-2：科学技術省職業技術教育局管轄機関の地理的配置状況..... A5-6

添付資料 5-3：科学技術省職業技術教育局管轄の教育機関一覧（2011～2012 年度）..... A5-7

添付資料 9-1：「ミ」国教育セクターにおける課題の全体像..... A9-1

添付資料 9-2：基礎教育開発 20 年計画（ドラフト）に記載された DP 支援要請内容
（2013/14 年度～2015/16 年度）..... A9-2

添付資料 9-3：今後の我が国の対ミャンマー支援（外務省発表資料）..... A9-3

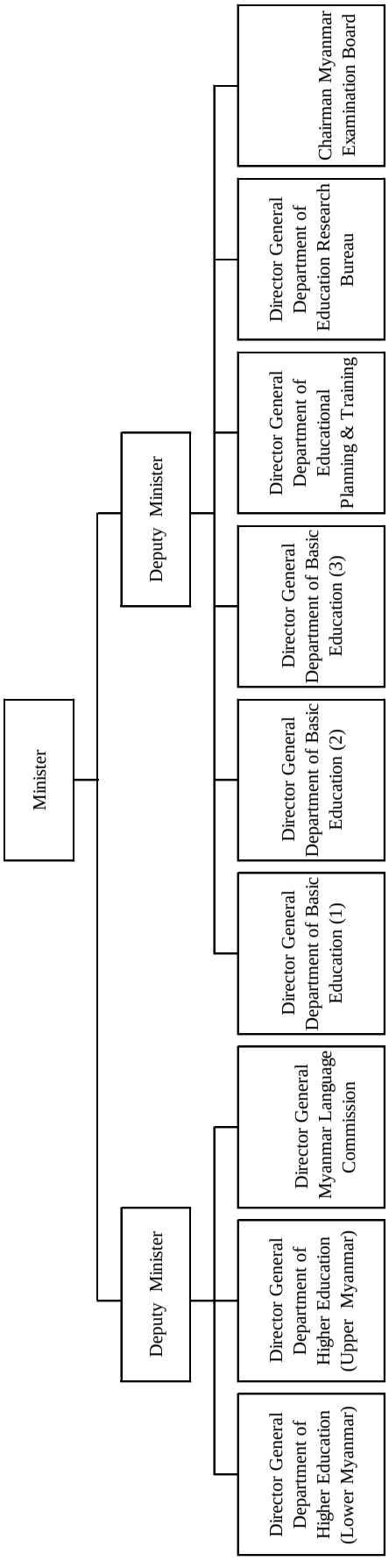
第 2 章添付資料

添付資料 2-1：州／管区別、教育段階別の教員 1 人当たり児童・生徒数（2012 年 8 月時点）

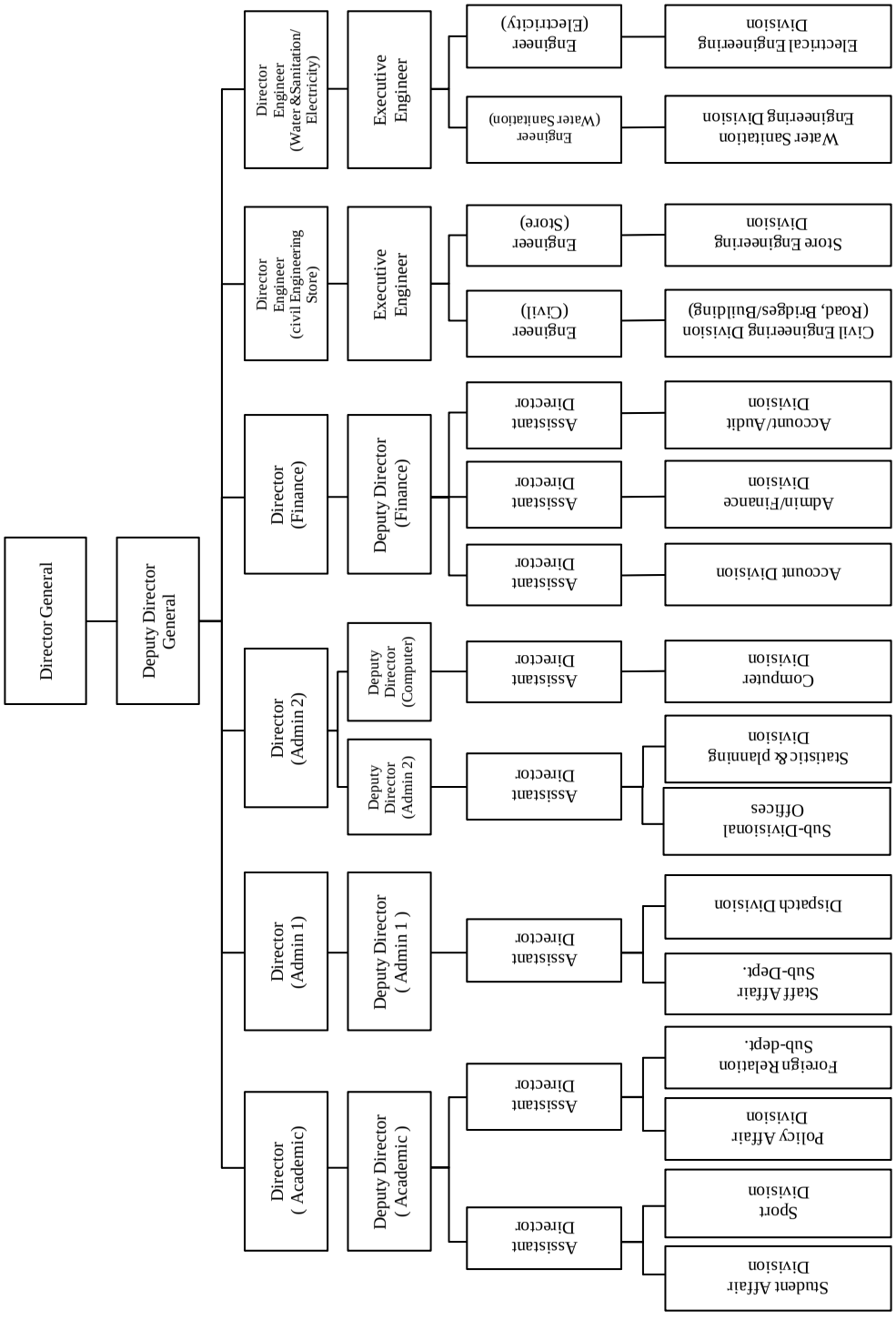
州／管区	小学校	中学校	高校
Kayin	34.1	42.1	23.8
Tainintheryi	34.9	42.8	25.6
Bago (East)	28.7	39.9	23.9
Bago (West)	17.9	26.6	18.6
Mon	30.5	33.7	21.4
Yakhine	35.2	33.7	20.8
Ayeyarwaddy	32.9	43.6	26.8
DBE 1	**30.6**	**37.9**	**23.5**
Kachin	28.5	43.4	29.4
Kayar	26.7	33.5	23.2
Chin	21.8	33.6	18.9
Sagaing	27.1	35.3	26.6
Magway	23.8	37.7	26.8
Mandalay	25.8	33.6	30.4
Shan (S)	29.0	38.1	23.0
Shan (N)	33.4	37.3	21.3
Shan (E)	28.8	42.1	19.3
Naypyidaw	34.7	37.3	27.0
DBE 2	**27.0**	**36.3**	**26.6**
Yangon	30.9	32.9	27.7
DBE 3	**30.9**	**32.9**	**27.7**
Union	28.9	36.3	25.7

出典：DEPT

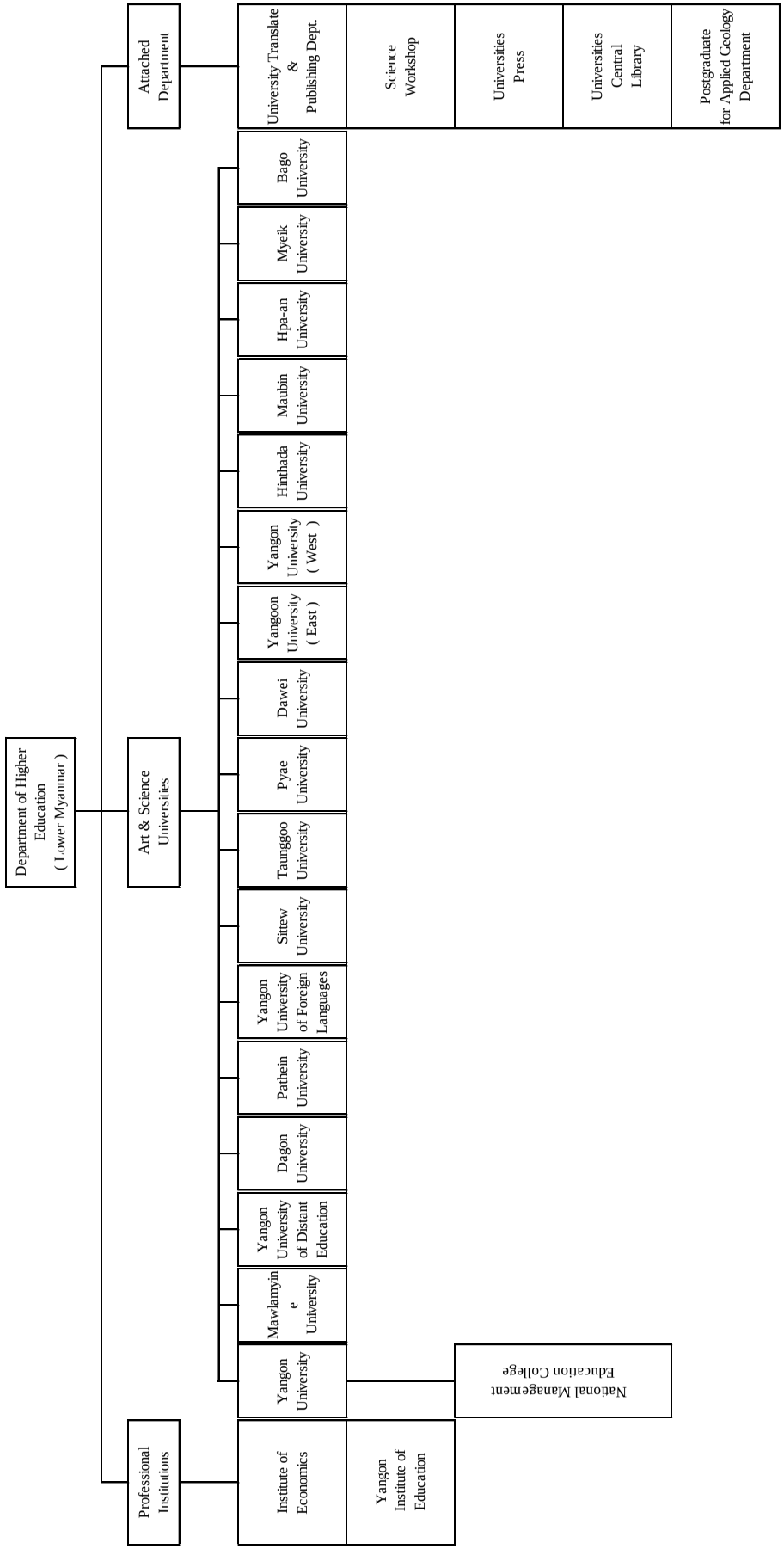
添付資料 2-2：教育省組織図



添付資料 2-3：教育省高等教育局（下ミャンマー）組織図



添付資料 2-4：教育省高等教育局（下ミャンマー）管轄下の組織及び高等教育機関



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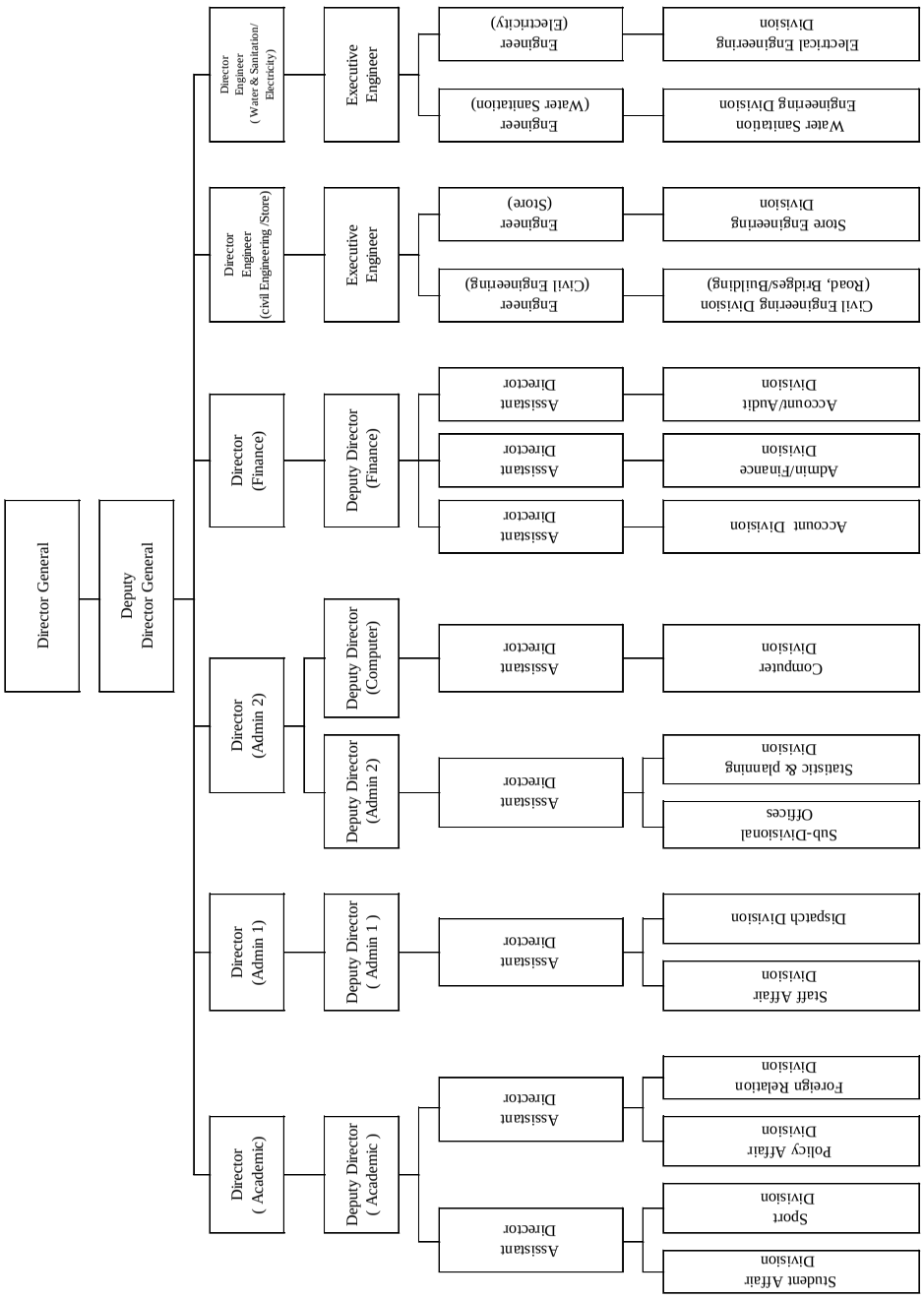
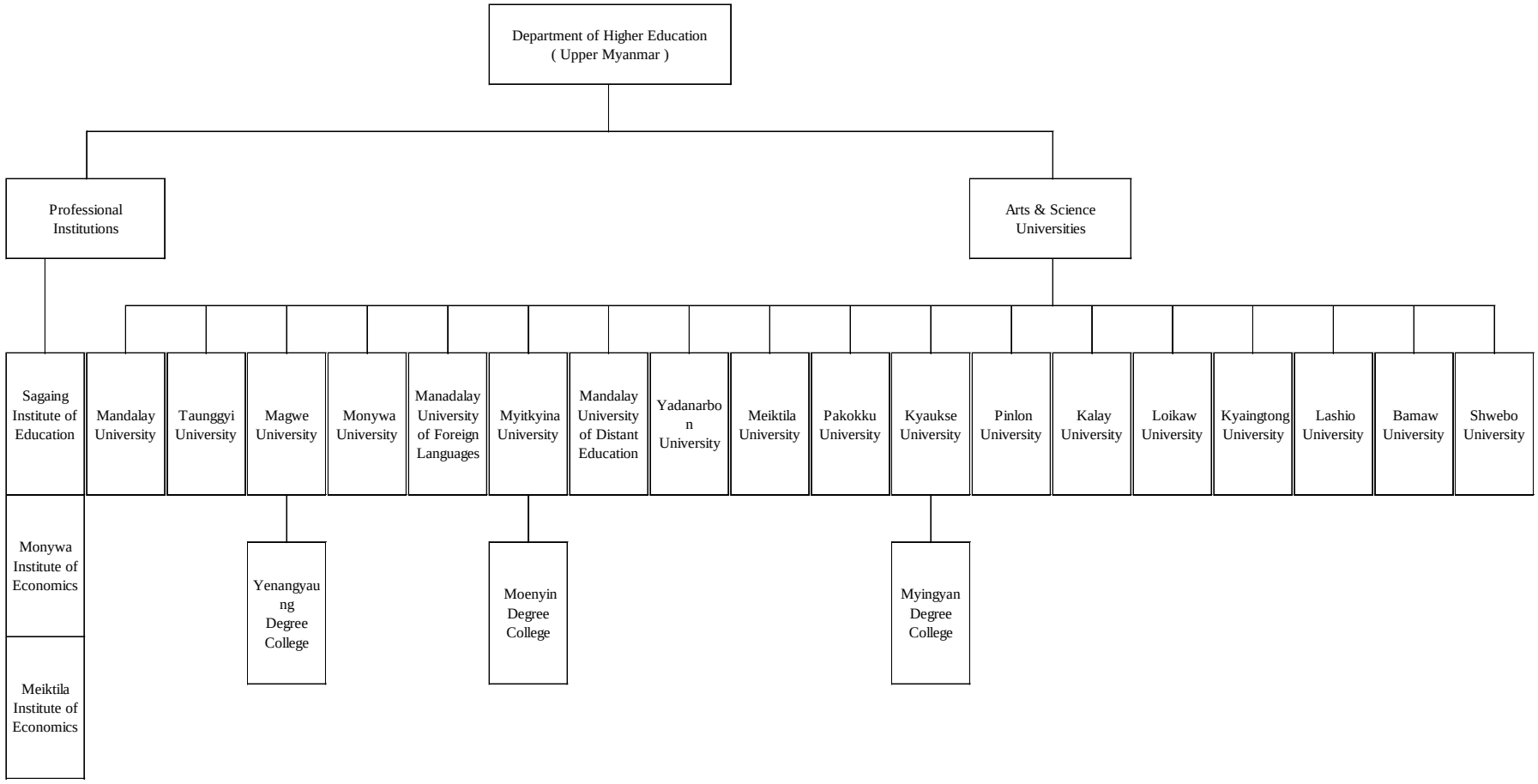
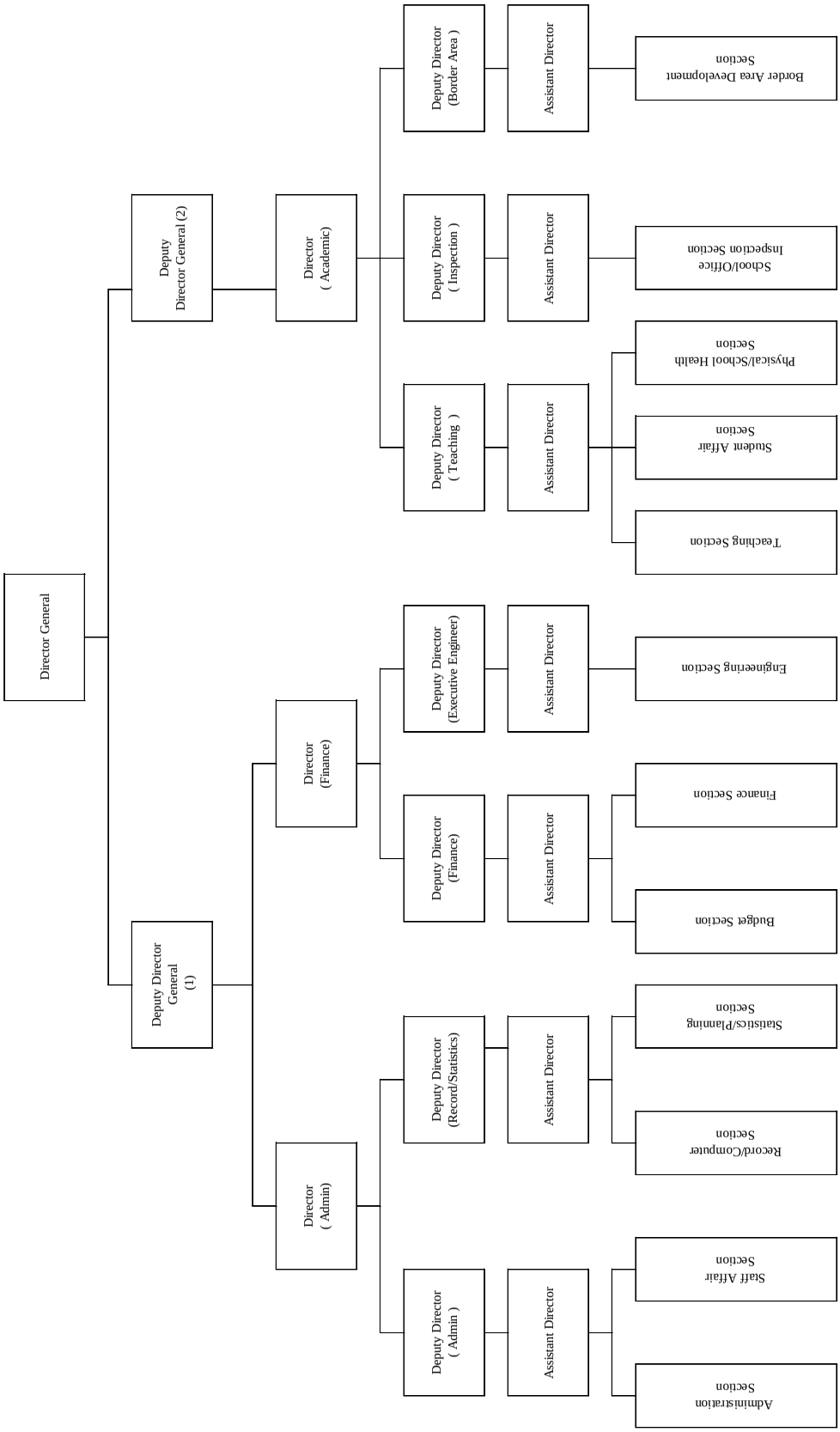


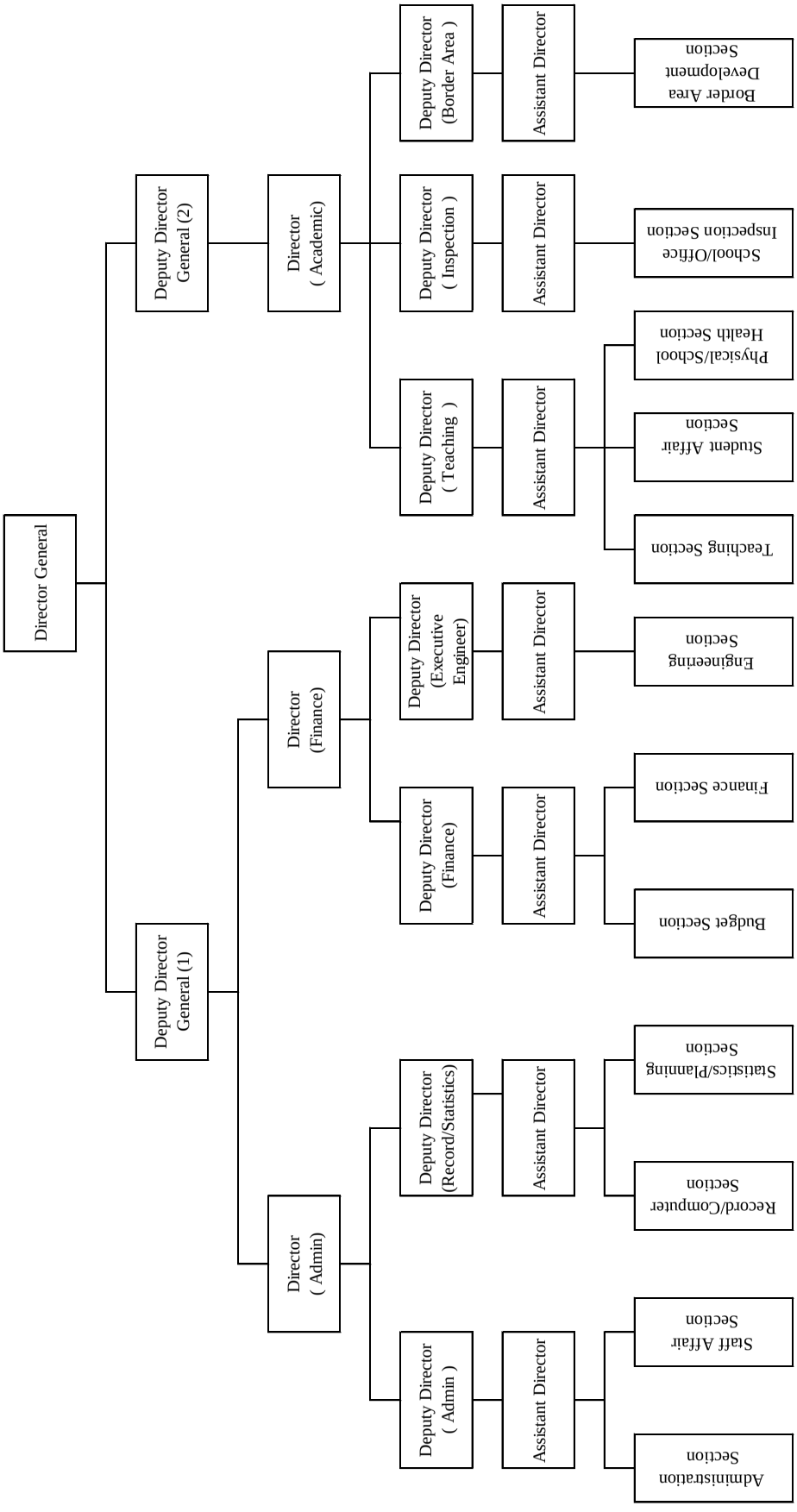
添付資料 2-6：教育省高等教育局（上ミャンマー）管轄下の組織及び高等教育機関



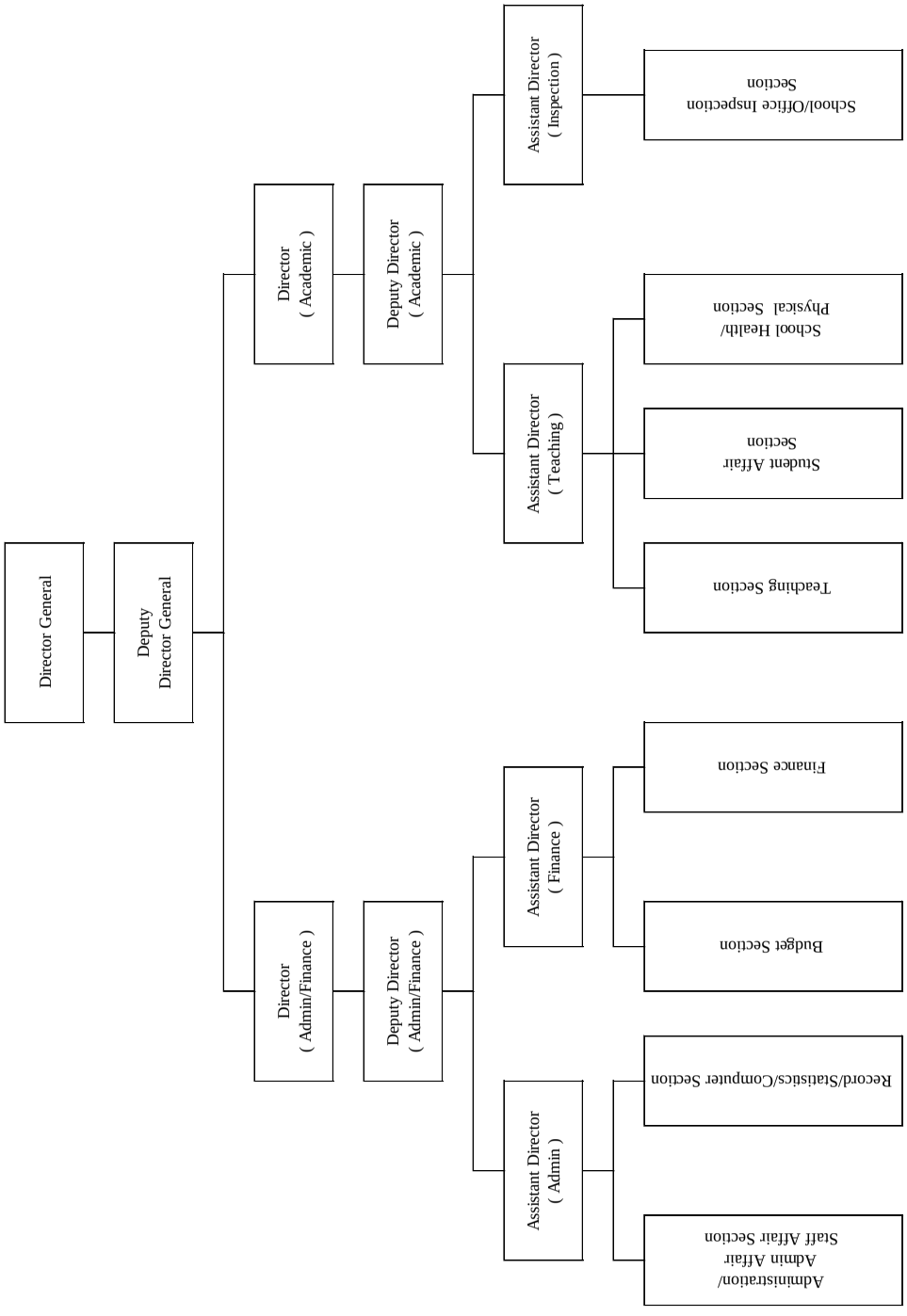
添付資料 2-7：教育省基礎教育局１(DBE1) 組織図



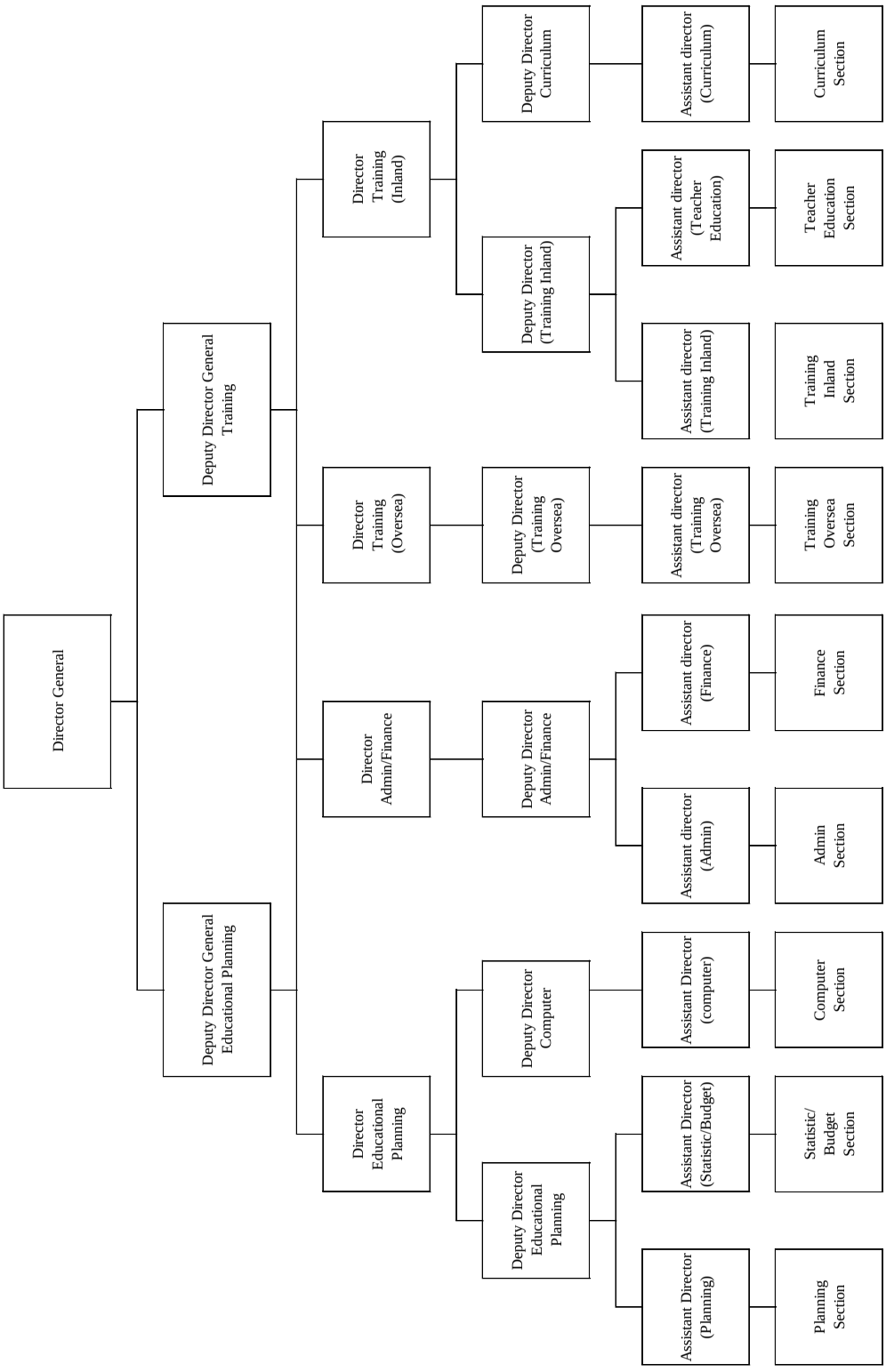
添付資料 2-8：教育省基礎教育局 2 (DBE2) 組織図



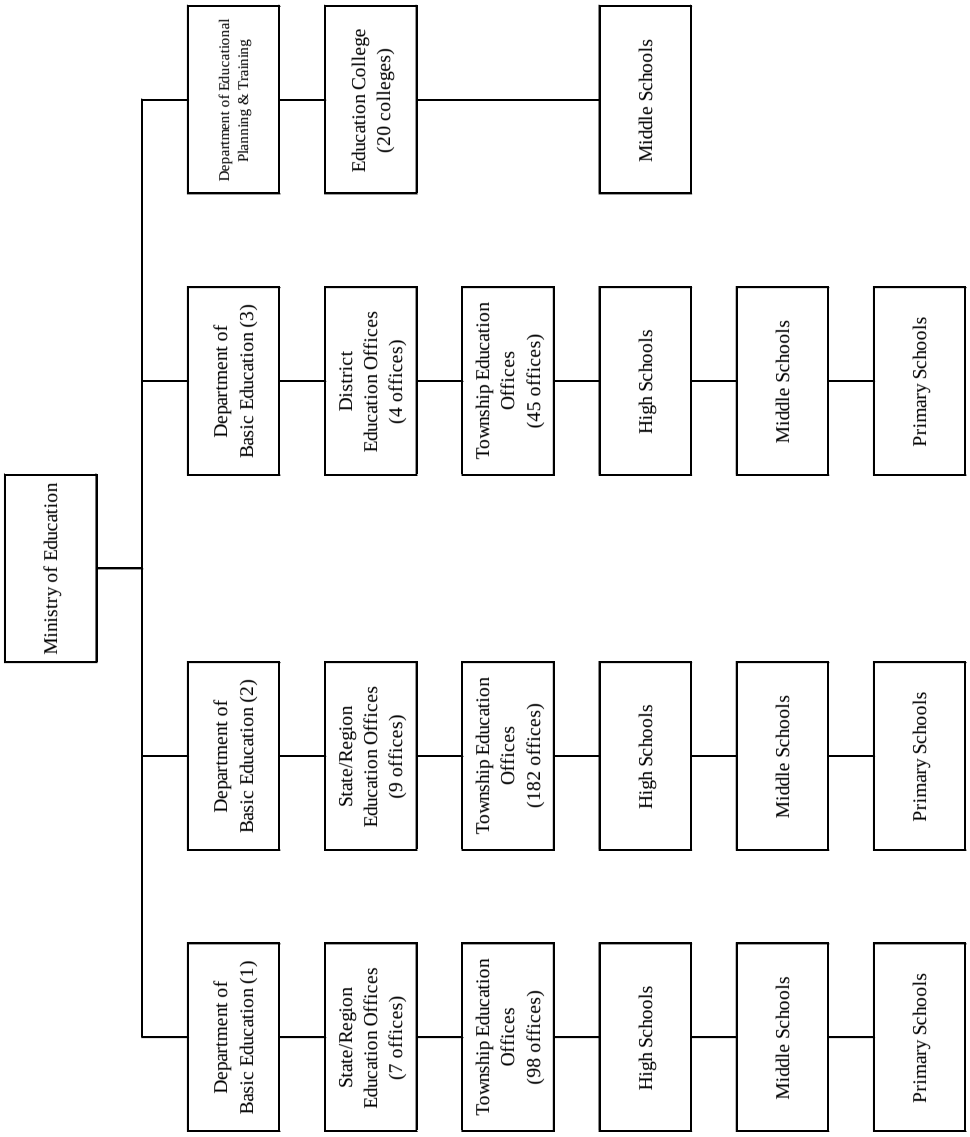
添付資料 2-9：教育省基礎教育局 3 (DBE3) 組織図



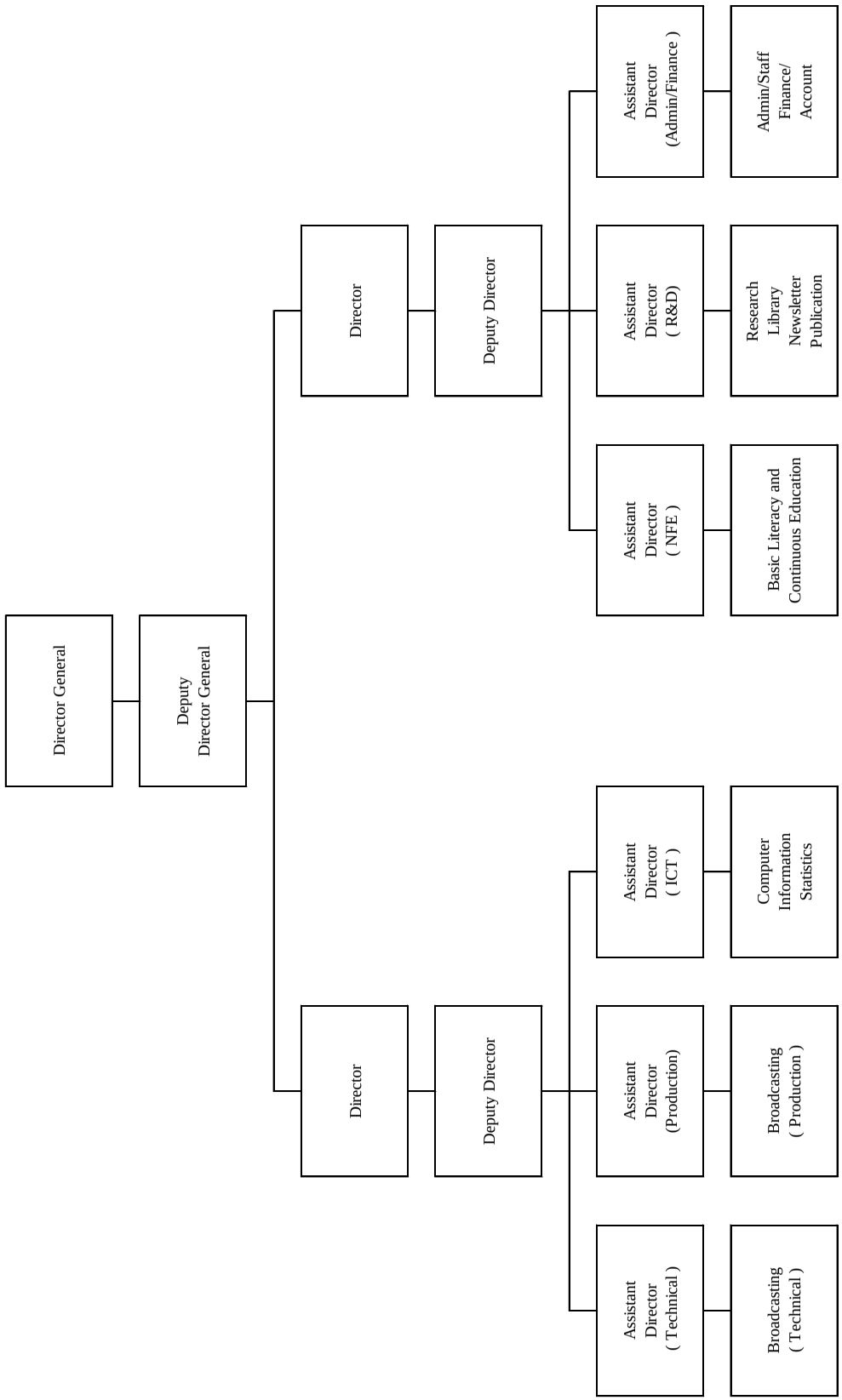
添付資料 2-10：教育省教育計画訓練局（DEPT）組織図



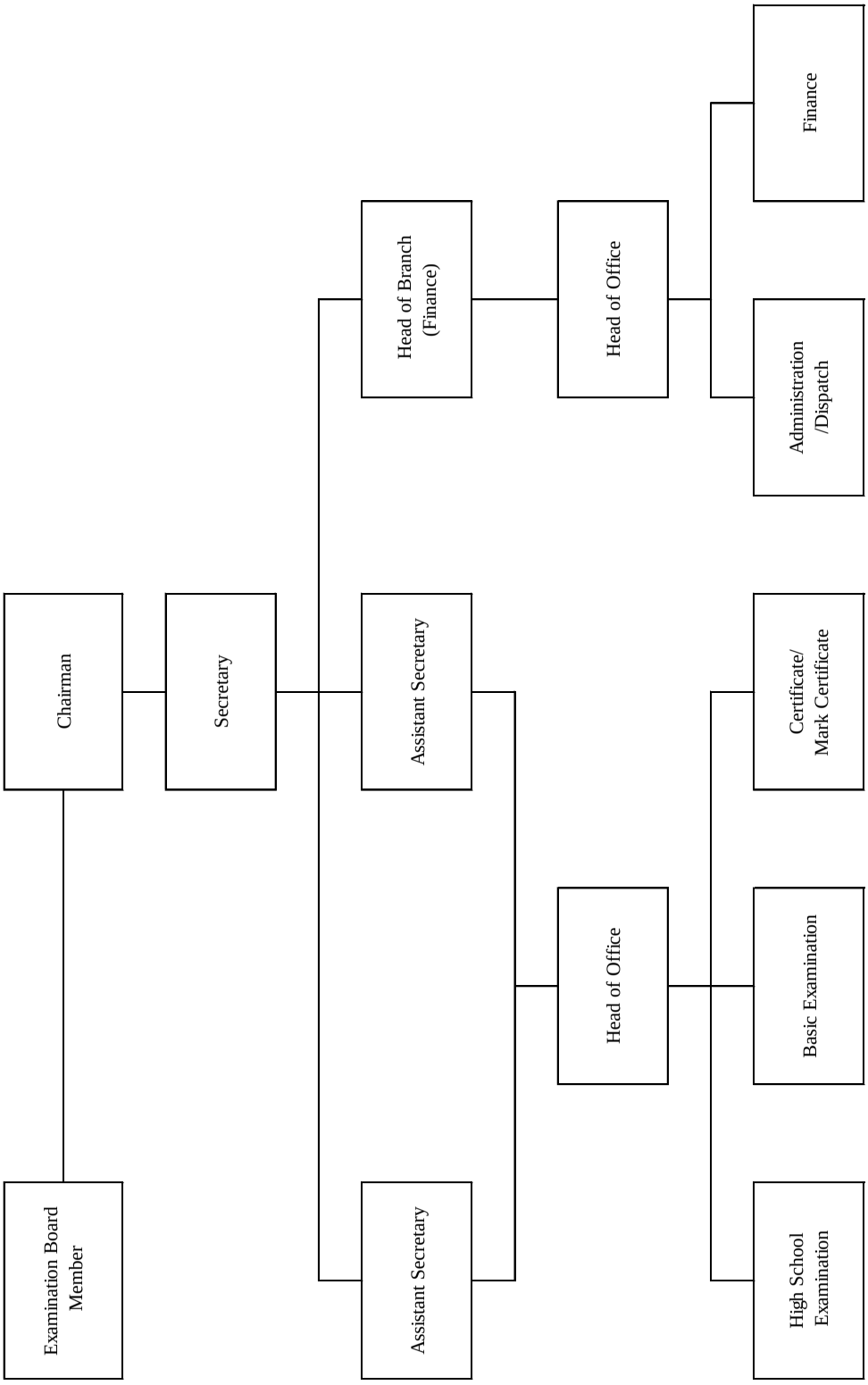
添付資料 2-11：基礎教育関連組織図



添付資料 2-12：Myanmar Education Research Bureau 組織図



添付資料 2-13：Myanmar Examination Board 組織図



第 3 章添付資料

添付資料 3-1：Report on Information Sharing Workshop

Report on

Information Sharing Workshop

by the Study Team

for
Data Collection Survey
on Education Sector in Myanmar

7 December, 2012

Prepared by:
Study Team
for Data Collection Survey
on Education Sector in Myanmar

1. Background

For the purpose of formulating future cooperation programs in the education sector in Myanmar, Japan International Cooperation Agency (JICA) has dispatched a Study Team to conduct the "Data Collection Survey on Education Sector in Myanmar" in collaboration with the Department of Educational Planning and Training of Ministry of Education (MoE) of Myanmar for the period between September 2012 and February 2013.

As part of the Study Team's contribution to the ongoing Comprehensive Education Sector Review (CESR) initiatives lead by the MoE, the Study Team and CESR Technical Team mutually decided to organize an Information Sharing Workshop to share the Study's interim findings based on the first field study conducted between September and November, 2012 with CESR Technical Team members.

The timing of the workshop was arranged in early December 2012 so that the information shared by the Study Team would be of benefit to the writing process of the CESR Phase 1 (Rapid Assessment) Report by CESR Technical Team, which is planned from late December 2012.

2. Objectives

The objective of the workshop was to share interim study results of the JICA study with a special focus on teacher education, curriculum and assessment and higher education.

3. Date & Time

9:00-15:30 on Friday, December 7, 2012

4. Participants

- CESR Technical Team Members
- CESR National Consultants
- CESR International Consultants
- JICA Representatives
- Study Team

Sr	Name	Title/Focus Area	Organization
1	Daw Tin Tin Shu	Task Manager	CESR Team
2	Daw Ohnmar Thein	Assistant Task Manager	CESR Team
3	U Tun Hla	National Coordinator	CESR Team
4	Dr. Ian Birch	Chief Technical Advisor	CESR Team
5	U Aung Than	Quantitative Analysis	CESR Team
6	Daw Aye Phyu	Basic Education	CESR Team
7	Daw Myat Myat Khine	Basic Education	CESR Team
8	Daw Khine Yone	Basic Education	CESR Team
9	Daw Yamin Aung	Basic Education	CESR Team
10	Daw Thin Thin Khine	Basic Education	CESR Team
11	Daw Chaw Chaw Han	Basic Education	CESR Team
12	Daw Aye Ei Ei Theint	Basic Education	CESR Team
13	Daw Aye Aye Myint	Basic Education	CESR Team
14	U Zayar Aung	TVET and Higher Education	CESR Team
15	Daw Honey Kyaw	TVET and Higher Education	CESR Team
16	Daw Mya Thandar Tun	TVET and Higher Education	CESR Team
17	Daw Yee Yee Cho	Financing	CESR Team
18	U Tehin Myint	Textbook	CESR Team
19	Daw Ei Ei Khine	Textbook	CESR Team
20	Daw Myat Myat Khine	Stakeholder Analysis	CESR Team

Sr	Name	Title/Focus Area	Organization
21	U Min Zaw Oo	Stakeholder Analysis	CESR Team
22	U Khin Maung Aye	Policy, Legislation & Management	CESR National Consultant
23	U Set Kyar	Primary Education	CESR National Consultant
24	Daw Aye Aye Thin	Non-Formal Education	CESR National Consultant
25	Dr. Khin Zaw	Teacher Education	CESR National Consultant
26	Daw Than Htay Khin	TVET	CESR National Consultant
27	Dr. Thet Lwin	Higher Education	CESR National Consultant
28	Daw Ei Klar Moore	Financing	CESR National Consultant
29	Mr. Richard Martin	Policy Analysis	CESR International Consultant
30	Ms. Marion Young	Secondary Education	CESR International Consultant
31	Dr. Sideth Dy	TVET/Higher Education	CESR International Consultant
32	Mr. Gerhard Kohn	TVET	CESR International Consultant
33	Mr. Carsten Huttemeier	TVET	CESR International Consultant
34	Mr. Paul Brady	Labor Market Analysis	CESR International Consultant
35	Prof. Martin Hayden	Higher Education	CESR International Consultant
36	Prof. Anthony Welch	Higher Education	CESR International Consultant
37	Mr. Jun Sakuma	Deputy Director General, Basic Education Group	JICA HQ
38	Mr. Norihiro Nishikata	Senior Education Advisor	JICA HQ
39	Ms. Ami Ikeda	Basic Education Group	JICA HQ
40	Mr. Kohei Isa	Representative	JICA Myanmar Office
41	Ms. Tomoko Masuda	Basic Education Advisor	DEPT/MOE-JICA
42	Dr. John T. Denny	Education Specialist	UNICEF Myanmar
43	Dr. Norio Kato	Team Leader / Basic Education	Study Team
44	Mr. Takashi Soma	Deputy Team Leader / Teacher Education	Study Team
45	Prof. Kazuhiro Yoshida	Educational Administration and Finance	Study Team
46	Prof. Dr. Keiichi Ogawa	Industry and Labor Market	Study Team
47	Mr.Chiko Yamaoka	Technical and Vocational Education and Training	Study Team
48	Ms. Midori Ozawa	Higher Education	Study Team
49	Mr. Ryuichi Sugiyama	Curriculum and Textbook	Study Team
50	Ms. Naoko Kitadate	CESR and Aid Coordination	Study Team
51	Ms. Kanae Kawashima	Education Information Analysis	Study Team
52	Ms. Sandar Kyaw	Researcher / Basic Education	Study Team
53	Ms. Zin Myint	Researcher / Basic Education	Study Team
54	Ms. Ingyin Htun	Researcher / Higher Education	Study Team

5. Venue

Conference Room, Basic Education Resource Development Centre (BERDC), ERC Building, Yankin Education College, Thitsar Road, Yankin 11081, Yangon

6. Program

6.1 Opening remarks by a JICA representative

Mr. Jun Sakuma, Deputy Director General, Basic Education Group, JICA Tokyo, welcomed all the participants to the workshop and talked about the following:

- JICA's long history of assistance to the education sector in Myanmar since 1990s
- JICA's continued support for education particularly in the areas of basic education focusing on primary curriculum and teacher education as well as higher education focusing on the field of engineering
- Continued interest in contributing to CESR through aligning the above programs with the framework of CESR and the future Sector Plan

6.2 Presentation by the Study Team

The Study Team made a presentation of the interim findings and preliminary analysis on the following topics:

1. Policy and Administration Issues (by Prof. Kazuhiro Yoshida)
2. Basic and Upper Secondary Education (by Dr. Norio Kato)
3. Technical and Vocational Education and Training (by Mr. Chiko Yamaoka)
4. Thematic issue 1: Curriculum and Assessment (by Mr. Ryuichi Sugiyama)
5. Thematic issue 2: Teacher Education (by Mr. Takashi Soma)
6. Thematic issue 3: Higher Education focusing mainly on universities under the Ministry of Science and Technology (by Ms. Midori Ozawa and Prof. Keiichi Ogawa)

6.3 Questions and Answers

A summary of questions raised by the participants and answered by the Study Team is as follows:

Question 1: Concerning the presentation on the basic education budget, it seems that the figure includes the higher education budget. Please clarify.

Answer 1: The heading of the slide is "basic education budget" but the table contains all other education subsectors.

Question 2: Concerning the presentation on teacher education, there is a sharp drop in the female teacher ratio from the middle level to G9 level. Why it is so?

Answer 2: The reason is unclear. It may be due to the transitional period after the Education College Reform initiated some years ago.

Question 3: Concerning the presentation on higher education, there should be a discussion of professional autonomy as an important dimension of higher education.

Answer 3: In our Interim Report, institutional autonomy is mentioned in the issues and challenges on governance and management of the higher education subsector and it can be further expanded in the final report.

Question 4: Concerning the presentation on teacher education, University for Development of National Races should be added as a unique teacher education institution offering minority students a pre-service teacher education from primary to higher education.

Answer 4: University for Development of National Races will be covered in the further study.

Question 5: Gender is an important issue in education but there was not much discussed about gender in the presentation. Most school teachers in Myanmar are female while most of the Township Education Officers and School Heads are male. Why aren't there more male teachers and more female education managers?

Answer 5: We would also like to ask our colleagues from Myanmar about the values in teaching and management that seem to prefer female teachers and male managers to find out what is the realistic gender ratio in education in Myanmar.

Question 6: Concerning the presentation on higher education, what are the cross-cutting similarities between the universities under the MoE and the Ministry of Science and Technology (MoST) and what are their differences?

Answer 6: Some of the universities currently under the MoST were originally transferred from the MoE, so these universities have similar systems with universities under the MoE. The difference is that universities under the MoE are only within the higher education track, while universities under the MoST are a mixture of institutions from the higher education track and the TVET track.

Question 7: Concerning the presentation on curriculum, how were the teaching time hours calculated in the presentation?

Answer 7: Teaching hours were calculated by each subject by each level and some subjects were adjusted to make them comparable across countries.

6.4 Group Discussion and Presentation

In the afternoon, the participants were divided into three thematic groups and discussed the problem analysis presented during the morning presentation. Each group then made a presentation on the outcomes of their discussions, which are summarized below:

Group 1: Curriculum and Assessment

The following issues should be covered in the curriculum reform:

1. The balance among main subjects and co-curricular subjects should be reviewed with a view to increasing the portion of co-curricular subjects
2. Among the three levels of curriculum contents, there should be more contents of Level 3 (higher order thinking skills)
3. There should be a review of overlapping contents across different subjects
4. School inspection should be aligned with curriculum objectives
5. The curriculum and syllabus should be reviewed and developed
6. Textbooks need to be revised in terms of contents and layouts
7. The timeframe and roles/responsibilities as to who does what for the curriculum reform should be defined
8. The curriculum reform should take in to account the objectives of the Government of Myanmar while also keeping in mind international standards and the practices of other countries

Group 2: Teacher Education

The following recommendations were drawn for teacher education:

1. A performance- /competency-based promotion system for teachers, which is linked with Continuous Professional Development (CPD), should be developed

2. To manage both pre-service and CPD of teachers, a Teacher Education Department within the MoE should be established as a separate department.

Group 3: Higher Education

The following issues were discussed for higher education:

1. MoE and MoST should streamline and align degree structures

2. Official documents that define the new degree structures introduced in the 2012-2013AY under MoST need to be developed.

3. Autonomy of Higher Education Institutions (HEIs) should be considered together with means to generate their own income. Human Resource Development Programs which are implemented at some HEIs under the MoE and which used to be implemented at some HEIs under the MoST could be one of the means for income generation.

4. Coordination among 13 ministries administering HEIs should be strengthened.

5. A faculty scheme should be introduced at universities as a comprehensive system

6.5 Closing remarks by a CESR representative

U Tun Hla, National Coordinator, CESR Technical Team thanked the Study Team for the fruitful workshop which offered a comprehensive analysis covering the whole education sector in Myanmar and was very useful for the work of the CESR team. He also commented that he was impressed with the JICA Team's study outcomes, which were compiled within the short period of only two months. He expressed appreciation for JICA's long-term support to education in Myanmar and mentioned that he would look forward to working closely with JICA in the future.

添付資料 3-2：Minutes of Meeting on the Report of Information Sharing Workshop

Minutes of Meeting on

the Report of Information Sharing Workshop

by the Study Team

for
Data Collection Survey
on Education Sector in Myanmar

15 December, 2012

Prepared by:
Study Team
for Data Collection Survey
on Education Sector in Myanmar

1. Background

As part of the Study Team's contribution to the ongoing Comprehensive Education Sector Review (CESR), the Study Team and CESR Technical Team organized an Information Sharing Workshop on December 7, 2012 in Yangon for sharing the Study's interim findings with CESR Technical Team members.

Upon request from the Director General of Department of Educational Planning and Training (DEPT), Ministry of Education (MoE), the Study Team decided to have a separate meeting in Nay Pyi Taw to share the results of the Information Sharing Workshop.

2. Objectives

The objective of the meeting was to brief officials from the MoE and the Ministry of Science and Technology based in Nay Pyi Taw on the interim study results of the JICA study as well as the outcomes of the Information Sharing Workshop held on December 7, 2012 in Yangon.

3. Date & Time

9:00-12:00 on Saturday, December 15, 2012

4. Participants

- Officials of DEPT and Department of Higher Education (DHE), Ministry of Education
- Official of Ministry of Science and Technology
- JICA Education Advisor
- Study Team

Sr	Name	Title	Organization
1	U Ko Ko Tin	Director General, DEPT	Ministry of Education
2	U San Lwin	Director, DEPT	Ministry of Education
3	Daw Khin Mar Htway	Director, DEPT	Ministry of Education
4	Daw Khin Khin Htay	Director, DEPT	Ministry of Education
5	Daw Aye Chit	Director, DEPT	Ministry of Education
6	U Ko Lay Win	Deputy Director, DEPT	Ministry of Education
7	Daw Mu Mu Aung	Deputy Director, DEPT	Ministry of Education
8	Daw Khin Khin Gyi	Deputy Director, DEPT	Ministry of Education
9	Daw Aye Aye Soe	Deputy Director, DEPT	Ministry of Education
10	U Thein Naing	Deputy Director, DEPT	Ministry of Education

Sr	Name	Title	Organization
11	Daw Aye Aye Mon Oo	Assistant Director, DEPT	Ministry of Education
12	Daw San San Myint	Assistant Director, DEPT	Ministry of Education
13	Dr Aye Thida Soe	Research Officer, DMERB,	Ministry of Education
14	Daw Aye Aye	Assistant Director, DHE	Ministry of Education
15	Daw Thit Thit Khine	Assistant Director, DBE (1)	Ministry of Education
16	U Amt Maung	Assistant Director, MEB	Ministry of Education
17	U Zaw Win	Assistant Director, DBE(2)	Ministry of Education
18	U Thint Zin Oo	Section Head, DHEL	Ministry of Education
19	Dr. Thanda Shwe	DTVE	Ministry of Science and Technology
20	Ms. Tomoko Masuda	Basic Education Advisor	DEPT/MOE-JICA
21	Dr. Norio Kato	Team Leader / Basic Education	Study Team
22	Mr. Takashi Soma	Deputy Team Leader / Teacher Education	Study Team
23	Prof. Dr. Keiichi Ogawa	Industry and Labor Market	Study Team
24	Mr. Chiko Yamaoka	Technical and Vocational Education and Training	Study Team
25	Ms. Midori Ozawa	Higher Education	Study Team
26	Mr. Ryuichi Sugiyama	Curriculum and Textbook	Study Team
27	Ms. Sandar Kyaw	Researcher / Basic Education	Study Team
28	Ms. Ingyin Htun	Researcher / Higher Education	Study Team

5. Venue

Meeting Room, Ministry of Education, Nay Pyi Taw

6. Program

6.1 Presentation by the Study Team

The Study Team made a presentation on the interim findings and preliminary analysis on the following topics:

1. Summary of the situational analysis (by Dr. Norio Kato)

2. Thematic issue 1: Curriculum and Assessment (by Mr. Ryuichi Sugiyama)

3. Thematic issue 2: Teacher Education (by Mr. Takashi Soma)

4. Thematic issue 3: TVET and Higher Education (by Mr. Chiko Yamaoka, Ms. Midori Ozawa and Prof. Keiichi Ogawa)

6.2 Questions and Answers

A summary of questions raised by the participants and answered by the Study Team is as follows:

Question 1: Under the 2008 Constitution, free compulsory education for primary and basic education is contradicted.

Answer 1: Here is some clarification regarding the articles under Constitution 2008. Chapter I: Basic Principle of the Union states that "28 - Implement free, compulsory primary education system" and Chapter 8: Citizen, Fundamental Rights and Duties of the Citizens states that "366 - Shall be given basic education which the Union prescribes by law as compulsory." In Myanmar, the law for free, compulsory primary education has not yet been developed and we expect to develop it. So we will start with free primary school education, and later extend the free education to the lower secondary level.

Question 2: TVET institutions are under various ministries, and the private sector also conducts TVET programs. What do you think about the way to unify them?

Answer 2: The TVET sector in Myanmar has many training institutions and each of them have their own policies, strategies and activities. One way to solve it is the formulation of National Skill Standards initiated by the Ministry of Labour. The Ministry of Labour, however, cannot formulate the skill standards for all areas in TVET, such as computers and transport. Therefore, currently specialists from other ministries and the private sector are also collaborating for the development of skill standards in their respective fields. Though collaboration among each of the specialized ministries and private training institutions may take time, the sector can gradually improve the skills of trainees towards the equivalent level to ASEAN standards if all stakeholders continue this kind of collaborative work.

Question 3: Which approach of curriculum design will be the best for Myanmar: Content-Based Approach (CBA), Outcome Based Approach (OBA), or the combination of both?

Answer 3: Myanmar currently follows CBA. Continuing to follow CBA is recommended. Based on my experience in various countries, attempts for a dramatic curriculum change always seem to fail,

mainly because teachers cannot follow such kind of drastic changes. Teachers need costly training. Furthermore, parents who may not accept new curriculum approach will complain. CBA is an old curriculum design approach and the new approach like OBA seems a better one to improve education quality. However, Japan has consistently performed well in terms of education quality even though it still follows CBA. Japan always ranks as one of the highest in international achievement tests such as PISA or TIMSS. There is no perfect solution. Both CBA and OBA have strengths and weaknesses. If we think critically, we can improve either approach based on the analysis. So again, following CBA is recommended for Myanmar.

Question 4: The Government of Myanmar is in the process of changing its education system to 5-4-3 and it is under consideration at the President Office. With this change, what will be the challenges for us?

Answer 4: Changing the education system to 5-4-3 will mean having extra grades. So there will be a need for more classrooms, teachers and budget. Short term implementation will be difficult and requires strategic planning. Thailand, for example, expanded compulsory education from 6 years to 9 years by topping up classes in primary schools.

Question 5: The starting age for schooling is also under consideration to be changed to 6 years-old in the future. What do you think of that?

Answer 5: Curriculum/content is more important than age.

Question 6: According to the promotion system of teachers in Myanmar, a primary teacher with some teaching experience will be promoted to a junior teacher, and then be promoted to a middle school head teacher. When teachers become rich in teaching experiences, they are promoted and positions of primary teachers always become vacant and recruited yearly. It affects the quality of education. What are your suggestions to solve this problem?

Answer 6: Here are some of the ideas for solution:

- Competency-based teacher promotion system
- Specialized courses for teachers
- Specialized education degrees for primary, middle and high school levels (e.g. Bachelor in Primary Education, Bachelor in Middle School Education and Bachelor in High School Education)

- Teacher education policy, support for professional teaching (including budget for training), and promotion of social status of teachers

Question 7: In Myanmar, there are so many ministries involved in higher education. Do we need to administer all the HEIs under one ministry, the Ministry of Education, or not? ?

Answer 7: As long as the main objective of HEIs remains to produce high quality human resources necessary to their belonging respective ministries, there are meanings to have HEIs under different ministries. In such circumstances, coordination mechanism among ministries must be strengthened. After a private sector is more expanded and the majority of graduates from HEIs become not necessary to work in the government sector, it may be time to consider bringing back HEIs under the Ministry of Education.

Question 8: Should there be autonomy for curriculum at respective universities?

Answer 8: Yes. Each university needs to have autonomy over curriculum decisions. In Myanmar, HEIs are not allowed to determine their curriculum, syllabus and textbooks. All departments of the same study field, even at different HEIs, must use the same curriculum, syllabus, and textbooks authorized by Council of University Academic Bodies. Universities located in different regions may have different demands and needs of human resource development from local communities and labor market.

Question 9: Among teachers, should most outstanding teachers teach in grades 1 to 6?

Answer 9: For students to have a good education, it is very important that they have a strong foundation. Thus, it is reasonable to say that basic education teachers for grades 1 to 6 should be the most outstanding teachers. Teachers for grades 1 to 6 have to make more efforts than teachers for other grades because the foundation built during students' early learning has long lasting impacts at later stages.

Question 10: Myanmar hopes that many foreign countries will come to Myanmar to do business and apply their technology and knowledge with their own approaches. But now it seems that the amount of FDI is less than our expectation. What do you think about it?

Answer 10: Myanmar is still going through a transition period. It seems that foreign countries are waiting to see the changes in every aspect of Myanmar especially in FDI policy. After the FDI

policy is approved, there will be incentives for FDI and many foreign companies should come here to carry out investment and apply their own technology and knowledge with their own approaches.

Question 11: In the future, which sectors will be the best for FDI in Myanmar?

Answer 11: Myanmar has labor-intensive industries and good human resources. Manufacturing sectors especially in the garment sector will have more demand for FDI.

Question 12: How can Myanmar meet the gaps between supply and demand for good human resources?

Answer 12: To meet a gap between supply and demand for good human resources of foreign affiliated companies in every sector of business, people should have appropriate skills such as language skills for communication, management skills, etc. and sufficient knowledge of marketing not only in Myanmar but also in foreign countries. Some activities or programs to upgrade skills should be initiated to generate efficient and effective workers and employees. For example, internship programs in universities should be promoted. Some experts from local and foreign countries with experience should be invited to hold seminars in universities and so on. To identify whether graduates from universities can apply the knowledge and skills which they learnt from their universities in the practical world after graduation, universities should conduct a trace survey of graduates and their employers.

添付資料 3-3：Teacher Education Review in Myanmar, Technical input for CESR working Group

Teacher Education Review in Myanmar

Technical input for CESR Working Group

2013/1/14

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Teacher Education Review in Myanmar

Chapter 1 Policy and Management 1

1.1 Current situation 1

1.1.1 Teacher Education Structures in ASEAN countries 1

1.1.2 Teacher Education in 30 year long term plan for Basic Education Sector (MOE) 2

1.1.3 Career Development of Basic School Teachers 3

1.1.4 Absence of Teacher Education Policy 4

1.1.5 Teachers Supervision System 4

1.2 Critical issues 5

1.3 Recommendations 5

1.3.1 For solving or improving the situation 5

1.3.2 For Phase 2 5

Chapter 2 Quality 6

2.1 Current situation 6

2.1.1 After re-institutionalisation of pre-service teacher training program (after 1998) 6

2.1.2 Yangon Institute of Education (YIOE) 7

2.1.3 Sagaing Institute of Education (SIOE) 8

2.1.4 University for Development of National Races (UDNR) 8

2.1.5 Education College (EC) 9

2.2 Critical issues 12

2.3 Recommendations 12

2.3.1 For solving or improving the situation 12

2.3.2 For Phase 2 12

Chapter 3 Access 13

3.1 Current situation 13

3.1.1 Teacher needs and supply 13

3.1.2 Pre-servicce Teacher Training (PRESET) 16

3.1.3 Teacher Certification system 20
3.1.4 Teacher Appointment system 20
3.1.5 In-service Teacher Training (INSET) 20
3.1.6 Continuous Professional Development (CPD) 20
3.2 Critical issues 21
3.3 Recommendations 22
3.3.1 For solving or improving the situation 22
3.3.2 For Phase 2 22

1. Policy and Management

1.1 Current situation

1.1.1 Teacher Education Structures in ASEAN countries

In last two decades, many ASEAN countries have embarked on educational reforms, following their commitment to the "Education for All" world declaration in 1990, which is focused, among other things, on ensuring quality teaching by competent teachers in their respective countries. Myanmar is one of the countries to improve teacher education system and in late 1990's its teacher education system was reformed to facilitate the training of more competent teachers at the basic education level in the country.

Table 1 shows the current structures in support of teacher education in ASEAN countries. According to the documents available on websites, it is seen that these countries have been upgrading teachers' qualifications by extending the length of teacher training courses. Teachers in most of these countries are supposed to complete a 4 year training course at a university or college. The Bachelor of Education (B.Ed) degree is the standard qualification for teachers, regardless of which school level they teach. Also, excepting Laos and Cambodia, most individuals who enter the teacher education program are high school graduates.

Table 1: Structures in Support of Teacher Education in ASEAN Countries

Country	Length of course			Nature of Institution	Entry Reqirement	Pupils Teacher Ratio*1	Primary Completion Rate (%)*1	Trained Teacher in Prim. Sch.*1	Population 2011 (Million)*2	GDP 2011 (Billion USD) *2
	Primary Sch.	Lower Second. Sch.	Upper Second. Sch.							
Myanmar	1yr Cert.Ed	2yrs Dip.Ed	5yrs B.Ed	University (IOE) Education College (EC)	High school graduation	28 (2010)	104% (2010)	100% (2010)	48.34	42.0
Thailand	4yrs Dip.Ed		4/5yrs B.Ed BA/BSc +1yr	University	High school graduation	16 (2008)	-	-	69.52	345.6
Philippines	4yrs B.Ed (Elem)	4yrs B.Ed (Secondary) +Subject Spec		University Teachers College	High school graduation	31 (2009)	92 (2009)	-	94.85	224.8
Laos	1-4yrs	3yrs	4/5yrs Degree	University (NUOL) Teachers Training College (TTC) Teacher Training School (TTS)	For primary moving to lower secondary graduate	27 (2011)	93 (2011)	94 (2011)	6.29	8.3
Malaysia	4/5yrs Degree	4/5yrs B.Ed BA/BSc+1yr		University and Teachers College	High school graduation and entry test	13 (2009)	-	-	28.86	278.7
Indonesia	4yrs Diploma/Bachelor			University and Teachers College	High school graduation	16 (2010)	109 (2010)	-	242.33	846.8

Country	Length of course			Nature of Institution	Entry Reqirement	Pupils Teacher Ratio*1	Primary Completion Rate (%)*1	Trained Teacher in Prim. Sch.*1	Population 2011 (Million)*2	GDP 2011 (Billion USD) *2
	Primary Sch.	Lower Second. Sch.	Upper Second. Sch.							
Cambodia	2yrs (PTTC)	2yrs (RTTC)	1yr (NIOE)	National Institute of Education (NIOE) Regional Teachers-training Center (RTTC) Provincial Teacher-training Center (PTTC)	High school graduation Junior high school graduation for disadvantaged regions	47 (2011)	90 (2011)	99 (2011)	14.31	12.9
Vietnum	Upper Sec. Diploma	College Diploma	Degree	University College	High school graduation	20 (2010)	-	98 (2010)	87.84	124.0
Singapore	4yrs B.Ed.	2yrs Dip.Ed.		University	High school (A Level)	17 (2009)	-	94 (2009)	5.18	239.7
Brunei	3yrs Cert.	4yrs BA/BSc+1yr		University (IOE)	High school (O Level)	11 (2011)	120 (2011)	88 (2011)	0.41	12.4

Source: Teacher Education Review in Myanmar, UNICEF (2007)
*1: World Data on Education (7th edition), UNESCO (2011)
http://www.ibe.unesco.org/en/services/online-materials/world-data-on-education/seventh-edition-2010-11.html
*2: World Development Indicators Database, World Bank (2012) http://data.worldbank.org/country
(BA: Bachelor of Arts, BEd: Bachelor of Education, BSc: Bachelor of Science, Cert.Ed: Certificate in Education, Dip.Ed: Diploma in Education)

1.1.2 Teacher Education in 30 year long term plan for Basic Education Sector (MOE)

The MOE has been implementing its "30 year long term plan" for the basic education sector in Myanmar, beginning in the 2001-02 FY and lasting until the 2030-31 FY. According to the plan, the government will set priority areas in basic education. One of these emphasizes teacher education (Process 4).

In 2001, the MOE's 30 year long term plan reported 6 areas of implementation for improving the quality of teacher education.

(1) Opening the pre-service teacher training course
(2) Reduction of in-service uncertified teachers
(3) Appointing pre-service trained teachers
(4) Ensuring full strength of teaching staff for basic education schools in border areas
(5) Improving the quality of teacher education
(6) Accomplished and on-going activities

With the plan as a reflection of the government's commitment, many activities were initiated and implemented. These included upgrading TTC/TTS to EC, providing pre-service teacher training, introducing a credit assessment system, new teaching certificates (C-in-Ed, Dip. Ed, etc.), postgraduate degrees in education (M.Ed, PhD etc.) and in-service teacher training. According to a report by the MOE, educational reform has, to some extent, been successful. Particularly, the number of uncertified teachers has been drastically reduced through the provision of several in-service teacher trainings for certifying, while the teacher appointment system has been made more

systematic and efficient by assigning executive committee under DEPT to be responsible. Special consideration for the teachers in border areas was also introduced, in terms of promotion and other benefits, so that in cooperation with UDNR more competent teachers have been appointed in those areas. Management training for TEO and Head teachers also was conducted for ensuring improved school management together with school infrastructure construction and maintenance.

After 12 years of implementation so far, it is necessary to reexamine the quality of those services provided by the government. It seems that still most of the initiatives are centrally controlled and it is unclear if the contents of these programs are still relevant to the actual needs of the school and teachers in the field.

Unfortunately, a widely agreed-upon “teacher competency” standard as an overall goal for improved teacher education is still yet to be clearly seen in the current education system. In addition, the standard curriculum for teacher education must be consistent from EC through IOE and in-service training. These areas of service should be discussed as soon as possible in order not for Myanmar to keep up with the international trend. There are two major aspects; 1) more relevant support for teachers, and 2) more attention to be paid to students’ learning within the teacher education program.

1.1.3 Career Development of Basic School Teachers

Before 1998, the basic school teacher career path was linear, from PAT to JAT through SAT and above. By gaining years of teaching experience and upgrading teaching certificates and degrees, teachers advanced in their careers and increased their salaries.

Nowadays, the teacher career path has become more flexible and complicated through the introduction of several entry points to the teaching profession. It is assumed that university graduates still face difficulty in getting a job, as compared with students in teacher education institutes like IOE and EC who are assured of getting a teaching job if they accept deployment to any area.

Due to the ascending salary system, once a teacher starts his/her career, he/she starts looking for a better position in a higher level school. This is the system, but even this system can support improvements in teacher quality. Every time a teacher moves to a higher position, the teacher is expected to take training courses to upgrade knowledge and skills. For instance, PAT takes a diploma course at EC for becoming JAT and JAT takes a degree course at IOE to become SAT or other position. Unfortunately, the chance to practice educational theory in class is only in teaching the bloc curriculum. If the curricula of EC and IOE do not meet teachers’ needs and teachers are in effect taking classes just to move to a higher salary status, pedagogical improvement will not be possible even after 2~5 years of the program. It is suggested that EC and IOE curriculum be reviewed as early as possible to meet the needs of teaching in class.

Another issue around career development is related to the absence of a teacher education policy, which leads to the lack of professional standards for each of the stakeholders in education sector according to age, responsibility, level of school, etc. In addition, a teacher appraisal system is also not in place in Myanmar and only TEOs have the authority to report outstanding or underperforming teachers to higher authorities.

As of October 2012, the number of PATs is 180,532, JATs 67,175, and SATs 26,738. As seen here, teaching posts at higher level schools comprise about one third of the number of lower level schools, not including IOE graduates who are employed as higher secondary school teachers. Transferring to a higher school is not easy and many teachers stay at primary schools even though they have teaching certificates that qualify them for a higher salary scale.
Looking at all the career development issues mentioned above, it is strongly suggested that 1) the teacher career development be linked with the salary system, 2) a teacher appraisal system be developed, 3) teacher education policy be formulated and approved, and 4) policy-based professional standards for teachers be set out as soon as possible.

1.1.4 Absence of Teacher Education Policy

So far, MOE has issued several directives as necessary. For example, "The Guidance of the head of State" was issued in March 2012, providing some notion about the goal of teacher education "to improve capacities of teachers in both basic and higher education sector". But there is no clear direction for teachers towards the goal of their professional development. It seems there is no comprehensive document regarding teacher education policy in Myanmar.

Due to the absence of a comprehensive teacher education policy in Myanmar, it is hard to figure out the framework of continuing professional development for teachers and the professional standards for all stakeholders in the education sector. Therefore, the long-term goal of all the efforts, like pre-service teacher education and in-service teacher training, is vague. Consequently systematic design of teacher education and effective and efficient implementation of teacher education programs is difficult.

Among the project initiatives in the past, one of them, called JICA's Strengthening Child Centered Approach (SCCA) which was active from 2004 to 2011, proposed concrete descriptions of teacher competencies as shown in Table 2.

Table 2: Goal of CCA Lesson and Competency of the teachers

Goal of the CCA Lesson	CCA Competency of Teachers
1. **Subject Matter:** Students will understand the subject content more clearly and deeply, and be able to apply the acquired knowledge to daily life. 2. **Learning Skills:** Students will improve their learning skills by actively participating in the Teaching/ Learning process. This includes participating in various learning activities as well as taking part in collaborative learning among themselves. 3. **Positive Attitude:** Students will demonstrate their interest, participation and joy in learning.	1. **Subject Skills:** Teachers will be able to teach appropriate subject content with deep understanding and mastery of the subject matter. 2. **Lesson Designing Skills:** Teachers will be able to design effective lessons based on CCA. 3. **Teaching/Learning Material Skills:** Teachers will be able to design, develop and utilize low cost and effective T/L material. 4. **CCA Teaching Skills:** Teachers will be able to conduct effective T/L activities using various teaching techniques and facilitating students' active learning. 5. **Assessment Skills:** Teachers will be able to assess student's learning by applying the various assessment techniques. 6. **Positive Attitude:** Teachers will be able to communicate in a friendly manner with students and increase their interest in learning.

Source: SCCA2 Project Poster

1.1.5 Teachers Supervision System

Middle and primary school teachers in Myanmar have very limited power to make decisions in terms of school management and teacher supervision. Generally, it is TEOs and high school head teachers who are responsible for these decisions. Day to day supervision is carried out by ATEO (Assistant Township Education Officers) who visit schools, deliver messages from TEO and DBE and check teachers' attendance. At the school level it is the head teacher who checks teachers' attendance every day. In Myanmar's teacher supervision system, high school head teachers are given extensive responsibility in many areas of school management. Therefore at the township level, TEO and high school head teachers are expected to attend school management training sessions organized by DEPT. However, in terms of teachers' professional development, the teacher current supervision system in this country does not seem to adequately serve to develop teachers' capacity of teaching. One TEO

in Mandalay Division stated that whenever he goes to school he is busy dealing with teachers' request for transfer and promotion and has no time for lesson observation or advising teachers.

1.2 Critical issues

Management:

1. Teacher education systems in many ASEAN countries have been upgraded to 4 year degree programs for the teachers of all levels, but Myanmar provides a 1 year program for primary teachers, 2 years for lower secondary teachers and 5 years for high school teachers.
2. The salary scale for teachers starts low but becomes higher from PAT, JAT to SAT
3. There is an absence of "Teacher Education Policy" in Myanmar, since pieces of directives so far have not been consolidated to make one systematic policy document.
4. Lack of "Professional Standards" makes long-term goals of teachers unclear, which makes it difficult to figure out framework of continuing professional development (CPD)
5. Head teacher's responsibility is limited and TEO/ATEO manage primary/middle schools
6. Management and leadership training for head teachers have not been organized yet.

1.3 Recommendations

1.3.1 For solving or improving the situation

1. All teacher education institutes should be upgraded into bodies that award 4 year degrees. This will help to produce specialized teachers at each level with B.Ed, such as B.Ed (Primary) for primary teachers, B.Ed (Junior Secondary) for lower secondary teachers, and B.Ed (Higher Secondary) for high school teachers.
2. The salary scale for teachers should be re-structured separately and equalized for each level of school.
3. Teacher Education Policy needs be formulated.
4. Professional Standards for all education related personnel should be discussed among the stakeholders and formulated. This should subsequently guide all training programs to ensure greater consistency throughout teachers' professional careers.
5. A National Teacher Council (tentative) should be established to oversee the professional standards for educational personnel.
6. More school management authorities should be delegated to head teachers of primary/middle schools, and decentralized school management system should be re-structured.
7. School level management and leadership training must be organized for head teachers at primary/middle schools.

1.3.2 For Phase 2

1. More detailed information should be collected about the necessary preparation for upgrading educational institutes to bodies that award 4 year degrees.
2. Teacher education policy framework should be discussed and documented.
3. By involving more stakeholders the comprehensive professional standards for all education related personnel should be discussed and documented more thoroughly.
4. Mission, roles and responsibility for National Teacher Council (tentative) should be discussed and a proposal be prepared.
5. The current decentralized school management system must be structured.
6. Training needs for school heads are to be collected and incorporated to school level management and leadership training.

2. Quality

2.1 Current situation

2.1.1 After re-institutionalisation of pre-service teacher training program (after 1998)

Pre-service teacher training stopped in 1971 but was re-instituted in 1998 based on the education seminar in May 1998. This reform upgraded five Teacher Training Colleges (TTCs) and 14 Teacher Training Schools (TTSs) to Education Colleges (ECs). Thus, teachers from the old system and from the new system are now together in the same school.

Table 3: List of Teacher Education and Training Institutes in Myanmar

	Division/State	Name of Institute	Founded	Remarks
Institute of Education (IOE) under DHE, MOE	Yangon Division	Yangon IOE	1964	Former TTC was founded in 1931 and YIOE gained its present status as a degree-awarding professional institute in 1964 when the University Law was enacted.
	Sagain Division	Sagain IOE	1992	IOE (Mandalay) was founded in 1992, and moved to Sagaing Division in 2000 and became Sagaing IOE
Education College (EC) (Former TTC) under DEPT, MOE	Yangon Division	Yankin EC	1947	
	Mandalay Division	Mandaley EC	1955	
	Mon State	Mawlamyaing EC	1953	
	Ayeyawady Division	Pathein EC	1966	
	Bago Division	Toungoo EC	1967	
Education College (EC) (Former TTS) under DEPT, MOE	Shan State	Taunggyi EC	1968	
	Magway Division	Magway EC	1965	
	Sagaing Division	Moneyar EC	1996	
	Kachin State	Myitkyina EC	1952	
	Tanintharyi Division	Dawei EC	1953	
	Rakhine State	Kyaukphyu EC	1953	
	Sagain Division	Sagain EC	1968	
	Magway Division	Pakokku EC	1982	
	Bago Division	Pyay EC	1968	
	Ayeyawady Division	Bogalay EC	1970	
	Kayin State	Pa-an EC	1996	
	Ayeyawady Division	Myaungmya EC	1968	
	Mandalay Division	Meiktila EC	1953	
	Yangon Division	Hlegu EC	1986	
	Yangon Division	Thingangyun EC	1969	
University under Ministry of Border Affairs	Sagaing Division	University of Development of National Races (UDNR)	1964	UDNR gained university status in 1991. Since it is responsible for providing teacher education to ethnic groups, individuals that complete Grade 9 can be admitted to three year Teacher

				certificate course and some of them can continue to degree course.

Currently, the minimum requirement for applying to be a high school teacher (Senior Assistant Teacher: SAT) or an Educational Administrator is a Bachelor of Education (B. Ed) degree. This degree is only offered to the people from Lower Myanmar at Yangon IOE in Yangon Division and for those in upper Myanmar at Sagaing IOE in Sagaing Division. Both of these IOEs are under the control of Department of Higher Education (DHE), MOE. (See Table)

2.1.2 Yangon Institute of Education (YIOE)

YIOE was founded as a TTC in 1931. When the University Law was enacted in 1964 this institute gained its degree-awarding status. In 1970, the Master of Education (M.Ed) course was introduced and later the Doctor of Education (PhD) was also offered by the institute. As of 2012, YIOE has 113 teachers and an administrative staff of 173. Student enrollment in each program is B.Ed 1,748, M.Ed 114, and PhD 24. Internet access is available on campus with wireless LAN for the graduate students and the university staff. In addition, IOE Practicing School has been recognized as good school, in which there are 160 teachers and 8,312 students from G1 to G11.

In Yangon IOE, B. Ed, which is equivalent to the high school teacher certificate, can be obtained. There are three different admission systems. One is called B.Ed. (Direct Intake) which is for the students who are from lower Myanmar and that have passed the matriculation exam. These students can apply directly to DHE and the DHE selection committee selects 300 candidates for YIOE's consideration. YIOE interviews the candidates and makes final selections.

A second admission system is known as B.Ed. (Bridge Program). This program is for those who have completed two years pre-service training at EC (D.T.Ed). Students with higher performance may apply for this degree program at IOE. An annual quota of 300 is available. The Education College Board under guidance of DEPT recommends 300 candidates to be enrolled in the third year of the B. Ed in YIOE.

The last one is B.Ed (Correspondence Course). Those teachers who are in service with any Bachelor degree and at least five (5) years of teaching experience can apply to this course. After passing an entrance examination they are to take the program remotely.

Students in any of the three courses may apply to high school teacher and educational administrator positions after successful completion.

Teaching staff of YIOE from two fields of study, namely academic and education, jointly teach their students to keep YIOE's quality of education high. In the education field, there are three departments: 1) Educational Psychology (Among the staff, 10 PhD holders), 2) Education Theory (11 PhD holders) and 3) Methodology (12 PhD holders). Each department head is proficient in the English language and two were awarded their PhD from universities in Japan.

Annual curriculums are drafted by the department heads and other staff and approved by the Board of Study (BOS), consisting of 10 to 20 former professors and subject experts. The medium of instruction at YIOE is English. However, Myanmar is also used to help students better understand their classes better. YIOE's budget is decided by DHE and MoE, and YIOE doesn't have decision-making authority, even for the way of use. Students pay tuition fee of 500 Kyat per month. Some of the interviewees mentioned that due to the job security students are likely to choose IOE as their professional institute, as almost all graduates get a teaching job or an administrative job. Thus, the students coming to IOE are not the most excellent ones but to some extent are the bright ones.

2.1.3 Sagaing Institute of Education (SIOE)

For the betterment of educational standard in upper Myanmar, Mandalay Institute of Education (MIOE) was opened as part of Mandalay University in 1992. In 2000, main function of IOE was shifted to the present location in Sagaing and MIOE was reopened as Sagaing Institute of Education (SIOE). At the beginning of MIOE the rector was invited from Yangon IOE and also most of the teaching posts were occupied with the professors from Yangon IOE and Mandalay University. Now, SIOE has a teaching staff of 151 out of which 25 are hold a PhD and 126 have a Masters degree. Minimum requirement for SIOE's teaching staff of SIOE is a Masters degree. The number of administrative staff at SIOE is 165. Doctoral programs have not yet been prepared.

As at YIOE, SIOE's tuition fee is 500 Kyat per month. Curriculum, budget and entrance requirement are also the same as YIOE. In order to maintain the standard of education, SIOE is using a self-assessment system with 12 criteria. Normally, female students outnumber male students, but since 2011 MoE initiated a new policy of recruiting more male teachers and now a fixed percentage of 60% male students and 40% female students has been set.

Due to its location in upper Myanmar, SIOE accepts students from the area. However, because the matriculation exam, which provides the chance to enter SIOE, administered in Myanmar language, there is no special arrangement for the ethnic minorities even during classes. Furthermore, inclusive education is not applicable to SIOE, as no guidelines have been developed by the IOE authority.

Table 4: Number of Teaching Staff and Students at SIOE

Teaching Staff	
Post	No.
Professor	7
Associate Professor	3
Lecturer	28
Assistant Lecturer	36
Tutor & Demonstrator	7

Students		
Course	No.	Completion Rate
Bachelor of Education (B.Ed)	1,429	97.92%
Master of Education (M.Ed)	102	100%
Master of Philosophy (M.Phil)	4	100%
Post-graduate Diploma in Multi-media Arts (PGDMA)	131	100%
Bachelor of Education (B.Ed Correspondence)	1,900	98.64%

Source: Interview with SIOE staff on 1 October, 2012

2.1.4 University for Development of National Races (UDNR)

Ministry of Border Affairs runs one university called University for Development of National Races (UDNR) located in Ywathitkyi, Sagaing Division. Initially it was opened in 1964 as Academy for the Development of National Groups. In 1988, Civil Service Selection and Training Board took over control of the university. UDNR is responsible for providing opportunity for higher education to the ethnic groups in border areas with free of charge. Since they have their own mother tongue, the students from the ethnic groups may have disadvantages given that the official language is used in the formal education system. Therefore, UDNR accepts about 200 students who complete Grade 9 every year and teaches them for 3 years to certify Cert. Ed (including matriculation exam pass status). Some of high performing students can then proceed to other degree courses.

Table 5: Course Completed Trainees (1964 to 2010)

A	M.Ed.	93
B	M.Phil (Ed.)	35
C	B.Ed. (1 year)	1050
D	B.Ed. (4 year)	1961
E	B.Ed. (2 year bridge)	443
F	D.T.Ed.	635
G	J.A.T.C.	956
H	P.A.T.C. / Cert. in Ed.	6859
I	Special P.A.T.C.*	461
	TOTAL	12493

*3-4 months special teacher training program

2.1.5 Education College (EC)

As mentioned above, there are 20 ECs in the country, of which five used to be TTCs and 15 TTSs before 1998. All 20 ECs now offer two years D.T.Ed program. After institutionalization of pre-service teacher training in 1998, there have been five different programs offered in ECs; however, students who have completed high school can only apply to one year Cert. Ed. programs and two year D.T.Ed. programs. After successfully completing one year, the students are awarded Cert. Ed. and can become primary school teachers. Those finishing 2 years become middle school teachers. Nowadays, almost all the students enrolled in first year of EC choose to continue to their second year.

Apart from those two programs, EC offers a one year Diploma in Teacher Education Competency (DTEC) to university graduates to become middle school teachers. It is assumed that university graduates have good academic backgrounds, and the duration of the course can be shortened by cutting down those academic classes that do not apply to teaching.

EC also takes primary and junior teachers in service as students in a short course during the summer holidays. After they complete the courses and pass the final examination, Primary Assistant Teacher Certificate (PATC) and Junior Assistant Teacher Certificate (JATC) are awarded, respectively. In all courses, female students outnumber male students as seen in the Table below. (See Table 6)

Table 6: Courses for Teaching Certificates in EC

	EC (1st Year)	Summer Holiday	EC (2nd Year)	Remarks
High school graduates	Cert. Ed. (3,532)	-	D.T.Ed (3,052)	Almost all students enrolled in 1st year of EC continue to their 2nd year. (Male: Female = 1:3)
University graduates	DTEC (3,946)	-	-	Students start as PAT for at least 2 years before promotion to JAT. (Male: Female = 1:12)
Primary school teachers	-	PATC (114)	-	There will be no course opened in 2012. (Male: Female = 1:13)
Middle school teachers	-	JATC (5,605)	-	(Male: Female = 1:11)

(Figures show numbers of students in 20 ECs in the country in 2011[1])

[1] MOE (2011) Statistical Year Book 2011

The tuition fees in EC are kept low (See Table 8) and almost 100% of EC graduates obtain teaching jobs as primary school teachers. This is why high school graduates who face financial difficulty at home and pass the matriculation exam tend to prefer to choose EC as one of their priorities of higher education. But since EC is residential, the Dining Fee could be a heavy burden for some students.

Table 7: List of the Fees in EC

Admission Fee	120 Kyat
Hostel Fee	240Kyat
School Fee	120Kyat/month
Dinning Fee	7,500 Kyat/month
School Council Fee	50 Kyat
Laboratory Fee	60 Kyat
Practical Art Subject	30 Kyat
Examination Fee	50 Kyat/semester

EC curriculum can be considered as six (6) parts according to their different objectives; 1) Methodology, 2) Academic Subject, 3) Co-curricular Subject, 4) Social Studies, 5) Modern Studies, and 6) Bloc teaching.

Table 8: EC Curriculum

Methodology	Academic Subject	Co-curricular Subject
Educational Theory	Myanmar	Physical Education (Theory & Practical)
Educational Psychology	English	Industrial Arts (Theory & Practical)
Myanmar	Mathematics	Domestic Science (Theory & Practical)
English	Science Course (Any of 2 options) 1. Physics 2. Chemistry 3. Biology	Agriculture (Theory & Practical)
Mathematics		Fine Arts (Theory & Practical)
Natural/Basic Science	Liberal Arts Course (Any of 2 options) 1. Geography 2. History 3. Economics	Music (Theory & Practical)
Geography		Social Studies
History	Modern Studies	Life Skills
Practicum	ICT	Union Spirit
Bloc Teaching	Language Lab	Moral and Civic
		Aspect of Myanmar

Source: Mandalay EC Presentation on 1 October 2012

Table 9: Academic cycle of EC

Month	EC	Cert. Ed	D.T.Ed	DTEC	JTC
Aug	Cert.Ed and D.T.Ed admission forms			1st Semester Starts	
Sep	List of admission forms to DEPT				
Oct	Selection Board in DEPT				
Nov	List of attendees to be announced				
Dec		1st year 1st Semester Starts	2nd year 1st Semester Starts	1st Semester Ends	
Jan				Bloc Teaching	
Feb				Bloc Teaching	
Mar					
Apr	DTEC admission forms	1st year 1st Semester Ends 1st year 2nd Semester Starts	2nd year 1st Semester Ends	2nd Semester Starts	Plenary training in summer
May	List of admission forms to DEPT				Plenary training in summer
Jun	DTEC Entrance Exam		Bloc Teaching		Course duration is from June to March
Jul	DTEC announces List of attendees		Bloc Teaching		
Aug		1st year 2nd Semester Ends	2nd year 2nd Semester Starts	2nd Semester Ends	
Sep		Bloc Teaching			
Oct		Bloc Teaching			
Nov				DTEC Award	
Dec			2nd year 2nd Semester Ends		
Jan			D.T.Ed Award		
Feb		Cert. Ed Award			

Source: Source: Mandalay EC Presentation on 1 October 2012

Table 9 shows the annual workload of Mandalay EC, which looks confused because of running 4 different courses in the same campus.

2.2 Critical issues

Quality:

1. The lack of “Professional Standards” makes long-term goals of teachers unclear, in turn making it difficult for teachers and teacher educators to set goals under the framework of continuing professional development (CPD)
2. Teacher support mechanisms are not adequate from the current education system in Myanmar.
3. Guidance from the educational administration side is limited, because indicators used for regular school inspection by education offices are seldom related to class improvement. The evaluation form does not have enough space, and guidelines are inadequate, which may lead to routine operation.
4. Teachers’ evaluation system is not yet well established in terms of effectiveness of classroom teacher (e.g. Child Centered Approach, etc.).
5. IOE and EC provide lecture oriented and standardized lessons.

2.3 Recommendations

2.3.1 For solving or improving the situation

1. Professional Standards for all education related personnel should be discussed among the stakeholders and formulated, which should guide all training programs to be more consistent throughout teachers’ professional careers.
2. A National Education Staff Development Center (tentative) that is linked with its satellite centers (e.g. Division/State Education Staff Development Center) should be established to train all educational personnel and maintain nation-wide professional standards.
3. The school inspection system should be more focused on teaching and learning in the classroom, and related evaluation formats should be revised in line with new teaching approaches including lesson observation.
4. A new teacher evaluation system should be introduced and its training program provided to all relevant personnel (teachers, teacher educators, ATEO, TEO)
5. Curriculum reforms for IOE and EC are to be addressed as soon as possible.
6. Overseas training for teacher educators needs to be considered for revising and implementing internationally standardized teacher education curriculum.

2.3.2 For Phase 2

1. New teacher education curriculum together with Professional Standards for all education related personnel should be formulated following discussion among stakeholders.
2. Mission, roles and responsibility for National Educational Staff Development Centre (tentative) should be discussed and a proposal prepared.
3. Needs assessment of training for every educational personnel should be conducted.
4. Teachers’ evaluation including lesson observation with international standard evaluation format should be conducted to uncover issues in classroom teaching and learning.

3. Access

3.1 Current situation

3.1.1 Teacher needs and supply

Every year, teachers' vacancies are reported by all the Township Education Officers (TEOs) based on a request by all three DBEs, namely DBE1 (Lower Myanmar), DBE2 (Upper Myanmar) and DBE3 (Yangon Division). Vacancy of the teacher post from TEO is compiled as list at DBEs by 1st March every year, and the request for the new teacher is sent to DEPT.

After receiving vacancy list from DBE, DEPT is to provide new teacher list to each DBE. DBE forms the Educational Committee chaired by Director General to appropriately deploy newly certified teachers from ECs and IOEs. New teachers are considered by two mail criteria, such as specialized subjects and native hometown (language and cultural background) and are deployed to each TEO through REO/SEO by May with offical appointment letter, so that they start their teaching from beginning of the academic year (1st June). DEO official says that there is no big gap between teacher needs at school level and supply from DEPT.

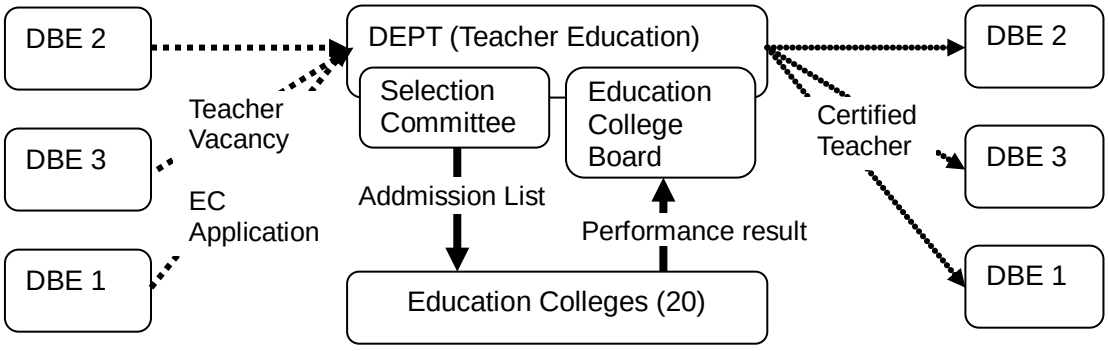

Fig 1: Teacher request and deployment system between DBE and DEPT

Those matriculation passes who want to become teacher are supposed to submit their applications to each DBE through each near TEO/DEO/REO/SEO. 1st selection is made at Selection Committee formed at REO/SEO. Those screened applications are to be sent to Selection Committee fromed at DEPT for 2nd selection chaired by DG. After that list of the attendance for interview by EC Principal is sent to each EC, so that EC Principal finaly admits the screened applicants. Recently due to needs of male teachers, selection standard for the male is a little bit lower than that for the female.

After completion of teacher training courses (DTEd, DTEC) at each EC, the trainees are finally evaluated by the Education College Board chaired by DG DEPT. Based on the results from the Final examination (40%) and others (60%), such as Bloc teaching, Attendance and Practical, DG DEPT issue teaching certificates to students and the list of newly certified teachers is sent to each DBE. The top 500 trainees with the highest marks are recommended for admission to 2 IOEs. Out of about 7,000 trainees who graduate from ECs every year, 500 (7 %) go to IOEs, while only a few go into teaching after completion of the 1st year (Cert. TEd).
Tables shown below are to show the actual status of teacher deployment in the country by calculating Students Teacher Ratio (STR).

Table 10: Teacher Dployment (Primary School)

		No. Primary School	No. Teacher	No. Students	Students Teacher Ratio
DBE1	Rural	17,492	74,597	2,201,906	29.5
	Urban	1,127	13,219	312,310	23.6
	Total	**18,619**	**87,816**	**2,514,216**	**28.6**
DBE2	Rural	16,956	74,798	1,853,034	24.8
	Urban	1,353	17,668	456,427	25.8
	Total	**18,309**	**92,466**	**2,309,461**	**25.0**
DBE3	Rural	1,520	8,755	223,412	25.5
	Urban	757	10,191	325,766	32.0
	Total	**2,277**	**18,946**	**549,178**	**29.0**
EC			**196**	**6,790**	**34.6**
DBEs (Union)	Rural	35,968	158,150	4,278,352	27.1
	Urban	3,237	41,078	1,094,503	26.6
	Total	**39,205**	**199,424**	**5,379,645**	**27.0**

Source: Statistical Year Book 2011

At the primary level, STR stands between 23.6 and 32.0 (National average is 27.0), which do not show significant variations across divisions. . But if we look at the regional distribution, Bago West (Urban) region shows only 17.1, while Rakhine (Rural) region 36.5.

Table 11: Teacher Dployment (Middle School)

		No. Middle School	No. Teacher	No. Students	Students Teacher Ratio
DBE1	Rural	820	16,487	662,325	40.2
	Urban	149	7,923	231,262	29.2
	Total	**969**	**24,410**	**893,587**	**36.6**
DBE2	Rural	899	17,628	723,477	41.0
	Urban	183	13,058	375,846	28.8
	Total	**1,082**	**30,686**	**1,099,323**	**35.8**
DBE3	Rural	113	2,707	91,156	33.7
	Urban	136	7,639	225,820	29.6
	Total	**249**	**10,346**	**316,976**	**30.6**
EC		**20**	**169**	**4,794**	**28.4**
DBE (Union)	Rural	1,832	36,822	1,476,958	40.1
	Urban	468	28,620	832,928	29.1
	Total	**2,320**	**65,611**	**2,314,680**	**35.3**

Source: Statistical Year Book 2011

At the middle school level, STR shows between 28.8 and 41.0 (National average is 35.3), which looks a little higher, but still comparable. But if we look at it region wise, Bago West (Urban) region shows only 20.0, while Shan South (Rural) region 45.0.

Table 12: Teacher Dployment (High School)

		No. High School	No. Teacher	No. Students	Students Teacher Ratio
DBE1	Rural	331	6,112	130,959	21.4
	Urban	186	4,313	106,291	24.6
	Total	**517**	**10,425**	**237,250**	**22.8**
DBE2	Rural	242	3,919	114,202	29.1
	Urban	319	7,142	197,759	27.7
	Total	**561**	**11,061**	**311,961**	**28.2**
DBE3	Rural	34	550	22,121	40.2
	Urban	135	3,185	99,476	31.2
	Total	**169**	**3,735**	**121,597**	**32.6**
EC					
DBE (Union)	Rural	607	10,581	267,282	25.3
	Urban	640	14,640	403,526	27.6
	Total	**1,247**	**25,221**	**670,808**	**26.6**

Source: Statistical Year Book 2011

At the high school level, STR shows between 21.4 and 40.2 (National average is 26.6), which looks a little standardized. But if we look at it region wise, Shan East (Rural) region shows only 9.1, while Sagain (Rural) region 42.8.

Table 13: Number of Teachers by Level of Certificate and Gender

			Primary School			Middle School			High School		
			Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Head Teacher		**Total**	**3,151**	**32,319**	**35,470**	**446**	**1,634**	**2,080**	**608**	**289**	**897**
		Female	2,081	20,087	22,168	277	861	1,138	352	258	610
			(66.0%)	(62.2%)	**(62.5%)**	(62.1%)	(52.7%)	**(54.7%)**	(57.9%)	(89.3%)	**(68.0%)**
SAT	G10-G11	**Total**							**14,640**	**9,007**	**23,647**
		Female							12,410	7,247	19,657
									(84.8%)	(80.5%)	(83.1%)
	G9	**Total**				**683**	**2,343**	**3,026**	**2**	**25**	**27**
		Female				429	1,894	2,323	1	19	20
						(62.8%)	(80.8%)	(76.8%)	(50.0%)	(76.0%)	(74.1%)
JAT	Middle Level	**Total**				**9,199**	**20,945**	**30,144**	**18,936**	**10,020**	**28,956**
		Female				8,342	17,201	25,543	17,120	8,439	25,559
						(90.7%)	(82.1%)	(84.7%)	(90.4%)	(84.2%)	(88.3%)
	Primary Level	**Total**	**14,715**	**31,821**	**46,536**	**1,513**	**3,483**	**4,996**	**1,819**	**1,518**	**3,337**
		Female	13,899	27,424	41,323	1,410	3,086	4,496	1,701	1,325	3,026
			(94.5%)	(86.2%)	(88.8%)	(93.2%)	(88.6%)	(90.0%)	(93.5%)	(87.3%)	(90.7%)
PAT	Primary Level	**Total**	**12,956**	**65,175**	**78,131**	**3,325**	**8,742**	**12,067**	**3,599**	**3,245**	**6,844**
		Female	12,480	55,903	68,383	3,239	7,797	11,036	3,494	2,971	6,465
			(96.3%)	(85.8%)	(87.5%)	(97.4%)	(89.2%)	(91.5%)	(97.1%)	(91.6%)	(94.5%)
Total			**30,822**	**129,315**	**160,137**	**15,166**	**37,147**	**50,233**	**39,604**	**24,104**	**63,708**
Female			28,397	103,414	131,874	13,697	30,839	44,536	35,078	20,259	55,337
			(92.1%)	(80.0%)	**(82.4%)**	(90.3%)	(83.0%)	**(88.7%)**	(88.6%)	(84.0%)	**(86.9%)**

Source: Statistical Year Book 2011

Table 13 shows teacher deployment status by gender. At every school level, more than 80% of teachers are female. (Primary school: 82.4%, Middle school: 88.7%, High school: 86.9%) But female percentages of head teachers are lower. (Primary school: 62.5%, Middle school: 54.7%, High school: 68.0%) In fact, it is commonly viewed that Myanmar society accepts female teachers more

than male teachers. The fact that male students only see female teachers in their schools also reinforces this view and may further discourage males to consider teaching as a desirable job for them. That management positions tend to be occupied by more male teachers is also not a fair representation of gender roles and responsibilities. There is no strong reason for male teachers to be more suitable as head teachers.

3.1.2 Pre-servicce Teacher Training (PRESET)

All the pre-service teacher trainings available in Myanmar are seen as opportunities for non-certified teachers to receive a teaching certificate and become a certified teacher. All kinds of teaching certificates for teaching in basic education can be obtained in two types of institutions, namely Education Colleges (ECs), of which there are 20 in the country, and Institutes of Education (IOEs), of which one is in Sagain Division (Upper Myanmar) and the other in Yangon (Lower Myanmar). Another opportunity for people from border areas to obtain teaching certificates is provided at the University for Development of National Races (UDNR) under the Ministry of Progress of Border Areas and National Races. (See Table 14)

Those who obtained “Cert.Ed.” and “PATC” are certified primary school teachers. Those who obtained “D.T.Ed.”, “DTEC”, “JATC” and “PGDMA” are certified middle school teachers, although they start their career as primary assistant teachers (PAT) after graduation. After 5 years as primary school teachers, they can apply for promotion to junior assistant teachers (JAT) at the middle school level. Lastly, those who obtained B.Ed and above from IOE are eligible to apply to positions as either senior assistant teachers (SAT) at the high school level, or education officer positions at ATEO, TEO or above.

Table 14: List of Teaching Certificates and Relevant Degrees in Myanmar

	Program	Starting Year	Duration	Entry Requirement	Selection Method	Assessment Method	Qualification to be granted
EC1	Certificate in Education	1998	1 Year	Matriculation Pass	Matriculation marks, Number of candidates which sanctioned for specific area	For each semester Tutorial (10%) Assignment/ Practical Task (10%) Semester end test (National Exam) (30%)	Cert. Ed
EC2	Diploma in Teacher Education	1998	2 Years	Cert. Ed	Those candidates who got Cert. Ed and prefer to proceed the second year	For each semester Tutorial (10%) Assignment/ Practical Task (10%) Semester end test (National Exam) (30%)	D.T.Ed
EC3	Diploma in Teacher Education Competency	2004	1 Year	Bachelor Degree Holder	Entrance exam marks, Number of candidates which sanctioned for specific area	For each semester Tutorial (25%) Assignment/ Practical Task (15%) Semester end test (National Exam) (60%)	DTEC
EC4	Primary Teacher Certificate in Correspondence Course	1978 to 2010	1 Year (Plenary Training during Summer)	Primary School Teachers who do not have certificate	Number of years of job experiences	Assignment Final exam (National Exam)	Primary Teacher Certificate (PATC)
EC5	Junior Teacher Certificate in Correspondence Course	1994	1 Year (Plenary Training during Summer)	Middle School Teachers who do not have certificate and age under 58	Number of years of job experiences	Assignment Final exam (National Exam)	Junior Teacher Certificate (JATC)
IOE1	Bachelor of Education (Direct Intake) (on campus)	2000 (1964)	(4 Years) 5 Years Since 2012	Matriculation (High mark)	Regular application	Credit system - Tutorial (20%) - Semester-end Test (80%) CGPA 3 (Passed) CGPA 4 and above (Qualified) CGPA 4.5 and above (Credit)	B.Ed (DI)
IOE2	Bachelor of Education (Bridge Program) (on campus)	2002	(2 Years) 3 Years Since 2012	Qualified in D.T.Ed	Selected by the Education College Board	Credit system - Tutorial (20%) - Semester-end Test (80%) CGPA 3 (Passed) CGPA 4 and above (Qualified) CGPA 4.5 and above (Credit)	B.Ed (Bridge)
IOE3	Bachelor of	1970	2 Years	Bachelor Degree	Entrance Exam	Assignment (20%)	B.Ed (Corr.)

	Program	Starting Year	Duration	Entry Requirement	Selection Method	Assessment Method	Qualification to be granted
	Education (Correspondence Course)			Holder and at least 5 years of job experience	Seniority of job experience	Exam (80%)	
IOE4	Master of Education	1970	2 Years	B. Ed (Qualified)	Entrance Exam	For each semester - Tutorial (30%) - Semester end test (70%) - Thesis	M.Ed
IOE5	Master of Arts (Teaching of English as a Foreign Language)	1998	2 Years	Dip.ELTM, B.A (English)	Entrance Exam Interview	For each semester - Tutorial (30%) - Semester end test (70%)	M.A (TEFL)
IOE6	Master of Philosophy	2005	2 Years	B. Ed Holder At least 15 years of job experience	Entrance Exam	1 year: 3 term papers in core subjects 2 year: 3 term papers in specialized subjects	M.Phil
IOE7	Doctor of Philosophy	2000	5 Years	M. Ed Holder	Entrance Exam	1 Year: Preliminary Course 4 Year: Research	Ph.D
IOE8	Post Graduate Diploma in Media of Art	1999	1 Year	B. Sc Holder	Entrance Exam	3 Modules (Computer Company) 1 Module (IOE)	PGDMA
IOE9	Post Graduate Diploma in Teaching	1999 to 2008	1 Year	Any Bachelor Degree Holder (Except LLB)	Entrance Exam	Same as B.Ed course CGPA- 2 (passed)	PGDT
IOE10	Certificate of Educational Technology	2004/05 to 2005/06 (5batches)	2 months (1st - 4th batch) & 5 months (5th batch)	Higher degree from University (Master and honors)	Entrance Exam	Same as B.Ed course	CET
IOE11	Special Certificate of Educational Technology	2006 to 2007 (2batches)	1 month	B.A(English) Higher degree from University(Master and honors	Interview	Same as B.Ed course	SCET
IOE12	Diploma in English Language Teaching Methodology	1999	9 Months (300 hours: on week days 7:00am - 9:00am)	B.A(English)	Entrance Exam Interview	Same as B.Ed course	Dip.ELTM

Source: CESR Teacher Education Working Group

Table 15 shows the number of teaching staff and students at each Education College. It was found that there are no ECs in Chin state and Kayah state, and students from these two states are admitted to ECs in other divisions/states. Every EC has a hostel facility, but those trainees who are travelling away from their hometown and family find it difficult to make the decision to further their education at EC in a different area. The teacher student ratio (TSR) at ECs is 8.6 on average; however, EC from Kyaukphyu in Rakhine is 17.3, while Dawei in Thaninthaye is only 1.8. Some remedial measures should be taken to equalize these ratios among ECs across the country.

Table 15: Distribution of Education Colleges across Myanmar

S/N	Location (State/Division)	No of ECs	Name of EC	No. Teaching Staff	No. Students 1st Year (#15/2010)	No. Students 2nd Year (#14/2009)	No. Students DTEC (#7/2010)	Teacher Students Ratio
Upper Myanmar								
1	Mandalay	2	Mandalay	71	221	242	197	9.3
			Meikhtila	67	208	226	368	12.0
2	Magway	2	Magway	64	144	238	277	10.3
			Pakokku	60	129	154	173	7.6
3	Sagaing	2	Sagaing	63	207	228	227	10.5
			Monywar	68	211	164	279	9.6
4	Kachin	1	Myitkyinar	54	170	184	195	10.2
5	Shan	1	Taunggyi	65	180	201	225	9.3
6	Chin	0	X	N/A	N/A	N/A	N/A	N/A
			Sub-Total	512	1,470	1,637	1,941	9.9
Lower Myanmar								
7	Kayin	1	Phaan	60	155	211	212	9.6
8	Thaninthaye	1	Dawei	61	112	0	0	1.8
9	Bago	2	Taungoo	59	146	177	124	7.6
			Pyay	56	115	112	107	6.0
10	Mon	1	Mawlamyaing	58	155	272	241	11.5
11	Rakhaine	1	Kyaukphyu	43	198	265	281	17.3
12	Ayeyarwaddy	3	Pathein	63	117	136	267	8.3
			Myaungmya	60	75	126	146	5.8
			Bogalay	54	120	131	154	7.5
13	Kaya	0	X	N/A	N/A	N/A	N/A	N/A
			Sub-Total	514	1,193	1,430	1,532	8.1
Yangon								
14	Yangon	3	Yankin	72	163	164	211	7.5
			Thingangyun	68	113	145	115	5.5
			Hlegu	63	113	156	147	6.6
			Sub-Total	203	389	465	473	6.5
Total		**20**		**1,229**	**3,052**	**3,532**	**3,946**	**8.6**

Source: Statistical Year Book 2011

Staffing at individual ECs is probably similar. Table 16 shows the staffing at the Mandalay EC as an example. There are five categories of staff at an EC. According to statistical data[2], as of March 2011 there are 507 Assistant Lecturers (out of which 429 are female) and 678 Tutors (576 female) in the 20 ECs nationwide.

Table 16: Staffing at Mandalay EC

Post	Male	Female	Total
Administrative Staff	2	6	8
Assistant Lecturer	4	29	33
Tutor	7	32	39
Practicing Middle School Teacher	8	32	40
Office Staff	29	16	45
Total	50	115	165

Source: Mandalay EC Presentation on 1 October 2012

[2] MOE (2011) Statistical Year Book 2011

Each EC has its affiliated practicing school (PS) in the same campus. The number of students varies from 1,806 at Yankin ECPS to 159 at Pyay ECPS[3]. Basically, ECPS are recognized as good schools with bright students, though the schools go only through the Middle School level. The ratio between boys and girls is nearly 1:1 in every ECPS. On the other hand, majority of the teachers at ECPS are female. Of 169 teachers in 20 ECPS Middle Schools 159 are female and of 196 in 20 ECPS Primary Schools 177 are female. Teacher recruitment for ECPS has been handled by DEPT unlike normal government schools which are handled by DBE.

3.1.3 Teacher Certification system

Teaching certificates are issued by DEPT. After completion of teacher training courses (DTEd, DTEC) at each EC, the trainees are finally evaluated by Education College Board chaired by DG DEPT, under Teacher Education Section. Based on results from the Final examination (60%) and other assignments (40%) such as Bloc teaching, Attendance and Practical, DG DEPT prepares a list of trainees who are to be certified, and submits this to the MOE for approval. After approval, DG DEPT issues the teaching certificates to them. In a few cases, trainees drop out from EC due to reasons including sickness, economical constraints and violation of college law. But in general, almost 100% trainees successfully complete teacher training courses and receive teaching certificates.

3.1.4 Teacher Appointment system

After receiving a new teacher list from DEPT, each DBE establishes the Educational Committee chaired by the Director General to appropriately deploy newly certified teachers from ECs and IOEs. New teachers are considered by two main criteria, namely specialized subjects and native hometown (language and cultural background) and are deployed to each TEO through REO/SEO by May along with an official appointment letter. They begin teaching at the beginning of the academic year (1st June). DEO officials say that there is no big gap between teacher needs at school level and supply from DEPT.

3.1.5 In-service Teacher Training (INSET)

In the Myanmar context, INSET is an opportunity for teachers in service to upgrade themselves in any of the job related areas of study, so that they can perform better in the various situations. From 1971 to 1998, initial teacher training was conducted in either TTC or TTS after teachers received their teaching jobs; this is why these courses are considered as INSET, even though program contents were prepared as PRESET. Since this system was discontinued in 1998, INSET is now the only program offered by EC and IOE for teachers in service.

As a follow up to JICA's Strengthening Child Centered Approach Project (SCCA project: 2008-2011), "CCA extension Plan" is being implemented by DEPT using the MOE budget. According to the plan, by 2015 teachers in all the townships in the country will have CCA training, although some modifications were made based on the actual budget. The teachers are expected to be equipped with new teaching techniques to improve lessons, so that students' learning is also expected to improve.

"Basic Education and Gender Equity (BEGE)" is another INSET program for teachers by the MOE in cooperation with UNICEF from 2011 to 2015, under which several activities are to be implemented to improve basic education. "Life Skills Training" is one of the components of BEGE, and teachers are trained, within limited project areas, with new knowledge and skills about health/sanitation and nutrition education for school level improvement. In other components, "Early

[3] MOE (2011) Statistical Year Book 2011

Childhood Development" and "HIV/AIDS prevention" are among the subjects taught to teachers. Some teaching materials (e.g. posters) are also provided to the training participants. At a school in Mandalay where the Study Team visited during the survey, the posters about infectious diseases and nutritional information were hung on the wall in the classrooms.

A part of the above mentioned training sessions, the MOE conducted some refresher courses for primary and secondary teachers. In total, 209,908 teachers were trained from 2006-07 to 2008-09. In addition, refresher courses for English language and Mathematic were conducted and 13,062 teachers were trained in the 2009-10 academic year.

3.1.6 Continuous Professional Development (CPD)

The concept of Continuing Professional Development (CPD) has become popular in developed countries and is recognized as an effective way of professional development for teachers. In order to make an impact on teachers' professional behavior, there must be 1) long-term teacher education policy, 2) head teachers' leadership, 3) teachers' commitment to their own learning. For this reason, it is still too early to achieve successful implementation of CPD in developing countries. It is also suggested that the education sector in Myanmar shift their current mode of teacher education and training from an ad hoc basis to the other mode of CPD. In a broad sense, M.Ed and M.Phil and PhD offered by IOE should constitute some of examples of CPD.

But the basic principle of CPD is that opportunities are provided not far from school, continuously, and are designed to address teachers' learning needs. JICA's SCCA2 project considered cluster meeting as an effective learning opportunity for teachers in service and implemented some basic programs for disseminating the concept of CCA. Another opportunity for teachers in school is school meetings, which has been held since long time ago, but unfortunately this meeting is normally used as a means of delivering information from the MOE or DBE to teachers. Since these meetings are already in the system, if teachers' professional development aspect, for example "Lesson Study" approach, is incorporated into these meetings, these will better utilized as effective CPD. As of November 2012, UNICEF is planning to initiate a new program of "School based In-service Teacher Education". This is also expected to bring about some teachers' professional development in future.

3.2 Critical issues

Access:

1. There are two states without ECs, namely Chin State and Kayah State. Students from these two states find it difficult to attend an EC after matriculation.
2. Male students are not attracted to attend the teacher education program.
3. INSET is organized on an ad-hoc basis and has not been institutionalized.
4. School-based and Cluster-based training opportunities are not regularized in the current system.
5. Myanmar language as medium of instruction might exclude the scope of participation of ethnic minorities in teacher education. It is only in UDNR that these minorities get the chance to become certified teachers.

3.3 Recommendations

3.3.1 For solving or improving the situation

1. New ECs are necessary in Chin, Kayah and Shan States to equalize opportunity for individuals across the nation to access teacher training courses.
2. Some counter actions should be taken to attract male students to take teacher training courses.
3. Some different levels of training should be prepared as INSET according to the levels of the teachers, including specialized program mandatory for beginning teachers, experienced teachers, expert teachers, and even for head teachers.
4. CPD, such as School-based and Cluster-based training, must be regularized by administrative support, and TEO/ATEO should make sure to hold these on-site trainings.
5. A more flexible system for ethnic people should be taken into consideration particularly incorporating the use of their native languages, not only at UDNR but also at other institutions in border areas. Some universities in border areas should be utilized as schooling sites.

3.3.2 For Phase 2

1. More detailed information should be collected about the needs of teachers from deprived areas.
2. The teacher education policy framework should be discussed and documented.
3. Professional standards for all education-related personnel should be discussed and documented, with the involvement of more stakeholders.
4. Training needs of TEO/ATEO/ Head teachers should be discussed and incorporated into capacity development framework of educational personnel to implement CPD programs in townships, school clusters and schools.
5. Teachers' capacity assessment based on lesson observation and interviews should be conducted and their training needs should be identified.

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添付資料 3-4：National Curriculum Review in Myanmar, Technical input for CESR working Group

National Curriculum Review in Myanmar
Technical input for CESR Working Group

2013/1/31
PADECO Co., Ltd
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1. National Curriculum 1
1.1 Brief History of Curriculum Revision in Myanmar 1
1.2 Needs around the Curriculum Reform 1
1.2.1 New National Constitution 1
1.2.2 School System Review 2
1.2.3 Introduction of New Teaching and Learning Method 2
1.3 Situation Analysis on Intended Curriculum 2
1.3.1 National Curriculum Framework 2
1.3.2 Situation of Textbook and Teachers' Guide 3
1.3.3 Curriculum Design 5
1.4 Situation Analysis on Implemented Curriculum 12
1.4.1 Annual Teaching Plan and Timetable 12
1.4.2 Textbook 12
1.4.3 Quality of Lesson 14
1.4.4 Assessment System in School 16
1.5 Situation Analysis on Attained Curriculum 17
1.5.1 Internal Efficiency 17
1.5.2 Standardized Test and Matriculation 18
1.6 Issues and Challenges 20
1.6.1 Curriculum Framework not Clearly Defined 20
1.6.2 Curriculum Review Mechanism not Regularized 20
1.6.3 Outdated Leaning Contents in Textbook 21
1.6.4 Assessment Standard Reform 21
1.6.5 Less Emphasis on Co-Curricular Subjects 22
1.6.6 Teaching in English at High Schools 23
1.6.7 In-depth Study for G1 Curriculum 23
1.6.8 PTR and CCA 23

1. National Curriculum

1.1 Brief History of Curriculum Revision in Myanmar

The modern school curriculum here in Myanmar was introduced nationwide in 1952. The brief history of the national curriculum revision process is described in the table below. The national curriculum has been irregularly revised according to the policies and needs in each time period.

Table 1-1: History of the Curriculum Revision in Myanmar

Year	Summary and points of the reform
1952	Release of "Creating New Life" (CNL) plan. Development of CNL curriculum and syllabus.
1962	Design of basic education syllabi to promote vocational education
1966	Revision of syllabi to foster decent citizens based on the Basic Education law. The syllabi put more emphasis on vocational education and introduced science and art subjects.
1975-77	Minor revisions made on curriculum and syllabus. General science subject introduced as "fused subject."
1998-99	Primary school curriculum revised to accomplish Education Promotion Programme. General study (natural science, moral and civics, and life skills) for lower primary level, social studies (geography, history, moral and civics, life skills) and basic science for upper primary level, and aesthetic education for all primary levels introduced. Teaching hours for physical education and school activity revised.
1999-2000	Second revision of secondary school curriculum (lower and upper secondary) to accomplish Education Promotion Programme. School curriculum in ASEAN countries reviewed to adapt to foreign standards. Co-curricular subjects such as physical education, aesthetic education and life skills included in the secondary school curriculum.
2006-2007	Curriculum study of ASEAN counties conducted to review upper secondary school curriculum. Some missing contents identified by the study are added to upper secondary textbooks through reference to the English GCE-O level curriculum.
2012-2013	Agriculture subject for primary school was introduced.

Source: Created by the JICA Study Team according to the series of interview with curriculum officers in DEPT (2012) and "30 year long term plan for the MoE (Basic education sector) 2001-2002FY to 2030-2031FY (2001)"

1.2 Needs around the Curriculum Reform

1.2.1 New National Constitution

The new national constitution was issued in 2008. Myanmar's overall human resource development goal as prescribed in the constitution was revised, as shown in the table below.

Table 1-2: Human Resource Defined in the Constitution

Old constitution	New constitution
Article 10 The state shall cultivate and promote the all round physical, intellectual and moral development of youth.	Article 28 (d) The Union shall implement modern education systems that will promote <u>all around correct thinking</u> and a good moral character contributing towards the building of the Nation.

The new constitution put more emphasis on specific competency "all around correct thinking" to build a better nation. The national curriculum is one of the most important polices used to accomplish the national goal.

As it has been four years since then, we can easily understand that the curriculum reform together with the education system review is the key to boosting the improvement of education quality here in Myanmar.

1.2.2 School System Review

The current school system is now being reviewed and options replacing the current 5+4+2 system into 6+3+3 or 5+4+3 are presently being considered to transform Myanmar's education to the international standard.

According to recent discussion with government officials, decisions regarding the reformation of the school system reformation will likely be made soon. It is obvious that the curriculum must be revised based on the new school system.

1.2.3 Introduction of New Teaching and Learning Method

The Child Centered Approach (CCA) is being introduced throughout the country as a national policy. It was firstly introduced in cooperation with JICA in 2004-2005 to promote the development of children's creativity, analytical skills, critical thinking, and problem-solving skills, and is recognized as contributing to the improvement of education quality. However the current curriculum does not consider the CCA method since most of the curriculum was developed before CCA was introduced. Teachers and students continue to anticipate the development of appropriate contents suitable for CCA.

1.3 Situation Analysis on Intended Curriculum

1.3.1 National Curriculum Framework

The national curriculum framework is defined under the Basic Education Law. The current Basic Education Law was issued in 1973 and is under modification, reflected by the revision of the Constitution in 2008. Although discussion of curriculum reform has been making process, the current curriculum will be examined here in order to identify issues for the appropriate transition to a new curriculum.

(1) Definition of National Curriculum and its Maintenance

Curriculum, syllabus, and textbook are defined in Article 1 of Basic Education Law as follows.

Article 1:

(c) "Curriculum" shall mean subjects taught at school and practical education development activities constituting training inside and outside school for the purpose of realizing the educational objectives prescribed by this Law.

(d) "Syllabus" shall mean detailed programme of instruction for each school subject or for each practical educational development activity.

(i) "Text-book" shall mean a book published or prescribed by the Basic Education Curriculum, Syllabus and Text-book committee formed under this Law for use at school and teachers' training schools.

Despite the clear definition of the National curriculum framework in Basic Education Law, specific "Curriculum" and "Syllabus" are not properly maintained as comprehensive documents in Myanmar, though textbooks are published and distributed to schools. Curriculum-related information actually exists, but it is fragmented in various documents. For example, the official teaching hours of each subject are described in the training booklet named "School Management Refresher Training for Basic Education." Also, the "Monthly Curriculum" (MC) developed by the Regional Education Office (REO) and authorized by DBE is the well-known school syllabus despite being called "curriculum." In addition to that, modifications relating to school curriculum are made during an annual conference in April- the "Seminar on National Education Promotion"- without updating the current curriculum documents. DBE merely notifies schools about decisions and modifications through REO, District Education office (DEO) and Township Education Office (TEO). For instance, an agriculture subject was newly introduced for primary schools, but the MC and other related curriculum booklets have not yet been revised.

This kind of fragmentation makes curriculum reform discussion difficult and complicates the analysis done by curriculum experts. Then it decelerates curriculum reform process.

In other words, well-maintained comprehensive curriculum documents will enable all educators including non-formal education sector and civil society to achieve National human resource development goals as a whole. Documents with clear guidance also encourage the private sector to develop teaching aids and other educational materials that strengthen Myanmar education quality.

(2) Curriculum Review System

Curriculum review system should be considered as a part of curriculum framework in order to update national curriculum regularly. National achievement study using standardized tests is widely conducted in various countries for the curriculum review. Examples of National achievement studies in different countries are shown in Table 1-3.

Table 1-3: National Achievement Study for Curriculum Review

Country	Frequency	Target level for Achievement study
Japan	Every 10 years	G1-9
Australia	Every year	G3, 5, 7
Philippines	Every year	G6
Lao PDR	Every 2 years	G1-3 & 6
Malaysia	Every year	G6, 9, 11
Thailand	Every 2 years (proposed)	Primary & Secondary
Vietnam	Every year	Primary & Secondary

Source: An International Comparative Study of School Curriculum, 1999,
National Institute for Educational Policy Research, Japan

Currently Myanmar does not have this kind of curriculum review system. Though matriculation is the achievement test provided throughout the country, the result only judges whether students pass or fail. It does not review the strengths and weaknesses of the curriculum.

1.3.2 Situation of Textbook and Teachers' Guide

Table 3-25 shows the years of revision for textbooks and teacher's manuals of each subject. In Myanmar, a major curriculum revision for primary and lower secondary levels was conducted between 1998 and 2001, and the curriculum for upper secondary level was reformed from 2006. Generally, the textbooks and teachers' manuals currently used in Myanmar were developed based on these reforms, except Life Skill. In AY2012-13, an agriculture subject was newly introduced.

Table 1-4: Year of Revision for Textbook and Teacher's Manual

Lower Primary

Subject	Textbook	Teachers Manual
Myanmar	1999	1999
English	1999	1999
Mathematics	1999	1999
General Study		
(a) Natural Science	1999	1999
(b) Moral & Civics	1999	1999
(c) Life Skill	2005	2005
Aesthetic education	n/a	2000
Physical education	n/a	1999
Agriculture	2012	n/a

Upper Primary

Subject	Textbook	Teachers Manual
Myanmar	1999	1999
English	1999	1999
Mathematics	1999	1999
Social Study		
(a) Geography + History	1996*	1996*
(b) Moral & Civics	n/a	n/a
(c) Life Skill	2005	2005
Basic science	1999	1999
Aesthetic education	n/a	2000
Physical education	n/a	1999
Agriculture	2012	n/a

Lower Secondary

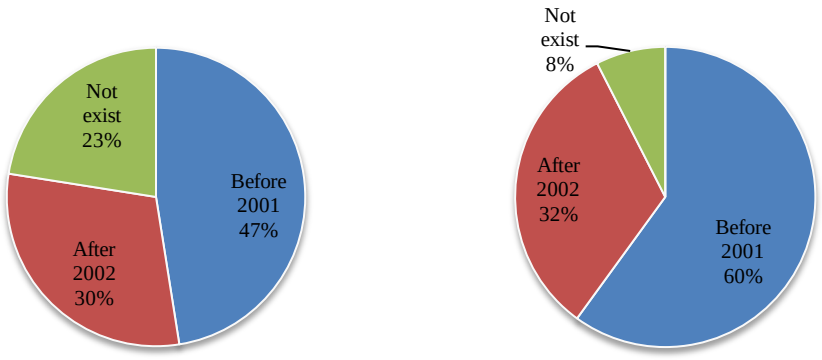
Subject	Textbook	Teachers Manual
Myanmar	2000	2000
English	2000	2000
Mathematics	2000	2000
Geography	2001	2001
History	2000*	2002
General science	2000	2000
Life skill	2009	2009*
Moral and Civics	2000*	2000
Vocational	*	*
Physical education	n/a	2000
Aesthetic education	n/a	2000

Upper Secondary

Subject	Textbook	Teachers Manual
Myanmar	2007	2007
English	2007	2007
Mathematics	2007	2007
Chemistry	2007	2007
Physics	2007	2007
Biology	2007	2007
Economics	2007	2007
Geography**	2001	2007
History**	2001	2007
Life skill	n/a	2000
Moral and Civics	n/a	2000
Vocational	n/a	n/a
Physical education	n/a	2000
Aesthetic education	n/a	2000

Source: Created by the JICA Study Team
*Revised in 2000 for only G8
** Geography and History are indicated as revised in 2001, although new textbooks were developed in 2001 as only the appearance was modified.

Figure 1-1 shows the simplified analysis of the above table. As shown in the figure, only 30 percent of textbooks and teacher's manuals were modified in recent 10 years. In addition, according to the curriculum officer in DEPT, the past revision made only minor modifications even though the official curriculum reform was completed except for English in 1999-2000 (The English textbook was totally revised at the revision).



Textbook　　**Teachers' Manual**

Figure 1-1: Percentage of the Revision Year of Textbook and Teacher's Manual

1.3.3 Curriculum Design

(1) Subject Organization Overview

Figure 3-14 shows the subject organization from primary to upper secondary level in Myanmar. As an agriculture subject was newly introduced in AY 2012-13, the structure was slightly changed from the previous year. As defined in Basic Education law, the national curriculum of Myanmar consists of separate subjects based on academic declines. This kind of curriculum design is called "separate-subject curriculum." Generally, Myanmar defines two main subject groups - core subjects and co-curricular subjects.

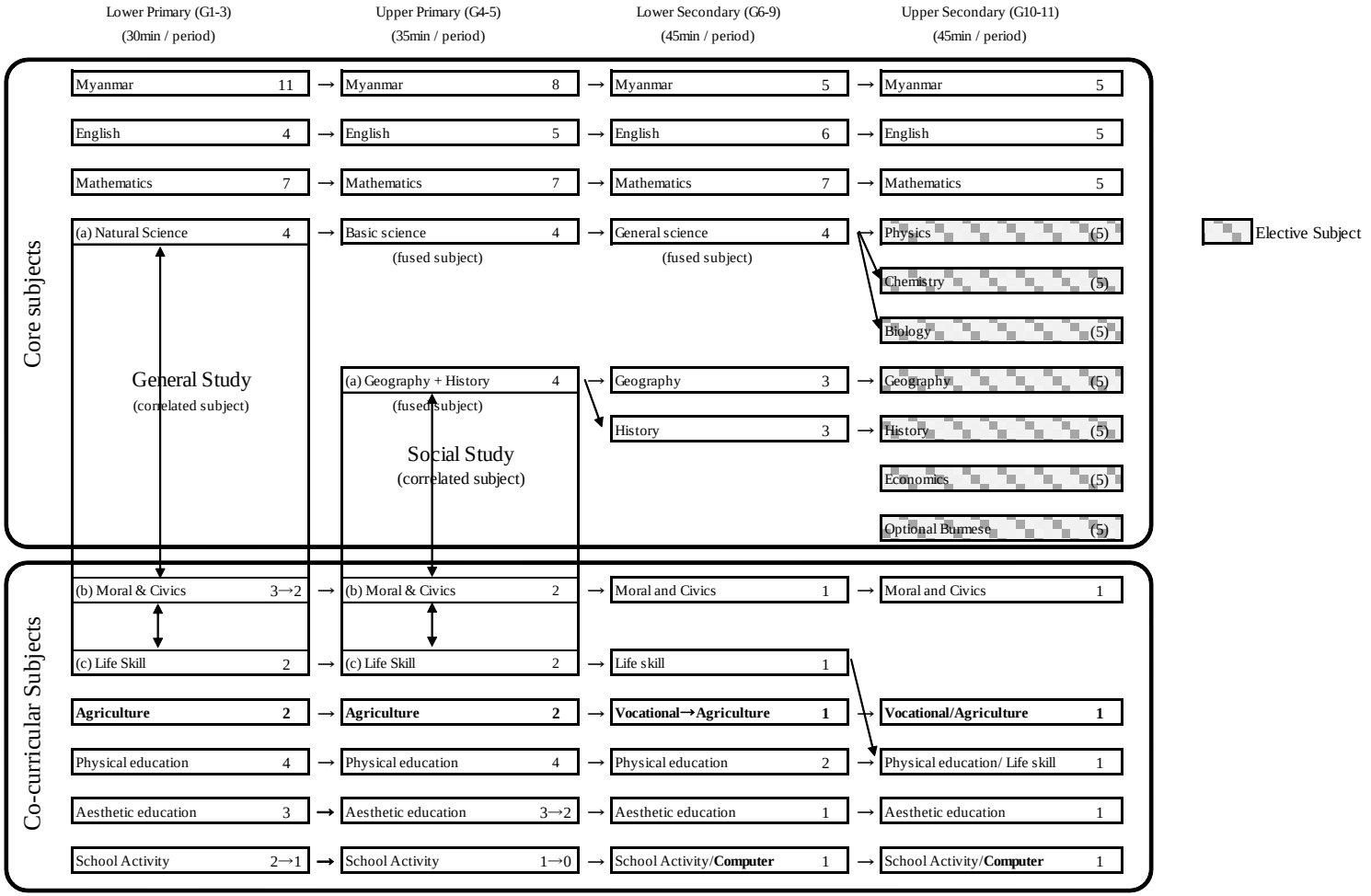
Core subjects in Myanmar consist of national language, English, mathematics, science and social studies. Co-curricular subjects such as arts and physical education are set out around core subjects. Science is handled as a combined subject in primary and lower secondary level, and is divided into physics, chemistry, and biology at upper secondary level. Social study is combined in primary, too and is divided into geography and history at lower secondary level, while economics is added at the upper secondary level. These core subjects are the scope of the matriculation examination for graduating from upper secondary schools. It is quite an orthodox curriculum structure, similar to the Japanese curriculum.

One unique characteristic of the Myanmar curriculum is found in the formation of correlated subjects which stimulate interests of children by strengthening correlation between subjects. General study at the lower primary level involves study of the three subjects (natural science, moral and civics, and Life Skills) while social study at the upper primary level consists of geography + history, moral and civics, and Life Skills.

Upper secondary level students can select three subjects from among several courses, such as optional Burmese, geography, history, economics, chemistry, physics, and biology. The combinations of subjects offered are as shown below.

- ✓ Economics, Physics, Chemistry
- ✓ Biology, History, Chemistry
- ✓ Geography, History, optional Burmese
- ✓ History, Economics, optional Burmese
- ✓ History, Physics, Chemistry
- ✓ Physics, Chemistry, optional Burmese
- ✓ Physics, Chemistry, Biology
- ✓ Geography, Physics, Chemistry

At the upper secondary level, physics, chemistry, biology, and mathematics have been taught in English since 1986, and textbooks and examinations are only in English.



Source: Created by the JICA Study Team
Note: Arrows in “General Study” and “Social Study” indicate correlation between subjects

Figure 1-2: Subject Organization - (Number of Each Subject Indicates Periods/Week, Periods revised in this year are shown as “periods before -> periods after”)

(2) Curriculum Design Approach

Table 1-5 shows the trend of curriculum design approach among 18 countries including the ASEAN countries, USA and Germany. The study was conducted in 1999 by National Institute for Educational Policy Research in Japan.

Table 1-5: Curriculum Design Approach in Various Countries

Country	Curriculum Design Approach
Australia	OBA (Outcome-based Approach)
China	CBA (Content-based Approach)
Fiji	CBA
France	CBA-> Combination
Germany	Combination
India	CBA -> OBA
Indonesia	CBA
Japan	CBA
Lao PDR	Combination
Malaysia	Combination
New Zealand	OBA
Philippines	Combination
Republic of Korea	Combination
Sri Lanka	CBA -> OBA
Thailand	OBA
United States (New York state)	Combination
Uzbekistan	OBA -> Combination
Vietnam	CBA -> Combination

Source: An International Comparative Study of School Curriculum, 1999, National Institute for Educational Policy Research, Japan

Recently, informatization of society has placed more emphasis on the capacity to utilize information rather than just knowing the information. In this context, an Outcomes-Based Approach (OBA) has been widely introduced worldwide. OBA designs a curriculum based on “what kinds of competency children need to obtain.” On the contrary, the traditional curriculum design approach is called Content-Based Approach (CBA), which considers “what needs to be learned by children.” As described in the previous section, Myanmar currently follows CBA based on the orthodox separate-subject curriculum organization.

It is often argued whether which approach is better than the other between CBA and OBA. Both CBA and OBA have strengths and weaknesses. Thus the discussion to change the curriculum design approach should be conducted carefully. A dramatic curriculum change can easily cause problems if teachers cannot effectively follow such a change. For example, the South African case is widely known as a failure case caused by the drastic change[4].

On the other hand, Japan has consistently performed well in terms of education quality, even though it still follows CBA. Japan always scores one of the highest results in international achievement test such as PISA[5] or TIMSS[6]. Table 1-6 shows the result of latest TIMSS (2011) for countries listed in above table. The number in the table indicates the ranking among participating countries.

Table 1-6: Result of TIMSS 2011

Mathematics				Science			
G4 (50 countries)		G8 (42 countries)		G4 (50 countries)		G8 (42 countries)	
2	Korea	1	Korea	1	Korea	3	Korea
5	Japan	5	Japan	4	Japan	4	Japan
11	USA	9	USA	7	USA	10	USA
16	Germany	12	Australia	17	Germany	12	Australia
19	Australia	16	New Zealand	24	Australia	15	New Zealand
31	New Zealand	26	Malaysia	31	New Zealand	27	Thailand
38	Thailand	28	Thailand	35	Thailand	32	Malaysia
		38	Indonesia			40	Indonesia

Source: Created by the JICA Study Team based on data retrieved from http://timss.bc.edu

(3) Teaching Hours

Table 1-7 shows teaching hours per week among ASEAN counties (except for Brunei) and Japan in different grades.

[4] "OBE (Outcome-Based Education) was introduced to South Africa in the late 1990s by the post-apartheid government as part of its Curriculum 2005 programme, but it was widely viewed as a failure, and was eventually scrapped in 2010.http://en.wikipedia.org/wiki/Outcome-based_education#South_Africa

[5] Program for International Student Assessment (http://www.oecd.org/pisa/)

[6] Trends in International Mathematics and Science Study) (http://timss.bc.edu/)

Table 1-7: Teaching Hours Per Week among ASEAN Countries and Japan

	Subjects	Average	Myanmar	Cambodia	Indonesia	Lao PDR	Malaysia	Singapore	Philippines	Thailand	Vietnam	Japan
G3	Core Subjects	937	930	920	980*	455	990	1230	1500	960	700	746
	Co-curricular	362	270	280		525	390	240	300	540	245	469
	Total	1267	1200	1200	980	980	1380	1470	1800	1500	945	1215
G5	Core Subjects	910	1120	920	595	560	840	1170	1500	900	735	759
	Co-curricular	425	280	280	525	600	480	300	400	600	280	501
	Total	1335	1400	1200	1120	1160	1320	1470	1900	1500	1015	1260
G9	Core Subjects	1092	1260	1400	800	1170	1080	1160	1440	960	700	950
	Co-curricular	475	315	350	480	450	480	440	540	840	350	500
	Total	1567	1575	1750	1280	1620	1560	1600	1980	1800	1050	1450
G11	Core Subjects	1080	1350	1500	1215	1215	n/a**	800	n/a**	640	840	n/a**
	Co-curricular	564	225	100	540	405		800		1160	720	
	Total	1644	1575	1600	1755	1620		1600		1800	1560	

Source: Created by the JICA Study Team based on the information described in "World Data on Education Seventh Edition 2010/11[7]", UNESCO

* Indonesia government defines total teaching hours only in lower primary level. Each School decides core subject/co-curricular subject distribution.

** Malaysia, Philippines and Japan use credit system in upper secondary level so that school curriculum varies in each school.

As the definition of core subjects and co-curricular subjects differs by county, teaching hours are calculated according to the definition in Myanmar (Core subjects: national language, foreign language, mathematics, natural science and social science. Co-curricular subjects: Others).

The figures in the table are presented in the following graph for further analysis. Figure 1-3 shows the total teaching hours per week among ASEAN countries and Japan. Total teaching hours in Myanmar almost overlap with the average total teaching hours of all represented countries. Thus no problems have been found here regarding total teaching hours.

[7] http://www.ibe.unesco.org/en/services/online-materials/world-data-on-education/seventh-edition-2010-11.html

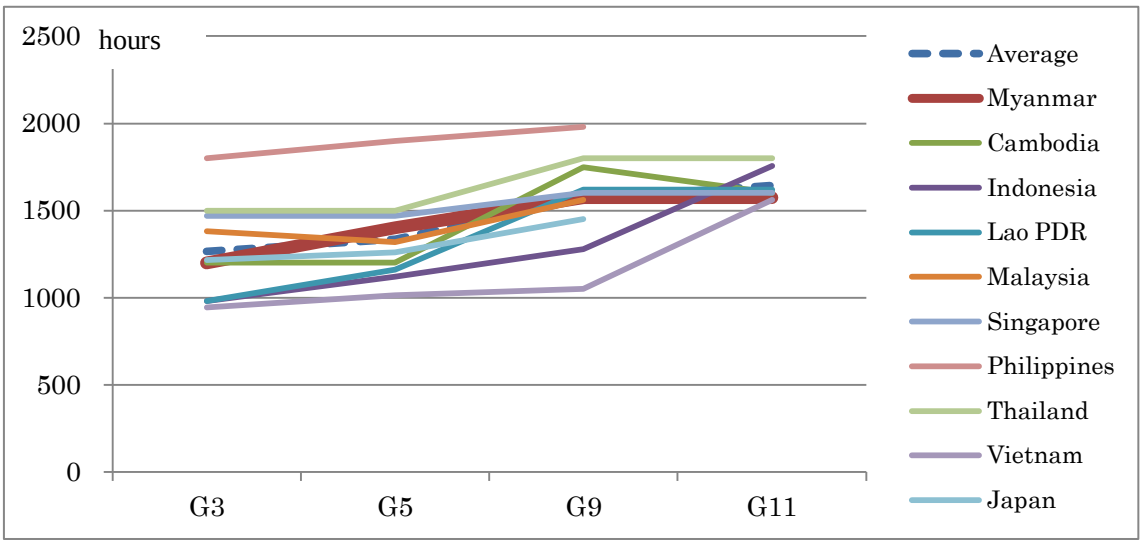


Figure 1-3: Teaching Hours Per Week among ASEAN Counties and Japan (Total)

The following figures also support the relevance of total teaching hours in Myanmar. Table 1-8 shows the comparison of annual teaching hours between Myanmar and Japan. In Myanmar, the length of each class is defined as 30 minutes at lower primary level, 35 minutes at upper primary level, and 45 minutes for lower and upper secondary levels. One academic year has 36 weeks. Based on this information, annual teaching hours are calculated as shown in the table. Table 1-8 also shows the annual teaching hours in Japan for comparison. It indicates that annual teaching hours in Myanmar are more than in Japan at all levels.

Table 1-8: Comparison of Annual Teaching Hours Myanmar and Japan

Lower Primary		**Upper Primary**	
Total (Periods/week)	40	Total (Periods/week)	40
Total (Periods/year)	1,140	Total (Periods/year)	1,440
Total (hours/year)	720	Total (hours/year)	840
Japan G3 Total (hours/year)	709	Japan G5 Total (hours/year)	735
Lower Secondary		**Upper Secondary**	
Total (Periods/week)	35	Total (Periods/week)	35
Total (Periods/year)	1,260	Total (Periods/year)	1,260
Total (hours/year)	945	Total (hours/year)	945
Japan G9 Total (hours/year)	846	Japan G11 Total (hours/year)	875

As a result, the total teaching hours of Myanmar are also greater than in Japan as shown in Table 1-9, although schooling years in Myanmar is 11 years which is shorter than Japan's 12 years.

Table 1-9: Comparison of Total Teaching Hours at Each Education Level

Education Level	Myanmar	Japan
Primary Total	3,960	4,234
Lower Secondary Total	3,780	2,538
Upper Secondary Total	1,890	2,625
Ground Total	**9,630**	**9,396**

Figure 1-4 clearly indicates that teaching hours for core subjects here in Myanmar are higher than other countries. Although it is at the country average at grade 3, Myanmar spends considerably more time on teaching core subjects at higher grade levels.

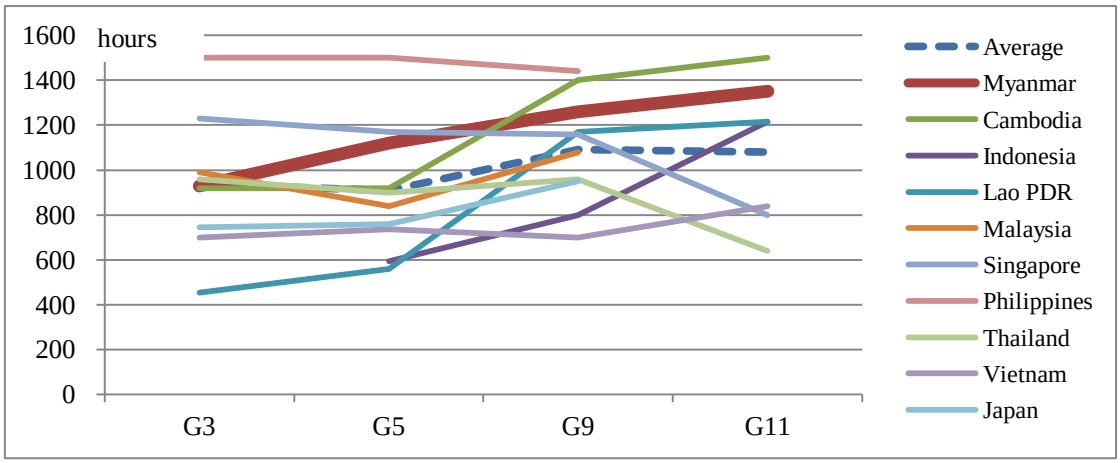


Figure 1-4: Weekly Teaching Hours among ASEAN Counties and Japan (Core Subjects)

On the other hand, Myanmar spends less time on co-curricular subjects, as shown in Figure 1-5. This is actually the least level among those countries.

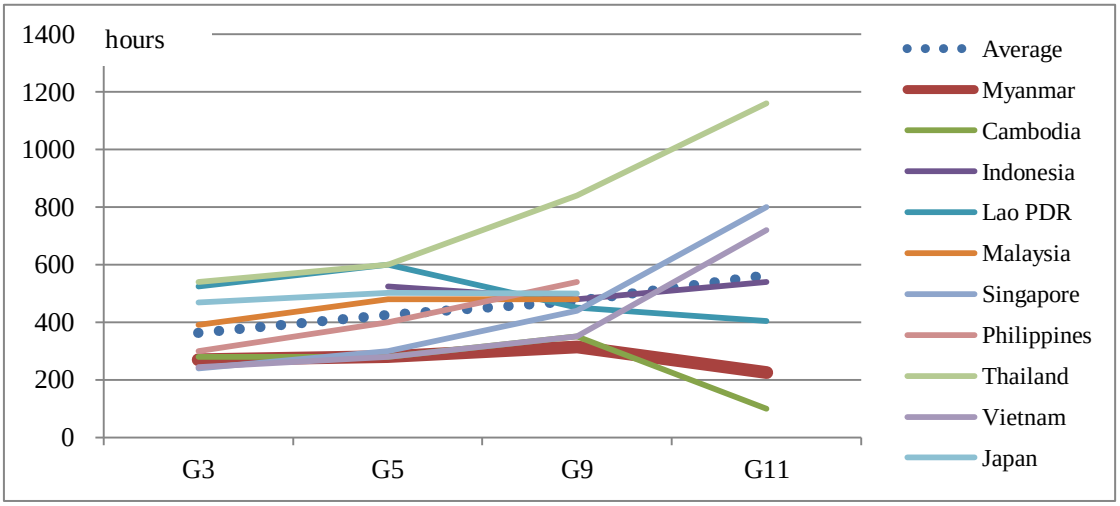


Figure 1-5: Weekly Teaching Hours among ASEAN Counties and Japan (Co-Curricular Subjects)

1.4 Situation Analysis on Implemented Curriculum

1.4.1 Annual Teaching Plan and Timetable

As mentioned in the previous section, school curriculum called Monthly Curriculum (MC) is developed and distributed by REO. Schools develop their own school curriculum and weekly timetable according to the MC and school condition. This system seems to work well, and schools implement the own curriculum.

1.4.2 Textbook

(1) Deployment of Textbooks

The Government of Myanmar decided on a policy to deploy all textbook for free of charge in all primary schools from AY2011/2012. The policy was successfully implemented and schools received textbooks as planned. Teachers commented that thanks to the new textbook, student motivation has improved compared to the previous year. Therefore almost all school teachers in primary school supported this free textbook policy and teachers in middle and high school strongly hope that the policy will be expanded to the upper level, according to a series of interviews with school teachers made by the JICA Study Team in co-operation with CESR working group in November, although the interviewees were limited in number (The result of the quick survey is shown in the box below).

For Primary Teachers:

"Is free text Book policy good?" **Yes: 9, No: 0**

For Middle and High School Teachers:

"Should free text books policy be introduced for Middle and High School?" **Yes: 31, No: 2**

Source: Joint school observation JICA Study Team and CESR working group, November 2012

Some teachers pointed out during the interview that textbooks contain inappropriate information for example; Myanmar coin is printed in mathematics textbook though it is not used recently.

(2) Quality of Learning Contents

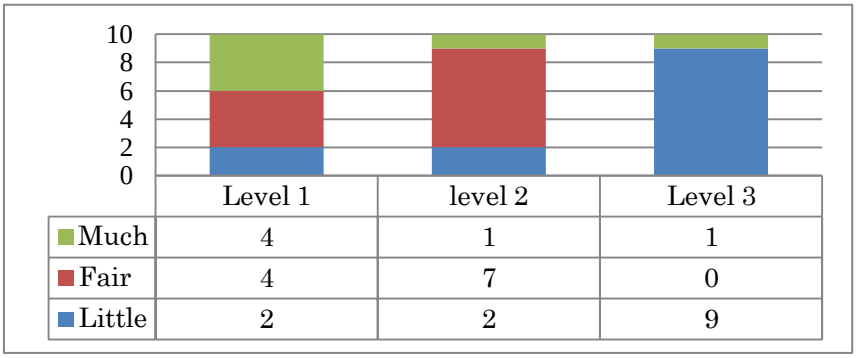
A curriculum analysis workshop was held on 8th November supported by JICA in order for curriculum officers in DEPT to strengthen the capacity for curriculum reform. In the workshop, textbook analysis activities were organized for their practice. The following special assessment standard was prepared for the analysis based on the Bloom's taxonomy for cognitive domain that describes the level of thinking skills.

Level 1: Lower Level Thinking Skills that require thinking skills such as Recollection, Recognization, Description, Definition, Calculation/Computation, Retrieving, Measurement and Comprehension.

Level 2: Middle Level Thinking Skills that require thinking skills such as Comparison, Classification, Relating, Interpretation (Explain), Selection, Representation, Modeling, Drawing and Solving routine problems.

Level 3: Higher Level Thinking Skills that require thinking skills such as Analysis, Examination, Integration/Synthesis, Prediction/Hypothesis, Design, Drawing Conclusions, Generalizion/Specialization, Justification and Solving Non-routine Problems.

According to the above standard, curriculum officers of 10 subjects group analyzed a G5 textbook to determine how much information of each thinking level was contained in it. The result is shown in Figure 1-6. As it was just a practice exercise conducted over a limited period of time, the result was not seriously examined and may include some error. But it could still be useful for providing an indication of overall textbook characteristics in Myanmar



	Level 1	level 2	Level 3
Much	4	1	1
Fair	4	7	0
Little	2	2	9

Source: Analyzed by curriculum officers in DEPT (Nov. 2012)

Figure 1-6: Result of Textbook (G5) Analysis

The analysis indicates that textbooks contain much level 1 information that uses lower level thinking skills. Only one subject (Life Skills) is judged as containing a considerable amount of level 3 information relative to the other 9 subjects.

Textbooks are the most important teaching and learning material used to improve the ability of students. Hence, the characteristics imply that students here in Myanmar have less opportunity to improve their higher level thinking skills.

1.4.3 Quality of Lesson

First, the quality of lesson is assessed using the Pupil Teacher Ratio (PTR) in general. The national (average) PTR is 1:25 for primary in AY2010-11[8]. This figure has already surpassed the target of EFA (1:30). In the meantime, PTR in middle school is 1:35 against the EFA target 1:27. Thus the quality of lessons in primary school is ensured qualified at a certain level, but further improvement is still needed at the middle school level. In addition, the actual classroom situation is quite different from school to school. It was confirmed by the Study Team and CESR working group through school observation in November that a considerable number of schools have a large number of students in one class i.e. more than 50 students/class. That fact must be taken into consideration. The example PTR confirmed by observations is shown in the table below.

[8] "Education for all: Access to and Quality of Education in Myanmar (Conference on Development Policy Options with Special Reference to Education and Health in Myanmar)", pp. 26, 13-16 Feb 2012, MOE

Table 1-10: PTR in Surveyed School

Level	High School A			High School B			Middle School A		
	Teacher	Students	Ratio	Teacher	Students	Ratio	Teacher	Students	Ratio
Primary	8	631	1;79	11	529	1:51	12	676	1:56
Middle	50	1764	1:35	35	1262	1:36	20	435	1:22
High	45	1136	1:30	23	562	1:22	n/a	n/a	n/a
Total	103	3731	1:36	69	2353	1:34	37	1111	1:35

Source: Joint school observation JICA Study Team and CESR working group, November 2012

Even though CCA has been introduced, the large number of students prevents teachers from being able to properly conduct CCA. Hence this kind of disparity must be taken into consideration to improve education quality. In Japan's case, the government legally set the maximum number of students per class which to 40 students. For example, if a school has 41 students in a certain grade, the school is expected to organize two classes and deploy two teachers.

Teaching in English is also a considerable issue in Myanmar. The Study Team confirmed through lesson observation that lessons conducted in English seemed strongly textbook or curriculum centered rather than CCA because of the language barrier both for teachers and students. The class was like an English class, and students had to work hard to understand the contents of the class in English. This seemed to spoil creative skill development.

Teachers in high schools also indicated their doubts about this policy. According to the joint school observation of JICA Study Team and CESR working group, only 6 teachers among 25 teachers agreed with the current policy regarding teaching in English as shown in the box below.

Q: In high school level, subjects like mathematics and science should be taught in English.

(a) Agree **6**
(b) Disagree**0**
(c) Only terminology should be taught in English **14**
(d) Teaching in English should be introduced at middle school level. **5**

Source: Joint school observation JICA Study Team and CESR working group, November 2012

1.4.4 Assessment System in School

The current student assessment system was introduced in 1998. The MoE distributes an official format sheet called the Monthly Report Card (MRC) for monthly assessment. MRC consists of score of Chapter End Test (CET) and assessment of school activities (Only CET is applied for G1 to 3) as shown in Table 3-32. School activities are reported by two grades, A or B. Teachers are mandated to record MRC and send it to parents every month.

Table 1-11: Structure of MRC

<table>
<tr><th rowspan="2"></th><th colspan="2">MRC</th></tr>
<tr><th>CET</th><th>School activities</th></tr>
<tr><td>G1-3</td><td rowspan="3">Average score of CET (7 times)</td><td>n/a</td></tr>
<tr><td>G3-5</td><td rowspan="3">Assessment of specific school activities (A or B)</td></tr>
<tr><td>G6-8</td></tr>
<tr><td>G9-11</td><td>Average score of CET (4 times in first term and once in second term)</td></tr>
</table>

Source: Created by the Study Team based on the information in “School Management Refresher Training for Basic Education (MOE)”

CET is organized for core subjects and Life Skills and is developed by the school teachers. CET consists of a paper-pencil test and an oral test for lower primary, whereas only paper-pencil tests are used from upper primary. The duration of CET is equivalent to the duration of one class, that is:

- Lower Primary 30 min
- Upper Primary 35 min
- Lower Secondary 45 min
- Upper Secondary 45 min

The duration of year-end tests for G9 to 11 is defined as follows;

- G9 1.5 hrs. (2subjects/day)
- G10 2 hrs. (2subjects/day)
- G11 3 hrs. (2subjects/day)

Comprehensive Personal Record (CPR) is another official format for student assessment. Every academic year end, teachers are also mandated to record each student’s CET score, behavior and discipline to handover this information to the next teacher.

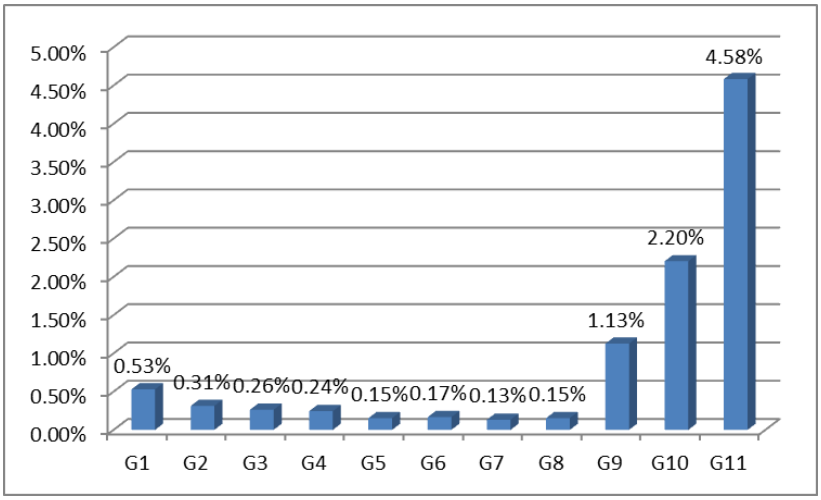
According to a series of interviews with school teacher conducted by the Study Team in November, teachers well understand this assessment system and it seemed to have been implemented according to MOE’s expectations. Monthly assessment seems to support teachers in

controlling the progress of school curriculum as scheduled. On the other hand, some teachers emphasized that the frequent assessment, CET in particular, push teachers to just cover the textbook contents rather than to teach contents carefully. In addition, some teachers pointed out that the actual teaching time has decreased due to the preparation and review of CET, and that teachers cannot provide quality lessons as a result.

1.5 Situation Analysis on Attained Curriculum

1.5.1 Internal Efficiency

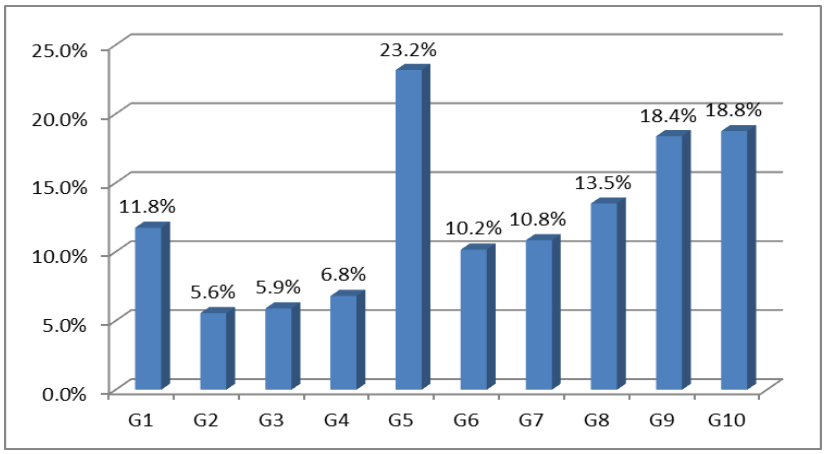
As shown in Figure 1-7, the repetition rate is low in general but the rate in G1 in primary is slightly higher;, also, the rate increases each year from G9 to G10 and G11, the final years of lower secondary and upper secondary education.



Source：Calculated from Education Statistics Year Book, 2010/11 & 2009/10

Figure 1.7: Repetition Rate in AY 2009

In terms of the drop-out rate, about 23% of students drop out in the 5th grade of primary school, which is the last year of primary school and shows the highest primary school drop-out rate as shown in Figure 1-8. The drop-out rate increases as the grade level becomes higher. In 8th and 9th grade the drop-out rate is more than 18%. In addition, a high drop-out rate is observed for the 1st grade of primary school which is the starting point of compulsory education.



Source：Calculated from Education Statistics Year Book, 2010/11, 2009/10 & 2008/09

Figure 1.8: Drop-out Rate in Each Grade

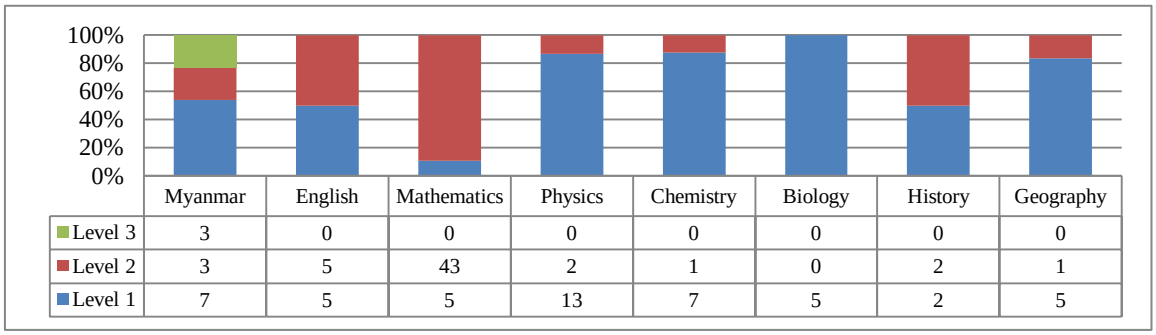
These figures imply that there are some problems with the school program at the G1, G5, G9, and G10 levels. It is not clear, however, whether or not these problems are caused by the curriculum. Further study is needed to clarify this issue but some assumptions can be made; G5, G9 and G11 are the last grades in each level, thus the problem could be mainly caused by connection problems, rather than the curriculum. On the other hand, G1 and G10 are the first grades of each level, thus it is highly likely that the mismatch of curriculum is one of the main causes of students' withdrawal from school.

1.5.2 Standardized Test and Matriculation

Currently, matriculation is the only nationwide standardized test platform in Myanmar. It serves two purposes: as the graduation exam of upper secondary school and as the entrance examination to higher education institutions. Despite fulfilling these two important purposes, the matriculation exam only judges students on a pass/fail basis. No further analysis is made to clarify strength and weakness of achievement. Furthermore, because this is the only standardized test implemented throughout the country, curriculum analysis is very difficult.

(1) Questions in Matriculation

Figure 1-9 shows the result of analysis of matriculation in 2012. The analysis was conducted by curriculum officers in the same workshop of textbook analysis described in the previous section. The same assessment standard was also applied to this analysis.



	Myanmar	English	Mathematics	Physics	Chemistry	Biology	History	Geography
Level 3	3	0	0	0	0	0	0	0
Level 2	3	5	43	2	1	0	2	1
Level 1	7	5	5	13	7	5	2	5

Source: Analyzed by curriculum officers in DEPT (Nov. 2012)

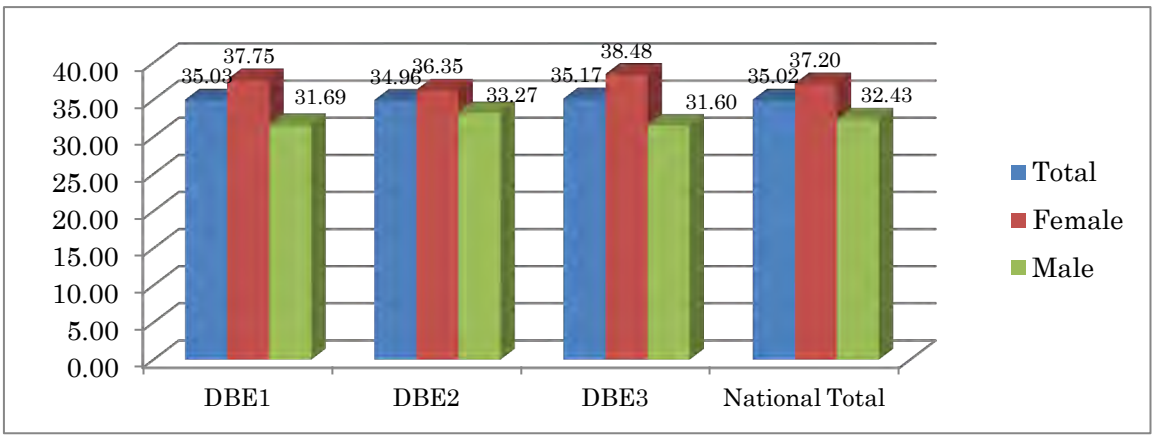
Figure 1-9: Result of Matriculation (2012) Analysis

Figures in above graph indicate the number of questions corresponding to each thinking level. Similar to the textbook analysis, this exercise was just organized as a practice; the result was not seriously examined and again the result may include some error. There was, for example, actually an argument regarding biology, where the biology team judged all questions in the biology matriculation to be categorized in level 1 though there were some questions that looked like level 2 or 3 at a glance but turned out to simply be statements copied from the textbook.

Myanmar language seems to exhibit good organization, whereas other subjects allocate more questions that require using lower level thinking skills.

(2) Pass Rate

Figure 1-10 shows the rate at which students passed the matriculation examination.



Source：Education Statistics Year Book, 2010/11

Figure 1-10: Pass Rate of Matriculation (2010/11)

Overall the rate is around 35% in 2010/11 and the three DBEs had similar results. Thus there is no regional disparity found in terms of implemented curriculum. However, the rate at which females passed is higher than that of males.

As mentioned above, the matriculation only reports overall pass rates and is not used for curriculum review. The Study Team together with CESR working group visited schools to obtain matriculation results by subject to investigate problems of the curriculum. Table 1-12 shows the example.

Table 1-12: Pass Rate of Matriculation by Subject in Certain School (%)

Year	Myanmar	English	Mathematics	Physics	Chemistry	Biology	Economics
2008	91.89	50.22	62.11	46.11	50.44	82.00	50.00
2009	94.54	62.07	66.86	51.37	53.87	87.31	63.25
2010	91.48	63.91	79.45	53.01	61.55	89.53	83.85
2011	94.21	75.48	67.16	61.90	60.42	87.60	73.26
2012	97.98	59.87	90.39	70.66	82.63	95.02	91.48

Source: Joint school observation the Study Team and CESR working group, November 2012

Although it is quite difficult to discuss anything using these limited figures, Myanmar language shows the higher performance despite the test including level 3 question that require higher level thinking skills as described in the previous section. It means that the curriculum for Myanmar language works well. On the contrary, overall performance in English and Physics is not good, even though there are few higher level thinking questions. Biology apparently shows a good result, however this might be because the exam contained only level 1 question as mentioned in the previous section. Hence it is difficult to judge whether the quality of the curriculum is good or not from the point of view of curriculum review.

1.6 Issues and Challenges

1.6.1 Curriculum Framework not Clearly Defined

Although Basic Education Law prescribes the definition of curriculum, syllabus and textbook, only textbooks are materialized as official curriculum documents. Curriculum should involve a holistic strategy put forth to achieve the nation's national human resource development goals. It has to prescribe not only contents but also rationale, goals, aims, principle, standards and, assessment and reporting polices for example. In fact, such curriculum related information exists, but is fragmented in various documents, as mentioned in the previous section. Thus far this has prevented a strategic curriculum reform. It is thus highly recommended that a regulatory curriculum framework be developed.

1.6.2 Curriculum Review Mechanism not Regularized

The lack of regular curriculum review mechanism also impedes strategic reform. No laws and regulations regulates schedule and method of curriculum revision. Standardized test is not organized

for curriculum review. Even matriculation results are not analyzed to reveal strengths and weaknesses of curriculum now in Myanmar.

As matriculation is the only nationwide standardized test platform in Myanmar, utilizing matriculation results as a part of curriculum study is highly recommended to improve the curriculum in a logical and systematic fashion.

1.6.3 Outdated Leaning Contents in Textbook

Most textbooks have not been modified in 10 years. In addition, even in the past revision, textbooks were not fully revised, except for English. This makes it clear that textbook revision is the top priority in Myanmar. In Japan, textbooks are totally changed every 10 years through a regular curriculum reform process (Table 1-13).

Table 1-13: Summary of Regular Textbook Revision in Japan

Type	Textbook Revision	Frequency
Major Curriculum Reform	Textbooks are totally changed (fully scrapped and re-written) based on new curriculum	Every 10 years
Curriculum Review	Textbooks are modified to reflect minor issues and corrections.	Every 5 years

Source: Created by the JICA Study Team

Information must be updated immediately especially for natural sciences and social studies to accommodate new discoveries and changes of facts.

In addition, as mentioned before, the information in the textbook is not relevant to the development of higher level thinking skills. Current textbooks generally contain more learning contents that require the use of lower level thinking skills.

JICA has been supporting textbook analysis work for the Curriculum section in DEPT to improve the scope and sequence of textbook learning contents. It is expected that this will help to identify issues and gaps in textbooks for the up-coming textbook revision.

1.6.4 Assessment Standard Reform

If contents in textbooks are revised to improve higher level thinking skills, assessment and examination standards should also be revised to properly measure student achievement. Currently, as also described before, questions in matriculation mainly assess lower level thinking skills. In general,

tests used in schools like CET are supposed to align matriculation, thus revising matriculation has strong potential to improve education quality nationwide.

1.6.5 Less Emphasis on Co-Curricular Subjects

Though there are no major problems found with total teaching hours, the balance of teaching hours for core subjects/co-curricular subjects must be taken into consideration. Recent learning science theory promotes the involvement of various types of teaching and learning activities for comprehensive brain development. Even co-curricular subjects such as aesthetic education and physical education can help improve core subject performance effectively. However, the current curriculum in Myanmar heavily emphasizes core subjects. Teaching hours for co-curricular subjects are among the lowest among ASEAN countries.

Figure 1-11 shows the conceptual image of “all-round correct thinking” development that the national constitution aims to foster in ideal citizens.

Figure 1-11: Conceptual Image of “All-Round Correct Thinking” Development

Although there is no clear definition on “all-round correct thinking”, it is assumed that this capacity can be developed from multiple directions as described in the well-known Bloom’s idea shown in the above figure. In this context, co-curricular subjects play an important role in improving psychomotor and affective abilities. Hence the promotion of co-curricular subjects is recommended to help achieve the national human resource development goal.

1.6.6 Teaching in English at High Schools

In fact, there is no data or evidence to support/oppose the policy of teaching specific subjects in English at upper secondary level. However, teachers in high school are struggling with this policy and suggesting alternative options. In addition, even a number of subjects are taught in English, the English subject pass rate is low as shown in Table 3-33. This implies that there must be a problem. Further study is recommended to identify the core issues around this policy.

1.6.7 In-depth Study for G1 Curriculum

Myanmar starts primary schooling from age 5, one year earlier than other counties in general. Since other countries provide early childhood curriculum for this age, the curriculum G1 contains considerable issues that need to be discussed carefully. The drop-out rate at G1 is actually higher than other grades, and potential problems are suspected. Further study is also recommended.

1.6.8 PTR and CCA

Although this may be out of the scope of study for curriculum revision, PTR is a critical to the provision of quality implemented curriculum like CCA. If a maximum capacity for one teacher or one class relevant to implement CCA is set officially, it is expected that this will impact implemented and attained curriculum – in turn leading to improved education quality.

第 4 章添付資料

添付資料 4-1：教育統計サマリー

1. 学校数

		学校数												
	州／管区名	高校	高校 (Branch)	高校 (Affiliate)	合計	中学校	中学校 (Branch)	中学校 (Affiliate)	合計	ポスト小学校	小学校	小学校 (Branch)	小学校 (Affiliate)	合計
1	Kayin	43	37	0	80	42	34	2	78	196	978	52	17	1,047
2	Tainintheryi	46	29	3	78	37	48	26	111	209	715	24	20	759
3	Bago (East)	71	69	1	141	42	106	16	164	400	1,404	93	26	1,523
4	Bago (West)	54	59	1	114	59	54	11	124	312	1,698	58	16	1,772
5	Mon	68	46	1	115	52	31	1	84	176	996	25	16	1,037
6	Yakhine	69	67	6	142	65	68	8	141	351	2,087	21	15	2,123
7	Ayeyarwaddy	135	166	19	320	94	301	134	529	785	4,510	285	128	4,923
	DBE 1	**486**	**473**	**31**	**990**	**391**	**642**	**198**	**1,231**	**2,429**	**12,388**	**558**	**238**	**13,184**
8	Kachin	58	37	0	95	52	75	13	140	195	896	40	33	969
9	Kayar	14	5	0	19	30	4	0	34	32	303	3	16	322
10	Chin	30	30	0	60	54	34	0	88	352	677	8	38	723
11	Sagaing	126	128	15	269	78	445	44	567	1,007	2,441	320	276	3,037
12	Magway	88	114	7	209	76	215	57	348	819	2,513	73	72	2,658
13	Mandalay	143	94	12	249	112	223	7	342	598	2,709	82	37	2,828
14	Shan (S)	81	45	4	130	54	74	3	131	347	1,710	83	145	1,938
15	Shan (N)	64	34	1	99	50	61	1	112	245	1,235	134	156	1,525
16	Shan (E)	26	5	0	31	15	6	3	24	60	465	46	63	574
17	Naypyidaw	37	14	0	51	23	35	0	58	115	392	13	25	430
	DBE 2	**667**	**506**	**39**	**1,212**	**544**	**1,172**	**128**	**1,844**	**3,770**	**13,341**	**802**	**861**	**15,004**
18	Yangon	183	90	0	273	163	89	0	**252**	391	1,793	3	0	1,796
	DBE 3	**183**	**90**	**0**	**273**	**163**	**89**	**0**	**252**	**391**	**1,793**	**3**	**0**	**1,796**
	全国	**1,336**	**1,069**	**70**	**2,475**	**1,098**	**1,903**	**326**	**3,327**	**6,590**	**27,522**	**1,363**	**1,099**	**29,984**

出典：DEPT Statistics Department, 2012 年 8 月統計

2. 児童生徒数／教員数

	州／管区	児童・生徒数				教員数			
		高校	中学校	小学校	合計	高校	中学校	小学校	合計
1	Kayin	14322	66369	174066	254757	601	1578	5101	7280
2	Tainintheryi	17179	76823	188625	282627	670	1794	5405	7869
3	Bago (East)	39671	148199	337537	525407	1658	3711	11769	17138
4	Bago (West)	23624	82047	173509	279180	1269	3079	9696	14044
5	Mon	26184	103986	232754	362924	1221	3085	7620	11926
6	Yakhine	26683	99254	378426	504363	1280	2948	10758	14986
7	Ayeyarwaddy	79248	282189	831520	1192957	2954	6477	25268	34699
	DBE 1	**226911**	**858867**	**2316437**	**3402215**	**9653**	**22672**	**75617**	**107942**
8	Kachin	32746	109557	178479	320782	1113	2525	6272	9910
9	Kayar	5674	18276	34782	58732	245	546	1303	2094
10	Chin	9689	34529	72413	116631	513	1029	3328	4870
11	Sagaing	77843	295552	560056	933451	2926	8375	20643	31944
12	Magway	59875	210293	393684	663852	2231	5575	16576	24382
13	Mandalay	93630	304449	550826	948905	3085	9049	21327	33461
14	Shan (S)	27796	105174	244197	377167	1208	2763	8416	12387
15	Shan (N)	17870	74059	211375	303304	838	1988	6324	9150
16	Shan (E)	4817	20034	53801	78652	249	476	1870	2595
17	Naypyidaw	17004	61082	122435	200521	630	1636	3525	5791
	DBE 2	**346944**	**1233005**	**2422048**	**4001997**	**13038**	**33962**	**89584**	**136584**
18	Yangon	126090	344413	564601	1035104	4557	10477	18278	33312
	DBE 3	**126090**	**344413**	**564601**	**1035104**	**4557**	**10477**	**18278**	**33312**
	合計	**699945**	**2436285**	**5303086**	**8439316**	**27248**	**67111**	**183479**	**277838**

出典：DEPT Statistics Department, 2012 年 8 月統計

添付資料 4-2：州／管区別高校卒業・大学入学試験結果

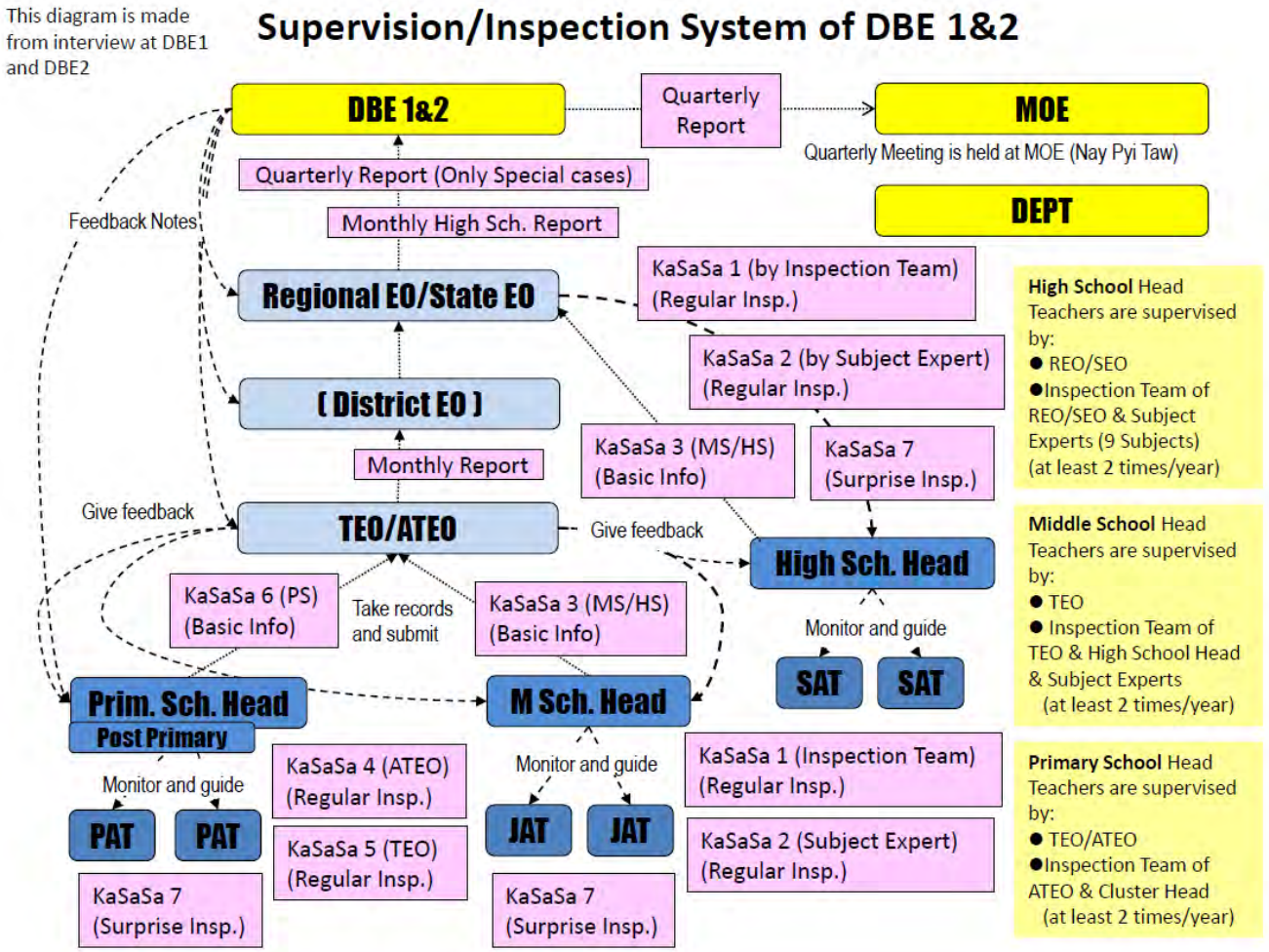
州／管区名		Grade 11		
		合計	女子	男子
Kayin	G11 入学者数	5,713	3,474	2,239
	受験者数	5,457	3,364	2,093
	合格者数	1,842	1,182	660
	合格率	33.75	35.14	31.53
Tanintharyi	G11 入学者数	6,854	4,328	2,526
	受験者数	6,525	4,167	2,358
	合格者数	2,411	1,582	829
	合格率	36.95	37.96	35.16
Bago(East)	G11 入学者数	17,426	9,283	8,143
	受験者数	16,868	9,115	7,753
	合格者数	5,823	3,444	2,379
	合格率	34.52	37.78	30.68
Bago(West)	G11 入学者数	8,731	4,724	4,007
	受験者数	8,469	4,622	3,847
	合格者数	3,239	1,964	1,275
	合格率	38.25	42.49	33.14
Mon	G11 入学者数	12,473	7,479	4,994
	受験者数	12,062	7,308	4,754
	合格者数	5,358	3,369	1,989
	合格率	44.42	46.10	41.84
Yakhine	G11 入学者数	13,359	6,265	7,094
	受験者数	12,777	6,124	6,653
	合格者数	3,968	1,892	2,076
	合格率	31.06	30.89	31.20
Ayeyarwaddy	G11 入学者数	35,540	19,105	16,435
	受験者数	35,097	18,840	16,257
	合格者数	11,424	6,779	4,645
	合格率	32.55	35.98	28.57
DBE(1)Tatal	G11 入学者数	100,096	54,658	45,438
	受験者数	97,255	53,540	43,715
	合格者数	34,065	20,212	13,853
	合格率	35.03	37.75	31.69
Kachin	G11 入学者数	12,370	7,346	5,024
	受験者数	11,606	6,988	4,618
	合格者数	3,435	2,034	1,401
	合格率	29.60	29.11	30.34

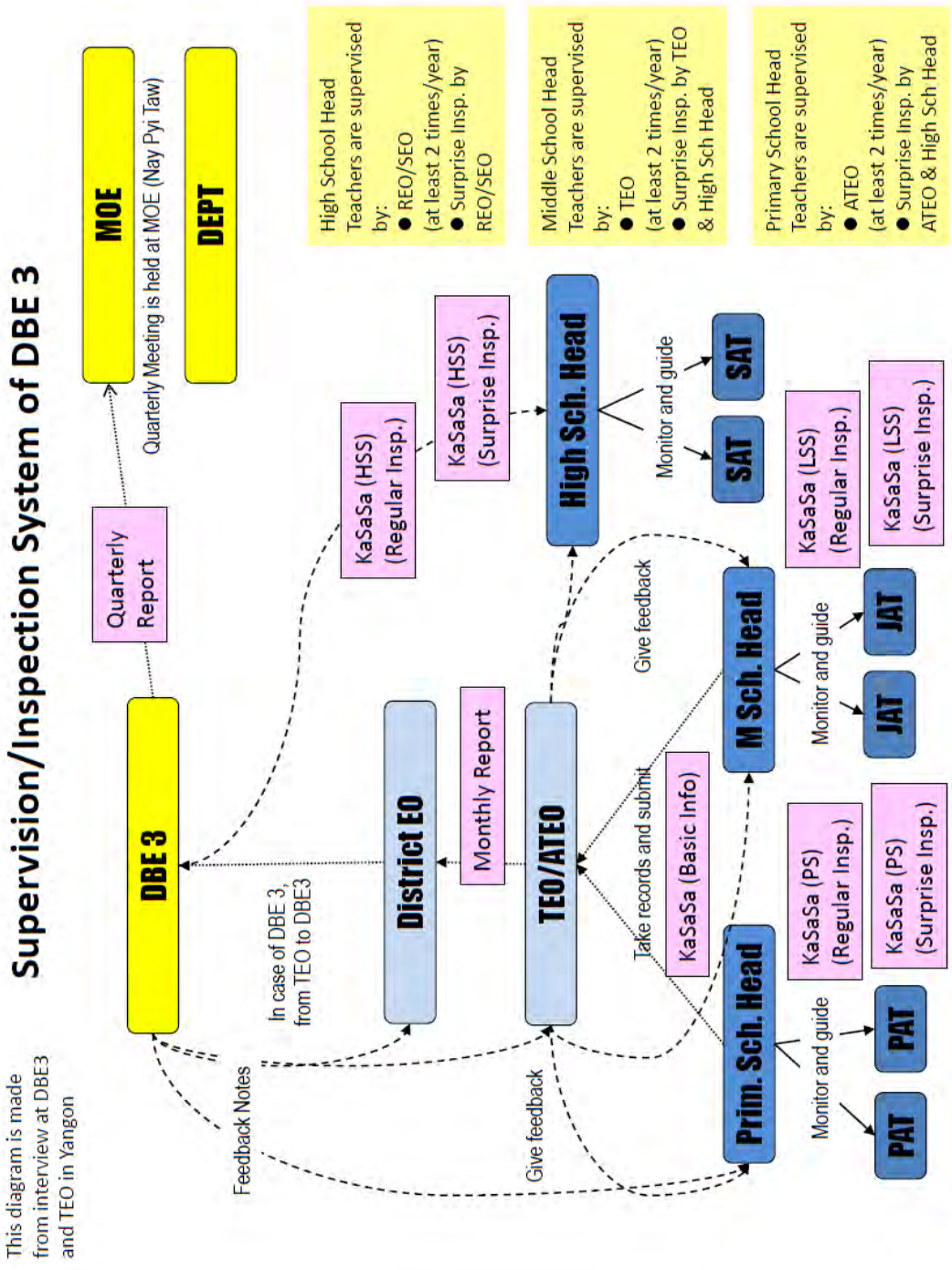
州／管区名		Grade 11		
		合計	女子	男子
Kayar	G11 入学者数	2,500	1,547	953
	受験者数	2,415	1,521	894
	合格者数	840	540	300
	合格率	34.78	35.50	33.56
Chin	G11 入学者数	4,371	2,409	1,962
	受験者数	4,275	2,373	1,902
	合格者数	718	399	319
	合格率	16.80	16.81	16.77
Sagaing	G11 入学者数	32,537	17,715	14,822
	受験者数	31,811	17,469	14,342
	合格者数	12,331	6,914	5,417
	合格率	38.76	39.58	37.77
Magway	G11 入学者数	25,789	13,297	12,492
	受験者数	25,482	13,195	12,287
	合格者数	8,768	4,842	3,926
	合格率	34.41	36.70	31.95
Mandalay	G11 入学者数	49,452	25,865	23,587
	受験者数	48,481	25,539	22,942
	合格者数	17,198	9,598	7,600
	合格率	35.47	37.58	33.13
Shan(S)	G11 入学者数	12,652	7,466	5,186
	受験者数	12,373	7,359	5,014
	合格者数	4,591	2,881	1,710
	合格率	37.10	39.15	34.10
Shan(N)	G11 入学者数	7,094	4,336	2,758
	受験者数	6,820	4,222	2,598
	合格者数	2,407	1,514	893
	合格率	35.29	35.86	34.37
Shan(E)	G11 入学者数	1,959	1,193	766
	受験者数	1,879	1,140	739
	合格者数	460	287	173
	合格率	24.48	25.18	23.41
DBE2　合計	G11 入学者数	148,724	81,174	67,550
	受験者数	145,142	79,806	65,336
	合格者数	50,748	29,009	21,739
	合格率	34.96	36.35	33.27
DBE 3 (Yangon) 合計	G11 入学者数	60,371	31,059	29,312
	受験者数	58,077	30,150	27,927
	合格者数	20,427	11,603	8,824
	合格率	35.17	38.48	31.60

添付資料 4-3：Location of Teacher Education and Training Institutes in Myanmar

出典：Developed by Study Team based on map made by JICA SCCA2 project

添付資料 4-4：School Inspection System of DBE1&2&DBE3




Supervision/Inspection System of DBE 3
This diagram is made from interview at DBE3 and TEO in Yangon
MOE
DEPT
Quarterly Report
Quarterly Meeting is held at MOE (Nay Pyi Taw)
DBE 3
District EO
TEO/ATEO
Monthly Report
In case of DBE 3, from TEO to DBE3
Feedback Notes
Give feedback
KaSaSa (HSS) (Regular Insp.)
KaSaSa (HSS) (Surprise Insp.)
High Sch. Head
Monitor and guide
SAT
SAT
Give feedback
Take records and submit
KaSaSa (Basic Info)
M Sch. Head
KaSaSa (LSS) (Regular Insp.)
KaSaSa (LSS) (Surprise Insp.)
Monitor and guide
JAT
JAT
KaSaSa (PS) (Regular Insp.)
KaSaSa (PS) (Surprise Insp.)
Prim. Sch. Head
Monitor and guide
PAT
PAT
High School Head Teachers are supervised by:
● REO/SEO (at least 2 times/year)
● Surprise Insp. by REO/SEO
Middle School Head Teachers are supervised by:
● TEO (at least 2 times/year)
● Surprise Insp. by TEO & High Sch Head
Primary School Head Teachers are supervised by:
● ATEO (at least 2 times/year)
● Surprise Insp. by ATEO & High Sch Head

第５章添付資料

添付資料 5-1：主な職業技術に関わる教育訓練を実施している公的機関とその概略

#	省庁	担当局	分野	教育訓練機関	機関数	学位・資格・期間	備考
1	農業灌漑省	ミャンマー農業サービス局	農業科学	イェシン農業大学	1	学士（4 年）、修士（3 年） 博士（4～5 年）	専門分野別に全国に 6 キャンパスが存在
				農業学校	10	ディプロマ（3 年）	要高卒・大学入試資格
2	畜水産省	詳細不明	畜産科学	イェシン畜産科学大学	1	学士（6 年） 修士・博士（3 年）	
		漁業局	漁業	*漁業科学学校（ヤンゴン）*	*1*	*就業者対象の短期・長期資格取得研修、再研修、視察官研修* *漁業技術、捕獲後技術等*	2012 年まで資格取得コースを実施
		家畜繁殖局	酪農生産	*酪農研修センター（ヤンゴン、ネーピードー）*	*2*	*家畜保健・繁殖ディプロマ（2013 年より開始予定）* *各種公務員能力開発コース*	
3	商業省	貿易局	貿易	*貿易研修校（ヤンゴン）*	*1*	*資格認定コース（4 カ月）*	
4	協同組合省	協同組合局	文科、経営、会計	協同組合短大（パテイン、ピャウンジー）	2	ディプロマ（2 年）	
				協同組合大学（タンリン、サガイン）	2	学士（3 年）	サガインは 2012 年 12 月より大学に昇格
		家内工業局	家内工業技術	漆器短大（ニャウンウー）	1	ディプロマ（2 年）	要高卒・大学入試資格
				サンダー織物学校	*2*	*繊維工学資格（1～2 年）* *高度デザイン資格（6 カ月）*	要高卒・大学入試資格
				基礎織物学校（5 校）、高度織物学校（8 校）	*13*	*短期コース（3～6 カ月）*	中央乾燥地を中心に展開

#	省庁	担当局	分野	教育訓練機関	機関数	学位・資格・期間	備考
5	科学技術省	職業技術教育局	工学	技術大学	27	ディプロマ（3 年）、 技術学士（計 5 年）、 工学士（計 7 年）	就学年数については 2012～2013 年の学期からの変更を適用
				ヤタナポン・サイバー・シティ工科大学	1	工学士 (ICT)（計 6 年）	
				政府技術カレッジ	3	ディプロマ（3 年） 技術学士（計 5 年）	
				政府技術学校	11	ディプロマ（3 年）	
				政府技術高校	*36*	*卒業資格（2 年）*	
		高等科学技術局		ミャンマー航空工科大学	1	ディプロマ（2 年） 工学士（計 5 年） PG ディプロマ（1 年）	
				工科大学 （ヤンゴン、マンダレー）	2	工学士 (CoE)（6 年）、 修士（2 年）、博士（3 年～）	
				工科大学（西ヤンゴン、ピー）	2	技術大学に同じ	
				コンピュータ大学	25	学士（5 年） 修士（2 年）博士（4 年）ヤンゴン、マンダレーの CoE2 校のみ	
6	教育省	高等教育局上ミャンマーおよび下ミャンマー	人文科学	人文科学系大学	34	学士（3 年）／優等学位（4 年）カレッジにてディプロマ（2 年）、学位カレッジにて学士（4 年）ただし人文科学系大学より学士号を授与	修士（2 年）・博士（4 年）課程は、ヤンゴン大学とマンダレー大学にて提供
				外語大学	2		
				教育大学	2		
				経済大学	3		
				学位カレッジ・カレッジ	5		
			人材開発プログラム	上記の人文科学系大学（遠隔教育大学、国家マネジメントカレッジを除く）	32	PG ディプロマ（1 年）および修士（MBA、会計学、歯科医学など）	社会人向け夜間・早朝コース

#	省庁	担当局	分野	教育訓練機関	機関数	学位・資格・期間	備考
		教育計画訓練局	教師教育	*教員養成校*	*20*	*教員資格（1 年または 2 年）*	
		基礎教育局 1, 2, 3	前職業教育	*前職業教育校 (120)*	*120*	*高校レベルで技術科目の導入*	実態は普通科と同じ
7	保健省	医科学局	医科学	医科大学(4)、薬科大学 (2) パラメディカル科学大学 (2) 歯科大学 (2)、看護大学 (2) 公衆衛生大学 (1)、地域保健大学 (1)	14	医科大学の例だと、 学士（5 年） 修士（3 年） 博士（4～5 年）	保健省は、次年度より就学年数を増やす計画がある模様。
				看護師・助産師養成校	*46*	*資格認定コース（1.6～1.8 年）*	
		伝統医薬局	伝統医学	伝統医薬大学	1	学部、大学院の課程あり	
8	宗教省	詳細不明	パーリー仏教	国際上座部仏教伝道大学	1	*資格認定コース（3～4 カ月）* ディプロマ、学士、修士、博士	
9	運輸省	運輸局	海洋工学、海洋電気システム、自然科学、電子	ミャンマー海洋工学大学	1	学士（5 年） PG ディプロマ課程（1 年）	http://www.mot.gov.mm/mmu/programs.html
				ミャンマー商業海洋カレッジ	1	ディプロマ（2 年） *資格認定コース（短期）*	http://www.mot.gov.mm/mmmc/services.html
10	文化省	詳細不明	演劇、音楽、彫刻、絵画	国家芸術文化大学	1	学士（4 年） 修士（1 年）	
11	環境保全・林業省	訓練研究開発局	林業	*林業研修センター*	*1*	*林業研究研修（9 カ月）他、短期研修*	受講資格は高校卒業資格および省職員
				中央林業開発研修センター	*2*	*レンジャーなどへの現職研修* *コミュニティ林業コース（住民対象）*	現職研修は公務員（または候補者）のみ
		環境・林業局		林業大学	1	学士（4 年）、修士（2 年）	博士課程もあるが現在在籍学生はなし

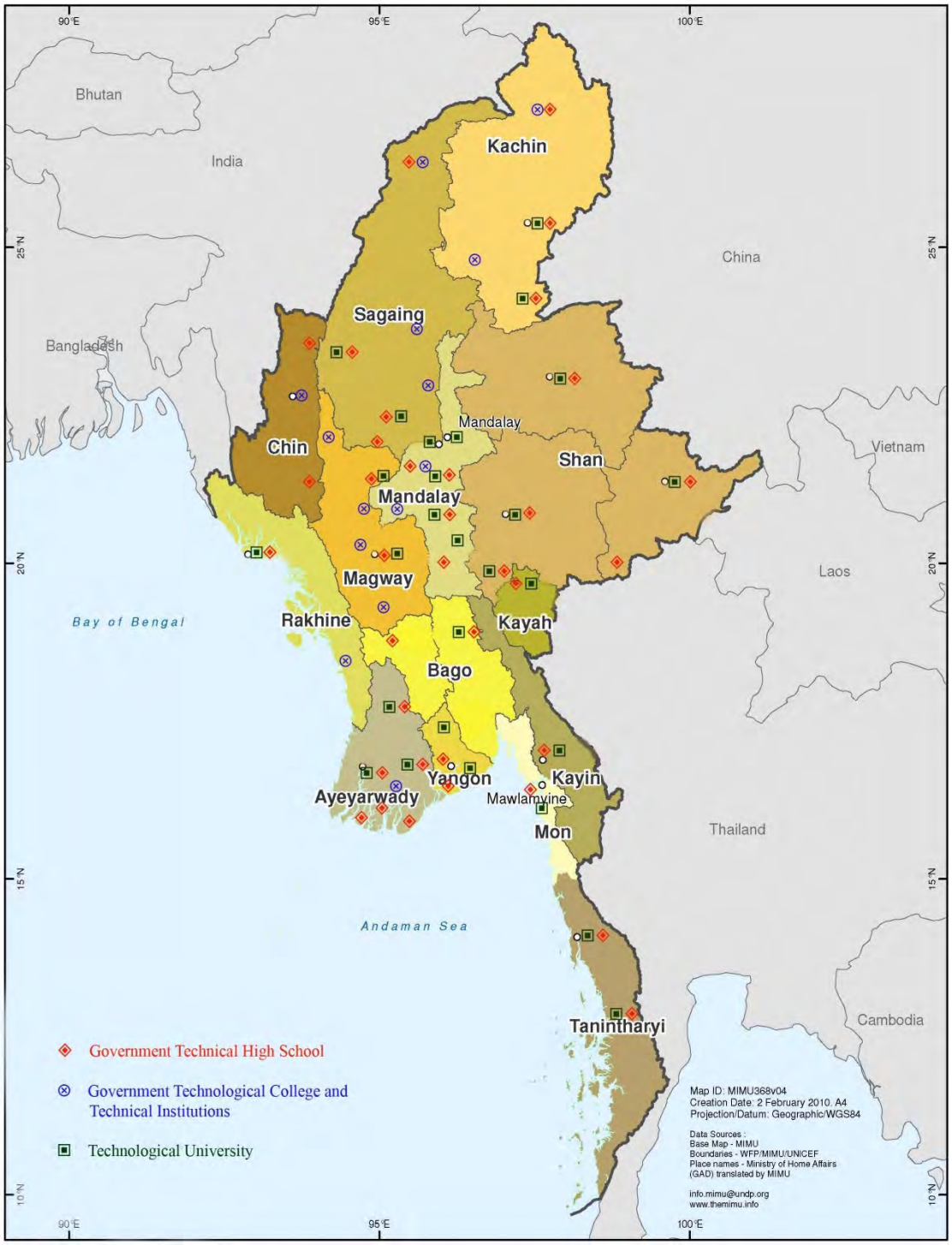
#	省庁	担当局	分野	教育訓練機関	機関数	学位・資格・期間	備考
12	国防省	詳細不明	軍事訓練	防衛大学	1	学士（教養課程、科学、コンピュータ科学)	
			医科学	防衛医科大学	1	医科学分野のディプロマ、学士、修士、博士	
			工学	防衛工科大学	1	工学士・工学修士	
			パラメディカル科学・薬学	パラメディカル科学・薬学防衛校	1	看護学士	
			詳細不明	防衛カレッジ	1	詳細不明	
13	連邦公務院	国家公務員採用および研修	公務員研修	*行政中央学校（上ミャンマーと下ミャンマー）*	*2*	*集中行政官コース（3 カ月）* *教員・行政官向け特別再研修（3 カ月）* *資格認定コース（1 カ月）*	公務員のみ受講可能
14	国境省	教育訓練局	人文科学、教師教育	サガイン国家民族開発大学	1	*初等・中等教員養成（3 年）* ディプロマ（1 年） 教育学士（2 年：編入） 教育 PG ディプロマ（1 年） 教育修士（1 年） 教育修士 (M.Phil)（1 年） 教育博士（2 年）	人文科学科は廃止した。
				国家青年開発学位カレッジ・中央研修校	2	文理学、工学士（4 年） ディプロマ（3 年） *17 種の資格取得コース*	ヤンゴンとマンダレー
			国境開発のための職業訓練	*女性向け職業訓練校*	*39*	*12 週間の資格取得コース（ハンドクラフト、理容、料理、裁縫・編物、織物）*	ビルマ語の読み書きが入学条件

#	省庁	担当局	分野	教育訓練機関	機関数	学位・資格・期間	備考
				国境地域の青年育成訓練校	*29*	*8～12 週間の男性向け資格取得コース（大工、溶接、レンガ造り、機械修理）*	中学校卒業資格で入学可
15	工業省	人材開発局	工学	*工業研修センター（マンダレー、タガヤ、パコック、マグウェイ、ミンジャン、シンデ）*	*6*	*1 年間の集中資格取得コースを中国、インド、ドイツ、韓国の支援を受けて開講*	ミンジャンは 2013 年より開校予定
16	労働省	労働局	工学、語学、IT	*技術訓練センター（ヤンゴン、マンダレー、パテイン）*	*3*	*短期資格取得コース（2 週間～1.5 カ月）*	
17	社会福祉救済復興省	社会福祉局	ノンフォーマル教育（学術及び職業訓練）	*成人障害者向け青年ケア・職業訓練センター (10)（孤児、素行の悪い子どもなどを対象）、聾・盲・障害者学校 (4)*	*14*	*無償の寮完備の基礎教育の他、職業訓練も実施（理髪、木工、石工、手芸）*	http://abilitymagazine.com/news_Myanmar.html
18	スポーツ省	スポーツ物理教育局	体育教育	*スポーツ物理科学校（高校レベル）*	*2*	*高校の教科内容に加え 23 種のスポーツとスポーツシステム教科について教育（2 年）*	2013～2014 年からは大学に設置予定（ヤタナポン大学およびダゴン大学）
19	観光省	詳細不明	観光教育	*観光訓練校*	*1*	*ツアーガイド・ツアーマネジメント資格（2 カ月）*	ガイドは要大学入試資格、マネジメントは要大学卒業資格
20	鉄道省	詳細不明	鉄道	*運輸通信中央学校（短期研修）*	*1*	資格コース（3.5 カ月）	

斜線赤字：学位は出さず、職業訓練的な資格研修等をおこなっている機関・コース

出典：各省への聞き取りをもとに調査団作成

添付資料 5-2：科学技術省職業技術教育局管轄機関の地理的配置状況



出典：科学技術省資料 (2012) および www.themimu.info の提供する地図をもとに調査団作成

添付資料 5-3：科学技術省職業技術教育局管轄の教育機関一覧（2011～2012年度）

(1) 工科大学

#	名称	州・管区	設立年	学生数	教員数	教育分野
1	Yatanarpon Cyber City	Mandalay	2010	1,667	155	ICT、電子工学、精密機器工学、先端材料工学

(2) 技術大学

#	名称	州・管区	設立年	学生数	教員数	教育分野 [9]
1	Banmaw	Kachin	GTC (2001), TU (2007)	558	76	C/EC/EP/Mech
2	Dawei	Tanintharyi	GTHS (1982), GTI (1988), GTC (1999), TU (2007)	715	75	C/EC/EP/Mech
3	Hinthada	Ayeyarwady	GTHS (1977), GTI (1982), GTC (1999), TU (2007)	2,164	92	C/EC/EP/Mech
4	Hmawbi	Yangon	GTHS (1989), GTI (1998), GTC (2001), TU (2007)	7,229	152	C/EC/EP/Mech/IT/ MC/IT/Arch
5	Hpa-An	Kayin	GTHS (1993), GTI (1998), GTC (2000), TU (2007)	820	72	C/EC/EP/Mech
6	Kalay	Sagaing	GTI (1999), GTC (2001), TU (2007)	1,078	69	C/EC/EP/Mech
7	Kyaingtone	Shan	GTI (1999), GTC (2001), TU (2007)	332	51	C/EC/EP/Mech
8	Kyaukse	Mandalay	GTI (1998), GTC (2001), TU (2007)	4,904	196	C/EC/EP/Mech/IT/ MC/IT/Met/Bio/NT
9	Lashio	Shan	GTI (2007), TU (2007)	945	81	C/EC/EP/Mech
10	Loikaw	Kayah	GTHS (1982), GTI (1998), GTC (2001), TU (2007)	744	60	C/EC/EP/Mech
11	Magway	Magway	GTC (1999), TU (2007)	2,778	153	C/EC/EP/Mech/MC/ Che
12	Mandalay	Mandalay	GTI (1955), GTC (1999), GTC (2002), TU (2007)	5,558	223	C/EC/EP/Mech/MC/ IT/ChE/Min/Pet/Arch
13	Maubin	Ayeyarwady	GTHS (1989), GTC (2002), TU (2007)	1,283	87	C/EC/EP/Mech
14	Mawlamyine	Mon	GTI (1982), GTC (1999), TU (2007)	3,252	154	C/EC/EP/Mech/IT/ MC
15	Meiktila	Mandalay	GTI (1986), GTC (1999), TU (2007)	2,743	122	C/EC/EP/Mech/IT/ MC
16	Monywa	Sagaing	GTHS (1982), GTI (1986), GTC (1999), TU (2007)	4,555	158	C/EC/EP/Mech/IT/ MC/Tex
17	Myeik	Tanintharyi	GTI (1999), GTC (2002), TU (2007)	649	64	C/EC/EP/Mech
18	Myitkyina	Kachin	GTHS (1981), GTI (1997), GTC (1999), TU (2007)	657	82	C/EC/EP/Mech
19	Pakokku	Magway	GTI(1999), TU(2007)	1,855	92	C/EC/EP/Mech
20	Pathein	Ayeyarwady	GTC(1999), TU(2007)	1,802	122	C/EC/EP/Mech/IT/ MC
21	Pinlon	Shan	GTC (2003), TU(2007)	276	57	C/EC/EP/Mech
22	Sagaing	Sagaing	GTHS (1990), GTI (1998), GTC (2007), TU (2011)	2,440	87	C/EC/EP/Mech
23	Sittwe	Rakhine	GTC (1999), TU (2007)	719	103	C/EC/EP/Mech

[9] C: 土木工学、EC: 電子工学、EP: 電力工学、Mech: 機械工学、MC: メカトロニクス工学、IT: 情報工学、Che: 化学工学、Min: 鉱山工学、Tex: 繊維工学、Pet: 石油工学、Met: 冶金工学、Arch: 建築工学、Bio: 生物工学、NT: 原子力工学

#	名称	州・管区	設立年	学生数	教員数	教育分野 [9]
24	Taunggoo	Bago	GTHS (1982), GTI (1985), GTC (1999), TU (2007)	3,655	131	C/EC/EP/Mech/IT /MC
25	Taunggyi	Shan	GTI (1999), GTC (2001), TU (2007)	2,447	117	C/EC/EP/Mech/IT/ Min
26	Thanlyin	Yangon	Technical Vocational School (1984), GTI (1997), GTC (1999), TU (2007)	10,536	208	C/EC/EP/Mech/IT/ MC/Che/Arc/Pet
27	Yamethin	Mandalay	GTI (1999), GTC (2001), TU (2007)	1,623	73	C/EC/EP/Mech

(3) 政府技術カレッジ

#	名称	州・管区	設立年	学生数	教員数	教育分野
1	Moehnyin	Kachin	GTI (2004), GTC (2007)	1,120	71	C/EC/EP/Mech/IT
2	Myingyan	Mandalay	GTI (2004), GTC (2007)	1,995	84	C/EC/EP/Mech/IT
3	Shwebo	Sagaing	GTC (2008)	2,061	68	C/EC/EP/Mech/IT

(4) 政府技術学校

#	名称	州・管区	設立年	学生数	教員数	教育分野
1	Chauk	Magway	GTI (1973)	1,294	103	C/EP/Mech
2	Gangaw	Magway	GTI (2008)	166	35	C/EC/EP/Mech
3	Hakha	Chin	GTI (2008)	158	40	C/EC/EP/Mech
4	Hkamti	Sagaing	GTI (2009)	71	25	C/EC/EP/Mech/MC/IT
5	Kantbalu	Sagaing	GTI (2011)	276	41	C/EC/EP/Mech
6	Kyaukpada-ung	Mandalay	GTHS (1993) GTI (1998)	1,122	64	C/EP/Mech
7	Putao	Kachin	GTI (2011)	50	19	C/EP/Mech
8	Thandwe	Rakhine	GTI (1998)	384	52	C/EP/Mech
9	Thayet	Magway	GTI (2010)	369	34	C/EC/EP/Mech
10	Wakema	Ayeyarwady	GTHS (1995), GTI (1999)	244	41	C/EP/Mech
11	Yenancha-ung	Magway	GTHS (1977), GTI (1998)	1,117	63	C/EC/EP/Mech

(5) 政府技術高校

#	名称	州・管区	設立年	学生数	教員数	教育分野 [10]
1	Putao	Kachin	2009	9	12	BT
2	Myitkyina	Kachin	2009	71	29	BT/EcT/AMT
3	Banmaw	Kachin	2009	24	29	BT/EcT/AMT
4	Hkamti	Sagaing	2009	6	27	-
5	Mindat	Chin	2010	91	48	BT/ET
6	Kalay	Sagaing	2009	66	21	BT/AMT
7	Monywa	Sagaing	2009	105	37	BT/EcT/MT/AMT/ET
8	Kyaukse	Mandalay	2009	66	66	BT/EcT/MT/AMT/ET
9	Pakokku	Magway	2009	99	43	BT/AMT/ET
10	Lashio	Shan	2009	31	22	AMT/ET
11	Pinlon	Shan	2009	29	17	AMT
12	Taunggyi	Shan	2009	84	32	BT/EcT
13	Kyaingtong	Shan	2009	16	20	BT
14	Meiktila	Mandalay	2009	149	26	BT/AMT/ET
15	Loikaw	Kayah	2009	138	26	BT/EcT/MT/AMT
16	Naypyitaw	Naypyitaw	2009	358	43	BT/EcT/MT/AMT/ET
17	Magway	Magway	2009	159	41	BT/EcT/AMT

[10] BT：建築工学、BST：建築設備工学、EcT：電気工学、MT：機械工学、AMT：自動車整備工学、ET：電子工学、MPT：金属加工工学

#	名称	州・管区	設立年	学生数	教員数	教育分野 [10]
18	Pyay	Bago	2009	85	43	BT/AMT
19	Taunggo	Bago	2009	159	36	BT/MT/AMT/ET
20	Sittway	Rakhine	2009	12	27	BT
21	Hinthada	Ayeyarwady	2009	151	44	BT/EcT/AMT
22	Maubin	Ayeyarwady	2009	146	46	BT/EcT/MT/AMT/ET
23	Pathein	Ayeyarwady	2009	144	30	BT/MT/AMT
24	Pyinsalu	Ayeyarwady	2009	0	15	-
25	Chaungwa	Ayeyarwady	2009	19	16	BT
26	Ahmar	Ayeyarwady	2009	27	16	BT
27	Hpa-an	Kayin	2009	32	26	BT
28	Mawlamy-ine	Mon	2009	78	38	BT/AMT
29	Dawei	Tanintharyi	2009	23	23	ET
30	Myeik	Tanintharyi	2009	32	15	AMT
31	Pangpet	Shan	2010	87	18	MT/ET
32	Myingyan	Mandalay	2010	137	19	EcT/MT/ET
33	Chaung Oo	Sagaing	2010	54	25	ET
34	Ywama	Yangon	2010	268	21	EcT/MT/ET/MPT
35	Lakhukgon	Yangon	2010	22	19	AMT
36	Teetain	Chin	2010	50	10	BT

出典：科学技術省資料 (2012) をもとに調査団作成

第 9 章添付資料

添付資料 9-1：「ミ」国教育セクターにおける課題の全体像

添付資料 9-2：基礎教育開発 20 年計画（ドラフト）に記載された DP 支援要請内容（2013/14 年度～2015/16 年度）

Sr.No.	Action Plan
1	**Compulsory Primary Education Plan** - Making law - Building school building (30'x20') or (26'x24') Classroom 15000 in total - Fulfilling desk and furniture (for 600,000 students) - Constructing fly-proof toilet and water supply (construction of toilet) - Stipends (200,000 primary students) - Construction of Printing House for Textbook - Supply of printing paper and printing material
2	**School retention of lower and upper secondary students** - Extension of school building (3 detached two- storey school building 1000) - Fulfilling desk and furniture (For 40,000 lower secondary students) - Stipends (for 50,000 lower secondary students)
3	**Upgrading curriculum and syllabus** - Development of syllabus and school lesson - Development of educational assessment - Development of Basic Learning Competency
4	**Teacher Education Development** - Construction of an education college - Revision of Teacher education syllabus - Development of module lessons
	- Fulfilling science equipment/teaching aids - Establishment of education staff training institute - Sending staff to participate in local/oversea trainings and seminars
5	**Development of Educational Management and Information** - Conducting local/oversea training and workshops
6	**Early Childhood Development** - Extension of pre-school classrooms (in the rate of Classroom 2500) - Appointing pre-school teacher (in the rate of 2000) - Conducting pre-school training (in the rate of 2000/year) - Fulfilling the teaching aids (1st year - 4000 school, 2nd year - 2000 each) - Construction of playing ground and toilet
7	**Non-Formal Education** - Adult Literacy (for 100,000 people)

出典：Department of Educational Planning and Training, Ministry of Education (November, 2012), Basic Education Sector National Education Promotion 20 year Long Term Plan (From 2011-12 to 2030-31), Unofficial Draft Translation

添付資料 9-3：今後の我が国の対ミャンマー支援（外務省発表資料）