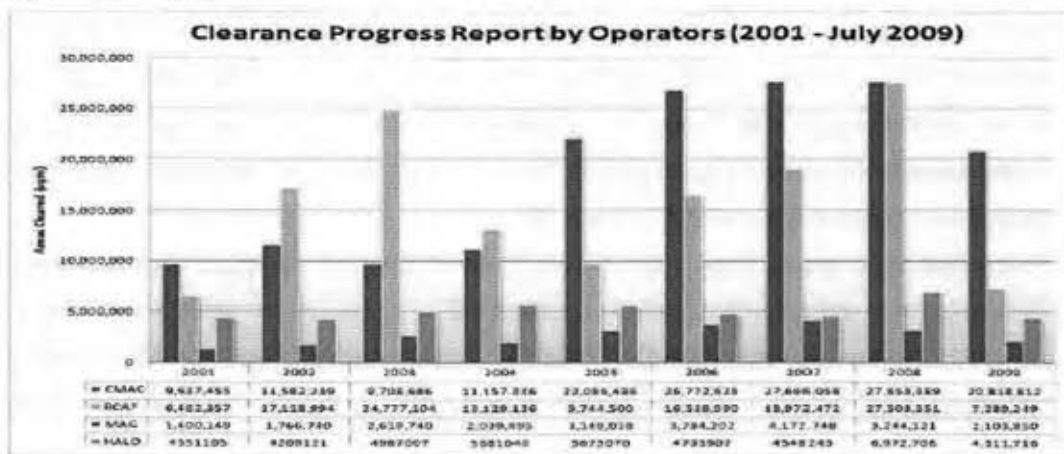


3. RESULTS OF THE EVALUATION BY FIVE CRITERIA

3-1 RELEVANCE

Relevance is judged to be **Very High** for the following reasons.

- 1) Despite the positive progress in decline of the landmine/ERW casualties, the number remains still very high, and Cambodia is still ranked among most landmine affected countries worldwide. Also, CMAC is a core, governmental demining organization and shares a largest responsibility of demining operation in Cambodia. CMAC has been performing the leading role in demining operations in terms of released land as below. (Note that formal accreditation only commenced in Cambodia since 2006, and RCAF's outputs below are not accredited.). Considering the experiences, manpower, knowledge and skills, CMAC is expected to continue to perform as a largest demining operator.



Source: APMBT Article5 Extension Request by RGC, August 2009

- 2) The Project is consistent with both Cambodian government and CMAC policies and strategies. The importance of demining work is all reflected in Target 9 of Millennium Development Goals (MDGs), National Strategic Development Plan (NSDP) 2006-2010, National Mine Action Strategy (NMAS) 2010-2019 and CMAC 5 Year Strategic Plan 2010-2014.
- 3) The Project is consistent with Japanese ODA policies and strategies as well as JICA's country policy and strategies for Cambodia. Peacebuilding and mine action are one of the priority areas.
- 4) The approach of the Project was appropriate to strengthening 3 key areas (Information System, Workshop Management/Maintenance of Equipment, Training Management) as they are all essential to CMAC's function. CMAC clearly perceived that it required organizational capacity development, aside from operational demining techniques, and the Project approach has responded to the point of the CMAC's needs.
- 5) The Project is consistent and complementary with other Japan's assistances (particularly equipment supply through Grant Aid) as well as with other development partners' support to CMAC.

- 6) The Project has utilized Japanese technical advantages and experiences in all the Outputs.

3-2 EFFECTIVENESS

Effectiveness is judged to be **Very High at Output level** for the following reasons:

- 1) The Project Purpose has been met in terms of 3 objectively verifiable indicators which basically correspond with each Output as mentioned in 2-2 Achievements of the Project. It is logical and clear that such achievements are brought by the Project activities. The Project has definitely strengthened the foundation of the CMAC' function in three areas – Information System, Workshop Management (maintenance of equipment) and Training Management, which are all essential for CMAC to perform its duties as a largest demining organization in Cambodia.
- 2) During the project period, levels of CMAC personnel and equipment have been maintained without any big changes affecting the attainment of Project Purpose. CMAC's position and status as a core, governmental demining agency in Cambodia has also been valid. Funding issue is one of the biggest, and chronic challenges for CMAC, but has not affected the Project implementation during the project period. For the trends of CMAC personnel, equipment and expenditure, please see ANNEX 17, 11 and 18.
- 3) When looking at management and systemic issues at CMAC, the Project has contributed to developing and reinforcing foundations of CMAC's management capacity, but there still remains more work to do. The PDM2 itself does not explicitly encompass the system-wise development by integrating 3 Outputs areas to be able to come up with current operational plan to be more comprehensive including more concrete and detailed status of equipment, staffing and budgetary requirements, and it is also a question whether 2.5 years or less project implementation time as well as inputs (personnel, technical expertise and others) were too ambitious to reach out that level. The Project however could have paid attentions more on this aspect, or at least brought more integrated effects on the building of management capacity for CMAC.

3-3 EFFICIENCY

Efficiency is judged to be **High with Some Attentions** for the following reasons:

- 1) As explained in 2-2 Achievements of the Project, nearly all the Outputs have been produced as planned, and activities have been almost sufficient to produce Outputs with sufficient level of quantity and quality inputs on mostly appropriate timing. Use of locally available resources, such as local consultants for programming and training as well as materials for repairing increased efficiency.
- 2) In spite of shortened actual project period, delay in fielding Japanese Experts and Chief of Training as a C/P personnel at HQ for Output 3, the achievements show that the Project have

been implemented efficiently, but such aspects need to be looked into in order to gain not only for increased efficiency but also for quality of Outputs.

- 3) Another point relates to the wider aspect of project management. Since the Project is relatively short period of 2.5 years, change of Chief Advisor in the middle of the Project implementation cost the efficiency to certain extent. Although most of the planned activities have been carried out and it did not appear to seriously affect the Project neither delay nor defer the activities, such situation could have affected efficiency of the Project implementation to a certain degree.

3-4 IMPACT

Impact is judged to be **Conditionally High subject to Funding and Further Management Capacity Development** for the following reasons:

- 1) Looking at the prospects for achieving the Overall Goal as mentioned in 2-2 Achievements of the Project, indicators show that CMAC is on the right track and therefore can be assumed to have an impact theoretically.
- 2) As a ripple effect from Output 3, CMAC has hosted PAICMA, Colombia and delivered training programme as part of South-South cooperation, which also indicates to increase a future impact. The experience has brought to CMAC various resources prepared and developed as well as increased confidence in carrying out international cooperation.
- 3) Post clearance land use is also an indicator to assess the impact. According to the report of UNDP supported Clearing for Results Project, CMAC's post clearance land use in the project in 2009 records that the use of cleared minefields was mainly as follows: 37% for agricultural activities, 23% for resettlements and agriculture purposes, 20% for roads and 5% for irrigation. In 2008, CMAC had cleared 559 minefields (562 sites, 2,215.61 ha) (not included with 144 UAXO fields in one project) of high priority, the type of using land after clearance also presents the similar structure – 34.5% for agriculture, 19.8% for roads, 13.9% for resettlement and agriculture.
- 4) The major problem is associated to funding; impact is subject to availability of funds. CMAC has been receiving generous funds from various development partners which share more than 90 to 95 % of the total funding and the rest is from the Royal Government of Cambodia (RGC). CMAC is heavily dependent on external funding which poses a great challenge for the CMAC's future. Despite the economic situation around the world, CMAC receives positive commitment from partners and donors. However, CMAC needs to continue to mobilize resources internationally and nationally more intensively since the current global financial situation as well as political agenda setting may well be no more as generous for CMAC as before. For recent funding trends and structure, please see ANNEX19.
- 5) On the aspects of more project-related matters, there are challenges both financial and

managerial. As pointed out in 2-2 Achievements of the Project, many of the existing machineries and equipment will have life-time expiry dates in a few years time, and consequently CMAC will face the problems of mid to large scale maintenance and repairing work. This is associated not only to funding issue, but deeply related to management capacity as well. In order to cope with such anticipating problems as well as new demands for equipment in the future, CMAC including Central Workshop and DUs needs to have more managerial capacity on maintenance.

- 6) Training is an important factor to increase safety and productivity and to give impact in the future. The Project supported to create an initial foundation for CMAC to continue to develop further training capacity. For this to happen, necessary staffing may need to be done for Training and R & D Department.

3-5 SUSTAINABILITY

Sustainability is judged **Conditionally Potential** for the following reasons:

- 1) Sustainability here does not require the CMAC to live forever-lasting as a largest demining operator. It is more time-bound as demining itself is regulated by the demining needs which are expected to be reduced. CMAC is also estimating to continue in full momentum the humanitarian demining until 2020 as the country requested for extension of the Anti-personnel Mine Ban Treaty for the next 10 years. Therefore, the evaluation also sees the sustainability of the Project is for the same period.
- 2) Policy settings surrounding CMAC appear to be almost firm. The CMAC is a core, governmental demining organization defined in the country's policy and strategies. They include the approved Extension of the Article 5 of the Anti-Personnel Mine Ban Treaty (APMB Treaty) until 2020, National Mine Action Strategy 2010-2019 and so forth. It is expected to be so at least within the approved extension period until 2020. Royal Cambodian Army Force (RCAF) is another governmental body and working on demining as one of the major operators. However, it is not accredited as yet (except 1 platoon recently accredited) and humanitarian demining will continue to be an integral part of CMAC responsibility.
- 3) For human resources in CMAC in view of their technical skills, commitment and ownership both individually and as an organization as a whole, overall CMAC demonstrates its strength and it is assumed to sustain a large portion of the Project effects to a considerable extent.
- 4) As pointed out earlier, the problem of larger maintenance requirements as machineries and equipment worn-out and development of management capacity from all the Outputs areas needs to be attended in order to reinforce the sustainability. As for maintenance, replacing most of them may not be a first solution as it costs a lot. Rather, CMAC has to manage within a limited budget for repairing them to be usable as long as possible, which requires more attention to maintenance management - identifying and analyzing the causes of various types of problems

and find best efficient procedures, and with all available information, developing a comprehensive plan for maintenance of machinery and equipment including costing.

- 5) The most serious and fundamental problem that may impact to risk the Project effects is again funding. It is expected that CMAC will probably be assisted by development partners until 2020 for the extension period, but the funding level is uncertain. CMAC and RGC need to mobilize resource internally from the government own budget and possibility of income generating activities by CMAC may also have to be sought for. In any case, CMAC needs to have concrete plan of actions, genuine but realistic to delineate what CMAC is to be for the medium and long terms.

4. CONCLUSION, RECOMMENDATIONS AND LESSONS

4-1 CONCLUSION

The implementation status of the activities and achievements by each Output are judged to be satisfactory. Overall, the evaluation based on the Five Evaluation Criteria shows positive in terms of Relevance and Effectiveness and Efficiency, and conditionally positive and potential in terms of Impact and Sustainability as summarized below. It is also noted that whether the effects continue/grow/sustain heavily depends on CMAC's financial sustainability as well as further efforts to develop managerial capacity based on the Project effects.

Summary of Five Evaluation Criteria

Criteria	Evaluation Results
1. Relevance	Very High
2. Effectiveness	Very High at Output Level
3. Efficiency	High with Some Attentions
4. Impact	Conditionally High subject to Funding and Further Management Capacity Development
5. Sustainability	Conditionally Potential

4-2 RECOMMENDATIONS

4-2-1 Actions to be Taken by the End of the Project Period

There are actions recommended to be taken by each Output as follows:

- 1) Output 1: Since development of Land Release module of the Operation Data System is planned to start from July 2010, it is expected that the Project is not able to complete the whole process. CMAC, in consultation with the Project, needs to plan ahead to continue its development and put them in place for proper operation both at HQ and DU levels after the end of the Project including budgetary support to the technical personnel presently hired by the Project.

- 2) Output 2: In order to reinforce the knowledge and skills, refresher trainings are necessary to be provided before the Project ends. The recording practice of maintenance work and required days need to continue and the Project is expected to guide as much as possible, including C/Ps at HQ level, for CMAC to carry out this task effectively. It is also highly recommended to discuss with HQ C/Ps as they are keen on getting advice from the Workshop Management Advisor, at least to identify the way forward.
- 3) Output 3: Resources of training management cycle have been drafted by the Project and by the end of the Project, it is expected to finalize Training Management Manual.

4-2-2 Actions to be Taken after the Project onward

- 1) Output 1: CMAC is required not only to sustain the database systems developed by the Project but also to improve them as information needs change over the time. It is also recommended for CMAC to develop further, for example, to collect and compile information on status of maintenance of machinery and equipment so that availability rates will be calculated in more systematic and regularly manner which will provide an important data for costing and preparing maintenance plans.
- 2) Output 2: As mentioned already, the Project has mainly focused on the development of Central Workshop and therefore capacity development at HQ and DU levels left behind. Since management of maintenance is a key area for CMAC's operational function, CMAC needs to expand its attention to the development of HQ and DU levels as well.
- 3) Output 3: The Project provided resources for CMAC to actually implement the training management cycle making use of such resources starting from the next year's planning. All those resources should be translated into Khmer. CMAC is expected to update the resources according to the actual situation as well. Another is that CMAC may need to go to the next step of reorganizing and restructuring the courses and development of new curriculums.
- 4) Overall: It is recommended that in order to further contribute to Overall Goal, management capacity of CMAC has to be further strengthened by making continuing efforts to integrate all the 3 Outputs achievements and effects so that CMAC will continue to play a core role in mine action sector in Cambodia.

4-2-3 Actions to be Taken by CMAC for More Comprehensive Planning

- 1) As pointed out earlier, CMAC needs to develop further management capacity. The Project has forged the foundation on which CMAC can integrate the results of all the Outputs, but CMAC still need to make more efforts in being equipped with such capacity.
- 2) While acknowledging the various exercises in developing strategies and plans by CMAC, it is suggested that CMAC operational plan should include more concrete and detailed status of

equipment, staffing, budgetary requirements, which requires a sound management capacity that needs to be a priority area for capacity building of CMAC. The plan would serve not only as a guiding tool for fundraising but also as a management capacity building.

- 3) It should be noted here that there are needs for further demining and reducing casualties in mine action sector in Cambodia. Despite the fact that landmine/UXO casualties have been showing a declining trend, there is another aspect that has to be paid more attention to. Casualties may be increased, which was actually perceived for the 4 months operations in 2010, due to more needs arising for agricultural and other development purposes in the course of time, thus in turn such situation requires CMAC to work more in meeting towards such needs.

4-3 LESSONS LEARNED

Lessons learned from the Project are as follows:

1) Project Management

Recruitment of all the Japanese Experts needs to be in time for Project commencement. Since the Project was formulated expecting that the effects be produced in 2.5 years time, 3-6 months delay is not a negligible portion. The Project had to be fully manned ideally from the beginning since all the Outputs activities started by stocktaking and situation analysis first, which had to be done as early stage as possible.

Also, the Project could have been kicked off with the presence of all the major stakeholders concerned so that the ownership and perception about the Project by entire CMAC could be high from the beginning and the Project did not have to wait until the 1st JCC in February 2009 for such acknowledgement.

Since the Project is 2.5 years, it is recommended that one Chief Advisor oversees the entire project period. Change could have affected, together with the delay in posting Japanese Experts, the Project to reach out to capacity building at management level. If not possible to have one throughout the entire period, at least, the role of Chief Advisor has to be defined more clearly at the time of change among JICA and a team of Japanese Experts first, and CMAC as well.

While greatly appreciating the efforts and level of accomplishment of the all the activities and Outputs, it was observed that there were pressures on both C/Ps and Japanese Experts to complete the set activities in the PDM2. It was also noted that adjustments were made according to the actual situation and time available, but still there may be need to discuss both Japanese Experts and C/Ps to act more responsively to the C/Ps situation.

The Project implementation was mostly Outputs-based and individually monitored. In order to give more effects of the Project, the possibility of Japanese Experts to work more closely could have sought for by sharing and exchanging information and opinions not only on formal meetings set per month but informally and on daily basis for better Project management.

2) Planning and PDM

PDM have been modified for the convenience of better Project implementation 2 times and discussed and approved changes in the 1st and 2nd JCC Meetings in February 2009 and 2010. As explained in the 1-5-2 Issues Related to Project Design Matrix (PDM), some points are logically not appropriate to use as framework for Terminal Evaluation. Since PDM is guiding the Project implementation and evaluation, it is recommended that PDM needs to be amended accordingly.

3) Positioning of the Project in A Wider Context

Since the mine action sector in Cambodia as well as CMAC are all guided by sector policies and strategies, they are related to other development partners' policies, strategies and supports as well. It is then quite reasonable that the Project also tracks the situation of the mine action sector in a wider context and not confined to the Project scope only. The Project attended MA-TWG and communicated with other partners on some occasions. It is one of Chief Advisor's responsibilities to collect sector information, and to communicate with other partners at Project implementation level. Sharing such information among the Project members and to confirm the position of the Project in a wider context is also desirable considering the nature of the Project.

ANNEX 1: Approved Project Design Matrix (PDM2)

Project Design Matrix (PDM) :The Project of Strengthening for CMAC's Function for Human Security Realization

Duration: Apr.2008-Sep., 2010

Target Area: The whole country, Target Group: Cambodian Mine Action Centre (CMAC)

23-Feb-10

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal To realize the target of "CMAC 5 Year Strategic Plan 20 10-2014"</p>	<p>1.To contribute toward zero victims by 2012 2.To clear at least 230 km² contaminated area within 5 years. 3.To destroy approximately 1 million landmines and UXOs within 5 years.</p>	<p>1. Progress Report by CMAC 2. Post Evaluation</p>	
<p>Project Purpose Strengthening the function of CMAC and technical transfer system for demining operation</p>	<p>1.Necessary information on various activities is systemized and searching and processing of data is conducted efficiently. 2.Current operating rate of machineries (especially brush cutters, vehicles) is maintained. 3.Training curricula, management manual and equipment installed are properly used.</p>	<p>1. Progress report by CMAC 2. Project Reports 3. Terminal Evaluation</p>	<p>Total support fund from donors to CMAC is stable and does not reduced drastically than the present.</p>
<p>Outputs 1.Data management and communication within/between HQ and branch offices becomes effective and efficient through improvement of information systems. 2.Maintenance and management systems of machinery and equipment are improved. 3. Function and capability of Training Center are improved.</p>	<p>1.1.Double data entry and double data management in the management of fixed asset inventory and the records of demining activity is minimized. 1.2.System down time is minimized. 1.3.Information on the management of fixed asset inventory and the records of demining activity is shared within/between HQ and branch offices through information system. 2.1.All mechanics in Central Workshop can use the related maintenance equipment. 2.2.Technical level of the staffs concerned on service and repair (especially mechanic) is improved. 2.3.Term (days) required for maintenance works of machinery & equipment (brush cutters, vehicles) is shortened as compared with average term in 2008 and 2009. 2.4.Percentage of availability rate of machinery & equipment. (Target of operating rate is fixed by the end of May, 2009 by reviewing the present rate.) 3.1.Training management cycle, such as needs assessment, its preparation, implementation, and evaluation, is set as a concrete procedure, and training curriculum is set both for instructors and trainees. 3.2.Training management manual is introduced, and training materials are updated both in paper-based and electronic-based. 3.3.Training equipment is installed, and instructors' presentation skills are improved. 3.4.Network with other mine action training centers and/or other related institutions, is established and the system to conduct South-South Cooperation, dispatch and acceptance of staffs for technical exchange etc. is prepared.</p>	<p>1. Progress Report by CMAC 2. Project Reports 3. Terminal Evaluation</p>	<p>1. Number of staff of CMAC does not change drastically. 2. CMAC keeps at least present level of the number of equipments 3. CMAC keeps good quality and efficiency of its overall management</p>

Activities	Input to the Project	
<p>1.1.To review the present condition and future plan of CMAC information system</p> <p>1.2.To coordinate and conduct meeting/workshop to improve the management information system policy and procedure.</p> <p>1.3.To identify the equipment and system required to improve the quality of CMAC information system</p> <p>1.4.To develop/improve information system on demining activity, fixed asset inventory and human resources in order to strengthen information sharing within/between HQ and branch offices.</p> <p>1.5.To train the staff engaged in development/maintenance of information system in the area of information system development and network management in order to improve their capability.</p> <p>2.1.To strengthen the function of Central Workshop</p> <p>2.1.1.To review the present management of the Workshop, technical level of service.</p> <p>2.1.2.To review the present situation of machines and tools</p> <p>2.1.3.To introduce the equipment which is required for the appropriate maintenance works for the vehicles and brush cutters.</p> <p>2.1.4.To conduct OJT to strengthen capability of management staff and develop the servicing and repairing capacity of mechanics in the Workshop.</p> <p>2.1.5.To propose the guidelines for management of Central Workshop in order to strengthen the function of it.</p> <p>2.2.To review the present situation and problems of management and maintenance system of existing machinery and equipment.</p> <p>2.3.To review and strengthen management and maintenance system to grasp repairing records and operating hours and stock management system of spare parts and expendables for the purpose of operation of machinery and equipment for long term and reducing cost.</p> <p>2.4.To hold workshops and/or seminars to train the concerned staff in practical using of the management and maintenance system.</p> <p>3.1.To improve the assessment processes of training needs and design appropriate training curriculum.</p> <p>3.2.To improve the manuals for training affairs management.</p> <p>3.3.To guide the instructors and other staffs concerned on teaching method and presentation skill to strengthen their capacity.</p> <p>3.4.To collect the information of technical training in other mine action centers and/or related institutions to strengthen CMAC Training Center management.</p>	<p>(Cambodian Side)</p> <p>1. Local Cost</p> <p>Necessary budget for the implementation of the Project</p> <p>2. Allocation of necessary personnel</p> <p>2.1 Counterpart personnel</p> <p>2.2 Administrative personnel</p> <p>3. Preparation of office spaces and facilities (for advisers)</p>	<p>(Japanese Side)</p> <p>1. Dispatch of Experts</p> <p>1.1 Long Term Expert</p> <p>Chief</p> <p>Advisor/Cooperation</p> <p>Management</p> <p>Workshop Management</p> <p>Advisor</p> <p>Training Management</p> <p>Advisor</p> <p>1.2 Short Term Expert</p> <p>Information System</p> <p>Advisor</p> <p>Other Experts (according to the needs)</p> <p>2. Provision of Equipment (for the necessity of technical cooperation activities)</p> <p>3. Training for necessary fields</p> <p>3.1 Counterparts training in Japan/ other countries (in case of necessity)</p> <p>1. Most personnel of CMAC staff who are trained through the project continue to work at CMAC</p> <p>2. Full-time counterparts are assigned by CMAC</p> <p>3. Counterparts of CMAC devote their every effort to implement the project</p> <p>Precondition</p> <p>1. The necessary fund/budget is secured for managing CMAC activity.</p> <p>2. CMAC keeps its present status as a leading agency for mine action in Cambodia.</p>

ANEX 2: Plan of Operations (Revised and Used) : Project of Strengthening DMAC's Function for Human Security Realization

Activity	2008												2009												2010												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1.1 To review the present condition and future plan of DMAC information system. 1.2 To coordinate and conduct meeting/workshop to improve the management information system policy and procedure. 1.3 To identify the equipment and system required to improve the quality of DMAC information system. 1.4 To develop/improve information system on cleaning activity, food, pest inventory and human resources in order to strengthen information sharing within HQ and branch offices. 1.5 To train the staff engaged in development/maintenance of information system in the area of information system development and network management in order to improve their capability.	Plan												Plan												Plan												
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	2.1 To strengthen the function of Central Workshop 2.2 To review the present situation and problems of management and maintenance system of existing machinery and equipment. 2.3 To review and strengthen management and maintenance system to ensure regular and optimal use of their and stock management system of spare parts and components for the purpose of operation of machinery and equipment for long term and reducing cost. 2.4 To hold workshops and/or seminars to train the concerned staff in practical using of the management and maintenance system.	Plan												Plan												Plan											
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3.1 To improve the assessment processes of training needs and design appropriate training curriculum. 3.2 To improve the manuals for training affairs management. 3.3 To guide the instructors and other staffs concerned on teaching method and presentation skill to strengthen their capacity. 3.4 To collect the information of technical training in other mine action centers and/or related institutions to strengthen DMAC Training Center management.		Plan												Plan												Plan											
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ANNEX 2: Comparison between RD Activities and Revised/Used PO Activities: Project of Strengthening CMAC's Function for Human Security Realization

	<i>RD Activities of the Project</i>	<i>Revised/Used PO Activities</i>
Output 1	1.1 To review the present condition and future plan of CMAC information system	←
	1.2 To coordinate and conduct meeting/workshop to improve the management information system policy and procedure	←
	1.3 To identify the equipment and system required to improve the quality of CMAC information system	←
	1.4 To support the information system development after selection of target branch offices and consideration of information to be shared and measure of communication in order to strengthen information sharing and communication between HQ and branch offices.	1.4 To develop/improve information system on demining activity, fixed asset inventory and human resources in order to strengthen information sharing within/between HQ and branch offices.
	1.5 To train the staff engaged in development/maintenance of management information system in the specific area of dealing with computer troubles, server and network management and data base development etc., information system development and network management in order to improve their capability .	1.5 To train the staff engaged in development/maintenance of information system in the area of information system development and network management in order to improve their capability .
Output 2	2.1 To strengthen the function of Central Workshop	2.1 To Review management, technical level of service & repair and equipment
	2.2 To review the present situation and problems of management and maintenance system of existing machinery and equipment.	2.2 To improve the condition of the equipment and tools in the central workshop
	2.3 To review and strengthen management and maintenance system to grasp repairing records and operating hours and stock management system of spare parts and expendables for the purpose of operation of machinery and equipment for long term and reducing cost.	2.3 To provide OJT, the training and/or seminars
	2.4 To hold workshops and/or seminars to train the concerned staff in practical using of the management and maintenance system.	2.4 To propose guideline of maintenance and workshop management
Output 3	3.1 To improve the assessment processes of training needs and design appropriate training curriculum.	←
	3.2 To improve the manuals for training affairs management.	←
	3.3 To guide the instructors and other staffs concerned on teaching method and presentation skill to strengthen their capacity.	←
	3.4 To collect the information of demining activity and technical training (field, organizer and instructor etc.) of in other mine action centers in mine/UXO affected countries as a part of establishing the network with other affected countries in the world.	3.4 To collect the information of technical training in other mine action centers and/or related institutions to strengthen CMAC Training Center management.

ANNEX 3-1: EVALUATION GRID

1. PERFORMANCE

Items of Evaluation	Evaluation Questions	Basis for Judgment	Data Needed	Data Sources	Data Collection Methods
Input	Is input from the Japanese Side implemented as planned?	Actual Inputs including comparison with the description of R/D	<ul style="list-style-type: none"> Japanese Experts C/P training in Japan Provision of equipment Allocation of operational costs for the Project 	R/D, PO, Project documents	Document Review
	Is input from the Cambodian Side were implemented as planned?	Actual Inputs including comparison with the description of R/D	<ul style="list-style-type: none"> Assignment of counterpart personnel Office and facilities provided for the Project Allocation of operational costs for the Project 	As above	As above
Output	Is Output 1 produced as planned? Output 1: Data management and communication within/between HQ and branch offices becomes effective and efficient through improvement of information systems.	1.1 Double data entry and double data management in the management of fixed asset inventory and the records of demining activity is minimized.	<ul style="list-style-type: none"> Status of improving and operationalizing Fixed Asset Tracking System and the mine data base (Operation Database System) Status of improved double data entry and double data management within/between HQ and branch offices 	Project documents, C/P, Japanese Experts	Document Review, Questionnaire, Interviews
		1.2 System down time is minimized.	<ul style="list-style-type: none"> Status of system operations (including system down time) 	As above	As above
		1.3 Information on the management of fixed asset inventory and the records of demining activity is shared within/between HQ and branch offices through information system.	<ul style="list-style-type: none"> Status of improving information management system within/between HQ and branch offices. Status of sharing and utilizing Fixed Asset Tracking System and the mine data base (Operation Database System) 	As above	As above
	Is Output 2 produced as planned? Output 2: Maintenance and management systems of machinery and equipment are improved.	2.1 All mechanics in Central Workshop can use the related maintenance equipment.	<ul style="list-style-type: none"> Evaluation results on mechanic ability to use equipment No. of mechanics trained and their achievements C/P, Experts' perception and views (on YY mechanics out of a total of XX mechanics are judged to be able to use equipment) 	As above	As above
		2.2 Technical level of the staffs	<ul style="list-style-type: none"> Evaluation results of staff/mechanics on 	As above	As above

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		concerned on service and repair (especially mechanic) is improved	<ul style="list-style-type: none"> technical level No. of mechanics trained and their achievements C/P, Experts' perception and views 		
		2.3 Term (days) required for maintenance works of machinery & equipment. (Target of operating rate is fixed by the end of May 2009 by reviewing the present rate.)	<ul style="list-style-type: none"> Records required days for maintenance work (for comparison between initial, target and present days) 	As above	As above
		2.4 Percentage of availability rate of machinery & equipment is improved (Target of operating rate is fixed by the end of May 2009 by reviewing the present rate)	<ul style="list-style-type: none"> Records on operation rates (for comparison between target and present rates) 	As above	As above
	Is Output 3 produced as planned? Output 3: Function and capability of Training Centre are improved.	3.1 Training management cycle, such as needs assessment, its preparation, implementation, and evaluation, is set as a concrete procedure, and training curriculum is set both for instructors and trainees.	<ul style="list-style-type: none"> Status of training management cycle (including implementation status of each step) Status of developing/updating curriculum (trainers and participants) 	As above	As above
		3.2 Training management manual is introduced and training materials are updated both in paper-based and electronic-based.	<ul style="list-style-type: none"> Status of developing/updating manuals (quantity, subject, etc.) Status of use of manuals Status of updating materials (paper-based, and electronic based) 	As above	As above
3.3 Training equipment is installed, and instructors' presentation skills are improved.		<ul style="list-style-type: none"> Status of training equipment installed (kinds, quantity, gaps etc.) Evaluation results of trainers presentation skills 	As above	As above	
3.4 Net work with other mine action training centers and/or other related institutions, is established and the system to conduct South-South Cooperation, dispatch and acceptance of staffs for technical exchange etc. is prepared		<ul style="list-style-type: none"> Status of contact and networking with institutions Status of capacity and implementation for dispatch and acceptance for training as part of S-S cooperation 	As above	As above	
Project	Will the project purpose be achieved?	1. Necessary information on various	<ul style="list-style-type: none"> Status of information management system 	As above	As above

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(2) EFFECTIVENESS

Evaluation Questions		Data Needed	Data Sources	Data Collection Methods
Main Question	Sub-Questions			
Achievement of the Project Purpose	Looking at the Project performance, is the Project Purpose (Strengthening the function of CMAC and technical transfer system for demining operation) being likely to be achieved?	<ul style="list-style-type: none"> Records of Project Performance Stakeholders' perception/views 	Project documents, C/Ps, Japanese Experts,	Document Review, Questionnaire, Interviews
Causal relationships (Contribution of Outputs)	Have the Outputs been contributing to achievements of the Project purpose?	<ul style="list-style-type: none"> Relationship between Project Purpose and Outputs 	As Above	As above
	Are the Outputs sufficient to achieve the Project purpose?	<ul style="list-style-type: none"> Records of Project Performance Stakeholders' perception/views 	As Above	As above
	Are the important assumptions from the Outputs to the Project Purpose valid also at the present point of time? Any change or influence from the important assumptions? Important Assumptions: 1. Number of staff of CMAC does not change drastically 2. CMAC keeps at least present level of the number of equipments 3. CMAC keeps good quality and efficiency of its overall management Additional: CMAC maintains the present institutional status as a core, government mine action agency in the Cambodian mine action policy.	<ul style="list-style-type: none"> Trends of assistance to CMAC by other donors Status of CMAC personnel and equipment Status of CMAC management 	CMAC documents, Project documents, C/Ps, Japanese Experts,	As above
	What are the contributing/inhibiting factors to achieve the Project purpose?	<ul style="list-style-type: none"> Information on contributing/inhibiting factors 	Project documents, C/Ps, Japanese Experts,	As above

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(3) EFFICIENCY

Evaluation Questions		Data Needed	Data Sources	Data Collection Methods
Main Question	Sub-Questions			
Achievement level of outputs	Is level of outputs achievement as planned?	<ul style="list-style-type: none"> Records of Project Performance 	Project documents	Document Review,
Causal relationship (Contribution of activities)	Are activities sufficient to produce the outputs?	<ul style="list-style-type: none"> Records of Project Performance 	Project documents, C/Ps, Japanese Experts,	Document Review, Questionnaire, Interviews
	Are the important assumptions from the activities to the outputs valid also at the present point of time? Any change or influence from the important assumptions? Important Assumptions: 1. Most personnel of CMAC staff who are trained through the project continue to work at CMAC 2. Full-time counterparts are assigned by CMAC 3. Counterparts of CMAC devote their every effort to implement the project.	<ul style="list-style-type: none"> Information on the important assumptions (Status of allocation of C/Ps, participation in the Project etc) 	As above	As above
	Are there any contributing/inhibiting factors to efficiency?	<ul style="list-style-type: none"> Information on contributing/inhibiting factors 	As above	As above
Quantity, quality and timing of inputs	Was input appropriate in terms of quantity, quality and timing?	<ul style="list-style-type: none"> Records of input Stakeholders perception/views 	As above	As above
	Were activities carried out in good timing?	<ul style="list-style-type: none"> Records of input Stakeholders perception/views 	As above	As above

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(4) IMPACTS

Evaluation Questions		Data Needed	Data Sources	Data Collection Methods
Main Question	Sub-Questions			
Prospect of achievement of the Overall Goal	Looking at the input and output performance and activities carried out, is the Overall Goal likely to be achieved ?	1. Trends of Mine and ERW casualties 2. Trends of area cleared by CMAC 3. Trends of number of mine/UXOs destroyed by CMAC Additional: Estimates of remaining problems	CMAC 5 Year Strategic Plan 2010 - 2014, other CMAC documents	Document Review, Interviews
	Overall Goal To realize the target of "CMAC 5 Year Strategic Plan 2010 - 2014"	Are there any inhibiting factors to achieve the Overall Goal ?	Information on inhibiting factors	Project documents, C/Ps, Japanese Experts
Causal relationship	Is the Project contributing to the likely achievement of the Overall goal and having Impacts ?	Level of achievement of output and its contribution (review logic model)	Project documents C/P, CMAA	As above
	Is the important assumption from the Project Purpose to the Overall Goal likely to be valid ? Important Assumption: Total support fund from donors to CMAC is stable and does not reduced drastically than the present.	Trends of assistance to CMAC by other donors	Project documents, C/Ps, Japanese Experts, CMAC documents, CMAA, UNDP	Document Review, Questionnaire, Interviews
Ripple effects	Is there any positive impact other than the Overall Goals ?	Information on positive impact	As above	As above
	Is there any negative impact? Are there any measures taken to minimize the negative impact ?	Information on negative impact	As above	As above

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(5) SUSTAINABILITY

Evaluation Questions		Data Needed	Data Sources	Data Collection Methods
Main Question	Sub-Questions			
Policy	Does mine action policies including the role of CMAC as a core governmental mine action organization will continue after the Project ?	• Status of Extension of APMBT • National Mine Action Strategy • CMAC Strategy • Position and role of CMAC	NMAS, APMBT Extension request, CMAC documents, Project documents, C/Ps, Japanese Experts, CMAA, UNDP	Document Review, Questionnaire, Interviews, Discussions
Organizational and Financial	Does CMAC have sufficient capacity to implement the activities to produce effects after the cooperation ends ?	• Status of CMAC human resources • Stakeholders perception/views	CMAC documents, Project documents, C/Ps, Japanese Experts, UNDP	As above
	Does CMAC have a sufficient sense of ownership of the Project ?	• Status of level of participation by CMAC in the Project activities • Stakeholders perception/views	As above	As above
	Does CMAC undertake measures to secure sufficient funds ?	• Trends of CMAC funds, future prospects and measures to secure funds • Stakeholders perception/views	As above	As above
Technical	Are technical expertise developed in the areas of Information Management, Workshop Management and Training Management to be sustained ?	• Evaluation results of C/Ps capability • Stakeholders perception/views	Project documents, C/Ps, Japanese Experts,	As above
	Is the equipment appropriately to be maintained and managed ?	• Evaluation results of C/Ps and CMAC with regards to equipment maintenance and management • Stakeholders perception/views	As above	As above
	Does the Project have a mechanism for disseminating the skills and knowledge inside as well as outside of CMAC ?	• Status of dissemination mechanism within and outside of CMAC both national and internal	Project documents, C/Ps, Japanese Experts,	As above
	What is the possibility of CMAC to maintain such mechanism ?	• Status of dissemination mechanism within and outside of CMAC both national and internal • Stakeholders perception/views	Project documents, C/Ps, Japanese Experts,	As above
Contributing/inhibiting factors	Are there any contributing/inhibiting factors to sustainability ?	Information on contributing/inhibiting factors	Project documents, C/Ps, Japanese Experts, CMAA, UNDP	As above

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ANNEX 3-2: RESULTS OF EVALUATION

1. PERFORMANCE

Items of Evaluation	Evaluation Questions	Basis for Judgment	Results								
Input	<p>Is input from the Japanese Side implemented as planned ?</p>	<p>Actual Inputs including comparison with the description of R/D</p>	<ul style="list-style-type: none"> Experts have been fielded for 4 positions: 1) Chief Advisor, 2) Information System Advisor, 3) Workshop Management Advisor, and 4) Training Management Advisor-cum-Project Coordinator. No. 1 and No.4 are long-term experts stationed in Cambodia throughout the period of the Project whereas No.2 and No. 3 are short-term experts on shuttle-base assignments. For details, please see ANNEX 4. Three mechanics of CWS (CWS) working for brush-cutter and vehicles attended the Counterpart Training in Japan for 25 days at Yamnashi Hitachi Construction Machinery co., Ltd. in order to build up the maintenance skills of machineries and equipment. The same C/P Training is planned in August 2010 as well. For details, please see ANNEX 5. Third-Country Trainings were participated by the C/Ps of Output 3 (Training Management) in Kenya and Colombia. Outline of the Trainings are as follows. <table border="1" data-bbox="715 219 1002 1205"> <thead> <tr> <th colspan="2" data-bbox="715 219 746 1205">Outline of Third Country Training</th> </tr> </thead> <tbody> <tr> <td data-bbox="746 219 778 1205">Days</td> <td data-bbox="746 219 778 1205">Kenya, HPSS 22 – 28 Aug. 2009 (7 days)</td> </tr> <tr> <td data-bbox="778 219 810 1205">Participants</td> <td data-bbox="778 219 810 1205">Colombia, PAICMA 12 – 22 Sept. 2009 (11 days)</td> </tr> <tr> <td data-bbox="810 219 842 1205">Objectives</td> <td data-bbox="810 219 842 1205">3 (CMAC) + Training Management Advisor + Training Management Advisor Did training needs enquiry for CMAC to conduct training programmes for PAICMA, which were scheduled for 3 times (Jun. and Oct. 2010, Jun. 2011).</td> </tr> </tbody> </table> 	Outline of Third Country Training		Days	Kenya, HPSS 22 – 28 Aug. 2009 (7 days)	Participants	Colombia, PAICMA 12 – 22 Sept. 2009 (11 days)	Objectives	3 (CMAC) + Training Management Advisor + Training Management Advisor Did training needs enquiry for CMAC to conduct training programmes for PAICMA, which were scheduled for 3 times (Jun. and Oct. 2010, Jun. 2011).
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	<p>Is input from the Cambodian Side were implemented as planned ?</p>	<p>Actual Inputs including comparison with the description of R/D</p>	<ul style="list-style-type: none"> A total of approx. JPY30,260,000 plus US\$157,000 worth equipment and machineries have been provided. Major items are for example, network device, computers for Information Management, Gantry Crane, Milling Machine, various tools and testers for Workshop Management, and AV devices and computers for Training Management. For details, please see ANNEX 6. According to R/D, Cambodian C/Ps posts were originally 16 (Project Director, Output 1 (5 persons), Output 2 (4 persons), Output 3 (5 persons)). The post of Deputy Project Director was added on occasion of the 2nd JCC Meeting in February 2009 and a total of 17 people (PD (1), DPD (1), Output 1 (4), Output 2 (5), Output 3 (6)) are presently assigned as C/Ps. Out of 17, there are 9 including Project Director who have been assigned as C/Ps from the beginning of the Project. For details, please see ANNEX 7. Office space and necessary facilities provided by CMAC at HQ, CWS and Training Centre are all good and 								

ANNEX 3-2: Results of Evaluation

Output	Is Output 1 produced as planned? Output 1 : Data management and communication within/between HQ and branch offices becomes effective and efficient through improvement of information systems.	1.1 Double data entry and double data management in the management of fixed asset inventory and the records of demining activity is minimized.	<p>sufficient conditions. Three Japanese experts (Chief Advisor, Information Management Advisor, Training Management Advisor) are based in HQs and Workshop Management Advisor is based in CWS in Battambang. Training Management Advisor, though basically HQ-based, regularly visits to the Training Centre located in Kampong Chhnang. Office and facilities provided for the Project</p> <ul style="list-style-type: none"> • An appropriate level of costs was met by Cambodian side to run the activities of the Project. • Developed/improved 3 systems - 1) Operation Database System, 2) Fixed Asset Tracking System, and 3) Human Resource System. All the 3 systems have been developed/improved and now in operation almost properly in HQs, DUs, and Training Centre, Central Warehouse and CWS where appropriate. Just 1 module (Land Release) which came up as a new additional to Operation Database System is to be developed starting from July 2010. For details, please see ANNEX 8. • Double data entry and double data management have been considerably improved between DUs and HQs and within HQs as well. Previously, the data at DUs was entered using Excel and sent to HQs paper-based records. The same situation applied to HQs as well, and all such system caused inaccuracy and inefficiency of the data management. With the Project inputs, however, almost all the DUs and HQs are now using database system instead of EXCEL and sending electronic data of export files either by e-mail or USB so that accuracy and security of data have enormously improved, and leading greater efficiency in information management in CMAC. For more details of "before and after the Project" comparison, see ANNEX 9. • System down time was reduced through 1) introducing server-based network system which has made the system technically more solid, 2) deployment of full-time MIS staff at each and every DU (previously part-time based), 3) setting up UPS for stabilizing electric supply and 4) developing technical capacity of concerned staff through various trainings. For details of training, see ANNEX 10. • See 1.1 above
Is Output 2 produced as planned? Output 2: Maintenance and management systems of machinery and equipment are improved.	2.1 All mechanics in CWS can use the related maintenance equipment.	1.2 System down time is minimized. 1.3 Information on the management of fixed asset inventory and the records of demining activity is shared within/between HQ and branch offices through information system.	<ul style="list-style-type: none"> • Knowledge and skills of all the mechanics in CWS are estimated to be improved considerably through constant and responsive advice, OJT and a set of trainings both in-country (ANNEX 10) and in Japan (ANNEX 5). • Introduced an important practice to use manuals, to refer to catalogues and guidelines to ensure the quality standard of maintenance, which were not practiced as normal actions in CWS before. • The accident rates at CWS were zero during the Project period while there were some cases before the Project.

ANNEX 3-2: Results of Evaluation

	<ul style="list-style-type: none"> Overall, CWS technical level in identifying the problems, selecting appropriate methods to fix them, and actually fixing the broken machineries and equipment with better quality and efficiency is estimated to be improved to a great extent. See above 2.1 Since the Project concentrated on the development of CWS, technical development of staff at HQ and mechanics at DU is limited. 		
<p>2.2 Technical level of the staffs concerned on service and repair (especially mechanic) is improved.</p>			
<p>2.3 Term (days) required for maintenance works of machinery & equipment. (Target of operating rate is fixed by the end of May 2009 by reviewing the present rate.)</p>	<ul style="list-style-type: none"> The time required for maintenance is estimated to be reduced and consequently increased availability rates. For calculation of the rates, recording data constantly and precisely on maintenance time for each item is necessary. This is an important practice required in this kind of workshop for effective maintenance management, but was yet in place in organized manner neither in CWS nor HQ. The Project has introduced the system and it is now in the process of collecting data. At the time of Terminal Evaluation, it is too premature to compile the data and analyze them. Instead, through looking at the process of technical inputs by the Project as well as the interviews/questionnaires both from CWS and UNDP, it can be assumed that CWS has demonstrated better situation in reducing the required time for repairing and increasing the availability rates. Referring to List of CMAC Main Equipment 2008, 2009 and 2010 (as of June 22), the trends show that most of the items are in service and those un-service/broken are mainly due to life-time expiry and replaced by new devices. This is indicative for the positive achievements of Outputs 2. Please see ANNEX 11, for details. 		
<p>2.4 Percentage of availability rate of machinery & equipment is improved (Target of operating rate is fixed by the end of May 2009 by reviewing the present rate)</p>	<p>See above 2.3</p>		
<p>Is Output 3 produced as planned? Output 3 : Function and capability of Training Centre are improved.</p>	<ul style="list-style-type: none"> Training Management Cycle has been introduced for the first time in a systematic manner by the Project. The achievements include 1) Training Management Committee and Training Support Unit organized, 2) Training Needs Assessment at 3 different levels (field, CMAC projects-wise, HQ) conducted, 3) A total of forty-six (46) Standard Training Course Curriculum organized and documented, and 4) Training Management Manual prepared. For training curriculums, please see a list of 46 curriculums and a sample draft provided in ANNEX 12 & ANNEX 13. 		

		<p>trainees.</p> <p>3.2 Training management manual is introduced and training materials are updated both in paper – based and electronic – based.</p> <p>3.3 Training equipment is installed, and instructors' presentation skills are improved.</p> <p>3.4 Net work with other mine action training centers and/or other related institutions, is established and the system to conduct South-South Cooperation, dispatch and acceptance of staffs for technical exchange etc. is prepared.</p>	<ul style="list-style-type: none"> • Training Management Manual has been prepared in English, and a portion directly related to Training Centre is being translated into Khmer for instructors' convenience. • A workshop is planned in order to orient C/Ps on how to use the manual. For outline of the manual, please see ANNEX 14. • Training Centre has been upgraded with supplies of various AV training equipment and computers necessary for conducting effective trainings. Previously, there were quite limited equipment (almost none) and with such provision, Training Centre's capacity in this regard has greatly improved. For major items, please see ANNEX 6 • Instructors' skills in preparing training materials as well as delivering lessons in the classroom have also been improved through the provision of such equipment as well as trainings on AV training aids (camera, video) and on methods on training/teaching including preparation and evaluation. • It should be noted that lessons using AV materials is assumed to greatly enhance training efficacy for all the training participants in general and for non-literate participants in particular. For a list of training in Output 3, please see ANNEX 10. • The Project envisaged Kenya and Colombia as most feasible countries for South-South cooperation. As part of third country training, C/Ps and Training Management Advisor visited the two countries. See Inputs by Japanese side above. • CMAC also hosted a training programme for PAICMA, Colombia June 2010 for 2 weeks, and such experiences in preparing and implementing the programme has brought important experiences as well as resources (curriculum, materials, etc.) and confidence, too.
<p>Project Purpose</p>	<p>Will the project purpose be achieved?</p> <p>Project Purpose: Strengthening the function of CMAC and technical transfer system for demining operation.</p>	<p>1. Necessary information on various activities is systemized and searching and processing of data is conducted efficiently.</p>	<ul style="list-style-type: none"> • The development of database systems, upgrading network and computer-related devices, posting full-time MIS staff in all DUs, and training of MIS staff has allowed CMAC information management capacity more systemized and efficient. • CMAC has reorganized to upgrade database section to database branch where all the operation data is centralized. This is also a positive sign of assuming the effectiveness being institutionalized and thus sustainable. • With such developments, CMAC's planning exercise has become more evidence-based and more credible by making best use of accurate and centralized data, which has been brought by the Output 1 (Information Management).
	<p>2. Current operating rate of machineries (especially</p>	<p>machineries</p>	<ul style="list-style-type: none"> • Maintaining the current operating rate of machineries is to be met through upgrading mechanics' skills and knowledge, and providing necessary machineries and equipment to CWS.

ANNEX 3-2: Results of Evaluation

		<p>brush cutters, vehicles) is maintained.</p> <p>3. Training curricula, management manual and equipment installed are properly used.</p>	<ul style="list-style-type: none"> • However, many of the CMAC demining machineries and equipment are expected to reach a stage of life-expiry in a few years time, taking the accumulated operating time and running km into consideration. • For example, many of the construction machineries have almost reached 9,000 working hours, whereas standard benchmark of replacement is normally 10,000 hrs. The same situation applies to vehicles and other equipment. Most of the items, supplied in 2005 as the latest, will require a larger scale of repairing work in due course of time. • Such problem facing CMAC has become clearer as a result of the Project efforts in developing maintenance management capacity. • All the 46 Standard Training Course Curriculum, Training Management Manual and equipment installed are used and expected to be used properly as they are all well perceived by C/Ps as essential resources to Training Centre. • The Curriculum may need to be translated into Khmer as well for instructor's convenience as with the case for a part of Training Management Manual being translated into Khmer. • Instructors' skills in preparing training materials as well as delivering lessons in the classroom have also been improved through the provision of such equipment as well as trainings on AV training aids (camera, video) and on methods on training/teaching. • Lessons using AV materials is assumed to greatly enhance training efficacy for all the training participants in general and for non-literate participants in particular. For a list of training in Output 3, please see ANNEX 10. 																																																																																																																															
<p>Prospect of achievement (Overall Goal)</p>	<p>Are there prospects that the overall goal will be achieved?</p> <p>Overall Goal: To realize the target of "CMAC 5 Year Strategic Plan 2010 - 2014".</p> <p>Note: In R/D, CMAC 5 Year Strategic Plan 2008-2012 was referred which was not officially approved and non-existing at the time of Evaluation. The Project amended in the 2nd JCC Meeting Feb, 2010 to refer to the latest CAMC 5 Year</p>	<p>1. To contribute toward zero victims by 2012.</p> <p>2. To clear at least 230 km² contaminated area within 5 years.</p> <p>3. To destroy approximately 1 million landmines and UXOs within 5 years.</p> <p>Note:</p>	<p>1. Trends of Landmine/UXO casualties showing declining trends as below (CMVIS).</p> <table border="1" data-bbox="813 268 1021 1187"> <thead> <tr> <th colspan="12">Landmine/UXO Casualties in Cambodia 1992-2010 (Jan.-Apr.)</th> </tr> <tr> <th></th> <th>1992</th> <th>1993</th> <th>1994</th> <th>1995</th> <th>1996</th> <th>1997</th> <th>1998</th> <th>1999</th> <th>2000</th> <th>2001</th> <th>2002</th> </tr> </thead> <tbody> <tr> <td>Mine</td> <td>1573</td> <td>2039</td> <td>2340</td> <td>2603</td> <td>3025</td> <td>811</td> <td>1631</td> <td>731</td> <td>467</td> <td></td> <td></td> </tr> <tr> <td>ERW</td> <td>616</td> <td>466</td> <td>469</td> <td>730</td> <td>1295</td> <td>1487</td> <td>519</td> <td>422</td> <td>391</td> <td></td> <td></td> </tr> <tr> <td>Mine & ERW</td> <td>2189</td> <td>2505</td> <td>2809</td> <td>3333</td> <td>4320</td> <td>2298</td> <td>2150</td> <td>1153</td> <td>858</td> <td></td> <td></td> </tr> <tr> <td></td> <td>2001</td> <td>2002</td> <td>2003</td> <td>2004</td> <td>2005</td> <td>2006</td> <td>2007</td> <td>2008</td> <td>2009</td> <td>2010</td> <td></td> </tr> <tr> <td>Mine</td> <td>405</td> <td>357</td> <td>362</td> <td>340</td> <td>365</td> <td>192</td> <td>138</td> <td>117</td> <td>111</td> <td>36</td> </tr> <tr> <td>ERW</td> <td>421</td> <td>480</td> <td>410</td> <td>558</td> <td>510</td> <td>258</td> <td>214</td> <td>154</td> <td>133</td> <td>36</td> </tr> <tr> <td>Mine & ERW</td> <td>826</td> <td>847</td> <td>772</td> <td>898</td> <td>875</td> <td>450</td> <td>352</td> <td>271</td> <td>244</td> <td>72</td> </tr> </tbody> </table> <p>2. The recent trends of area cleared by CMAC has showing positive.</p> <table border="1" data-bbox="1085 201 1292 1232"> <thead> <tr> <th rowspan="2">Period and Progress</th> <th rowspan="2">Operational Clearance Size (m²)</th> <th colspan="2">Found and Destroyed</th> </tr> <tr> <th>AP Mine</th> <th>UXO</th> </tr> </thead> <tbody> <tr> <td>2007</td> <td>27,666,058</td> <td>32,245</td> <td>114,755</td> </tr> <tr> <td>2008</td> <td>27,653,389</td> <td>25,543</td> <td>114,101</td> </tr> <tr> <td>2009</td> <td>35,516,812</td> <td>18,711</td> <td>133,164</td> </tr> <tr> <td>2010 (4 months Jan-Apr)</td> <td>19,506,812</td> <td>5,949</td> <td>39,461</td> </tr> </tbody> </table> <p>Source: CMAC, Global Summary Progress Report 2010</p>	Landmine/UXO Casualties in Cambodia 1992-2010 (Jan.-Apr.)													1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Mine	1573	2039	2340	2603	3025	811	1631	731	467			ERW	616	466	469	730	1295	1487	519	422	391			Mine & ERW	2189	2505	2809	3333	4320	2298	2150	1153	858				2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		Mine	405	357	362	340	365	192	138	117	111	36	ERW	421	480	410	558	510	258	214	154	133	36	Mine & ERW	826	847	772	898	875	450	352	271	244	72	Period and Progress	Operational Clearance Size (m ²)	Found and Destroyed		AP Mine	UXO	2007	27,666,058	32,245	114,755	2008	27,653,389	25,543	114,101	2009	35,516,812	18,711	133,164	2010 (4 months Jan-Apr)	19,506,812	5,949	39,461
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2010 (4 months Jan-Apr)	19,506,812	5,949	39,461																																																																																																																															

ANNEX 3-2: Results of Evaluation

	Strategic Plan 2012-2014	<p>3. Trends of number of mine/UXOs destroyed by CMAC is mixture as above table- for AP mines decreasing, for UXOs more or less increasing. This indicator does not really capture the CMAC productivity which can be judged by size of clearance more responsively.</p> <p>Additional: Estimates of remaining problems: It will be possible to have a clearer picture on the estimates of remaining problems after completion of Baseline Survey (21 high priority districts by the end of 2010 planned) and analyzing the data from the results of them, which will be available early 2011. The progress of conducting Baseline Survey is quite rapid. Out of 21 districts, CMAC has assumed the work for 13 districts and is completing them in July 2010, faster than the planned schedule.</p>
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2. IMPLEMENTATION PROCESS

Items of Evaluation	Results
Progress of activities	<ul style="list-style-type: none"> The Project officially commenced in April 2008 with only Chief Advisor. Other advisors were appointed 3-6 months later, which did not delay the activities seriously in the end, but could have been appointed earlier on time. Output 1 (Information Management) originally did not include the Operation Database System as it was supposed to be assisted by other partner (Norwegian People's Aid) but not possible for some technical reasons, the Project took over the responsibility. Almost all the modules of the system were developed and already in operation both at HQ and DU properly. Operation Database System is a core and the most fundamental database as it covers whole CMAC demining operation, and therefore, technical assistance to such area is inevitably of significance in serving to the attainment of Project Purpose. In carrying out the activities of Output 2 (Workshop Management), it is important to have English-speaking C/Ps serving as an interpreter between English and Khmer for effective technology transfer at CWS. In most of the cases, the language matter has been managed during the Project period with great help from C/Ps at CWS, even for the first few months when appointed English-speaking mechanic C/P was absent for personal reasons. Output 2 was originally supposed to cover CWS, HQ and DUs. However, through the initial situation analysis by the Project, it was decided to put a first priority on the capacity development of CWS, and to extend support where possible to HQ and DUs. This is considered to be a valid arrangement in order to maximize the effectiveness of CMAC's maintenance capacity of equipment and machinery as CWS is a key. However, capacity development at HQ and DU levels left behind and need to be addressed that these are the areas for further improvements after the Project. The Project had to wait for the appointment of the Chief of Training for Output 3 (Training Management) as C/P at HQ level until July 2009. (At the time of Project formulation, the post was not allocated for C/Ps but as Project activities were being carried out, it was later felt necessary to have such post at HQ to work closely with Training Management Advisor). An advisor was appointed by NZ in Training Centre (originally planned to advise on EOD, but later found training management) but the roles were coordinated and the advisor stationed only 1 year.
Technical transfer	<ul style="list-style-type: none"> Methods, contents, levels, adjustments of technical transfer were judged by as appropriate. Progress of technical transfer has been progressively.
Project Management	<ul style="list-style-type: none"> Monitoring at central level through the 1st and 2nd JCC Meetings held in 2009 February and 2010 February respectively and planned to have the 3rd before the Project completion. Close monitoring on each Output and activity levels. Monthly monitoring meeting among Japanese Experts. Decision made officially at central level through the 1st and 2nd JCC Meetings held in 2009 February and 2010 February respectively and planned to have the 3rd before the Project completion. JICA officer in charge and Chief Advisor attended Main Action Technical Working Group (MA-TWG) for policy and donor coordination purpose. Close and sufficient enough between JICA (HQ, Cambodia Office) and Japanese Experts. The Project management arrangements as "one Project" and all members as "one team" should have been in place as the Project was slightly individual based management due to the physically separated offices (HQ-based Experts and Battambang-based Expert) for one reason, and different areas of expertise for another.
Ownership	<ul style="list-style-type: none"> The ownership and commitment by CMAC is very high. Allocated sufficient number of C/Ps with technical and managerial capacity on time, except newly appointed C/P post as Chief of Training (July 2009)

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ANNEX 3.2: Results of Evaluation

	Participation in Project activities	<ul style="list-style-type: none"> • Despite the fact that management level personnel in C/MAC are extremely busy, they participated in the activities actively and acted supportively to manage all staff concerned in all the important meetings including JCC Meetings. • Each Output level, participation by C/Ps has been very active, except Outputs 2 C/P at HQ level.
Budget		<ul style="list-style-type: none"> • An appropriate level of budget was released for the Project. The Project did not have any serious problem in this aspect.

3. EVALUATION BY FIVE CRITERA
(1) RELEVANCE

Evaluation Questions		Results
Main Question	Sub-Questions	
Necessity	Is the Project in line with the needs of Cambodia (target region and society) ?	<ul style="list-style-type: none"> Despite the positive progress in decline of the landmine/ERW casualties, the number remains still very high, and Cambodia is still ranked among most landmine affected countries worldwide.
	Is the Project in line with the needs of the target group (CMAC) ?	<ul style="list-style-type: none"> CAMC is a core, governmental demining organization and shares a largest responsibility of demining operation in Cambodia. CMAC has been performing the leading role in demining operations in terms of released land. (Note that formal accreditation only commenced in Cambodia since 2006, and RCAF's outputs below is not accredited.) Considering the experiences, manpower, knowledge and skills, CMAC is expected to continue to perform as a largest demining operator.
Priority	Is the Project consistent with the national development policy and mine action policy in Cambodia ?	<p>Source: APMBT Article5 Extension Request by RGC, August 2009</p> <ul style="list-style-type: none"> Consistent with Cambodian government and CMAC policies and strategies. The importance of demining work is all reflected in Target 9 of Millennium Development Goals (MDGs), National Strategic Development Plan (NSDP) 2006-2010, National Mine Action Strategy (NMAAS) 2010-2019 and CMAC 5 Year Strategic Plan 2010-2014. APMBT Article 5 Extension Request for another 10 years (until 2020, Jan. 1) has been approved, and Cambodia will continue to comply with APMBT for the extended period.
	Is the Project consistent with the Japan ODA policy and JICA plan for country-specific program implementation ?	<ul style="list-style-type: none"> Consistent with Japan's ODA policy and JICA's plan for country-specific programme implementation. Japanese ODA policy puts high priority on Peacebuilding which includes assistance to mine action. JICA's policy and strategies of assisting Cambodia also does the same.

ANNEX 3-2: Results of Evaluation

<p>Appropriateness of strategy</p>	<p>Is the Project suitable as a strategy to produce an effect in terms of the following points ?</p> <ul style="list-style-type: none"> • Selection of 3 areas providing technical assistance (1.Information Management, 2. Workshop Management, 3. Training Management) • Consistency and synergy effects with other assistances from Japan and other development partners 	<ul style="list-style-type: none"> • The approach of the Project was appropriate to strengthening 3 key areas (Information System, Workshop Management/Maintenance of Equipment, Training Management) as they are all essential to CMAC's function. • CMAC clearly perceived that it required organizational capacity development, aside from operational demining techniques, and the Project approach has responded to the point of the CMAC's needs. • The Project is consistent and complementary with other Japan's assistances (particularly equipment supply through Grant Aid) as well as with other development partners' support to CMAC. Japan is the only development partner assisting in management capacity building in 3 Output areas at a full scale. • An advisor was appointed by NZ in Training Centre (originally planned to advise on EOD, but later found training management) but the roles were coordinated and the advisor stationed only 1 year. • Important to note that it is only Japan to provide support to CMAC in a full-fledged way (technical cooperation project, grant aid/machinery and equipment supply) .
<p>Does Japan have a technical advantage (does Japan has the adequate experiences and know-how and can such experiences be put to use through the Project implementation ?)</p>	<ul style="list-style-type: none"> • The Project has utilized Japanese technical advantages and experiences in all the Outputs: <ul style="list-style-type: none"> - Information Technology in a wide context (improving daily operations, management of IT development project etc.) - Workshop Management ranging procurement to maintenance, use of manual to ensure quality standard, etc. - Utilization of AV materials, training methodology, needs assessment methods and manuals 	

ANNEX 3-2: Results of Evaluation

(2) EFFECTIVENESS

Main Question	Evaluation Questions		Results
		Sub-Questions	
Achievement of the Project Purpose	Looking at the Project performance, is the Project Purpose (Strengthening the function of CMAC and technical transfer system for demining operation.) being likely to be achieved?		<ul style="list-style-type: none"> The Project Purpose has been met in terms of 3 objectively verifiable indicators which basically correspond with each Output (See 1. PERFORMANCE above)
	Causal relationships (Contribution of Outputs)	<p>Have the Outputs been contributing to achievements of the Project purpose ?</p> <p>Are the Outputs sufficient to achieve the Project purpose ?</p>	
	<p>Are the important assumptions from the Outputs to the Project Purpose valid also at the present point of time ? Any change or influence from the important assumptions ?</p> <p>Important Assumptions:</p> <ol style="list-style-type: none"> Number of staff of CMAC does not change drastically CMAC keeps at least present level of the number of equipments CMAC keeps good quality and efficiency of its overall management <p>Additional: CMAC maintains the present institutional status as a core, government mine action agency in the Cambodian mine action policy.</p> <p>What are the contributing/inhibiting factors to achieve the Project purpose ?</p>	<ul style="list-style-type: none"> It is logical and clear that such achievements are brought by the Project activities. The Project has definitely strengthened the foundation of the CMAC's function in three areas - Information System, Workshop Management (maintenance of equipment) and Training Management, which are all essential for CMAC to perform its duties as a largest demining organization in Cambodia. Sufficient to achieve Project Purpose at Output level. When looking at management and systemic issues at CMAC, the Project has contributed to developing and reinforcing foundations of CMAC's management capacity, but there still remains more work to do. The PDM2 itself does not explicitly encompass the system-wise development by integrating 3 Outputs areas to be able to come up with current operational plan to be more comprehensive including more concrete and detailed status of equipment, staffing and budgetary requirements, and it is also a question whether 2.5 years or less project implementation time as well as inputs (personnel, technical expertise and others) were too ambitious to reach out that level. The Project however could have paid attentions more on this aspect, or at least brought more integrated effects on the building of management capacity for CMAC. It could have attended more on integrating the 3 Outputs to lead to further comprehensive managerial capacity. During the project period, levels of CMAC personnel and equipment have been maintained without any big changes affecting the attainment of Project Purpose. CMAC's position and status as a core, governmental demining agency in Cambodia has also been valid. Funding issue is one of the biggest, and chronic challenges for CMAC, but has not affected the Project implementation during the project period. For the trends of CMAC personnel, equipment and expenditure, please see ANNEX 17, 11 and 18. 	
		<ul style="list-style-type: none"> Very strong commitment and support as well as sincerely hardworking efforts from CMAC, all the C/PPs as well as Japanese Experts have contributed to the smooth project implementation and achievements attained by the Project. 	

(3) EFFICIENCY

Evaluation Questions		Results
Main Question	Sub-Questions	
Achievement level of outputs Causal relationship (Contribution of activities)	Is level of outputs achievement as planned ?	<ul style="list-style-type: none"> Nearly all the Outputs have been produced as planned, and activities have been almost sufficient to produce Outputs with sufficient level of quantity and quality inputs on mostly appropriate timing.
	Are activities sufficient to produce the outputs ? Are the important assumptions from the activities to the outputs valid also at the present point of time ? Any change or influence from the important assumptions ? Important Assumptions: 1. Most personnel of CMAC staff who are trained through the project continue to work at CMAC. 2. Full-time counterparts are assigned by CMAC. 3. Counterparts of CMAC devote their every effort to implement the project. Are there any contributing/inhibiting factors to efficiency ?	<ul style="list-style-type: none"> See above. In spite of shortened actual project period, delay in fielding Japanese Experts and Chief of Training as a C/P personnel at HQ for Output 3, the achievements show that the Project have been implemented efficiently, but such aspects need to be looked into in order to gain not only for increased efficiency but also for quality of Outputs.
Quantity, quality and timing of inputs	Was input appropriate in terms of quantity, quality and timing ? Were activities carried out in good timing ?	<ul style="list-style-type: none"> Use of locally available resources, such as local consultants for programming and training as well as materials for repairing increased efficiency. Since the Project is relatively short period of 2.5 years, change of Chief Advisor in the middle of the Project implementation cost the efficiency to certain extent. Although most of the planned activities have carried out and did not appear to seriously affect on the Project neither delay nor defer the activities, such situation could have affected the Project implementation to a certain degree. Appropriate (see 1. PERFORMANCE - inputs) except delay in fielding Japanese Experts (Output 1-3) and appointment of Chief of Training Appropriately done.

(4) IMPACTS

Evaluation Questions		Results
Main Question	Sub-Questions	
Prospect of achievement of the Overall Goal	<p>Looking at the input and output performance and activities carried out, is the Overall Goal likely to be achieved ?</p> <p>Overall Goal: To realize the target of "CMAC 5 Year Strategic Plan 2010 – 2014</p> <p>Are there any inhibiting factors to achieve the Overall Goal ?</p>	<ul style="list-style-type: none"> • On the right track (See 1. PERFORMANCE-Overall Goal). • Funding instability and further managerial capacity of CMAC. • Despite the economic situation around the world, CMAC receives positive commitment from partners and donors. (Canada, Germany, Australia- 5 year commitment 2011-2015). • CMAC has receiving generous funds from various development partners which share more than 90 to 95 % of the total funding and the rest is from the Royal Government of Cambodia (RGC). CMAC is heavily dependent on external funding which poses uncertainty of the CMAC's future. CMAC needs to mobilize resources internationally and nationally more intensively since the current global financial situation as well as political agenda setting may well be no more as generous for CMAC as before. For recent funding trends and structure, please see ANNEX19. • Many of the existing machineries and equipment will have life-time expiry dates in a few years time, and consequently CMAC will face the problems of mid to large scale maintenance and repairing work. This is associated to funding issue, but deeply related to management capacity as well. In order to cope with such anticipating problems, CMAC including CWS and DUs needs to have more managerial capacity on maintenance. • Training is an important factor to increase safety and productivity and to give impact in the future. The Project supported to create an initial foundation for CMAC to continue to develop further training capacity. For this to happen, necessary staffing may need to be done for Training and R & D Department. • Present level of achievements of output suggest that the Project has contributed to the attainment of Overall Goal.
Causal relationship	<p>Is the Project contributing to the likely achievement of the Overall goal and having Impacts ?</p> <p>Is the important assumption from the Project Purpose to the Overall Goal likely to be valid ?</p> <p>Important Assumption: Total support fund from donors to CMAC is stable and does not reduced drastically than the present.</p>	<ul style="list-style-type: none"> • See above "inhibiting factors to achieve the Overall Goal".

ANNEX 3-2: Results of Evaluation

Ripple effects	Is there any positive impact other than the Overall Goals ?	<ul style="list-style-type: none"> • CMAC has hosted PAICMA, Colombia and delivered training programme as part of South-South cooperation, which also indicates to increase a future impact. The experience has brought to CMAC various resources prepared and developed as well as confidence in carrying out international cooperation. • Post clearance land use is also an indicator to assess the impact. According to the report of UNDP supported Clearing for Results Project, CMAC's post clearance land use in the project in 2009 records that the use of cleared minefields was mainly as follows: 37% for agricultural activities, 23% for resettlements and agriculture purposes, 20% for roads and 5% for irrigation. • In 2008, CMAC had cleared 559 minefields (562 sites, 2,215.61 ha) (not included with 144 UAXO fields in one project) of high priority, the type of using land after clearance also presented the similar structure - 34.5% for agriculture, 19.8% for roads, 13.9% for resettlement and agriculture. (CMAC, Annual Report 2010) • Not found
	Is there any negative impact? Are there any measures taken to minimize the negative impact ?	

ANNEX 3-2: Results of Evaluation

(S) SUSTAINABILITY

Main Question	Evaluation Questions		Results
		Sub-Questions	
Policy	Do mine action policies including the role of CMAC as a core governmental mine action organization will continue after the Project ?		<ul style="list-style-type: none"> • Policy settings surrounding CMAC appear to be firm. • CMAC is a core, governmental demining organization defined in the country's policy and strategies. They includes the approved Extension of the Article 5 of the Anti-Personnel Mine Ban Treaty until 2020, National Mine Action Strategy 2010-2019 and so forth. It is expected to be so at least within the approved extension period until 2020. • Royal Cambodian Army Force (RCAF) is another governmental body and working on demining as one of the major operators. However, it is not accredited as yet (recently 1 team only) and humanitarian demining will continue to be an integral part of CMAC responsibility.
Organizational and Financial	Does CMAC have sufficient capacity to implement the activities to produce effects after the cooperation ends ?		<ul style="list-style-type: none"> • For human resources in CMAC in view of their technical skills, commitment and ownership both individually and as an organization as a whole, overall CMAC demonstrates its strength and it is assumed to sustain a large portion of the Project effects to a considerable extent.
	Does CMAC have a sufficient sense of ownership of the Project ?		<ul style="list-style-type: none"> • See above.
Technical	Does CMAC undertake measures to secure sufficient funds ?		<ul style="list-style-type: none"> • CMAC is making efforts in fund mobilization, and expected to receive to certain extent for another extended 10 years, but funding level is uncertain.
	Are technical expertise developed in the areas of Information Management, Workshop Management and Training Management to be sustained ?		<ul style="list-style-type: none"> • See above about human resources in CMAC
	Is the equipment appropriately to be maintained and managed ?		<ul style="list-style-type: none"> • The problem of larger maintenance requirements as machineries and equipment worn-out and development of management capacity from all the Outputs areas needs to be attended in order to reinforce the sustainability. • Replacing most of them may not be a first solution as it costs a lot. Rather, CMAC has to manage within a limited budget for repairing them to be usable as long as possible, which requires more attention to maintenance management - identifying and analyzing the causes of various types of problems and find best efficient procedures, and with all available information, developing a comprehensive plan for maintenance of machinery and equipment including costing.
	Does the Project have a mechanism for disseminating the skills and knowledge inside as well as outside of CMAC ?		<ul style="list-style-type: none"> • Almost in place within CMAC
Contributing/inhibiting factors	What is the possibility of CMAC to maintain such mechanism ?		<ul style="list-style-type: none"> • Mostly positive.
	Are there any contributing/inhibiting factors to sustainability ?		<ul style="list-style-type: none"> • Funding instability is an inhibiting factor.

**ANNEX 4: Dispatch of Japanese Experts
for
Project of Strengthening CMAC's Function for Human Security Realization**

1. Long-term Experts

No	Name	Title	Period	No of Days
1	Mr. Ryoji Yaginuma	Chief Advisor/Cooperation Management	2008/4/4-2009/7/3	456
2	Mr. Takefumi Mayumi	Chief Advisor/Cooperation Management	2009/6/28-2010/9/29	459
3	Ms. Kyoko Minami	Project Coordinator/Training Management Advisor	2008/10/6-2010/9/30	724

2. Short-term Experts

No	Name	Title	Period	No of Days
1	Mr. Kazuhiko Kamachi	Workshop Management Advisor	2008/6/22-2008/10/25	126
			2008/11/25-2009/2/23	91
			2009/4/21-2009/10/26	189
			2009/11/24-2010/3/19	116
			2010/4/21-2010/9/18	151
			Sub Total	673
2	Ms. Yukiyo Yamada	Information System Advisor	2008/9/1-2009/3/14	195
			2009/7/5-2009/9/12	70
			2009/12/13-2010/3/6	84
			2010/5/16-2010/7/3	49
			2010/8/7-20/9/18	43
			Sub Total	441

ANNEX 5: Record of Counterparts Training in Japan

No	Course Subject	Training Institution	Period	Name of Trainees	Position
1	CMAC Maintenance of Equipment	Yamanashi Hitachi Construction Machinery Co., Ltd.	2010/2/24- 2010/3/20 (25 days)	Mr. NGET Kantol Mr. KANG Rany	Senior Mechanic for Brush Cutter, Central Workshop, CMAC Senior Mechanic for Vehicle, Central Workshop, CMAC
2	CMAC Workshop Management (plan)	Yamanashi Hitachi Construction Machinery Co., Ltd. (plan)	2010/8/14- 2010/8/28 (15 days, plan)	Mr. SAM Pisey TBD	Mechanic for Brush Cutter, Central Workshop, CMAC TBD

**ANNEX 6: List of Equipment Purchased in FY2008
(JICA/CMAC Project)**

As of 8th June 2010													
No	Item	Description	Quantity	Unit Price (JPY)	Unit Price (USD)	Total Price (JPY)	Total Price (USD)	JICA Regist. No	Month/Year Received	Allocation	Equipment for CMAC (KYOUYO)	Equipment for Experts (KEIKO)	
1. Output 1 (Information System)													
1	Server PC HP with Monitor	HP ProLiant ML150G5 (S/N: SGH902YTVB, SGH902YTVF, SGH902YTVD, SGH902YTVe, SGH902YTVe, SGH902YTVc) -HP Monitor LCD 17" L1710a TFT (S/N: 3CQ8481DVZ, 3CQ8481DQO, 3CQ8481DWJ, 3CQ8481DWG, 3CQ8481DWH, 3CQ8481DVV) -HDD 250G 1" 7.2K SATA X 2 for each -HP Mouse -HP Keyboard	6				21,853.50	-	Jan-09	HQ-MIS (2) DU2 DU4 DU5 TC	○		
2	UPS	UPS APC Smart UPS 1500VA (S/N: AS0821112728, AS0726221689, AS0720122108, AS0720122098, AS0720222842, AS0821224110)	6	452.00			2,712.00	-	Jan-09	HQ-MIS DU1 DU2 DU4 DU5 TC	○		
3	Computer Desk	PC0119	6	70.00			420.00	-	Jan-09	HQ-MIS DU1 DU2 DU4 DU5 TC	○		
4	Cisco Router	Cisco Router 1841 (S/N: FHK1243F45N, FHK12382155, FHK1243F461)	3	1,250.00			3,750.00	-	Jan-09	HQ-MIS	○		
5	Switch	D-Link Web Smart Gigabit Switch (S/N: F36D28A000013, F36D2800012, F36D28A000014, F36D28A000009, F36D28A000011)	5	714.00			3,570.00	-	Jan-09	HQ-210 DU1 DU2 TC (2)	○		
6	Network Attach Storage	4 BAY SATA NAS W/GIGABIT LAN-PN GNS-4000 (S/N: 09012800134, 08012800152)	2	675.00			1,350.00	-	Mar-09	HQ-MIS	○		
7	Laptop Computer	DELL Latitude E5500 (S/N: 39037071376)	1	1,725.00			1,725.00	08-3-3326	Feb-09	HQ-MIS		○	
8	Desktop Computer with Monitor	DELL Optiplex 760 MT (S/N: 3X3FZ1S, 6Y3FZ1S) DELL 19" Flatness Wide Screen LCD (S/N: 8A5-165J, 8A5-08PU)	2	865.00			1,730.00	08-3-1664 08-3-3342	Feb-09	HQ-MIS		○	
9	Color Laser Printer	CANON Color Laser Printer LBP5300 (S/N: L11181E)	1	1,485.00			1,485.00	06-3-1562	Feb-09	HQ-Database		○	
10	Internal HDD	Samsung 3.5" Internal HDD 1TB SATA (S/N: S13PJ0WS203546, S13PJ0WS203557, S13PJ0WS203550, S13PJ0WS203561)	4	138.00			552.00	-	Mar-09	HQ-MIS		○	
Sub-total											39,007.50		

**Note: Equipment will be handed over to CMAC upon completion of the Project.

3. Output 3 (Training Management)

1	Digital Camera	Sony DSC-W170 (S/N: 2273817, 2273819, 2339538)	3		230.00				660.00	08-3-3317 08-3-3318 08-3-3319	Feb-09 TC, HQ		○
2	Spare Battery for Digital Camera	Sony NP-FG1	3		60.00				180.00		Feb-09 TC, HQ		○
3	Memory Card for Digital Camera	Sony MS-MT2G	6		30.00				180.00		Feb-09 TC, HQ		○
4	Carry Case for Digital Camera	Sony Cybershot	3		10.00				30.00		Feb-09 TC, HQ		○
5	Digital Video Camera	Sony HDR-SR12E (S/N: 823076, 823078)	2		1,380.00				2,760.00	08-3-3320 08-3-3321	Feb-09 TC		○
6	Spare Battery for Digital Video Camera	Sony NP-FH70	2		85.00				170.00		Feb-09 TC		○
7	Spare Battery Charge for Digital Video Camera	Sony BC-TRP	2		50.00				100.00		Feb-09 TC		○
8	Memory Card for Digital Video Camera	Sony MS-MT8G	2		70.00				140.00		Feb-09 TC		○
9	Carry Case for Digital Video Camera	Sony LCS-SRC	2		50.00				100.00		Feb-09 TC		○
10	Laptop Computer	Toshiba Satellite M300 (S/N: 78351515W, 78361345W, 78361410W, 78361336W, 78361348W, 78361387W, 88111140W, 88106891W) -Optical Mouse, Carrying Case	8		1,150.00				9,200.00	08-3-3308 08-3-3309 08-3-3310 08-3-3311 08-3-3312 08-3-3313 08-3-3314 08-3-3315 08-3-3285 08-3-3286	Mar-09 HQ-DOT(2) TC(6)		○
11	LCD Projector	Toshiba LCD Projector TDP-T100 (S/N: 70733518, 15736620)	2		1,185.00				2,370.00		Mar-09 HQ-DOT, TC		○
12	LCD Projector with Document Camera	Toshiba LCD Projector TLP-XC2000 (S/N: 88532809, 88532839)	2		1,145.00				2,290.00		Mar-09 TC		○
Sub-total										18,210.00			
Total										1,378,860.00			
										69,029.50			

2. Output 2 (Workshop Management)														
1	Tyre Changer	Teco Z7 (S/N: 080260237)	1		3,444.00		3,444.00							
2	Wheel Balancer	Teco 62 (S/N: 070560365)	1		5,500.00		5,500.00							
3	Digital Multi Meter	MARUMA DI-0936	1	146,475		146,475								
4	Battery Tester	MARUMA DI-2501	1	24,150		24,150								
5	Nozzle Tester	MARUMA AB-0502	1	66,150		66,150								
6	Mechanic Tool Set	MARUMA KQ-6001	3	307,650		922,950								
7	Brake Cylinder Polisher	MARUMA BG-1752	1	23,835		23,835								
8	Differential Gear Jack	MARUMA BD-0201	1	195,300		195,300								
9	Laptop Computer	Toshiba Satellite M300-A406 (S/N: 76309177W, 76309157W) -Optical Mouse, Carrying Case	2		1,434.00									
Sub-total											1,378,860.00	11,812.00		

ANNEX 6: List of Equipment Purchased in FY2009

(SIPAIR/ISAP/ B-Board)

No	Item	Description	Quantity	Unit Price (JPY)	Unit Price (USD)	Unit Price (JPY)	Total Price (USD)	JICA Regat. No	Month/Year Received	Allocation	Equipment for CMAC for Expend (JPY/USD)	As of 8th June 2010		
												Equipment for CMAC for Expend (JPY/USD)	Equipment for Expend (JPY/USD)	
1. Output Information System														
1	Desktop PC	SELL 40-76V S/N:1FN225, 83FN225, 11FN225, 65FN225, HFN225, BYFN225, 73FN225, 34FN225, 84FN225, 20FN225, 08FN225, 03FN225, 83FN225, 65FN225 Monitor LCD 19" Dell E1909 Widescreen Flat Panel (Avaling & DV) / S/N:CN38055F-7435-09K-2105, 6A5-28FU, 8A0-8F7U, 895-1R1S, 935-10MM, 8A0-0A6U, 946-0LFU, 8A0-79AU, 8A6-0A4U, 962-02LS, 962-0AHL, 962-0AHL, 962-CJRS, 962-D2Y6, 962-D2F6, 962-D2TS, 962-GAAL, 962-HP HP ProLiant Server ML 150 G6 S/N:52H2429Y, W323379 HP 260GB 50 SATA 7.2K HP 3.5" MDL HDD x 2 set HP Monitor LCD 19" 185k 15.5" S/N:CHC08R032, MW23336 Microsoft Windows Server Standard 2008 Single OLP NL Microsoft Windows Server CAL, 2008 Single CLPNL User CAL 5 Microsoft Windows Server Standard 2008R2 32Bit x64 English Multi Disk64 MHL DVD Microsoft Windows Server Standard 2008 32-bit x64 English Disk 64 MHL DVD	17		720.00		12,240.00	-	Sep-09	DU1(2sets) DU2 (3sets) DU3 (3sets) DU4 (3sets) DU5 (2sets) CWS (2sets) WH (1set)	0			
2	Server PC with Monitor, Harddisk and software	HP ProLiant Server ML 150 G6 S/N:52H2429Y, W323379 HP 260GB 50 SATA 7.2K HP 3.5" MDL HDD x 2 set HP Monitor LCD 19" 185k 15.5" S/N:CHC08R032, MW23336 Microsoft Windows Server Standard 2008 Single OLP NL Microsoft Windows Server CAL, 2008 Single CLPNL User CAL 5 Microsoft Windows Server Standard 2008R2 32Bit x64 English Multi Disk64 MHL DVD Microsoft Windows Server Standard 2008 32-bit x64 English Disk 64 MHL DVD	1	3,020.00			3,020.00	-	Dec-09	HQ	0			
3	Network BW laser printer	HP LaserJet F5016n Printer S/N:VH81897002, VHL897005, VML897002, VML898001Y, VML898002J VNL23381, 23382, 23383, 23390, 23391	6	937.00			4,884.00	-	Oct-09	DU1 DU2 DU3 DU4 DU5	0			
4	Wireless Access point	Nokia 802.11n 5G+2 Wireless Access Point/Bridge S/N:11V2655V01059, 11V2955T018A4, 11V2855018A3	3	99.00			297.00	-	Dec-09	HQ DU2 TC	0			
5	UPS	APC UPS BK 900EI S/N: 4B6638P12278, 8P12285, 8P12303, 8P12305, 8P12370, 7P82863, 8P12790, 8P12674, 8P12769, 8P12302, 8P12707, 8P12305, 8P12299, 8P12781, 8P12326, 8P12315, P-2294	17	110.00			1,870.00	-	Dec-09	DU1(2sets) DU2 (3sets) DU3 (3sets) DU4 (3sets) DU5 (2sets) CWS (2sets) WH (1set)	0			
6	Network Attached Storage	Omega StarCenter i02 is a 2-Bay NAS with RAID 1 function 2TB S/N:11EX207015, 11EX207031, 11EX207042, 11EX207047, 11EX207116	5	610.00			3,050.00	-	Dec-09	DU1 DU2 DU4 DU5 TC	0			
7	Gigabit Smart Switch	3Com Switch 4200G PWR 24-Port S/N:5J5250L03E208, 5J5250L030300	2	2,665.00			5,330.00	-	Dec-09	HQ (?)	0			
8	Router	3Com Wireless 11n Cable/DSL Router S/N: AB274-UNG60DC08, AB274-UNG60E08 AB274-UNG60DE03, AB274-UNG60387F	4	140.00			560.00	-	Dec-09	HQ DU2 DU4 TC	0			
9	Hardy Terminal	Dellis BHT50440 Communication c/w spare battery bay, USB interface & power adaptor-CL8021 re-chargable for Densio -nancy Terminal-C808BHT-RS S/N: 49831C280160594, 49831C280160594S	2	1,150.00			2,300.00	-	Dec-09	CWS (plan) WH (plan)	0			
10	Desktop PC	DELL A0-300V S/N: 8X-N225, 4Y-A025 Monitor LCD 19" Dell E1910 Widescreen Flat Panel (VGA DVI-D with HDCP) S/N:CN-0J2748-44160-89-3HTU958M-38UJ	2	692.00			1,384.00	-	Jan-10	TC	0			
11	Monitor	DELL E1909w S/N: DM055F-74251562J6CS	1	130.00			130.00	-	Sep-09	HQ	0			
12	Laptop PC	DELL Latitude AL-E6400 S/N: _6194674838	1	1,300.00			1,300.00	09-3-1044	Feb-10	HQ	0			
Sub-total											38,019.00			

2. Output 2 (Workshop Management)												
1	Sling set	Chen Sling-type (6 pcs)	1	321,240		321,240				May-09	CWS	O
2	Brake Booster Tester	Hydron Sling-type (8 pcs)	1	70,000		70,000				May-09	CWS	O
3	TAB & Die Set	KC8303	1	107,600		107,600				May-09	CWS	O
4	Body Puller Set	RL-3303	1	85,000		85,000				May-09	CWS	O
5	Torque Wrench Set	F-type (6 pcs)	1	461,400		461,400				May-09	CWS	O
6	Electrician Tool Set	DL-jack (5 pcs)	1	151,000		151,000				May-09	CWS	O
7	Fachometer with Spare Reflection	DI-3113	2	50,000		100,000				May-09	CWS	O
8	Track Assembly Service Tool Set	EE-2B	1	2,111,700		2,111,700				Jul-09	CWS	O
9	Automatic Freon Gas Charger	(CY-1501) Hand Pump Unit (1 set), 100 Ton Cylinder (1 set), Remover and Installer Tool Set (1 set), Oil for Manual Pump (1Can)	1	1,660,800		1,660,800				Jul-09	CWS	O
10	Water Distillation Unit with Heater	RC6-20ABB Low pressure hose (HFC-134a) High pressure hose (HFC-134a)	1	900,900		900,900				Jul-09	CWS	O
11	Milling Machine	DL-2651 Shizuoka Tekuboubo, VHR-A Vertical Turret Type Table Size: 280 *1100 mm, Turning Spindle Speed: 75 - 3,600 rpm, Turning Spindle Motor 2.0 kW, with Tools and Accessories, Standard Tool (1 set), End Mill (10pcs/set), Face Mill chip (15pcs), Milling chuckset (1set), VG125 milling vise	1	5,057,000		5,057,000				Feb-10	CWS	O
12	Main Pump (Spare Parts for BC)	No. 4626267	1	1,720,000		1,720,000				Mar-10	CWS	O
13	Swing Motor (Spare Parts for BC)	No. 4448302	1	695,000		695,000				Mar-10	CWS	O
14	Travel Motor (Spare Parts for BC)	No. 4447928	4	1,690,000		6,760,000				Mar-10	CWS	O
15	Muffler (Spare Parts for BC)	No. 4448302	4	60,000		240,000				Mar-10	CWS	O
16	Turbo Charger (Spare Parts for BC)	No. 897289430	1	201,000		201,000				Mar-10	CWS	O
17	Industrial Engine (Spare Parts for BC)	CC-4931TCG	2	11,000		22,000				Mar-10	CWS	O
18	Second-hand Engine	CC-4931TCG	1	11,000		11,000				Oct-09	CWS	O
Sub-total												
3. Output 3 (Training Management)												
1	Computer Desk	KGD-3001 DELL AO-300V SN: JVNJ228, HJUN228, 2TJN228, BJUN228, FWJN228, FJUN228, JSJN228, DWJN228, 1WJN228, 1ZJN228, 9VJN228, HVJN228, 5YJN228, 4ZJN228, 4TJN228 Monitor: LCD 19" Dell 1907W UltraSharp Widescreen Flat Panel (3YR) SN: CN-0Y318G-74261-91F-EJLS, 91F-EPWS, 8AS-9GAS, 91K-1CPS, 91F-ECCS, 91F-FEWS, 8AS-9GY5, 91F-ETVS, 8AS-81FS, 8AS-6F3S, 8AS-8H1S, 8AS-9GAS, 91K-1E48, 91F-EMWS, 8AS-9GY5	10	35,000		350,000				Jan-10	TC	O
2	Desktop PC	TOSHIBA LAPTOP SATELLITE L510 SN: Z9202731Q LEECO S.G.304, SLS 304, 95B 304 SG 187A NET BLUE	15	707,000		10,605,000				Jan-10	TC	O
3	Laptop PC	Canon Digital Copier IR-2022N With DADF-PS, Duplex Unit-A1, Finishes-U2, Power Supply Kit, Additional Finisher Tray-C1, Wooden Table Stand SN: M22-06738	1	1,060,000		1,060,000				Feb-10	HQ	O
4	Sheet Cabinet	GARMIN GPSMAP 60 CSX With USB Interface Cable, CD Map Source, 512MB Micro SD, Detailed Cambodia Map SN: 118652435, 118652434, 118652440, 118652404, 118652445, 118652469, 118652438, 118652436, 118652460, 118652444, 118652468	15	240,000		3,600,000				Feb-10	TC	O
5	Office Swivel Chair	SHIRAWA BLUE SHIRAWA Steel No. 19 8524692 Incor Basics 1000GB SN: Z8BNC903, Z8BAC24, Z8BAPAA	24	53,000		1,272,000				Feb-10	TC	O
6	Photocopier	HP ScanJet G410 SN: CN593J66DM, CN592J61JQ Acer Projector P1270 SN: EYJ81010104300FE55901	1	4,305,000		4,305,000				Mar-10	TC	O
7	GPS	Sub-total	14	530,000		7,420,000				Mar-10	TC	O
8	Protractor		15	25,000		375,000				Mar-10	TC	O
9	External Hard Disk		3	170,000		510,000				Apr-09	HO-DOO, TC(2)	O
10	Scanner		2	225,000		450,000				09-3-2284 09-3-2285	TC HQ	O
11	Projector		1	1,155,000		1,155,000				09-3-2283	TC	O
Sub-total												
23,777,000												

4. Others (Cooperation Maintenance)												
1	Laptop PC	Dell AL-E6400 SN: 2518878548, 7714153864, 14244500602, 15477133012, 3421055188, 20774847700, 18386060364, 33644143188, 35891391700, 20653915348, 27122796180, 5537371345, 3179190484	13	1,099.00		14,137.00	-	Jan-10	DU2 (6sets) DU6 (3sets) HQ (4sets)	O		
2	Inventory for Laptop PC	150w-PM	13	70.00		910.00	-	Jan-10	DU2 (6sets) DU6 (3sets) HQ (4sets)	O		
3	Printer	HP Deskjet F2480 SN: CN97B1N2FY, CN965130Y6, CN9661M051, CN9661N1KX, CN965130X6, CN965130Y7, CN965130Y0, CN965130Y3, CN965130V6, CN9651310P, CN965130W3, CN9661M05M, CN965130YC	13	60.00		1,040.00	-	Jan-10	DU2 (6sets) DU6 (3sets) HQ (4sets)	O		
4	Whiteboard	100"200 YCK GARMIN GPSMAP 80 CSx With USB Interface Cable, CD Map Source, 512MB Micro SD, Detailed Cambodia Map	13	60.00		780.00	-	Jan-10	HQ	O		
5	GPS	SN: 118652452, 118652449, 118652447, 118652467, 116673334, 118573274, 118652446, 118652455, 118652453, 118652451, 118652468, 118573445, 118652024	13	530.00		6,890.00	-	Mar-10	HQ	O		
6	Solar Panel	BV1550ma	10	11,000		110,000		Aug-10	DU2 (4 sets - site) TC (2 sets - head) HQ (2 sets - head)	O		
7	King Purifier	KP-1	3	108,853.50		326,560.50	08-1-8550 08-1-8551 08-1-8552	Aug-10	CWS	O		
8	King Purifier	KP-2	2	119,815.50		239,631.00	08-1-8553 08-1-8554	Aug-10	Crane truck (DU2)	O		
										Sub-total	23,777.00	
										Total	16,501,131.50	83,570.00

ANNEX 6

ANNEX 6: List of Equipment Purchased in FY2010
(JICA/CMAC Project)

No	Item	Description	Quantity	Unit Price (JPY)	Unit Price (USD)	Total Price (JPY)	Total Price (USD)	JICA Regist. No	Month/Year Received	Allocation	Equipment for CMAC (KYOUYO)	Equipment for Experts (KEIKO)
2. Output 2 (Workshop Management)												
1	Gantry Crane	HOKUTO TENKO Gantry Crane with discbrake with lining (1set), silicon rectifier (1set), magnetiac contactor (1set) as hold motor parts, discbrake with lining and friction disc (1set), magnetic contactor (1set), brake disc with lining (2sets), stator (2sets), brake rectifier (2sets), brake coil (2sets), button switch with cable (1set), ware rope (1set)	1	10,420,000		10,420,000		-	May-10	CWS	○	
2	Spring Balancer	Model EWF-9	1	33,000		33,000		-	Jun-10	CWS (plan)	○	
3	Spring Balancer	Model EWF-15	1	35,900		35,900		-	Jun-10	CWS (plan)	○	
4	Power Wrench	Model 8-300P	1	319,000		319,000		-	Jun-10	CWS (plan)	○	
5	Attachment for Fork of Fork Lift	1.8m	1	72,300		72,300		-	Jun-10	CWS (plan)	○	
6	Engine Hanger	Model AA-0103	1	261,900		261,900		-	Jun-10	CWS (plan)	○	
7	Engine Positioner	Model AA-0307	1	755,500		755,500		-	Jun-10	CWS (plan)	○	
8	Battery and Coolant Tester	Model AA-5301	2	27,850		55,700		-	Jun-10	CWS (plan)	○	
9	Stud Bolt Remover Set	Model KQ-2283	1	8,400		8,400		-	Jun-10	CWS (plan)	○	
10	Stud Bolt Setter Set	Model KQ-2284	1	4,300		4,300		-	Jun-10	CWS (plan)	○	
11	Leather Punch Set	Model KQ-3112	1	27,900		27,900		-	Jun-10	CWS (plan)	○	
						11,993,900						
						Sub-total						
3. Output 3 (Training Management)												
1	Projector	Acer LCD Projector P1270 S/N: 946005816901	1		1,555.00		1,555.00	Not Yet	May-10	HQ		○
2	Laptop Computer	Sony VPC-CW1K6XU S/N: 3104991	1		1,600.00		1,600.00	Not Yet	May-10	HQ		○
3	Laptop Computer	HP E6930p S/N: 2CE002363T	1		1,235.00		1,235.00	Not Yet	May-10	HQ		○
						Sub-total						
						-	4,390.00					
4. Others (Cooperation Management)												
1	Stretcher	ans 24, folding type	13	29,700		386,100		-	Jun-10	Field (plan)	○	
						Sub-total						
						386,100						
						TOTAL						
						12,390,000	4,390.00					

Summary	Total Price (JPY)	Total Price (USD)
FY2008	1,378,860	69,029.50
FY2009	1650131.5	83,570.00
FY2010	12,390,000	4,350.00
Grand Total	30,259,992	155,959.50