

Country Name Kingdom of Cambodia	The Project on Strengthening of Medical Equipment Management in Referral Hospitals												
I. Project Outline													
Background	<p>The challenge of how to ensure management and maintenance of medical equipment (ME) had been recognized by the Ministry of Health (MOH) and other donors for a long time. Under such circumstances, JICA had started the collaboration in the field of the ME management and maintenance as one of the components of technical assistance on the Phase II of the Maternal and Child Health Project (2000-2005). As a result, the ME workshop was established and the ME management and maintenance services were strengthened within the National Maternal Child Health Center (NMCHC). This served as the base to form another project, namely the Project on the Promotion of a Medical Equipment Management System (MEDEM-1) (2006-2009), which contributed to strengthen the administrative capacity for supervision of Hospital Service Department (HSD) of MOH, to enhance the cooperation between technical and management departments and introduce ME management system at target hospitals which provide Complementary Package Activities Level 3 and National Hospitals (CPA3⁽¹⁾/NH)⁽²⁾. Furthermore, the ME Management Working Group (MEM-WG) consisting of management and technical staff established at the target hospitals helped those involved in the ME management to identify and solve ME problems.</p> <p>In order to expand the outcome of MEDEM-1 into the Complementary Package Activities Level 2 (CPA2) hospitals⁽³⁾ which lacked the fundamental resources to even deliver their basic clinical services, the Project on Strengthening of Medical Equipment Management in Referral Hospitals (MEDEM-2) was formulated.</p> <p>(1) CPA3: Complementary Package Activities is provided by district/ provincial hospitals and CPA3 is in the tertiary level medical service. (2) NH: National Hospital (3) CPA2 is in the secondary level medical service.</p>												
Objectives of the Project	<p>With the successful achievement made in the precedent technical cooperation project, namely MEDEM-1, this project aimed to establish a Cambodian Medical Equipment Management System at target CPA3/NH and selected CPA2 hospitals by strengthening the capacity of L-CPA3/NH⁽⁴⁾, establishment of ME management network and strengthening the capacity of National Workshop Team (NWT)⁽⁵⁾, thereby expanding the ME management system to non-target CPA2.</p> <p>(4) L-CPA3/NH: Lead CPA3/NH provide the support on ME management directly to CPA2. (5) NWT consists of HSD and ME Maintenance and Management Dept. of NMCHC, which are to supervise the ME management system for all related health facilities.</p> <p>1. Overall Goal: Cambodia Medical Equipment (ME) Management System is institutionalized, and it is also expanded to non-target CPA2. 2. Project Purpose: Cambodia ME Management System is established, and NWT, the target CPA3 /NH and CPA2 implement medical equipment management activities in cooperation.</p>												
Activities of the Project	<p>1. Project Site: Phnom Penh and all the 24 provinces where the target referral hospitals are located across Cambodia 2. Main Activities: (1) To institutionalize the ME management system at CPA3/NH, (2) To strengthen the ME management activities at L-CPA3/NH to instruct CPA2, (3) To form the network of ME management activities among NWT, L-CPA3/NH and CPA2, (4) To strengthen NWT capacity on supervising the ME management. 3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Cambodian Side</td> </tr> <tr> <td>1) Experts: 10 persons 6 persons for Long-term experts, 4 persons for Short-term experts</td> <td>1) Staff allocated: 20 persons Management level - 6 persons NWT - 14 persons (Other C/Ps indirectly involved in the project are: 119 persons for 22 CPA3/NH and 44 persons for 22 CPA2)</td> </tr> <tr> <td>2) Trainees received: 3 persons Technical Exchange Program: 40 persons</td> <td>2) Facilities: Project Office</td> </tr> <tr> <td>3) Equipment provision: Printer, Copier, Spare parts for ME, etc.</td> <td>3) Local expenses</td> </tr> <tr> <td>4) Local expenses</td> <td></td> </tr> </table>			Japanese Side	Cambodian Side	1) Experts: 10 persons 6 persons for Long-term experts, 4 persons for Short-term experts	1) Staff allocated: 20 persons Management level - 6 persons NWT - 14 persons (Other C/Ps indirectly involved in the project are: 119 persons for 22 CPA3/NH and 44 persons for 22 CPA2)	2) Trainees received: 3 persons Technical Exchange Program: 40 persons	2) Facilities: Project Office	3) Equipment provision: Printer, Copier, Spare parts for ME, etc.	3) Local expenses	4) Local expenses	
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Project Period	November 2009 – November 2014	Project Cost	(ex-ante) 430 million yen, (actual) 439 million yen										
Implementing Agency	Hospital Service Department (HSD) of Ministry of Health (MOH) Biomedical Engineering Unit of National Maternal and Child Health Center (NMCHC)												
Cooperation Agency in Japan	For the period of Phase 1 from November 2009 to March 2012*: Japanese Organization for International Cooperation in Family Planning and Estrella Inc. *The Project was divided into two phases on the basis of project management and monitoring conditions. Phase 1 was conducted from November 2009 to March 2012 under the management of above organizations and Phase 2 from July 2012 to November 2014 under the direct management of JICA experts and concerned staff.												

II. Result of the Evaluation

<Constraints on Evaluation>

• It should be well noted that the outcome of the project studied under this ex-post evaluation is the combined effects by the precedent JICA project (MEDEM-1) and assistance of other development partners such as “Second Health Sector Support Program”.

< Special Perspectives Considered in the Ex-Post Evaluation >

Assessing Achievement Status of Project Purpose

• All of 28 CPA2 were considered as the target hospitals for the Project Purpose as they received inputs by the project before the end of the Project completion. However, considering the limited inputs to those 6 out of 28 CPA2, which were included in target hospitals at later stage, their performance are not assessed as the achievement of Project Purpose, but assessed as the continuing status of Project Effects and Overall Goal.

Assessing Achievement Status of Overall Goal

(1) Target Year for Overall Goal: According to the Terminal Evaluation Report, it is stated that the Overall Goal is likely to be achieved in three to five years after the termination of the Project, therefore, the target year shall be defined to be 2017.

(2) Target hospitals for Overall Goal: The number of non-target CPA2 stated in the Overall Goal “Cambodian Medical Equipment (ME) Management System is institutionalized, and it is also expanded to non-target CPA2”, should be determined based on the current number of CPA2 that were not directly involved by the project.

1 Relevance

<Consistency with the Development Policy of Cambodia at the Time of Ex-Ante Evaluation and Project Completion>

At the time of ex-ante evaluation, this project was relevant to the “Health Strategic Plan 2 (HSP2) (2008-2015)” which stated the need to facilitate the investment toward the health facilities and medical equipment as one of strategies to improve health condition of those vulnerable people, women and children. At the time of project completion, HSP2 was still effective.

<Consistency with the Development Needs of Cambodia at the Time of Ex-Ante Evaluation and Project Completion >

This project was consistent with Cambodia’s development needs to ensure the management and maintenance of medical equipment (ME) at the time of ex-ante evaluation as described in “Background” above. At the time of project completion, no ME management system in the country and the ME management activities at hospital level was standardized. Furthermore, no other development partners had assisted to strengthen the ME management system. Therefore, the needs to maintain the ME Management System developed by the project was continued at the project completion.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

The Country Assistance Program for the Kingdom of Cambodia as of 2002 stated its main policy of assistance on sustainable economic development as well on the poverty elimination. As for the assistance toward the socially vulnerable people, it made practical reference to the medical field and education.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

By the project completion, the Project achieved its purpose of “Cambodia ME Management System is established, and NWT, the target CPA3/NH and CPA2 implement medical equipment management activities in cooperation”. With the capacity strengthening of Lead CPA3/NH and CPA2, all target CPA3/NH hospitals achieved ME operable rate of 90%. This means that at all the target CPA3/NH, more than 90% of ME are evaluated as “GOOD” or “FAIR”, the top two of four levels of categories, to provide the health services. As for CPA2, at 18 out of 22 targeted CPA2, more than 80% of ME are evaluated as “GOOD” or “FAIR” (Indicator 1). With the establishment of network among all concerned hospitals, CPA2 became more satisfied with the responses of their L-CPA3/NH to their needs. In average, the appropriateness of response from L-CPA3/NH to CPA2 improved achieving the target. In individual base, however, some CPA2 didn’t receive sufficient assistance from their L-CPA3NH (Indicator 2). These achievements were supported by the systematic trainings carried out by the project as planned (Indicator 3).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

After the project completion, the project effects have been partially continued. In average of all CPA3/NH, the ME operable rate has maintained above 90% achievement rate with monitoring visits and intervention from L-CPA3 and Provincial Health Departments (PHDs) to improve the functionality of ME system. However, in the individual base, some CPA3/NH and CPA2 did not achieve their targeted ME operable rates respectively. According to the questionnaire survey, the main reasons for some CPA3/NH not achieving the target are the lack of their technical skills for complicated machine repair and difficulties in seeking for spare parts. As for CPA2, ME technicians at target hospitals have been not good enough to manage sophisticated equipment repair and they have also found it difficult to procure the spare parts. No refresher trainings done since the project completion have adversely affected the situation. In terms of appropriate responses, only 66% of CPA2 hospitals reported that they received sufficient assistance from CPA3 hospitals’ ME monitoring and consultation. According to the questionnaires, some attempts have been made to cope with these problems, such that some hospital management team pushed the MEM-WG to pay attention to regular maintenance and repair work and that some L-CPA3 and PHDs conducted the periodic monitoring visits to check whether ME system was properly managed.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

It is observed that the Overall Goal, “Cambodia Medical Equipment (ME) Management System is institutionalized, and it is also expanded to non-target CPA2” has not been achieved. The questionnaire survey result shows that 13 out of 18 CPA2 hospitals achieved the targeted MEM-Monitoring score after project completion (Indicator 1). The ME management system is not expanded to non-target CPA2 hospitals since the number of CPA2 to be assisted by L-CPA3/NH have remained unchanged. Considering the average ME operable rate of 90.2% as of 2017, it is less likely that ME operable rate at the target CPA3/NH has exceeded 95% in individual base. As for CPA2, 13 out of 18 CPA2 as of 2017 maintained the ME operable rate of 80% (Indicator 2). The data to examine the operable mean time of essential ME could not be obtained due to the technical error of ME system during the study period (Indicator 3). It is estimated that the main reasons that the Overall Goal has not been achieved are the limitation of national budget and lack of technical skills for ME management. In addition, the number of CPA2 has gradually increased after the project completion, and thus this hinders to set a specific goal that enables to make a clear plan of what to do to achieve the goal.

<Other Impacts at the time of Ex-post Evaluation>

Some ripple effects have been identified during the study. According to the interview with ME technicians at target CPA3, with better technical capacity, conditions of machine operation have been improved, contributing to better services at hospitals. It was also observed that the project contributed to facilitating the equipment management in general, such that MEM-WG staffs work in collaboration with other staffs based in other internal hospital departments through consultation and they can provide supportive monitoring of machine operable conditions, particularly the machines that are used at their respective departments.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results																																															
<p>(Project Purpose) Cambodia ME Management System is established, and NWT, the target CPA3/NH and CPA2 implement medical equipment management activities in cooperation.</p>	<p>Indicator 1: ME Operable rate at the all target CPA3/NH exceed 90% and target CPA2 exceeds 80%.</p> <p><i>ME operable rate: the percentage of number of operable ME over the total number of ME in the hospital.</i></p> <p><i>Operable ME: the sum of the number of ME whose condition evaluated as "GOOD" and "FAIR", the top two of four categories.</i></p>	<p>Status of the Achievement: Mostly achieved (partially continued) (Project Completion)</p> <p>All target CPA3/NH hospitals exceeded the ME operable rate of 90%. The average operable rate for all target CPA3/NH was 95.1%. Among 22 targeted CPA2 hospitals, 18 CPA2 exceeded the ME operable rate of 80%, but 4 CPA2 did not. The average operable rate for target CPA2 was 87.7%.</p> <p>(Ex-post Evaluation)</p> <p>ME operable rate at CPA3/NH has maintained above 90% in average. But in individual level, 6 out of 22 CPA3/NH did not achieve the 90% operable rate. The data of the average ME operable rate for CPA2 was not available due to the technical error. (Outdated version of MEDEM Inventory Software (MEDEMIS) ⁽¹⁾ which was not compatible with new computer software caused the data unable to be extracted for analysis). According to the questionnaire survey, among 18 respondents, 13 CPA2 hospitals reported that they achieved the 80% of ME operable rate.</p> <p style="text-align: center;">Achievement Status of Operable ME and the average ME operable rates</p> <table border="1"> <thead> <tr> <th colspan="2" rowspan="2">Targeted Hospitals/ Categories of Achievement</th> <th colspan="4">Year</th> </tr> <tr> <th>2014 Project completion</th> <th>2015</th> <th>2016</th> <th>2017 At the ex-post Evaluation</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Targeted CPA3/NH</td> <td>Number of CPA/NH Achieved 90%</td> <td>22</td> <td>19</td> <td>19</td> <td>16</td> </tr> <tr> <td>Number of CPA/NH Not Achieved 90%</td> <td>0</td> <td>3</td> <td>3</td> <td>6</td> </tr> <tr> <td><i>Average operable rate</i></td> <td>95.1%</td> <td>92.9%</td> <td>93.2%</td> <td>90.2%</td> </tr> <tr> <td rowspan="4">Targeted CPA2*</td> <td>Number of CPA2 Achieved 80%</td> <td>18</td> <td>13</td> <td>13</td> <td>13</td> </tr> <tr> <td>Number of CPA2 not Achieved 80%</td> <td>4</td> <td>5</td> <td>5</td> <td>5</td> </tr> <tr> <td>Number of CPA2 not responded to the survey</td> <td>0</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td><i>Average operable rate</i></td> <td>87.7%</td> <td>na</td> <td>na</td> <td>na</td> </tr> </tbody> </table> <p>Note: (1)MEDEMIS contains the ME inventory of all medical equipment in the respective facility, on whether it is operable or nor and whether the functional level if good, fair or bad . (2) Data of 2015, 2016 and 2017 on the table only includes responses from 18 target CPA2 hospitals which responded to the questionnaire survey at the time of ex-post evaluation.</p>	Targeted Hospitals/ Categories of Achievement		Year				2014 Project completion	2015	2016	2017 At the ex-post Evaluation	Targeted CPA3/NH	Number of CPA/NH Achieved 90%	22	19	19	16	Number of CPA/NH Not Achieved 90%	0	3	3	6	<i>Average operable rate</i>	95.1%	92.9%	93.2%	90.2%	Targeted CPA2*	Number of CPA2 Achieved 80%	18	13	13	13	Number of CPA2 not Achieved 80%	4	5	5	5	Number of CPA2 not responded to the survey	0	4	4	4	<i>Average operable rate</i>	87.7%	na	na	na
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<p>Indicator 2: Ratio of appropriate responses by the L-CPA3/NH's to requests from the selected CPA2 for support exceeds 60%.</p> <p><i>Ratio of appropriate responses: It is classified in two folds, 1) whether the problem has been resolved by the communication, and 2) whether CPA3 is satisfied with the contents of the communication. Each item is examined in three levels and converted into the percentage. 100% means the problem is resolved by the communication that satisfies CPA3.</i></p>	<p>Status of the Achievement: Achieved (Partially continued) (Project Completion)</p> <p>Appropriate response from L-CPA3/NH to CPA2 in average improved from 50.3% (2nd semester 2013) to 71.1% (1st semester 2014), achieving the target of 60%. In individual base, 7 CPA2 did not achieve the target of 60%.</p> <p>(Ex-post Evaluation)</p> <p>Questionnaire survey shows that 12 of 18 CPA2 hospitals reported CPA3 hospitals' ME monitoring and consultation supports. Appropriate response data in average was not available due to the technical error in MEDEMIS.</p> <p style="text-align: center;">Ratio of appropriate responses to the selected CPA2 by L-CPA3/NH</p> <table border="1"> <thead> <tr> <th colspan="2" rowspan="2">Targeted Hospitals/ Categories of Achievement</th> <th colspan="4">Year</th> </tr> <tr> <th>2013</th> <th>2014 Project Completion</th> <th>2015</th> <th>2016</th> <th>2017 At the ex-post Evaluation</th> </tr> </thead> <tbody> <tr> <td colspan="2">Number of L-CPA3</td> <td>12</td> <td>12</td> <td>12</td> <td>12</td> </tr> <tr> <td colspan="2">Number of CPA2 to be assisted</td> <td>22</td> <td>22</td> <td>22</td> <td>22</td> </tr> <tr> <td colspan="2"><i>Rate of appropriate responses (in average)</i></td> <td>50.3%</td> <td>71.1%</td> <td>na</td> <td>na</td> </tr> <tr> <td colspan="2">Number of CPA2* received sufficient assistance</td> <td>na</td> <td>15</td> <td>12</td> <td>12</td> </tr> <tr> <td colspan="2">Number of CPA2* not received sufficient assistance</td> <td>na</td> <td>7</td> <td>6</td> <td>6</td> </tr> <tr> <td colspan="2">Number of CPA2 not responded to the survey</td> <td>na</td> <td>0</td> <td>4</td> <td>4</td> </tr> </tbody> </table> <p>Note: Data of 2015, 2016 and 2017 only includes responses from 18 target CPA2 hospitals, which responded to the</p>	Targeted Hospitals/ Categories of Achievement		Year				2013	2014 Project Completion	2015	2016	2017 At the ex-post Evaluation	Number of L-CPA3		12	12	12	12	Number of CPA2 to be assisted		22	22	22	22	<i>Rate of appropriate responses (in average)</i>		50.3%	71.1%	na	na	Number of CPA2* received sufficient assistance		na	15	12	12	Number of CPA2* not received sufficient assistance		na	7	6	6	Number of CPA2 not responded to the survey		na	0	4	4	
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		questionnaire survey at the time of ex-post evaluation.
	Indicator 3: Training for remained CPA3/NH to be L-CPA3/NH starts.	Status of the Achievement: Achieved (Not continued) (Project Completion) First, 6 L-CPA3/NH was selected at the onset of the project, and they started training activities. Then, another 7 CPA3 hospitals were newly selected as L-CPA3 in May 2013 to cope with the increased number of CPA2. Consequently, trainings for 12 L-CPA3 started since 3 rd quarter of 2013. (Ex-post Evaluation) Due to limitation of national budget, no refresher trainings were provided since the project completion in 2014.
(Overall Goal) Cambodia ME Management System is institutionalized, and it is also expanded to non-target CPA2.	Indicator 1: MEM-monitoring score of CPA2 exceeds 60%	(Ex-post Evaluation) Partially achieved The questionnaire survey result shows that after project completion (from 2014 to date), in average, 13 of 18 CPA2 hospitals achieved MEM-Monitoring score of over 60%.
	Indicator 2: ME Operable rate at the target CPA3/NH exceeds 95% and all CPA2 exceeds 80%	(Ex-post Evaluation) Not achieved Since project completion, the number of L-CPA3 and that of CPA2 to be assisted have remained unchanged. This means that the ME management system is not expanded to non-target CPA2. Considering the average ME operable rate of 90.2% as of 2017, it is less likely that ME operable rate at the target CPA3/NH has exceeded 95% in individual base. As for CPA2, only 13 target CPA2 out of 36, the total number of CPA2 as of 2017 (36%), maintained the ME operable rate of 80% among those responded to the questionnaire.
	Indicator 3: Operable mean time of essential ME become longer.	(Ex-post Evaluation) Not verifiable Due to technical error in MEDEMIS for ME monitoring was malfunctioned that data could not be retrieved at the time of ex-post evaluation

Source : Project Completion Report, Questionnaire Survey and Interviews with NWT, ME technicians

3 Efficiency

While the project period was within the plan, the project cost slightly exceeded the plan (ratio against plan: 100%, 102%). Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

The core country development plan, such as “National Strategic Development Plan (2014-2018)” highlights the essence of strengthening health system with quality and equitable services through development of health infrastructure in consistent with effective and efficient procurement and provision of medical equipment. “Health Strategic Plan (2016-2020)” also states the strategic priority for achieving health development goals by increasing investment in appropriate medical equipment and technologies for hospitals. Furthermore, the establishment of “National Policy on Medical Equipment Management” in 2015 aimed to institutionalize functioning of ME governance system for improving the function of NWT committee, provincial committee and MEM-WG at facilities level with clear term of reference of responsibilities. The project effect is still supported by all of those strategies and policy on the ME management.

<Institutional Aspect>

The structure of MEM-WG has been set up and continues to be realized at target hospitals. The ME management system has continued by NWT although the coordination is not fully functioning without continued supports from other development partners. NWT has maintained its status quo mandate to provide guidance, governance and necessary ME intervention measures to the hospitals, especially upon hospitals’ request for support on ME maintenance and repair. At hospitals, MEM-WG consists of at least three members with one Manager, one Deputy Manager and one Technician. There are some concerns to sustain the ME Management System, such that the number of staffing for ME management is not enough to manage ME Management System to function well and no supports from other development partners continued after the project completion.

<Technical Aspect>

MEM-WG staffs are capable to diagnose and repair basic machine malfunctions using knowledge gained from the project. Further interventions from skillful ME technicians and equipment company are called upon to deal with sophisticated machine breakdown and spare-part replacement. New MEM-WG staffs are officially assigned following internal formality of the hospitals although at some hospitals insufficient capacity building is observed. Upon completion of the project, no sufficient trainings, or meetings were held for capacity development by NWT for MEM-WG at health facilities. The reason was due to the fact that budget was utilized for ME Management System governance and monitoring and the amount was not enough for costly refresher training purpose. Attempts have been made by HSD to propose training budget on ME alongside with annual operational budget plan.

<Financial Aspect>

Budget plan is developed and proposed within annual budget plan at respective hospital level. The extent of budget allocation from national level and financing for ME by hospitals remain limited. HSD has proposed budget and further attempts to include budget for ME alongside with annual operational budget plan. However, the amount is not enough to cover the cost for management and repair matter. Attempts to obtain the support from external donors, such as from World Bank ended in vain. According to the questionnaire survey, only 42% of CPA3 hospitals (N=20) answered that they have enough financial resources for ME, and 58% of CPA2 (N=17) thought that they did not have problem with budget. More supports are required to achieve the prioritized activities including the implementation of the “National Strategic Plan” for ME management, updating of ME standard list and continuation of strengthening the ME management at health facilities.

<Evaluation Result>

Therefore, the sustainability of the effects through the project is fair.

5 Summary of the Evaluation

The project achieved the Project Purpose for “Cambodia ME Management System is established, and NWT, the target CPA3/NH and

CPA2 implement medical equipment management activities in cooperation.” The effect of the project has partially continued after the project completion and the Overall Goal has not achieved. As for sustainability, some problems have been observed in terms of institutional, technical and financial aspects. As for efficiency, the project cost slightly exceeded the plan.

Considering all of the above points, this project is evaluated to be partially satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

To: Hospital Service Department (HSD) of Ministry of Health (MOH)

- 1) To secure sufficient recurrent budget allocation on maintenance expenditure, particularly at the onset of budget planning

It was identified by the study that the financial sustainability of the project requires further attention. The extent of budget allocation from national level and financing for ME by hospitals has remained limited. Thus, the amount is not enough to cover the cost for management, repair matter and let alone for the refresher training. Under such circumstances that no supports from other development partners continued after the project completion, considerations should be given to the budget planning priority with appropriate increase in domestic resource mobilization for the ME management system on par with other prioritized health issues by central level.

- 2) To provide the refresher training that can be managed with the limited budget to maintain the technical sustainability.

Capacity development of CPA3 level for sophisticated machine repair and strengthen CPA2 capacity for minor maintenance and repair requires further strengthening. Also, encouragement of ME staff networking and refresher training on technical skills in medical equipment management are necessary component in order to strengthen ME governance mechanism and update technical skills to MEM-WG staffs for smooth, efficient control of equipment operation and management. With the budget limitation, the periodical OJT by the facility on its own or by the group of facilities that are under L-CPA3 regional coverage could serve as possible options if refresher training at national level is difficult. New MEM-WG staffs are officially assigned following internal formality of the hospitals although at some hospitals insufficient capacity building is observed. Under the current circumstances where no sufficient trainings, or meetings have been held for capacity development by NWT for MEM-WG at health facilities, it is difficult to sustain or improve the technical capacity of those MEM-WG staff.

Lesson learned for JICA:

In order to strengthen the ME governance mechanism, the continuity of soft component, such as technical assistance to encourage ME staff networking and to provide refresher training in ME management, should be considered.

The ME management system poses challenges in hospital management capacity to realize proper functioning of ME governance. The Project assisted to help the ME management system in place in Cambodia. However, it is still in the process of institutionalization as MEM-WG requires continuing capacity building to update their knowledge and skill for medical equipment maintenance, new staffs with lack of technical expertise knowledge needs to be trained and ME staff networking should be further encouraged.

For the purpose of disseminating outputs of the previous phase (central level) to the local level, this project set the overall goal as to expand its achievement to non-target CPA2. However, this overall goal was unclear since all the CPA2 were targeted by the time of project completion. As a result, it was found out that the ME management system is not expanded to non-target CPA2 hospitals since the number of CPA2 to be assisted by L-CPA3/NH have remained unchanged even though the total number of CPA2 has been increased (14 CPA2 were newly added). This may be due to the difficulty of specifying overall goal since the chance of increase or decrease of CPA2 was unknown at the time of project completion. As a result, the implementing agency has had a difficulty planning and implementing specific activities to achieve its goal. When implementing a succeeding project which aims at expanding its target from central level to local level, project team make an agreement with implementing agency before completion of the project regarding the specific plan they would take in order to sustainably implement the activities after the project completion.



ME Workshop Room at Preah Kossamak Hospital (CPA3)



MEM & MET Reports at Preah Sihanouk Provincial Hospital (CPA3)