

Appendix A

PDM0, PDM1, PDM2

ANNEX I

Project Design Matrix (PDM)

Project Title: The Project on Capacity Development in Disaster Management

Period: 2006. 8. ~ 2008. 7 (2 years)

Implementing Agencies: Department of Disaster Prevention and Mitigation (DDPM), Ministry of Education (MOE) <a part of activities>

(Cooperating Agencies: Related organizations at central and local levels, such as Royal Irrigation Department (RID) and Department of Mineral Resources (DMR))

Target Group: DDPM staffs, Central and local governments' staffs, Community groups (including school communities)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels</p>	<p>Timely and accurate warnings/countermeasures for the future disaster</p>	<p>Warning records of Thai Meteorological Department (TMD), National Disaster Warning Center (NDWC), DDPM and actual countermeasures responding to those warnings</p>	
<p>Project Purpose 1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management 2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as the strengthening the regional organizations of DDPM and MOE.</p>	<p>1. Disaster Management Annual Report "White Paper" published on the national disaster management 2. Number and quality of community-based civil groups participated in disaster management activities 3. Number of activities for the promotion and awareness which has been carried out</p>	<p>1. List of DDPM publishing 2. Reports from local authorities, Task Force activities reports 3. Task Force activities reports</p>	<p>-Close cooperation among the related ministries is further improved. -Public awareness for disaster management is maintained.</p>
<p>Outputs 1. Information on disaster and disaster risk management is accumulated by DDPM 2. National disaster management plan is revised in cooperation with related organizations 3. DDPM staff's capacity of overall functionality is improved 4. Regional disaster management plans (provincial and district levels) are improved and a part of disaster management activities in the plan are implemented 5. Education for disaster prevention is promoted at central and local levels</p>	<p>Indicators 1-1 Number of database analysis systems commenced by DDPM in cooperation with other organizations 2-1 Number of periodical inter-organization meetings held 2-2 Revised national disaster management plan approved by the National Civil Defense Committee and published 3-1 Number of DDPM and other governments' staffs who attended the trainings 3-2 Number of DPMA training curriculum formulated or revised 4-1 Number of disaster management plans improved by local authorities 4-2 Increased number and quality of community-based civil groups participated in disaster management activities 4-3 Number of hazard maps used by local people 4-4 Newly established community-based early-warning systems</p>	<p>DDPM IT center activities report Minutes of meetings Revised National disaster management plan Participant list Task Force activities reports Improved disaster management plans Reports from local authorities, Task Force activities reports Task Force activities reports Task Force activities reports</p>	<p>-The DDPM role is maintained and strengthened. -The activities of the several Task Forces are inter-related and maintained.</p>

	<p>4-5 Implementation of DIG and emergency drills</p> <p>5-1 Number of learning materials developed</p> <p>5-2 Number of training curricula for teachers and students</p> <p>5-3 Number of workshops held</p> <p>5-4 Number of disaster management activities</p>	<p>Task Force activities reports</p> <p>Learning materials</p> <p>Task Force activities reports</p> <p>Task Force activities reports</p> <p>Task Force activities reports</p>	
<p>Activities</p> <p>1-1 Review major disasters and their countermeasures in the past to learn lessons for the future (annual exercise)</p> <p>1-2 Prepare GIS database for hazard mapping</p> <p>1-3 List up and monitor all projects being implemented/planned by all organizations (government organizations, donors, NGOs)</p> <p>1-4 Publish Disaster Management Annual Report</p> <p>2-1 Strengthen communication among DDPM and other organizations (including central and local governments and NGOs)</p> <p>2-2 Based on 1-1 lessons, review/revise existing policies/plans</p> <p>2-3 Based on 1-3, coordinate related organizations</p> <p>2-4 Assist to improve the regional disaster management plans and promote the activities for disaster prevention at regional and community levels</p> <p>3-1 Implement crisis management trainings for DDPM staffs (including those in local offices) and staffs from central and local governments</p> <p>3-2 Review/revise the training programs at DPMA (Disaster Prevention and Mitigation Academy)</p> <p>4-1 Select three pilot areas, one each for tsunami, flood and landslide <in each pilot area></p> <p>4-2 Identify recent major disasters</p> <p>4-3 Review the regional disaster management plans for each area</p> <p>4-4 Prepare hazard maps, develop and implement early warning systems</p> <p>4-5 Support to community-based organizations for disaster management</p> <p>4-6 Implement DIG (Disaster Imagination Game) and emergency drills</p> <p>4-7 Implement awareness raising programs including workshops and seminars</p> <p><under implementation by MOE in cooperation with DDPM></p> <p>5-1 Study the current situation of education for disaster prevention in Thailand and introduce the experiences as well as the best practices of Japan</p> <p>5-2 Review the current structure of organizations for the community empowerment focusing on education for disaster prevention</p> <p>5-3 Develop necessary learning materials at different levels (primary, secondary, higher and etc.)</p> <p>5-4 Develop training curricula for teachers and students</p> <p>5-5 Select model schools of education for disaster prevention</p> <p>5-6 Implement workshops and activities for raising the awareness (including DIG) in each model school</p> <p>5-7 Promote the formulation of action plans for disaster risk management at schools</p>	<p>Inputs</p> <p>Thai Side</p> <p>1. Facilities</p> <p>-Project Office</p> <p>2. Personnel</p> <p>-Project Director</p> <p>-Project Managers</p> <p>-Counterparts (Task Forces)</p> <p>-Administrative officials</p> <p>3. Budget</p> <p>-As necessary</p> <p>4. Others</p> <p>-Joint Coordinating Committee</p> <p>-Task Forces</p> <ul style="list-style-type: none"> ▪ Disaster Management Plan ▪ Hazard Map ▪ Early Warning System ▪ Evacuation/Emergency Drills ▪ Training ▪ Education 	<p>Japanese Side</p> <p>1. Experts</p> <p>-Chief Advisor/Policy and Institution Advisor</p> <ul style="list-style-type: none"> - Disaster Management Planning -Community Disaster Management/ Public Awareness -Flood Disaster Management -Landslide Disaster Management -Tsunami Disaster Management -Public Awareness -School Education for Disasters and Disaster Risk Management -DIG (Disaster Imagination Game) -GIS -Database Management -Information Network -Others as necessary <p>2. Equipment</p> <p>3. Counterpart trainings in Japan</p> <p>4. Others</p> <ul style="list-style-type: none"> - Advisory Committee 	<p>-Budget and activities of the Task Forces are well managed.</p> <p style="text-align: center;">Preconditions</p> <p>-The consensus on decision of the three pilot areas is built among related government organizations.</p> <p>-Several Task Forces are well organized.</p>

***"Disaster" means "natural disaster" in this PDM, not including man-made disasters such as fire and chemical disasters.*

Project Design Matrix (PDM1 : Revised Jan.2007)

Project Title : The Project on Capacity Development in Disaster Management Period : 2006.8 – 2008.8 (2years) Implementing Agencies : DDPM, MoE (Counterparts)
 Target Group : DDPM staffs, Central and local government staffs, Community groups (including school communities)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels	Timely and accurate warning / countermeasures for the future disaster	Warning records of Thai Meteorological Department (TMD), National Disaster Warning Center (NDWC), DDPM and actual countermeasures	
Project Purpose 1. Capacity of DDPM is enhances as a principal national government agency to carry out the tasks and responsibilities of disaster management 2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as the strengthening the regional organizations of DDPM and MOE	1. Disaster Management Annual Report "White Paper" published on the national disaster management 2. Number and quality of community based civil groups participated in disaster management activities 3. Number of activities for the promotion and awareness which has been carried out	1. List of DDPM publishing 2. Reports from local authorities, Sub Task Force activities reports 3. Task Force activities reports	- Close cooperation among the related ministries is further improved - Public awareness for disaster management is maintained
Outputs : 1. Information on disaster and disaster risk management is accumulated by DDPM 2. National disaster management plan is revised in cooperation with related organizations 3. DDPM staff's capacity of overall functionality is improved 4. Regional disaster management plans (provincial and district levels) are improved and a part of disaster management activities in the plan are implemented 5. Education for disaster prevention is promoted at central and local levels	Indicators : 1-1 Provincial Hazard maps (flooding , geo-hazard) 1-2 Hazard maps of each pilot areas 1-3 Contents of DDPM Database for pilot project area 2-1 Contents of White Paper and awareness raising activities at DDPM provincial offices 2-2 Contents of comments to the National Civil Defense Plan and other plan 3-1 Contents of DPMA new training course on natural disaster 3-2 Contents of support for DPMA master plan formulation 4-1 Number and contents of revised disaster management plans at DDPM provincial and local government offices 4-2 Number and contents of pilot project activities (workshop, seminar, DIG, evacuation drill) and number of participants in that activities 4-3 Contents of early warning system and its active operation 5-1 Number of learning materials developed 5-2 Number of training curricula for teachers and students 5-3 Number of workshops held 5-4 Number of disaster management activities	Means of Verification : 1-1 Provincial Hazard maps (flooding , geo-hazard) 1-2 Hazard maps of each pilot areas 1-3 DDPM IT center report for G-system 2-1 White paper published and awareness raising activities report by DDPM provincials 2-2 Workshop report on the National Civil Defense Plan and other plan 3-1 Curriculum and materials of training course 3-2 DPMA Master plan and its workshop report 4-1 Provincial, district and community disaster management plans 4-2 Report on Pilot project activities 4-3 Report on DIG, Drill and Early warning System 5-1 Teaching material developed 5-2 Training curriculum 5-3 Workshop reports 5-4 Task Force activities reports	- The DDPM role is maintained and strengthened - The activities of the several Task Forces are inter-related and maintained
Activities :	Inputs :	Inputs	- Budget and activities of

<p>1-1 Collect, review and monitor related information (past major disasters, countermeasures, projects)</p> <p>1-2 Prepare provincial hazard maps for disaster management (flood, geo-hazard)</p> <p>1-3 Prepare hazard maps at each pilot area</p> <p>1-4 Develop practicable use of Disaster Database for hazard mapping and disaster management</p> <p>2-1 Strengthen and organize communication among DDPM and other organizations</p> <p>2-2 Publish White Paper to raise awareness of regional government officers</p> <p>2-3 Give comments on the draft National Civil Defense Plan 2008 and other plans</p> <p>3-1 Support DPMA to create natural disaster management training course</p> <p>3-2 Support DPMA to formulate master plan</p> <p>4-1 Select three pilot areas, one each for tsunami, flood and landslide <in each pilot area></p> <p>4-2 Support regional government and communities to formulate disaster management plans through Pilot Project</p> <p>4-3 Implement DIG and evacuation drill</p> <p>4-4 Establish community based early warning system</p> <p><under implementation by MOE in cooperation with DDPM></p> <p>5-1 Study the current situation of education for disaster prevention in Thailand and introduce the experience as well as the best practice of Japan</p> <p>5-2 Review the current structure of organizations for the community empowerment focusing on education for disaster prevention</p> <p>5-3 Develop necessary learning materials at different levels (Primary, secondary, higher and etc.)</p> <p>5-4 Develop training curricula for teachers and students</p> <p>5-5 Select model schools of education for disaster prevention</p> <p>5-6 Implement workshops and activities for raising the awareness (including DIG) in each model school</p> <p>5-7 Promote the formulation of action plans for disaster risk management at schools</p>	<p><Thai side></p> <p>Facilities Project Office 2 places (DDPM, MOE)</p> <p>Personnel Project Director 1 person Project Manager 2 persons Counterparts (Task force) Several persons Administrative officials 2 persons</p> <p>Budget As necessary</p> <p>Others Joint Coordination Committee Task Forces - Disaster management plan - Hazard map - Early warning system - Evacuation drill - Training, Education)</p>	<p><Japanese Side></p> <p>1. Experts - Chief advisor / Policy and institution - Disaster management planning - Community disaster management - Flood disaster management - Landslide disaster management - Tsunami disaster management - Public awareness - School education for disaster and disaster risk management - DIG - Database management - Information network - Others as necessary</p> <p>2. Equipment</p> <p>3. Counterpart training in Japan</p> <p>4. Others - Advisory committee</p>	<p>the Task Forces are well managed</p> <p><Preconditions></p> <p>- The consensus on decision of the three pilot areas is built among related government organizations</p> <p>- Several Task Forces are well organized</p>
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Remarks : "disaster" means "natural disaster" in this PDM, not including man-made disasters such as fire and chemical disasters

Project Design Matrix (PDM2 : Revised Nov.2007)

Project Title : The Project on Capacity Development in Disaster Management (Counterparts) Period : 2006.8 – 2008.8 (2years) Implementing Agencies : DDPM, MOE

Target Group : DDPM staff, MOE staff, Central and local authorities, Village people at 3 pilot project sites, Teachers at model schools and associate model schools

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels</p>	<p>1 Disaster management plans at central, regional and community levels are developed.</p> <p>2 DDPM becomes able to grasp situation and problems regarding disaster management and take or promote necessary countermeasures in cooperation with related organizations.</p> <p>3 Each related organization at central, regional and community levels becomes able to prepare and respond to disasters based on the disaster management plan at each level.</p>	<p>1 Disaster management plans formulated</p> <p>2 White paper</p> <p>3 White paper</p>	
<p>Project Purpose</p> <p>1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management</p> <p>2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as strengthening the regional organizations of DDPM and MOE</p>	<p>1 Disaster Management Annual Report "White Paper" published</p> <p>2 Village people know the appropriate response to emergency situation.</p> <p>3 Workshops and lectures are conducted by teachers at each model school.</p>	<p>1-1 List of DDPM publishing</p> <p>2-1 Interview and village level disaster preparedness plan</p> <p>2-2 Workshop report</p>	<ul style="list-style-type: none"> - Close cooperation among the related ministries is further improved - Public awareness for disaster management is maintained
<p>Outputs :</p> <p>1. System which enables to collect, accumulate and utilize information on disaster and disaster risk management is established in DDPM.</p> <p>2. Relationship and communication between DDPM and other related organizations are strengthened through publishing White Paper and formulating National Disaster Prevention and Mitigation Plan.</p>	<p>Indicators :</p> <p>1-1 Hazard maps of Chumporn province and Mae Hong Sorn province which indicate disaster vulnerability and other information on disasters are developed.</p> <p>1-2 Manual for developing provincial hazard maps including analysis method is prepared.</p> <p>1-3 Community hazard maps for the pilot areas (flood, landslide) are developed based on the provincial hazard maps.</p> <p>1-4 GIS database including meteorological data, topographic data, disaster record and related projects for Chumporn province and Mae Hong Sorn Province are developed.</p> <p>1-5 Procedure for updating GIS database is documented.</p> <p>1-6 Guidebook for utilization of hazard map and GIS database is prepared.</p>	<p>Means of Verification :</p> <p>1-1 Hazard maps developed</p> <p>1-2 Manual developed</p> <p>1-3 Hazard maps developed</p> <p>1-4 GIS database developed</p> <p>1-5 Procedure documented</p> <p>1-6 Guidebook prepared</p> <p>2-1 White paper published</p> <p>2-2 Minutes of Meetings</p> <p>2-3 Outline of National Disaster Prevention and Mitigation Plan</p>	<ul style="list-style-type: none"> - The DDPM role is maintained and strengthened - The activities of the several Task Forces are inter-related and maintained

<p>3. System for enhancing capacity of DDPM staff on natural disaster management is strengthened.</p> <p>4. Capacities of DDPM staff and village people are enhanced to promote disaster management activities at village level.</p> <p>5. Capacities of MOE staff and teachers at model schools are enhanced to promote education for disaster preparedness at schools.</p>	<p>2-1 White Paper is published. 2-2 Regular meetings and communications between DDPM and related organizations 2-3 Outline of National Disaster Prevention and Mitigation Plan is formulated.</p> <p>3-1 E-learning materials for natural disaster management course targeting flood, landslide, tsunami and earthquake are developed. 3-2 Utilization plan of e- learning materials is formulated. 3-3 Master plan of DPMA on natural disaster is formulated.</p> <p>4-1 Community-based early warning systems are functional in two pilot sites. 4-2 Manuals for CBDRM are developed. 4-3 Facilitator's guide is developed. 4-4 Village level disaster preparedness plans are formulated at two pilot project sites. 4-5 Village Disaster Prevention and Mitigation Committee is organized at two pilot sites. 4-6 Templates for provincial, district and tambon disaster prevention and mitigation plan are developed</p> <p>5-1 Supplementary reading and teacher's guide for flood, landslide and tsunami at primary and secondary schools are developed. 5-2 Training Curricula for teachers on disaster preparedness are developed. 5-3 More than one teacher from each model school are able to conduct workshops and lectures. 5-4 Action plans are formulated at each model school</p>	<p>3-1 E-learning materials developed 3-2 Utilization plan prepared 3-3 Master plan formulated</p> <p>4-1 Record on the early warning systems 4-2 CBDRM Manuals developed 4-3 Facilitator's guide developed 4-4 Village level disaster preparedness plans prepared 4-5 Village level disaster preparedness plans prepared 4-6 Templates developed</p> <p>5-1 Supplementary reading and teacher's guide developed 5-2 Training curricula developed 5-3 Workshop report prepared 5-4 Action plan prepared</p>	
<p>Activities : 1-1 Collect and review related information (past major disasters, countermeasures, projects) 1-2 Prepare hazard maps of Chumphorn and Mae Hong Sorn province for disaster management 1-3 Prepare manual for developing provincial hazard map 1-4 Prepare community hazard maps at pilot areas (flood, landslide)</p>	<p>Inputs : <Thai side> Facilities Project Office 2 places (DDPM, MOE)</p> <p>Personnel Project Director 1 person Project Manager 2 persons Counterparts (Task force) Several</p>	<p>Inputs <Japanese Side> 1. Experts - Chief advisor / Policy and institution - Disaster management planning - Community disaster management - Flood disaster management</p>	<p>- Budget and activities of the Task Forces are well managed</p> <p><Preconditions></p>

<p>1-5 Develop GIS Database for disaster management 1-6 Prepare guidebook for utilization of hazard map and GIS database</p> <p>2-1 Compile and publish White Paper 2-2 Formulate outline of National Disaster Prevention and Mitigation Plan</p> <p>3-1 Establish e-learning course on natural disaster management 3-2 Formulate master plan of DPMA on natural disaster</p> <p>4-1 Select three pilot sites: one each for tsunami, flood and landslide 4-2 Implement DIG and evacuation drill at selected pilot sites 4-3 Establish community-based early warning system at selected pilot sites 4-4 Develop a manual on CBDRM at community 4-5 Develop facilitator's guide on CBRDM for DDPM staff 4-6 Formulate village level disaster preparedness plan at two pilot sites (flood, landslide) 4-7 Develop template of provincial, district and tambon disaster prevention and mitigation plan</p> <p><under implementation by MOE in cooperation with DDPM> 5-1 Study the current situation of education for disaster preparedness in Thailand and introduce experience as well as the best practice of Japan 5-2 Review the current structure of organizations for the community empowerment focusing on education for disaster preparedness 5-3 Develop supplementary reading and teacher's guide for primary and secondary schools 5-4 Develop training program for teachers on disaster preparedness 5-5 Select 3 model schools and 6 associate model schools for education on disaster preparedness 5-6 Conduct workshops and lectures for raising the awareness (including DIG) in each model school 5-7 Formulate action plan to promote disaster preparedness at school</p>	<p>persons persons Budget Others</p> <p>Administrative officials 2</p> <p>As necessary</p> <p>Joint Coordination Committee Task Forces - Disaster management plan - Hazard map - Early warning system - Evacuation drill - Training - Education</p>	<p>- Landslide disaster management - Tsunami disaster management - Public awareness - School education for disaster and disaster risk management - DIG - Database management - Information network - Others as necessary</p> <p>2. Equipment</p> <p>3. Counterpart training in Japan</p> <p>4. Others - Advisory committee</p>	<p>- The consensus on decision of the three pilot areas is built among related government organizations - Several Task Forces are well organized</p>
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Remarks : "disaster" means "natural disaster" in this PDM, not including man-made disasters such as fire and chemical disasters.

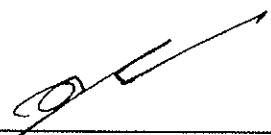
Appendix B

Minutes of Meetings


**MINUTES OF MEETINGS
ON
INCEPTION REPORT
FOR
THE PROJECT ON CAPACITY DEVELOPMENT IN DISASTER MANAGEMENT
IN THAILAND**

**AGREED UPON BETWEEN
THE DEPARTMENT OF DISASTER PREVENTION AND MITIGATION, MINISTRY OF
INTERIOR,
THE MINISTRY OF EDUCATION
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY**

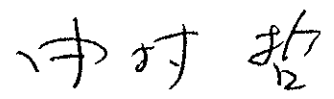
Bangkok, 8 September 2006



Mr. Anucha Mokkhavesa
Director General,
Department of Disaster
Prevention and Mitigation,
Ministry of Interior



Khunying Kasama Varavarn
Permanent Secretary,
Ministry of Education



Dr. NAKAMURA Satoshi
Chief Advisor, Expert Team,
Japan International
Cooperation Agency

Based on the Record of Discussion (hereinafter referred to as "R/D") for the Project on Capacity Development in Disaster Management in Thailand (hereinafter referred to as "the Project") agreed on 17 July 2006 between the Department of Disaster Prevention and Mitigation, Ministry of Interior (hereinafter referred to as "DDPM") and the Ministry of Education (hereinafter referred to as "MOE"), and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA dispatched the Expert Team (hereinafter referred to as "the Team") headed by Dr. NAKAMURA Satoshi from 29 August 2006. JICA Advisory Team, headed by Mr. NAGAISHI Masafumi has also been dispatched on the commencement of the Project.

The Team submitted the Inception Report (hereinafter referred to as "IC/R"), and a series of discussions were made. The following are the main points discussed in the meeting.

1. The first Joint Coordinating Committee (hereinafter referred to as "JCC") meeting was held on 30 August 2006 at DDPM and was chaired by Mr. Somsak Suwansujarit, Deputy Director General of DDPM. On behalf of the Thai Government, he expressed his sincere thanks for the kind cooperation and approval of the Project by the Japanese Government. He also welcomed the JICA Advisory Team, headed by Mr. NAGAISHI Masafumi who presented a brief background of the Project based on R/D signed by the Thai and the Japanese sides on 17 July 2006. The list of participants (hereinafter referred to as the "Thai side") is attached as Annex 1.
2. Acceptance of the Inception Report (IC/R)
The Team, headed by Dr. NAKAMURA, Satoshi explained the contents of IC/R and outlined five achievements. The Thai side acknowledged the contents of IC/R and the outlined achievements. The MOE representative requested the following:
 - 2.1 School education for disaster prevention to be introduced into the Thai education system should be based on the Japanese experience, should be practical, should make use of current technology, and should be of a high standard and relevant to education at primary, secondary and tertiary levels. Selected model schools will not be limited to primary schools;
 - 2.2 There is a need to identify and develop learning materials as well as necessary equipment for the purpose of education and training; and
 - 2.3 As the Project will be implemented from 2006 to 2008, the Project could be highlighted as an activity to mark 120 years of Diplomatic Relations between Thailand and Japan.
3. Additional comments on IC/R from JCC will be submitted to DDPM for consideration by 10 September 2006. These comments shall be considered for inclusion in the contents of the Project.

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4. The Japanese side requested a full time counterpart to work with the Team and coordinate overall activities on a daily basis. DDPM has already assigned counterparts including one full time coordinator. The MOE will identify counterparts in collaboration with relevant the educational Commissions.
5. The Japanese side requested work space in the MOE for one Japanese expert. The MOE representative agreed to consider this request.
6. The Japanese side proposed to modify the structure of Task Forces identified in R/D. Since 5 Task Forces have already been created by virtue of DDPM order No. 468/2549 dated 18 August 2006, it was agreed there should be no structural change.
7. The Team proposed to formulate Sub-Task Forces to facilitate pilot projects efficiently. The Thai side has no objection in principle and plans to discuss the structure and roles of Sub-Task Forces with the Team in due course, based on the results of a field survey.
8. The candidates for the counterpart training in Japan will be identified. It is expected that they will work with the Team for the formulation of disaster management plans and activities under the project at central, provincial, district and school levels.
Since school education for disaster prevention is a crucial and new area for Thailand, the MOE emphasized that it is necessary to implement counterpart training to look into the education delivery system in Japan to facilitate conceptualization in the early stage of the Project.
9. The Thai side requested that high level and practical technology be introduced for the execution of the project.
10. Based on discussions, the Thai side requested the inclusion of an additional Japanese expert to work as Coordinator. Terms of reference of the Coordinator would outline responsibilities for overall coordination of the Project.

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Annex-1

List of Participants

Thai side

Mr. Somsak Suwansujarit	Deputy Director-General of DDPM
Ms. Orachart Suebsith	Specialist of Bureau of International Cooperation, MOE
Mr. Pakula Awachanakorn	Disaster Prevention and Mitigation Policy Bureau, DDPM
Mr. Bunleue Wongwathana	Disaster Prevention Measures Bureau, DDPM
Ms. Malai Pongpan	Disaster Mitigation Directing Center, DDPM
Mr. Supakit Poprapapan	Disaster Information Technology Center, DDPM
Mr. Chalit Pongsirisak	Disaster Prevention Measure Bureau, DDPM
Mr. Kopchai Bunorrana	Disaster Prevention and Mitigation Policy Bureau, DDPM
Mr. Phaitoon Naktae	Disaster Prevention Measures Bureau, DDPM
Ms. Nanthanit Srichan	Disaster Mitigation Directing Center, DDPM
Ms. Chatchadaporn Boonyavaha	Disaster Prevention and Mitigation Policy Bureau, DDPM
Ms. Siriluk Duangkaew	Disaster Research and International Cooperation Bureau, DDPM
Ms. Usa Baanyen	Disaster Research and International Cooperation Bureau, DDPM
Ms. Amornthip Paksuchon	Disaster Research and International Cooperation Bureau, DDPM
Ms. Duangnapa Uttamangkpong	Disaster Research and International Cooperation Bureau, DDPM
Ms. Kanokporn Chucherd	Disaster Research and International Cooperation Bureau, DDPM
Ms. Kornisnan Wilawan	Disaster Research and International Cooperation Bureau, DDPM
Mr. Ratthipat Pangwacharakarn	Disaster Research and International Cooperation Bureau, DDPM
Mr. Chainarong Wasanasomsit	Disaster Research and International Cooperation Bureau, DDPM
Mr. Sompoch Kongrong	Disaster Prevention and Mitigation Academy: DPMA
Ms. Jandra chawanawech	Disaster Prevention and Mitigation Academy: DPMA
Ms. Urai Panich-chatra	Commission on Basic Education: MOE
Ms. Rumpeuy Pattamavichaiporn	Commission on Higher Education: MOE
Ms. Somsuan Howe	Thailand International Development Cooperation Agency; TICA
Mr. Wirat Tamnurasri	Thailand International Development Cooperation Agency; TICA
Mr. Wachanapong Pongkitjaleud	Department of Local Administration: DLA
Mr. Sakharin Jumpa	Department of Local Administration: DLA
Mr. Shuphachai Kantatim	Department of Local Administration: DLA
Ms. Rumpeung Simking	Department of Provincial Administration: DOPA
Ms. Kannika Kunwong	Geo-Informatics and Space Technology Department Agency: GISTDA
Mr. Chawwalit Sillapatong	Geo-Informatics and Space Technology Department Agency: GISTDA
Col. Denduang Timwathana	Geo-Informatics and Space Technology Department Agency: GISTDA
Gp. Capt. Suwit Piromyaporn	Disaster Relief Center, Ministry of Defense: DRC
R Adm. Thaworn Chareundee	Disaster Relief Center, Ministry of Defense: DRC
Ms. Supraanee Runghirunwirote	National Disaster Warning Center: NDWC
Pol. Gen. Sarote Nimcharean	Department of Water Resource : DWR
Pol. Capt. Parinuch Pratummarak	Royal Thai Police: RTP
Ms. Wanthanee Kongsombun, Pharmacist	Royal Thai Police: RTP
	Thai Red Cross

Japanese side

Mr. Masafumi NAGAISHI	Team Leader, Global Environment Department, JICA
Ms. Yuko KAWATANI	Staff, Disaster Management Team, Global Environment Department, JICA
Ms. Miki Kodama	Staff, Asian Disaster Reduction Center, Urban Disaster Research Institute
Dr. Satoshi NAKAMURA	Chief Engineer of Quality & Engineering Management
	Headquarters, ESS EARTH SYSTEM SCIENCE
Ms. Lolita Caparas GARCIA	Vice-President, Environmental Studies and Capacity
	Building Department, DARUMA Technologies Co., Ltd.
Mr. Yashuiko KATO	Manager, Overseas Engineering Division, IDEA
Mr. Nakorn Najaroon	MA. Development Sociology
Mr. Jun ONODERA	Consulting Engineer, Geophysical Survey Department,
	Disaster Management Division, ESS EARTH SYSTEM SCIENCE
Ms. Koyika TAKEUCHI	JICA Thailand Office

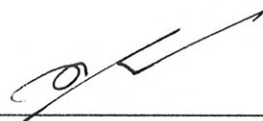
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MINUTES OF MEETINGS
ON
THE REVISION OF PROJECT DESIGN MATRIX
FOR
THE PROJECT ON CAPACITY DEVELOPMENT
IN DISASTER MANAGEMENT IN THAILAND

AGREED UPON BETWEEN
THE DEPARTMENT OF DISASTER PREVENTION AND MITIGATION,
MINISTRY OF INTERIOR,
THE MINISTRY OF EDUCATION
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Bangkok, September 2007



Mr. Anucha Mokkhavesa
Director General,
Department of Disaster
Prevention and Mitigation,
Ministry of Interior



Dr. Chinnapat Bhumirat
Deputy Permanent Secretary,
Ministry of Education



Dr. Nakamura Satoshi
Chief Advisor, Expert Team
Japan International
Cooperation Agency

Based on the Inception Report for the Project on Capacity Development in Disaster Management in Thailand (hereinafter referred to as “the Project”) agreed on 8 September 2006 between the Department of Disaster Prevention and Mitigation, Ministry of Interior (hereinafter referred to as “DDPM”), the Ministry of Education (hereinafter referred to as “MOE”) and the Japan International Cooperation Agency, the Project has been commenced on September 2006.

During the implementation of the project, series of discussion regarding with the contents of the project for output 1 to 4 were made. As the result of discussion, the Project Design Matrix (hereinafter referred to as “the PDM”) for Output 1 to 4 was revised as attached.

Project Design Matrix (PDM1 : Revised Jan.2007)

Project Title : The Project on Capacity Development in Disaster Management
 Target Group : DDPM staffs, Central and local Government staffs, Community groups (including school communities)

Period : 2006.8 – 2008.8 (2years)
 Implementing Agencies : DDPM, MOE (Counterparts)


Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels</p> <p>Project Purpose 1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management 2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as the strengthening the regional organizations of DDPM and MOE</p> <p>Outputs : 1. Information on disaster and disaster risk management is accumulated by DDPM 2. National disaster management plan is revised in cooperation with related organizations 3. DDPM staff's capacity of overall functionality is improved 4. Regional disaster management plans (provincial and district levels) are improved and a part of disaster management activities in the plan are implemented 5. Education for disaster prevention is promoted at central and local levels</p> <p>Activities : 1.1 Collect, review and monitor related information (past major disasters, countermeasures, projects) 1.2 Prepare provincial hazard maps for disaster management (flood, geo-hazard) 1.3 Prepare hazard maps at each pilot area 1.4 Develop practicable use of Disaster Database for hazard mapping and disaster management 2.1 Strengthen and organize communication among DDPM and other organizations 2.2 Publish White Paper to raise awareness of regional government officers 2.3 Give comments on the draft National Civil Defense Plan 2008 and other plans 3-1 Support DPMA to create natural disaster management training course 3-2 Support DPMA to formulate master plan 4-1 Select three pilot areas, one each for tsunami, flood and landslide <in each pilot area> 4-2 Support regional government and communities to formulate disaster management plans through Pilot Project 4-3 Implement DIG and evacuation drill 4-4 Establish community based early warning system <under implementation by MOE in cooperation with DDPM> 5-1 Study the current situation of education for disaster prevention in Thailand and introduce the experience as well as the best practice of Japan 5-2 Review the current structure of organizations for the community empowerment focusing on education for disaster prevention 5-3 Develop necessary learning materials at different levels (Primary, secondary, higher and etc.) 5-4 Develop training curricula for teachers and students 5-5 Select model schools of education for disaster prevention 5-6 Implement workshops and activities for raising the awareness (including DIG) in each model school 5-7 Promote the formulation of action plans for disaster risk management at schools</p>	<p>Timely and accurate warning/ countermeasures for the future disaster</p> <p>1. Disaster Management Annual Report "White Paper" published on the national disaster management 2. Number and quality of community based civil groups participated in disaster management activities 3. Number of activities for the promotion and awareness which has been carried out</p> <p>Indicators : 1-1 Provincial Hazard maps (flooding , geo-hazard) 1-2 Hazard maps of each pilot areas 1-3 Contents of DDPM Database for pilot project area 2-1 Contents of White Paper and awareness raising activities at DDPM provincial offices 2-2 Contents of comments to the National Civil Defense Plan and other plan 3-1 Contents of DPMA new training course on natural disaster 3-2 Contents of support for DPMA master plan formulation 4-1 Number and contents of revised disaster management plans at DDPM provincial and local government offices 4-2 Number and contents of pilot project activities (workshop, seminar, DIG, evacuation drill) and number of participants in that activities 4-3 Contents of early warning system and its active operation 5-1 Number of learning materials developed 5-2 Number of training curricula for teachers and students 5-3 Number of workshops held 5-4 Number of disaster management activities</p>	<p>Warning records of Thai Meteorological Department (TMD), National Disaster Warning Center (NDWC), DDPM and actual countermeasures</p> <p>1. List of DDPM publishing reports 2. Reports from local authorities, Sub Task Force activities reports 3. Task Force activities reports</p> <p>Means of Verification : 1-1 Provincial Hazard maps (flooding , geo-hazard) 1-2 Hazard maps of each pilot areas 1-3 DDPM IT center report for G-system 2-1 White paper published and awareness raising activities report by DDPM provincials 2-2 Workshop report on the National Civil Defense Plan and other plan 3-1 Curriculum and materials of training course 3-2 DPMA Master plan and its workshop report 4-1 Provincial, district and community disaster management plans 4-2 Report on Pilot project activities 4-3 Report on DIG, Drill and Early warning System 5-1 Teaching material developed 5-2 Training curriculum 5-3 Workshop reports 5-4 Task Force activities reports</p>	<p>- Close cooperation among the related ministries is further improved - Public awareness for disaster management is maintained</p> <p>- The DDPM role is maintained and strengthened - The activities of the several Task Forces are inter-related and maintained</p>
<p>Inputs : <Thai Side> Facilities Personnel Budget Others</p> <p>Project Office 2 places (DDPM, MOE) Project Director 1 person Project Manager 2 persons Counterparts (task force) Several persons Administrative officials 2 persons As necessary Joint Coordination Committee Task Forces - Disaster management plan - Hazard map - Early warning system - Evacuation drill - Training, Education)</p>	<p>Inputs <Japanese Side> 1. Experts - Chief advisor / Policy and institution - Disaster management planning - Community disaster management - Flood disaster management - Landslide disaster management - Tsunami disaster management - Public awareness - School education for disaster and disaster risk management - DIG - Database management - Information network - Others as necessary 2. Equipment 3. Counterpart training in Japan 4. Others - Advisory committee</p>	<p>- Budget and activities of the Task Forces are well managed</p> <p><Preconditions> - The consensus on decision of the three pilot areas is built among related government organizations - Several task forces are well organized</p>	<p>- Budget and activities of the Task Forces are well managed</p> <p><Preconditions> - The consensus on decision of the three pilot areas is built among related government organizations - Several task forces are well organized</p>

*remarks : "disaster" means "natural disaster" in this PDM, not including man-made disasters such as fire and chemical disasters

MINUTES OF MEETING
ON
THE PROJECT ON CAPACITY DEVELOPMENT IN DISASTER MANAGEMENT
IN THAILAND

AGREED UPON BETWEEN
THE DEPARTMENT OF DISASTER PREVENTION AND MITIGATION,
MINISTRY OF INTERIOR,
THE MINISTRY OF EDUCATION
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY


7 December 2007, Bangkok



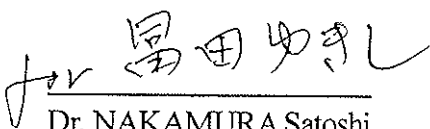
Mr. Anucha Mokkhavesa
Director General
Department of Disaster Prevention and
Mitigation, Ministry of Interior



Mr. ONODA Katsuji
Resident Representative
Japan International Cooperation Agency
Thailand Office



Dr. Chinnapat Bhumirat
Deputy Permanent Secretary
Ministry of Education



Dr. NAKAMURA Satoshi
Chief Advisor, Expert Team
Japan International Cooperation Agency

Based on the Record of Discussion (hereinafter referred to as "R/D") for the Project on Capacity Development in Disaster Management in Thailand (hereinafter referred to as "the Project") agreed upon on 17 July 2006 between the Department of Disaster Prevention and Mitigation, Ministry of Interior (hereinafter referred to as "DDPM") and the Ministry of Education (hereinafter referred to as "MOE"), and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the Project was commenced in August 2006 and will be planned to end in August 2008.

JICA dispatched Advisory Team headed by Mr. SUDO Kazuo from 19 November to 29 November 2007 to review the progress of the Project as well as to discuss the issues on the Project. The Team had a series of discussions with counterpart organizations, taskforce members as well as Joint Coordination Committee members. The following are the main points discussed.

1. Revision of the Project Design Matrix

Based on the discussions with Thai officials concerned, Project Design Matrix (hereinafter referred to as "PDM") and Plan of Operation (hereinafter referred to as "PO") on the Project were revised and approved in the Joint Coordination Committee held on 28 November 2007. Revised PDM and PO are respectively shown in Annex1 and Annex2.

2. Information Sharing and Collaboration among Task Forces

The activities of six task forces are related to each other centering on disaster prevention and mitigation. Therefore what each task force is doing should be known to other task forces and candid discussion among task forces take place as necessary. It was suggested that regular meetings among task forces ought to be held to facilitate information sharing and collaboration for the success of the Project.

Annex1 Project Design Matrix (PDM2: Revised Nov.2007)

Annex2 Plan of Operation (PO2: Revised Nov.2007)



Project Design Matrix (PDM2 : Revised Nov.2007)

Project Title : The Project on Capacity Development in Disaster Management Period : 2006.8 - 2008.8 (2years) Implementing Agencies : DDPM, MOE (Counterparts)
 Target Group : DDPM staff, MOE staff, Central and local authorities, Village people at 3 pilot project sites, Teachers at model schools and associate model schools

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels</p>	<p>1 Disaster management plans at central, regional and community levels are developed. 2 DDPM becomes able to grasp situation and problems regarding disaster management and take or promote necessary countermeasures in cooperation with related organizations. 3 Each related organization at central, regional and community levels becomes able to prepare and respond to disasters based on the disaster management plan at each level.</p>	<p>1 Disaster management plans formulated 2 White paper 3 White paper</p>	<p>- Close cooperation among the related ministries is further improved - Public awareness for disaster management is maintained</p>
<p>Project Purpose 1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management 2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as strengthening the regional organizations of DDPM and MOE</p>	<p>1 Disaster Management Annual Report "White Paper" published 2 Village people know the appropriate response to emergency situation. 3 Workshops and lectures are conducted by teachers at each model school.</p>	<p>1-1 List of DDPM publishing 2-1 Interview and village level disaster preparedness plan 2-2 Workshop report</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>
<p>Outputs : 1. System which enables to collect, accumulate and utilize information on disaster and disaster risk management is established in DDPM.</p>	<p>Indicators : 1-1 Hazard maps of Chumphorn province and Mae Hong Sorn province which indicate disaster vulnerability and other information on disasters are developed. 1-2 Manual for developing provincial hazard maps including analysis method is prepared. 1-3 Community hazard maps for the pilot areas (flood, landslide) are developed based on the provincial hazard maps. 1-4 GIS database including meteorological data, topographic data, disaster record and related projects for Chumphorn province and Mae Hong Sorn Province are developed. 1-5 Procedure for updating GIS database is documented. 1-6 Guidebook for utilization of hazard map and GIS database is prepared.</p>	<p>Means of Verification : 1-1 Hazard maps developed 1-2 Manual developed 1-3 Hazard maps developed 1-4 GIS database developed 1-5 Procedure documented 1-6 Guidebook prepared</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>
<p>2. Relationship and communication between DDPM and other related organizations are strengthened through publishing White Paper and formulating National Disaster Prevention and Mitigation Plan.</p>	<p>2-1 White Paper is published. 2-2 Regular meetings and communications between DDPM and related organizations 2-3 Outline of National Disaster Prevention and Mitigation Plan is formulated.</p>	<p>2-1 White paper published 2-2 Minutes of Meetings 2-3 Outline of National Disaster Prevention and Mitigation Plan</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>
<p>3. System for enhancing capacity of DDPM staff on natural disaster management is strengthened.</p>	<p>3-1 E-learning materials for natural disaster management course targeting flood, landslide, tsunami and earthquake are developed. 3-2 Utilization plan of e-learning materials is formulated. 3-3 Master plan of DPMA on natural disaster is formulated.</p>	<p>3-1 E-learning materials developed 3-2 Utilization plan prepared 3-3 Master plan formulated</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>
<p>4. Capacities of DDPM staff and village people are enhanced to promote disaster management activities at village level.</p>	<p>4-1 Community-based early warning systems are functional in two pilot sites. 4-2 Manuals for CDRM are developed. 4-3 Facilitator's guide is developed. 4-4 Village level disaster preparedness plans are formulated at two pilot project sites. 4-5 Village Disaster Prevention and Mitigation Committee is organized at two pilot sites. 4-6 Templates for provincial, district and tambon disaster prevention and mitigation plan are developed</p>	<p>4-1 Record on the early warning systems 4-2 CDRM Manual developed 4-3 Facilitator's guide developed 4-4 Village level disaster preparedness plans prepared 4-5 Village level disaster preparedness plans prepared 4-6 Templates developed</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>
<p>5. Capacities of MOE staff and teachers at model schools are enhanced to promote education for disaster preparedness at schools.</p>	<p>5-1 Supplementary reading and teacher's guide for flood, landslide and tsunami at primary and secondary schools are developed. 5-2 Training Curricula for teachers on disaster preparedness are developed. 5-3 More than one teacher from each model school are able to conduct workshops and lectures. 5-4 Action plans are formulated at each model school</p>	<p>5-1 Supplementary reading and teacher's guide developed 5-2 Training curricula developed 5-3 Workshop report prepared 5-4 Action plan prepared</p>	<p>- The DDPM role is sustained and strengthened - The activities of the several Task Forces are inter-related and sustained</p>

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Activities :</p> <p>1-1 Collect and review related information (past major disasters, countermeasures, projects)</p> <p>1-2 Prepare hazard maps of Chumphon and Mae Hong Som province for disaster management</p> <p>1-3 Prepare manual for developing provincial hazard map</p> <p>1-4 Prepare community hazard maps at pilot areas (flood, landslide)</p> <p>1-5 Develop GIS Database for disaster management</p> <p>1-6 Prepare guidebook for utilization of hazard map and GIS database</p> <p>2-1 Compile and publish White Paper</p> <p>2-2 Formulate outline of National Disaster Prevention and Mitigation Plan</p> <p>3-1 Establish e-learning course on natural disaster management</p> <p>3-2 Formulate master plan of DPMA on natural disaster</p> <p>4-1 Select three pilot sites: one each for tsunami, flood and landslide</p> <p>4-2 Implement DIG and evacuation drill at selected pilot sites</p> <p>4-3 Establish community-based early warning system at selected pilot sites</p> <p>4-4 Develop a manual on CBRDM at community</p> <p>4-5 Develop facilitator's guide on CBRDM for DDPM staff</p> <p>4-6 Formulate village level disaster preparedness plan at two pilot sites (flood, landslide)</p> <p>4-7 Develop template of provincial, district and tambon disaster prevention and mitigation plan</p> <p><under implementation by MOE in cooperation with DDPM></p> <p>5-1 Study the current situation of education for disaster preparedness in Thailand and introduce experience as well as the best practice in Japan</p> <p>5-2 Review the current structure of organizations for the community empowerment focusing on education for disaster preparedness</p> <p>5-3 Develop supplementary reading and teacher's guide for primary and secondary schools</p> <p>5-4 Develop training program for teachers on disaster preparedness</p> <p>5-5 Select 3 model schools and 6 associate model schools for education on disaster preparedness</p> <p>5-6 Conduct workshops and lectures for raising the awareness (including DIG) in each model school</p> <p>5-7 Formulate action plan to promote disaster preparedness at school</p>	<p>Inputs :</p> <p><Thai side></p> <p>Facilities</p> <p>Project Office 2 places (DDPM, MOE)</p> <p>Personnel</p> <p>Project Director 1 person</p> <p>Project Manager 2 persons</p> <p>Counterparts (task force) Several persons</p> <p>Administrative officials 2 persons</p> <p>Budget</p> <p>As necessary</p> <p>Others</p> <p>Joint Coordination Committee</p> <p>Task Forces</p> <p>- Disaster management plan</p> <p>- Hazard map</p> <p>- Early warning system</p> <p>- Evacuation drill</p> <p>- Training</p> <p>- Education</p>	<p>Inputs</p> <p><Japanese Side></p> <p>1. Experts</p> <p>- Chief advisor / Policy and institution</p> <p>- Disaster management planning</p> <p>- Community disaster management</p> <p>- Flood disaster management</p> <p>- Landslide disaster management</p> <p>- Tsunami disaster management</p> <p>- Public awareness</p> <p>- School education for disaster and disaster risk management</p> <p>- DIG</p> <p>- Database management</p> <p>- Information network</p> <p>- Others as necessary</p> <p>2. Equipment</p> <p>3. Counterpart training in Japan</p> <p>4. Others</p> <p>- Advisory committee</p>	<p>- Budget and activities of the task Forces are well managed</p> <p><Preconditions></p> <p>- The consensus on decision of the three pilot areas is built among related government organizations</p> <p>- Several Task Forces are well organized</p>

Remarks : "disaster" means "natural disaster" in this PDM, not including man-made disasters such as fire and chemical disasters.

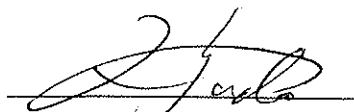
MINUTES OF MEETING
BETWEEN
THE JAPANESE TERMINAL EVALUATION TEAM
AND
THE THAI TERMINAL EVALUATION TEAM
ON
JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT ON CAPACITY DEVELOPMENT
IN DISASTER MANAGEMENT IN THAILAND

The Japanese Terminal Evaluation Team, organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Kazuo SUDO, visited the Kingdom of Thailand from June 1, 2008 to June 20, 2008 for the purpose of conducting the joint terminal evaluation on the Project on Capacity Development in Disaster Management in Thailand (hereinafter referred to as "the Project") on the basis of the Record of Discussions signed on July 17, 2006.

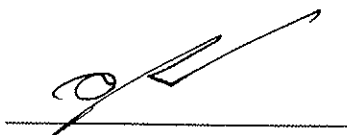
During its stay in the Kingdom of Thailand, the Japanese Team made field visits and had a series of discussions and exchanged views and opinions on the achievements and performance of the Project with the Thai Terminal Evaluation Team.

As a result of the discussions, the Joint Terminal Evaluation Team mutually agreed upon the contents referred to in the document attached herewith as ATTACHMENT.

Bangkok, June 19, 2008



Mr. Kazuo SUDO
Leader
Japanese Terminal
Evaluation Team
Japan International
Cooperation Agency
Japan



Mr. Anucha
MOKKHAVESA
Director General
Department of Disaster
Prevention and Mitigation
Ministry of Interior
The Kingdom of Thailand



Dr. Chinnapat BHUMIRAT
Deputy Permanent Secretary
Ministry of Education
The Kingdom of Thailand

ATTACHMENT JOINT EVALUATION REPORT

JOINT EVALUATION REPORT

THE JAPANESE TECHNICAL COOPERATION

**THE PROJECT ON CAPACITY DEVELOPMENT
IN DISASTER MANAGEMENT**

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
JAPAN**

**MINISTRY OF INTERIOR AND MINISTRY OF EDUCATION
KINGDOM OF THAILAND**

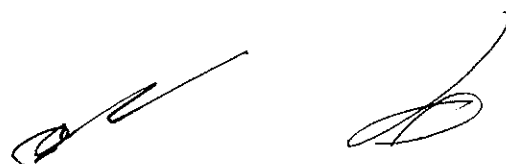
JUNE 19, 2008



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ANNEXES

Annex-1 Mission Schedule

Annex-2 List of the Personnel Interviewed

Annex-3 Evaluation Result in Evaluation Grid

Annex-4 Project Design Matrix (PDM2)

Annex-5 Plan of Operations (PO)

Annex-6 List of the Products Developed by the Project

Annex-7 Training of C/P Personnel in Japan

Annex-8 List of Japanese Experts

Annex-9 Local Expenses Covered by Japanese Side

Annex-10 List of Assignments and Personnel

Annex-11 Local Expenses Covered by Thai Side

Annex-12 Achievement of the Project Activities



Abbreviations

C	C/P	Counterpart
	CBDRM	Community Based Disaster Risk Management
D	DIG	Disaster Imagination Game
	DMR	Department of Mineral Resource
	DWR	Department of Water Resources
G	GIS	Geographic Information System
	GISTDA	Geo-Informatics and Space Technology Development Agency
M	MOA	Ministry of Agriculture
	MOE	Ministry of Education
	ESAO	Educational Service Area Office
	OBEC	Office of the Basic Education Commission
	MOI	Ministry of Interior
	DDPM	Department of Disaster Prevention and Mitigation
	DPMA	Disaster Prevention and Mitigation Academy
	DPMRC	Disaster Prevention and Mitigation Regional Centre
	DPMPO	Disaster Prevention and Mitigation Provincial Office
	MOL	Ministry of Skills and Development in Ministry of Labour
	MSDH	Department of Gender in Ministry of Social Development and Human Security
J	JICA	Japan International Cooperation Agency
O	ODA	Official Development Assistance
	OTOS	One Tambon One Search and Rescue Team
P	PDM	Project Design Matrix
	PO	Plan of Operation
R	R/D	Record of Discussion
	RID	Royal Irrigation Department
T	TMD	Thai Meteorological Department
V	VDPM	Village Disaster Prevention Management Committee

1. Purpose of the Evaluation

1.1 Objective of the Evaluation

The Project on Capacity Development in Disaster Management in Thailand (hereinafter referred to as “the Project”) was launched on August, 2006 and will be completed on August, 2008. The Japanese Evaluation Team (hereinafter referred to as “the Japanese Side”) dispatched by JICA visited the Kingdom of Thailand from June 1 to June 21, 2008 for evaluating the achievement of the Project. The Thai Evaluation Team (hereinafter referred to as “the Thai Side”) and the Japanese Side had jointly undertaken the terminal evaluation.

The terminal evaluation of the Project was conducted with the following objectives:

- To verify the achievements and performance of the Project comparing the actual results of the Project with the project design summarized in the Project Design Matrix (hereinafter referred to as “PDM”).
- To rate the Project based on the five criteria, namely relevance, effectiveness, efficiency, impact and sustainability.
- To make recommendations for the success of the Project and take note of lessons learnt from the implementation of the Project that may contribute to the planning and implementation of other future projects.

1.2 Members of the Joint Evaluation Team

The evaluation and the recommendations on the Project were made by the following members of the Joint Evaluation Team (hereinafter referred to as “the Team”).

【Thai Side】

Name	Designation	Position, Organization
Mr. Adthaporn Singhawichai	Leader	Director, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation
Ms. Siriluksana Duangkeo	Member	Chief of Research and Development Sub-Bureau, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation
Ms. Chatchadaporn Boonyawaha	Member	Plan and Policy Analyst, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation
Mr. Somsong Ngamwong	Member	Chief of Bilateral Cooperation Unit, Bureau of International Cooperation, Ministry of Education



Ms. Suthanone Fungtammasan	Member	Senior Programme Officer, Technical Support and Evaluation Unit, Thailand International Development Cooperation Agency, Ministry of Foreign Affairs
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【Japanese side】

Name	Designation	Position
Mr. Kazuo SUDO	Leader	Senior Advisor Global Environmental Department, JICA
Mr. Hiroyuki WATABE	Disaster Management Administration	Senior Researcher Asian Disaster Reduction Centre
Ms. Saki NAKAZAWA	Cooperation Planning	Program Officer, Disaster Management Team , Group III, Global Environmental Department, JICA
Ms. Yukiko SUEYOSHI	Evaluation and Analysis	Consultant, Global Link Management

1.3 Mission Schedule

The Team conducted documentary reviews, data collection, interviews and site visits from June 1 to June 20, 2008. The detailed schedule is attached in **Annex 1**

1.4 Stakeholders Consulted/Interviewed

The participants who were consulted or interviewed for the evaluation consisted of the following. The detailed list of the parties consulted by the evaluation teams is included in **Annex 2**.

- C/Ps of the Project
- Japanese Experts assigned to the Project
- Teachers at model schools and associate schools in three Pilot project sites
- Villagers in three Pilot sites
- Relevant local administrative officers in disaster prevention

1.5 Methodology of the Final Evaluation

In accordance with the JICA Project Evaluation Guidelines of January 2004, the Final Evaluation of the Project was conducted using the following process.

- Step 1: The Project Design Matrix (PDM) for evaluation was adopted as the framework of the evaluation exercise, and the Project achievements were assessed vis-à-vis the benchmarked levels of respective Objectively Verifiable Indicators.

Step 2: Analysis was conducted on the underlying causes that promoted or inhibited the levels of achievement including both the project design and project implementation processes. Attention was given to discover whether the Project-relevant interventions are attributable to the current situation.

Step 3: Examination of the Project was conducted based on five evaluation criteria: “Relevance,” “Effectiveness,” “Efficiency,” “Impact,” and, “Sustainability,” the descriptions of which are stated below.

The evaluation was conducted based on the following five criteria, which are the major points of consideration when assessing JICA-supported development projects.

Definition of the Five Evaluation Criteria for the Final Evaluation

Five Evaluation Criteria		Definitions as per the JICA Evaluation Guideline
1.	Relevance	Relevance of the Project is reviewed by the validity of the Project Purpose and Overall Goal in connection with the Thai Government’s Disaster Prevention Sector Policy and the needs of the target group and/or ultimate beneficiaries in Thailand.
2.	Effectiveness	Effectiveness is assessed to what extent the Project has achieved its Project Purpose, clarifying the relationship between the Project Purpose and Outputs.
3.	Efficiency	Efficiency of the Project implementation is analysed with emphasis on the relationship between Outputs and Inputs in terms of timing, quality and quantity.
4.	Impact	Impact of the Project is assessed in terms of positive/negative, and intended/unintended influence caused by the Project.
5.	Sustainability	Sustainability of the Project is assessed in terms of institutional, financial and technical aspects by examining the extent to which the achievements of the Project will be sustained after the Project is completed.

Both quantitative and qualitative data were gathered and utilized for analysis based on an Evaluation Grid. The evaluation result was shown in **Annex 3**. Data collection methods used for the evaluation were as follows:

- Literature/Documentation Review
- Questionnaires (C/Ps, Experts)
- Key Informant Interviews (C/Ps, Japanese Experts, Officials of the Ministry of Interior and the Ministry of Education, relevant partner institutions, etc)
- Direct Observation




2. Background and Summary of the Project

2.1 Background of the Project

In Thailand, the Tsunami on December 2004 took a huge damage more than 8,500 casualties. The government of Thailand has Established Department of Disaster Prevention and Mitigation (hereinafter referred to as “DDPM”) on 2002 as the umbrella organization which has the overall responsibility for the disaster mitigation from disaster prevention to emergency response. Further, the government of Thailand has established Disaster Prevention and Mitigation Academy (hereinafter referred to as “DPMA”) which is in charge of human resource development for the disaster on 2004 before tsunami disaster. After the tsunami, the government of Thailand is strengthening the organization to cope with disasters. The establishment of National Disaster Warning Centre (hereinafter referred to as “NDWC”) is one example of organization strengthening. However, each organization has not fully activated because of shorter period from the establishment. Especially, the capacity of DDPM such as ability of information accumulation, ability of coordination between many organizations, ability of execution of the plan, had to be developed urgently. Further, the system to cope with disasters at provincial to community level has to be developed urgently.

From the back ground above, the government of Thailand requested the technical cooperation project to Japanese government. Further, the government of Thailand recognized that the role of school is important to enhance the disaster prevention capacity of provincial and community level. Therefore the government of Thailand requested disaster prevention education project based on schools to Japanese government. The Japanese government assessed these requests and decided to conduct technical cooperation project combining both request aiming high efficiency and synergistic effect.



2.2 Summary of the Project

Project Name	The Project on Capacity Development in Disaster Management		
Implementing Agencies (C/Ps)	Department of Disaster Prevention and Mitigation(Ministry of Interior), Ministry of Education		
Target Group/Pilot Sites	<ul style="list-style-type: none"> • DDPM staff, MOE staff, Central and local authorities • Villagers at 3 pilot project sites • Teachers at model schools and associate model schools 		
	Three pilot sites are shown as below.		
	Province/Cooperation Field	Village	Model school
	Chumporn/ Flood	Nong Rieng	Hat Hong Primary School
Mae Hong Sorn/ Landslide	Nam Hoo	Nam Hoo Primary School	
Phuket/ Tsunami	Thachat Chai	Thachat Chai Primary School	
Date of Signing (R/D)	July 17, 2006		
Cooperation Period	From 2006.8 to 2008.8 (2years)		
Cooperation Scheme	Technical Cooperation Project		

Overall Goal

To enhance the capacity for disaster risk management against future disasters at central, provincial, district and community levels.

Project Purpose

1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management
2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as strengthening the regional organizations of DDPM and MOE

Outputs

1. A system which enables the collection, accumulation and utilization of information on disaster and disaster risk management is established in DDPM.
2. Relationship and communication between DDPM and other relevant organizations are strengthened through the publishing of a White Paper and formulating a National Disaster Prevention and Mitigation Plan.
3. System for enhancing the capacity of DDPM staff on natural disaster management is strengthened.

4. Capacities of DDPM staff and village people are enhanced to promote disaster management activities at village level.
5. Capacities of MOE staff and teachers at model schools are enhanced to promote education for disaster preparedness at schools.

PDM2 is attached as **Annex 4**, and the Plan of Operation is shown in **Annex 5**. It has been revised twice by the Project and is being implemented. The list of products developed by the Project is shown in **Annex 6**



3. Achievement of the Project

3-1 Inputs

3-1-1 Japanese side

a) Dispatch of JICA Experts

A total of 14 experts (43 visits, totaling 70.03 man months) have been dispatched to the Project. The detailed list of the experts is shown in **Annex 7**.

b) Training of C/Ps Personnel in Japan

As of June 2008, a total of 12 C/P received training in Japan. The detailed list of trainees and training period is shown in **Annex 8**.

c) Operational Expenses

As of April 2008, a total of 44,319,000 yen was allocated for Project operational expenses by the Japanese side. The detail of the operational expenses is shown in **Annex 9**.

3-1-2 Thai side

a) Appointment of C/P

A total of 75 persons, including a representative from the DDPM and MOE, were assigned to the Project. The detailed list of the C/Ps is shown in **Annex 10**.

b) Provision of facilities, support staff, and other operational expenditure.

The necessary facilities for the Project activities, including a Project office at the DDPM and MOE, and administrative officials have been provided.

In addition, the Thai side made the necessary contribution for the Project implementation including the C/Ps salary, electricity and water bills of the Project office, as well as other consumables.

c) Cost-sharing of Operational Expenses

Operational cost-sharing with the Thai side has been promoted from the beginning of the Project. As of June 2008, a total of 3,983,000 yen has been provided by the Thai side for the travelling allowances for field surveys and training /workshops. In addition to this amount, the salaries for the C/Ps and supporting staff, the maintenance fees for equipment and relevant utility costs were paid for by Thai side. The detail on cost sharing in direct operational expenditure by the Thai side for the Project is shown in **Annex11**.



3-2 Activities Implemented

Most of the Project's activities, as specified under the PDM and Project's Plan of Operations (PO), have been implemented. The achievements for each of the activities are summarized in Annex 12.

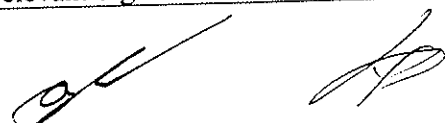
3-3 Achievement of Output

Output 1: Information Management on Disaster	
A system which enables the collection, accumulation and utilization of information on disaster and disaster risk management is established in DDPM.	
Indicators	
■	Hazard maps of Chumporn Province and Mae Hong Sorn Province which indicate disaster vulnerability and other information on disasters are developed.
■	Manual for developing provincial hazard maps including analysis method is prepared.
■	Community hazard maps for the pilot areas (flood, landslide) are developed based on the provincial hazard maps.
■	GIS database including meteorological data, topographic data, disaster record and relevant projects for Chumporn Province and Mae Hong Sorn Province are developed.
■	Procedure for updating GIS database is documented.
■	Guide book for the utilization of hazard maps and GIS database is prepared.

The achievement level of Output 1 is Excellent (A).

A GIS database was developed in the Information Technology Centre of DDPM with close cooperation and data provision from relevant organizations and agencies, namely the Department of Mineral Resources (DMR), the Department of Water Resources (DWR), the Thai Meteorological Department (TMD), and the Geo-Informatics and Space Technology Development Agency (GISTDA). The discussions in Task Force 2 highlighted the important role of hazard maps in formulating disaster prevention plan in the future. Hazard maps at provincial and community levels were also developed in two pilot sites. To utilize the database and hazard maps properly, 'Manual for developing provincial hazard maps' and 'Guide book for the utilization of hazard maps and GIS database' were also developed as originally planned. CPs are on their own initiative planning to conduct seminars for regional and provincial officers to demonstrate the use of the database and hazard maps in daily operations in accordance with these technical materials. However, a lack in the number of engineers who mastered GIS technology may hinder the effective utilization of the GIS database in formulating disaster prevention and mitigation plans nationwide.

Output 2: National Disaster Management Plan and White Paper
Relationship and communication between DDPM and other relevant organizations are strengthened



through publishing a White Paper and formulating National Disaster Prevention and Mitigation Plan

Indicators

- White Paper is published.
- Regular meetings and communications between DDPM and relevant organizations
- Outline of National Disaster Prevention and Mitigation Plan is formulated.

For Output 2, the primary focus of the Project, the achievement level is Excellent (A).

Some activities under Output 2, have been delayed. This delay was brought about through difficulties in collaboration among the relevant organizations and agencies in the disaster management sector, especially at the beginning of the Project. However, the White Paper will be published by August 2008 due to combined efforts of both Thai C/Ps and Japanese experts. There is a plan to publish the White Paper annually by the National Disaster Policy Division in DDPM.

Since the National Disaster Prevention and Mitigation Act was approved in November 2007, the Project has supported DDPM in the formulation of the National Disaster Prevention and Mitigation Plan and the Provincial Disaster Prevention and Mitigation Plan. This activity has been affected by external conditions such as the policy change in regard to the National Disaster Prevention and Mitigation Plan.

In the middle of the Project, the concept of gender integration on disaster management was introduced by the Project, which had not been reflected in the PDM. At the time of the terminal evaluation, it seems that it needs more time for DDPM to adopt the concept of gender into their operation, such as integrating gender sensitive perspective into the National/Provincial Disaster Prevention and Mitigation Plan. A working group has been set up under the Personnel division for information sharing among related agencies, namely, the Department of Gender in Ministry of Social Development and Human Security (MSDH), the Royal Department of Irrigation in Ministry of Agriculture (MOA) and the Department of Skills and Development in Ministry of Labor (MOL).

Output 3: DDPM Staff Capacity Improvement

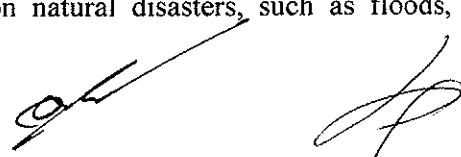
System for enhancing capacity of DDPM staff on natural disaster management is strengthened.

Indicators

- E-learning materials for natural disaster management course targeting flood, landslide, tsunami and earthquake are developed.
- Utilization plan of e- learning materials is formulated.
- Master plan of DPMA on natural disasters is formulated.

The achievement level of Output 3 is Excellent (A).

Under the collaboration among the working group for e-learning system, e-learning materials have been developed properly to improve knowledge on natural disasters, such as floods,



landslides, earthquakes and tsunamis. A utilization plan for e-learning was formulated as planned. According to the plan, materials will be distributed nation-wide, not only to the DDPM, but also to other departments and agencies by the end of the project period. At the same time, a questionnaire survey will be conducted to investigate the needs of end-users, which will be reflected in further improvement of e-learning materials.

A working group was organized in DDPM to formulate a master plan for DPMA. A chapter on natural disasters, which is one part of DPMA's master plan, was prepared with knowledge sharing among C/Ps and Japanese Experts, and subsequently submitted to DPMA.

Output 4: Regional Disaster Management
Capacities of DDPM staff and village people are enhanced to promote disaster management activities at village level.
Indicators
<ul style="list-style-type: none"> ■ Community-based early warning systems are functional in two pilot sites. ■ Manuals for CBDRM are developed. ■ Facilitator's guide is developed. ■ Village level disaster preparedness plans are formulated at two pilot project sites. ■ Village Disaster Prevention and Mitigation Committee is organized at two pilot sites. ■ Templates for provincial, district and tambon disaster prevention and mitigation plan are developed

The level of the achievement is judged as Excellent (A).

DDPM staff and village people providing disaster prevention services in pilot sites have improved their knowledge and practice on natural disaster prevention through participation in the activities carried out by the Project. 'Manuals for CBDRM' and 'Facilitator's guide' were developed for the DDPM, DPMPO staffs and village chiefs to carry out CBDRM activities and expand its activities to other villages in disaster-prone areas. Templates for the disaster prevention and mitigation plan have been formulated in three levels, which covers province, district and Tambon, and will be distributed with said CBDRM materials. Interviews undertaken on DDPM staff involved in activities under Output 4 confirmed that they gained not only the basic concepts, but the know-how to carry out the CBDRM and the experience in the activities in pilot sites.

Based on the community hazard maps and disaster preparedness plans, the Village Disaster Prevention and Mitigation Committees in two pilot sites were organized in Nong Rieng and Nam Hoo villages, respectively. Since a participatory approach was adopted in the village disaster prevention plan, villagers have well recognized the countermeasure for natural disaster and necessity of having a disaster prevention system, such as Village Disaster Prevention and Mitigation Committee.

During the field interview with villagers conducted by the evaluation team, the difficulty in the decision making for an evacuation was pointed out due a lack of analytical skills in regard to

early warning.

Output 5: Education for Disaster Prevention
Capacities of MOE staff and teachers at model schools are enhanced to promote education for disaster preparedness at schools.
Indicators
<ul style="list-style-type: none">■ Supplementary reading and teacher's guide for flood, landslide and tsunami at primary and secondary schools are developed.■ Training curriculum for teachers on disaster preparedness are developed.■ More than one teacher from each model school is able to conduct workshops and lectures.■ Action plans are formulated at each model school

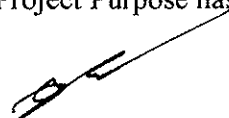
The achievement level of Output 5 is Excellent (A).

Throughout the Project duration, the planning and formulation process of a supplementary reading and a teacher's guide have been prepared by many participants, namely OBEC, ESAO, the three model schools and so on. These materials will be distributed to all public schools as originally planned, and MOE is additionally planning to distribute them to all private schools as well. The final workshop will be conducted by teachers at a model school at the beginning of July 2008. Neighboring school teachers, relevant education officers and DDPM staff were invited to the workshop with the aim of disseminating the concept and practice of disaster preparedness education. The action plan on disaster preparedness education will be formulated during the workshop at schools. However, interviews undertaken with teachers confirmed support of MOE for school should be strengthened to continue conducting disaster preparedness education at their schools.

3-4 Achievement of the Project Purpose

Project Purpose:
1. Capacity of DDPM is enhanced as a principal national government agency to carry out the tasks and responsibilities of disaster management
2. People's capacity for disaster management is improved through the enhancement of national and local educational services, as well as strengthening the regional organizations of DDPM and MOE
Indicators
<ul style="list-style-type: none">■ Disaster Management Annual Report "White Paper" published■ Village people know the appropriate response to emergency situation.■ Workshops and lectures are conducted by teachers at each model school

As of June 2008, the evaluation team conclude that the Project Purpose has been achieved to an



Excellent (A) level.

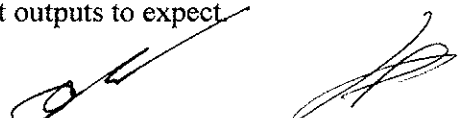
- *Capacity on disaster management of DDPM:* Capacities on disaster management on DDPM have been enhanced through the Project implementation. The Evaluation Mission observed that; (1) Having acquired skills on information management through the activities regarding GIS data base and the White Paper, (2) Capacity development in coordination and team work among various organizations (3) Having acquired knowledge on natural disasters and countermeasures through preparing e-learning materials, (4) Enhancement of skills to formulate policy through formulating the National Disaster Prevention and Mitigation, the Provincial Disaster Prevention and Mitigation Plan and the DPMA's Master Plan under Output 2.
- *Capacity on disaster management in pilot sites:* DPMPO and ESAO in three pilot sites also gained knowledge and skills in disaster preparedness by participation in CBDRM activities. Furthermore, the horizontal networks among related agencies have also been established. The villagers' knowledge for disaster preparedness has shown a dramatic improvement. According to the village chief and Tambon officers, there are some behavioral changes which suggest the villagers understanding of appropriate activities against emergency situations. For example, villagers themselves became voluntarily prepared for the evacuation based on the information from radio or TV after the Project implementation.
- *Capacity on implementation of disaster preparedness education:* Since a participatory approach was adopted in the planning and formulation process of the action plan and various educational materials, MOE and ESAO staffs, teachers at model schools and associate schools have gained the knowledge and skills to conduct a disaster preparedness education.

3-5 Issues Concerning Project Implementation Process

3-5-1 Matters regarding the Project Plan

The Project implementation process was influenced considerably by the following issues stemming from the design of the Project plan.

- *Project Purpose:* The ambiguity on the Purpose of the Project, especially with its reference to the 'disaster management' or 'education service', initially invited uncertainty in terms of what the intended outcomes of the Project should be. In addition, Capacity development is a widely accepted concept, however, when translating such needs into specific Project inputs and activities, careful consideration is imperative in defining which specific capacities the interventions should cater to, and what outputs to expect.



- *Project period:* , The Project purpose has been achieved to a great extent, however, the Project period should have been longer to establish mechanisms to expand project outcomes and further strengthen a collaboration network among relevant organizations and agencies.

3-5-2 Matters regarding Project Management

- *Project management:* All activities will have been achieved as planned by the end of the Project, August 2008. It required some time to establish close cooperation between two implementing agencies, DDPM and MOE, at the beginning of the Project. On the whole, however, the management of the Project implementation was appropriate in terms of communication, decision making and team work. During interviews, some C/Ps of both DDPM and MOE commented that the assignment of Japanese Experts should have been longer to receive technical guidance and advice.
- *Ownership:* The C/Ps of both DDPM and MOE, villagers and teachers showed a high level of ownership of the Project due to the appropriateness of transferred skills and various visible products such as hazard maps, e-learning materials, the White Paper, community disaster prevention plans and supplementary readings on disaster preparedness and so on.



4. Evaluation Results by the Five Evaluation Criteria

4.1 Relevance

The Project's relevance is Very High (A) vis-à-vis the national policies of the disaster management system in Thailand, the needs of the target groups, and the official development policies of Japan.

The 10th Socio Economic Development Plan of Thailand (2007-2011) indicated the necessity of the establishment of a natural disaster management and prevention system, and the priority on the formulation of a long-term disaster prevention plan. Under the Disaster Prevention and Mitigation Act of 2007, DDPM was designated as a responsible organization for disaster management, which requires: 1) the Formulation of a National Disaster Prevention Plan 2) the Development of a disaster prevention and mitigation mechanism among government agencies and local administrations 3) the Promotion of disaster prevention activities. In addition, the 'National Education Plan of MOE (2007-2011)' indicates that education for disaster management should be promoted, especially in disaster-prone areas. This Project aims to strengthen the capacity of disaster management of DDPM and MOE, which fully supports such national efforts in the country.

Furthermore, according to JICA's Country Assistance Strategy of 2007, which reflects Japan's Economic Cooperation Program for Thailand of 2006, assistance for natural disasters is included under the theme of human security. Additionally, because of the Project's objectives regarding capacity enhancement for disaster management, relevance is also high in the Japanese ODA policy for Thailand.

The Project aims to respond to the needs of the DDPM and MOE staff by identifying them as its main target group. The selection of target groups was appropriate because disaster management including disaster preparedness education would not be possible without an improvement of their skills and knowledge of this sector. Moreover, the three pilot projects for Tsunami, Flood and Landslide have contributed to the capacity development of disaster management for local officers and residents; mainly DPMPO, ESAO, villagers in pilot sites, VDPM, and teachers at model schools.

4.2 Effectiveness

The effectiveness of the Project is Good (B).



It can be concluded that the Project was successful in developing core disaster management skills and a sense of ownership and commitment by DDPM as the principal government agency. A strengthening of the provincial organizations of DDPM and MOE has been achieved to a reasonable extent despite of the relatively short implementation period.

Five outputs have directly contributed to the Project Purpose and the Project is heading in the right direction toward the Overall Goal. However, the application of improved knowledge and skills in disaster management is still at an early stage, which makes it difficult to assess its effectiveness. For the horizontal extension of project outcomes, it was needed to be further strengthening on the capacity for policy formulation and the coordination mechanism among relevant agencies. Further, questionnaire survey and interview with Japanese experts and Thai C/Ps indicated that information sharing and collaboration among the working groups under each Output should have been more effective in achieving the Project Purpose.

4.3 Efficiency

The Project's Efficiency is Very High (A), considering the conducted activities of each Output and planned input over the 2 years period. The quality, quantity and timing of the provision of most inputs were adequate, and were thus utilized to achieve project outputs. The expertise of the Japanese Experts is considered to be high in accordance with the C/Ps' response to the questionnaire survey. Utilization of the equipment provided during this Project is also reasonable. However, some further consideration is necessary regarding user's maintenance and analytical ability.

The Thai Government assigned appropriate C/Ps for carrying out project activities. Some of the activity, especially under Output 2, was negatively affected by the transfer of key personnel within DDPM. However, they are actively contributing to the project activities with a strong intent and accomplishment, and delayed activities have been recovered in the end.

4.4 Impact

The Impact of the project is Good(B). The Achievement of Overall Goal is still limited considering the fact that the disaster management of DDPM and disaster preparedness education of MOE are in early stages. It requires more time to expand the outcome to enhancement the capacity of other relevant agencies

The positive impacts by the Project have been observed. For examples, 1) the disaster preparedness materials is planned to be distributed to not only public schools but private schools,



and 2) seminars for regional and provincial officers are planned voluntarily by C/P to demonstrate the use of the database and hazard maps. The high impact of the Project was confirmed at the provincial levels and pilot sites. Some of the positive aspects reported from the site visits are as follows;

- Utilizing experience from CBDRM activities conducted by the Project, DPMPO in Chumpon and Phuket have been conducted the series of disaster preparedness workshops in the 12 disaster-prone areas.
- According to the Director of DPMPO in Chumpon province, Nong Rieng Village was nominated as a model village under the 'Disaster Resiliency Community Project' of DDPM.
- Interviews undertaken with teachers confirmed that knowledge students obtained through the Project's activities was disseminated to their parents by the students.

There was no negative impact during the Project.

4.5 Sustainability

Results for Sustainability of the Project after the completion of the Project are Good (B) based on the assessment from (1) the policy aspect, (2) the organizational and system aspect and (3) the technical aspect.

- *Policy Aspect:* According to the 'The 10th Socio-Economic Development Plan of Thailand (2007-2011)' and 'the Disaster Prevention and Mitigation Act of 2007' DDPM has been playing a principal role in disaster management. Therefore, a continuous policy on strengthen disaster management in the country support and sustain the Project outcomes is highly secured. Regarding disaster preparedness education, 'The National Education Plan of MOE (2007-2011)' indicates that the education for disaster management should be promoted, especially in the disaster-prone areas.
- *Organizational and System Aspect:*
 - ✓ DDPM and MOE; DDPM and MOE have mandates and responsibilities for disaster management and disaster preparedness education, respectively. The Project succeeded in establishing a vertical link between central, provincial and community levels, and also a horizontal link among DDPM, MOE and relevant organizations. Such links should be strengthened for an effective disaster management and disaster preparedness education after the Project terminates. Both DDPM and MOE seem committed to continue activities to fulfill their mandates. Serious financial constrain in applying

knowledge and skills obtained through the Project may hardly be faced with because of high commitments of both DDPM and MOE on the matter.

- ✓ Teachers' at model schools; Regarding disaster preparedness education at model schools and associate schools, teachers well recognized the role of schools in disaster preparedness. Some of the schools have already adopted disaster preparedness education into their curriculum. However, interviews undertaken with teachers confirmed the support of MOE for school should be strengthened to continue conducting disaster preparedness education at their schools.
- ✓ Pilot site villagers; Under the CBDRM activities, VDPMs were organized in each pilot sites to conduct disaster prevention activities among villagers themselves. Interviews undertaken with VDPM members in three pilot sites confirmed that they have recognized their duties in the disaster prevention activities in a systematic way. To continue and extend its activities in other disaster-prone areas, it is essential to keep closer cooperation among DPMPO, Tambon officers and OTOS members.

➤ *Technical Aspect:*

- ✓ DDPM and MOE; Through the Project activities, the counterparts have learned various new knowledge and skills on disaster management and disaster preparedness education. The manuals and guidebooks for hazard map, GIS database and CBDRM have been formulated to secure its sustainability after the Project terminates. Regarding disaster preparedness education, OBEC has a concrete plan to disseminate knowledge and knowhow on disaster preparedness education to all schools through the Media Centre in MOE. They are willing to share those knowledge and skills with relevant stakeholders and also to develop their capability further.
- ✓ Teachers' at model schools; The teacher's guide and the supplementary readings have been developed with active participation of teachers at the model schools and MOE staff. Therefore, they are relevant to the needs of stakeholders and are user-friendly. The teachers obtained a sufficient level of knowledge and skill to conduct a lecture on natural disaster, DIG and evacuation drill in their schools. However, interviews with teachers confirmed continuous follow-up activities for teachers should be conducted to improve their skills to conduct DIG and evacuation drill, in particular.
- ✓ Pilot site villagers; Since a participatory approach was adopted in the village disaster prevention plan, villagers have well recognized the countermeasure for natural disaster and necessity of having a disaster prevention system. During the field interview with villagers conducted by the evaluation team, difficulty in decision making for on evacuation was pointed out due to lack of analytical skills on data collected by a rain



gauge. Some assistance from local administration may be necessary for villagers to regularly continue evacuation drills in the future.

4.6 Conclusion of Evaluation

The Project has produced a variety of fruitful results for disaster prevention and mitigation in Thailand owing to the dedicated efforts of Thai counterparts in both DDPM and MOE, other relevant organizations and people concerned in the pilot sites, let alone JICA experts.

The five outputs of the Project have been achieved to a great extent, considering the indicators for achievements of each output. Various concrete products of the Project such as GIS database, hazard maps, White Paper, e-learning material, supplementary reading, teacher's guide and so on have been produced as a result of the Project's activities. Positive behavioral changes of villagers at pilot communities and teachers at model schools were also heard about disaster preparedness. The Project purposes have been achieved successfully because of strong sense of ownership and commitments of DDPM and MOE.

There are, however, many more issues for DDPM and MOE to deal with in order to further strengthen disaster management in Thailand.



5.Recommendation of the Evaluation

1. Issues to be tackled before the end of the Project

(1) Continuous Publication of White Paper

The first Thai White Paper on disaster prevention and mitigation for 2007 is planned to be published soon as a result of hard work and collaboration between DDPM and relevant organizations. In order to continuously produce the White Paper, the annual work schedule for publishing it should be drawn up and shared with relevant organizations for close collaboration.

(2) Dissemination of Project Achievements

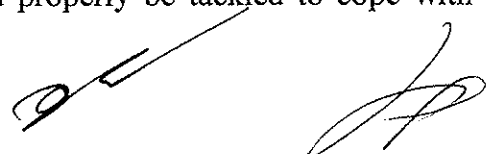
The Project's achievements and outputs should be made widely known to relevant organizations and the general public to avail themselves of the various products of the Project and the know-how acquired through it for disaster prevention and mitigation. The workshop planned to take place jointly by DDPM and MOE on July 21, 2008 will be one of such good opportunities to have people concerned know the achievements of the Project.

2. Issues to be tackled after the end of the Project

DDPM has been strengthening its institutional and technical capacity to cope with various disasters since its establishment in 2002 and it was stipulated that DDPM is a responsible core organization for disaster prevention and mitigation in Thailand by the Disaster Prevention and Mitigation Act of 2007. MOE has also been trying to promote disaster preparedness education at schools.

The capacities of DDPM and MOE have been strengthened in regard to disaster management and disaster preparedness education through the implementation of the Project as described in the foregoing chapters. However, DDPM and MOE still have some more issues to deal with to further strengthen disaster management and disaster preparedness education.

Those issues such as formulation of the National Disaster Prevention and Mitigation Plan, further strengthening of the capacity of local governmental organizations and extension of disaster preparedness education should properly be tackled to cope with



natural disasters in the future.

(1) Strengthening Disaster Preparedness in Disaster-prone Areas

It is necessary to identify and delineate disaster-prone areas and to formulate strategic action plans for disaster prevention and mitigation for such areas focusing on specific frequent disasters so that countermeasures against natural disasters could be executed rapidly and effectively. The following are priority matters.

- (a) To formulate the National Disaster Prevention and Mitigation Plan.
- (b) To formulate disaster prevention and mitigation plans in high-risk areas at provincial level.
- (c) To draw province-scale hazard maps and identify high-risk areas on them.
- (d) To establish the early warning system and the disaster-related information dissemination system
- (e) To develop information materials to enhance people's awareness on natural disasters.

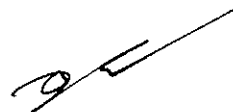
(2) Enhancing the Capacity of Local Officials Responsible for Disaster Management

The Project has focused on the capacity development of the central DDPM as well as pilot communities. The capacity of local administrative offices, particularly in disaster-prone areas, should be enhanced to cope with natural disasters in the future. The following matters should be dealt with.

- (a) To train local officials responsible for disaster management on such matters as formulation of disaster prevention and mitigation plans at various levels, utilization of a hazard map, establishment of an early warning system, CBDRM, etc.
- (b) To strengthen the capacity of local officials for collection, analysis and dissemination of disaster-related information.
- (c) To monitor and review disaster prevention and mitigation plans at various levels.

(3) Regular Conduct of Disaster Preparedness Education and its Extension among Schools

Regarding disaster preparedness education in school, supplementary readings and teacher's guides for primary and secondary schools have been completed, and practical capacity of teachers at three model schools has been well developed. MOE is expected to promote and extend disaster preparedness education in whole schools in Thailand,



c.

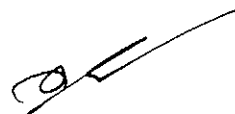
especially in disaster-prone provinces.

In order to promote these activities effectively and efficiently, disaster preparedness education should be included in school activities as an important subject and a strategic action plan to extend disaster preparedness education should be formulated.

(4) Close Collaboration of DDPM and MOE, and with other Relevant Organizations


Cooperation between DDPM and MOE has advanced well as the Project progressed. This good relationship should be continued after the Project terminates and sharing supplementary readings and e-learning materials, joint workshops at community level and cooperation in disaster preparedness education should be promoted.

Furthermore, DDPM should continuously maintain close networks for disaster information and communication with Thai Meteorological Department, Department of Mineral Resources, Royal Irrigation Department and other relevant organizations.



6. Lessons Learned

1. Collaborative relationship upon trust between communities and local administrations is imperative in CBDRM activities. In selecting pilot sites and communities, various stakeholders such as volunteers and NGOs in the community and of local administrations were well consulted and their ideas were taken into account. The process itself contributed to building trust between people and local administrations. A sense of ownership for CBDRM activities were also fostered among stakeholders along with the training of CBDRM activities such as evacuation drills and the formulation of a village-level disaster preparedness plan. Continuous practice of CBDRM activities are planned at the village communities in pilot sites on the initiative of stakeholders in cooperation with provincial DDPM offices after the termination of the Project.
2. The Project developed a variety of visible products, which raised a sense of achievement of counterparts and other stakeholders. Subsequently, it enhanced their willingness to actively learn new knowledge and skills and participate in activities in disaster management and disaster preparedness education.



Appendix C

Input from Japanese Side and Thai Side

(1) Japanese Input

a. Dispatch of Japanese Experts

Name	Field	Dispatch Period	Company / University
Satoshi NAKAMURA	Chief adviser / Policy and Institution	2006/8/29~2006/11/11(2.5MM) 2007/1/14~2007/3/14(2MM)	Earth System Science Co.,Ltd.
Yukishi TOMIDA	Deputy Chief / Disaster Management Plan	2006/10/23~2007/1/5(2.5MM)	Earth System Science Co.,Ltd.
Lolita C. Garcia	Community Disaster Management	2006/8/29~2006/11/11(2.5MM) 2007/1/14~2007/3/14(2MM)	Earth System Science Co.,Ltd. (DARUMA Technolooges., Inc.)
Tsutomu KAMEYAMA	Flood Disaster Management	2006/9/16~2006/11/29(2.5MM)	IDEA Consultants.,Inc
Masahiko HAYASHI	Land Slide Disaster Management	2006/10/16~2006/12/29(2.5MM)	Earth System Science Co.,Ltd.
Yukihiko SUGIURA	Tsunami Disaster Management	2006/10/16~2006/11/29(1.5MM)	IDEA Consultants.,Inc
Yasuhiko KATO	School Education for Disaster Prevention	2006/8/29~2006/9/27(1.0MM) 2006/10/17~2006/11/15(1.0MM) 2006/11/30~2006/12/29(1.0MM) 2007/1/30~2007/2/28(1.0MM)	IDEA Consultants.,Inc
Nakoon Najaron	DIG (Disaster Imagination Game)	2006/10/1~2006/11/14(1.5MM)	Earth System Science Co.,Ltd. (KAIHATSU Management Consulting (Thailand) Ltd.)
Toru KOIKE	GIS / Data base	2006/11/1~2006/12/15(1.5MM)	Earth System Science Co.,Ltd.
Hiroki WATANABE	Information Network	2006/10/16~2006/11/29(1.5MM)	IDEA Consultants.,Inc
Toru ONODERA	General Affairs	2006/8/29~2006/9/27(1.0MM) 2006/12/7~2007/1/5(1.0MM)	Earth System Science Co.,Ltd.
Satoshi NAKAMURA	Chief adviser / Policy and Institution	2007/5/14~2007/7/10(1.93MM) 2007/8/8~2007/9/8(1.06MM) 2007/10/15~2007/11/30(1.5MM) 2008/2/1~2008/3/16(1.5MM)	Earth System Science Co.,Ltd.
Yukishi TOMIDA	Deputy Chief / Disaster Management Plan	2007/7/1~2007/7/30(1.0MM) 2007/11/16~12/15(1.0MM)	Earth System Science Co.,Ltd.
Rie KAWAHARA	Community Disaster Management / Gender	2007/6/20~2007/7/18(0.96MM) 2007/9/30~2007/10/30(1.04MM)	Earth System Science Co.,Ltd. (KAIHATSU Management Consulting (Thailand) Ltd.)
Yasuhiko KATO	School Education for Disaster Prevention	2007/5/14~2007/7/29(2.56MM) 2007/9/17~2007/10/20(1.13MM) 2007/11/12~2007/12/29(1.6MM) 2008/1/15~2008/3/20(2.2MM)	IDEA Consultants.,Inc
Hodaka IGO	DIG (Disaster Imagination Game)	2007/5/14~2007/8/10(2.96MM)	Earth System Science Co.,Ltd.
Toru KOIKE	GIS / Data base	2007/5/14~2007/7/14(2.06MM) 2007/9/5~2007/11/23(2.43MM)	Earth System Science Co.,Ltd.
Kenji MINEGISHI	Information Network	2007/5/14~2007/7/27(2.5MM)	Earth System Science Co.,Ltd.
Toru ONODERA	General Affairs	2007/5/14~2007/6/12(1.0MM) 2008/2/20~2008/3/20(1.0MM)	Earth System Science Co.,Ltd.
Satoshi NAKAMURA	Chief adviser / Policy and Institution	2008/4/27~2008/6/21 (1.87MM plan)	Earth System Science Co.,Ltd.
Yukishi TOMIDA	Deputy Chief / Disaster Management Plan	2008/4/29~2008/6/27 (2.0MM plan)	Earth System Science Co.,Ltd.
Rie KAWAHARA	Community Disaster Management / Gender	2008/6/11~2008/6/30 (0.67MM plan)	Earth System Science Co.,Ltd. (KAIHATSU Management Consulting (Thailand) Ltd.)
Yasuhiko KATO	School Education for Disaster Prevention	2008/5/12~2008/8/09(3.0MM plan)	IDEA Consultants.,Inc
Toru KOIKE	GIS / Data base	2008/4/27~2008/6/10 (1.5MM plan)	Earth System Science Co.,Ltd.
Toru ONODERA	General Affairs	2008/4/29~2008/5/27(1.0MM plan) 2008/7/17~2008/8/15(1.0MM plan)	Earth System Science Co.,Ltd.

(1) Japanese Input

b. Acceptance of Trainees

Name	Field	Period	Hosting Institution	Position when accepted	Present position
Mr. Nathapong Thitawigran	Disaster Management Plan	2007/1/14 ~2007/2/24	- Seminar on disaster management II	Policy Bureau, Secretary, Dept. of Disaster Prevention and Mitigation	Director of Regional Center in Mae Hongson
Mr. Suchitra Arayaphan	School Education for Disaster Prevention	2007/8/26 ~2007/9/15	Disaster Prevention in School for Asian Countries - Aichi Prefecture Chita City Disaster prevention center - Aichi Prefecture Mihana town Futto elementary school - Aichi Prefecture Tokoname City Onizaki north elementary school	Head of English Programme Satee Phuket School, Phuket Office of the Basic Education Commission, Ministry of Education	same as left
Mr. Siriyupa Phuriak			- Asian Disaster Reduction Center - Disaster Reduction and Human Renovation Institution - Japan International Cooperation Agency, Hyogo International Centre	Policy and Plan Analyst, Bureau of Policy and Planning, Office of the Vocational Education Commission, Ministry of Education	same as left
Mr. Kanlaya Phet-hueng			- Hyogo Institute for Traumatic Stress - Hyogo Prefecture the board of education - Hyogo Prefecture disaster management center - Hyogo Prefecture disaster management bureau - Kobe City board of education - Kobe City National Fire Prevention and Control Administration	Education Official, Office of Educational Inspector, Region 10, Phuket, Office of the Permanent Secretary, Ministry of Education	same as left
Mr. Sirinpon Bruminhent			- National Institute for Educational Policy Research of Japan - Disaster management committee, Cabinet Office - NPO Kaerunokai	Education Official, Office of the Private Education Commission, Office of the Permanent Secretary, Ministry of Education	same as left
Mr. Srirat Ketmuang			Lecturer, Phuket Non-Formal Education Centre, Phuket, Office of the Permanent Secretary, Ministry of Education	same as left	
Mr. Pornchan Pornsakkul			Policy and Planning Analyst, Bureau of Policy and Planning, Office of the Basic Education Commission, Ministry of Education	same as left	
Mr. Sararat Leepaiboon			Educational Official, Bureau of Academic Affairs and Educational Standards, Office of the Basic Education Commission, Ministry of Education	same as left	
Mr. Pornthep Suparaporn			Director of Pai Wittayakarn Secondary School, Maehongson, Office of the Basic Education Commission, Ministry of Education	same as left	
Mr. Thitikorn Klubthao			Director of Thachachai School, Phuket Educational Service, Office Area, Phuket, Office of the Basic Education Commission, Ministry of Education	same as left	
Mr. Phatrphan Lengwattanakit			Education Official, Office of the Private Education Commission, Office of the Permanent Secretary, Ministry of Education	same as left	
Mr. Paitoon NAKTAE	Hazard maps/database	October 28, 2007 – December 1, 2007	Regional-Focused Training Course on Flood Hazard Mapping -ICHARM-	Safety Standards Sub-Bureau, Disaster Prevention Measures Bureau, Department of Disaster Prevention and Mitigation	same as left
Kornisnan Wilawan	Disaster Administration	2008/6/24 ~2008/7/3	Counter Part Training on Disaster Management JICA Hyogo	Foreign Relation Sub-Bureau, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation	same as left
Adisak Thepart			- Cabinet Office of Japan, Tokyo - Tachikawa Wide area Disaster Management Base - National Fire Fighters's Academy - Sabo Technical Center - Tsukuba ICHARM	Director of Disaster Prevention Promotion Bureau, Department of Disaster Prevention and Mitigation	same as left
Anusorn Kaewkangwan			- Kizaki-Kita Elementary School - Aichi Bosai Lieder Kai - Chita City Disaster Management Center - Aichi Prefecture Office - Disaster Reduction and Human Renovation Institution DDRI - Asian Disaster Reduction Center ADRC	Director of Disaster Prevention and Mitigation Regional Center 10 Lampang, Department of Disaster Prevention and Mitigation	same as left
Verot Saithongthae			Chief of Disaster Prevention and Mitigation Provincial, Chumphon Province, Department of Disaster Prevention and Mitigation	same as left	
Komson Suwanampa			Chief of Disaster Prevention and Mitigation Provincial, Maehongson Province, Department of Disaster Prevention and Mitigation	same as left	
Vijarn Laothamyinyong			Disaster Prevention and Mitigation Academy, Department of Disaster Prevention and Mitigation	same as left	
Saisanom Lugtong			Research and Development Sub-Bureau, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation	same as left	
Angsumalin Angsusingha			Disaster Mitigation Directing Center, Department of Disaster Prevention and Mitigation	same as left	
Duangnapa Uttamangkpong			Foreign Relation Sub-Bureau, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation	same as left	
Ruamporn Kerdlarbol			Chief of Network Cooperation Sub-Bureau, Disaster Prevention Promotion Bureau, Department of Disaster Prevention and Mitigation	same as left	
Siriluksana Duangkeo	Chief of Research and Development Sub-Bureau, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation	same as left			

(1) Japanese Input

c. Equipment Procurement and Present Status - 1

SI No.	Date of Buying	Fiscal Year	Equipment(Specification)	Price(Thous and Yen)	Installation Place	Usage of the Equipment
1	5/7/2007	2007	GIS ArcView Extensions Spatial Analyst	664	Mesure bureau DDPM	Mesure bureau DDPM
2	26/6/2007	2007	DEM (ratio 1:50,000) Chumporn Province and Mae Hong Sorn Province	467	DDPM	DDPM
3	5/6/2007	2007	Tranceiver (Hand) Vertex Standard FH-915 245 MHz	420	Chumpong, Pai pilot site	Kept by Village people in Chumpong, Pai pilot site
4	10/5/2007	2007	Rain gauge 34T-RF3	369	Chumpong, Pai pilot site	Kept by Village people in Chumpong, Pai pilot site
5	6/12/2006	2006	GIS ArcView For NT SINGLE	328	DDPM	Kept by Mesure bureau DDPM
6	19/9/2006	2006	Full color printer/ copy/compound machin CANON IRC25701	633	DDPM	Kept by Mesure bureau DDPM
7	25/9/2006	2006	PC for Database/GIS unknown, Pentium-4, Desktop	192	Mesure bureau DDPM	Kept by Mesure bureau DDPM
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(1) Japanese Input

d. Local Cost Born by Japanese Side

(FY:Fiscal Year) (Unit: Yen)

Items	FY2006 (Settled Price) ①	FY2007(Plan) (Contract Price) ②	FY2008 (as of 1 April 2007) ③	Total (①+②)	Remarks
1 General Cost	4,082,000	14,660,000	3,465,000	18,742,000	
1.1 Staff Cost	1,591,452	2,661,673	587,340	4,253,125	
1.2 Equipment Maintenance Cost	0	57,725	35,420	57,725	
1.3 Consumable Cost	9,803	113,726	10,780	123,529	
1.4 Travel Expense	2,408,076	3,773,022	985,810	6,181,098	
1.5 Communication Cost	0	0	62,700	0	
1.6 Document Preparation Cost	42,210	7,488,158	631,300	7,530,368	
1.7 Rental Cost	31,332	525,819	3,111,950	557,151	
1.10 Facility Maintenance Cost	0	0	0	0	
1.11 Local Training Cost	0	0	0	0	
1.14 Miscellaneous Cost	0	40,556	0	40,556	
4 Equipment Cost (JICA Expert's Equipment)	0	369,000	0	369,000	
6 Equipment Cost (Other Equipment)	1,027,000	1,549,000	0	2,576,000	
8 Report Preparation Cost (Printing and Binding)	76,000	0	0	76,000	
9 Report Preparation Cost (Except Printing and Binding)	19,000	0	296,000	19,000	
10 Local Consultant Cost	0	9,778,000	3,660,000	9,778,000	
11 Local NGO Cost	0	3,944,000	0	3,944,000	
12 Construction Cost	0	1,394,000	0	1,394,000	
Total	5,204,873	31,694,679	12,846,300	36,899,552	

(2) Thai side Input

a. C/P Arrangement

C/P Name	Title	Field	Working Period	In case of transfer or turnover, present position or present job. The date of transfer or turnover
Mr. Jakkarin Hongsakul	Director of Disaster Prevention and Mitigation Policy Bureau	Task force 1	2006.Sep~2006.October	Retired 2006.October
Mr. Suvit Jianmunkong	Environmental Geology Division, DMR	Task force 1 Geologist	2006.Sep~present	
Mr. Vijarn Kulchanarattana	Director of Bureau of Local Administrative Development, Department of Local Administration (DLA)	Task force 1	2006.Sep~present	
Mr. Thana Yantrakovit	Director of Division of Local Development Planning, Bureau of Local Administrative Development	Task force 1	2006.Sep~present	
Mr. Supachai Khantatim	Chief of Territorial Defence Volunteers Administration Development, Bureau of Territorial Defence Volunteers Administration, Department of Provincial Administration (DOPA)	Task force 1	2006.Sep~present	
Mr. Suraphan Mansornplang	Chief of Chumpon Irrigation Project, Regional Irrigation Office 14, Royal Irrigation Department (RID)	Task force 1	2006.Sep~present	
Mrs. Warunee Chareonsamran	Director of Division of Research Development and Hydrology, Bureau of Research Development and Hydrology, Department of Water Resources (DRD)	Task force 1	2006.Sep~present	
Lt.Gen.Amnaj Barlee, Med.	Director of Relief and Public Health Bureau, Thai Red Cross (TRC)	Task force 1	2006.Sep~present	
Mrs. Jiraporn Jaroensuk	Policy and Plan Analyst	Task force 1	2006.Sep~present	
Mr. Thamnoon Srivara	General Administrative Officer, Disaster Mitigation Directing Center, DDPM	Task force 1	2006.Sep~present	
Ms. Nuntanit Srijun	Analyst, Disaster Mitigation Directing Center, DDPM	Task force 1	2006.Sep~present	
Mr. Wisit Buresawat	Analyst, Information Technology Center, DDPM	Task force 1	2006.Sep~2007.Oct	Move to Regional Center in Prathuthani, Officer
Mrs. Saisanom Laktong	Chief of Natural Disaster Research and Development Division, Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 1	2006.Sep~present	
Mr. Decha Reungon	Policy and Plan Analyst, Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 1	2006.Sep~present	
Mrs. Wajana Kulchanarattana	Chief of Natural Disaster Sub-Bureau, Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 1	2006.Sep~present	
Mr. Montri Chaichanawibulw	Chief of Natural Disaster Sub-Bureau, Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 1	2006.Sep~present	Director of Policy Bureau 2007.October
Mr. Pakula Arwachanakom	Chief of Man-Made Disaster, Chief of Man-Made Disaster	Task force 1	2006.Sep~present	
Mrs. Woranart Kawil	Chief of Monitoring and Evaluation Sub-Bureau, Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 1	2006.Sep~present	
Mr. Kobchai Boon-orana	Analyst, Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 1	2006.Sep~present	Move to Disaster and Safety Integrated Management Bureau, 2007.Oct
Mr. Apiwat Laohawattana	Policy and Plan Analyst, Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 1	2006.Sep~present	
Mr. Bunleu Wongwa	Director of Disaster Prevention Measures Bureau, Department of Disaster Prevention and Mitigation (DDPM)	Task force 2	2006.Sep~2006. Oct	Retired
Mr. Wisut Chotiksat	Environmental Geology Division, Department of Mineral Resources (DMR)	Geologist Task force 2	2006.Sep~present	

M r. Boonseub Cham	Director of Bureau of System and Organizational Structure Development, Department of Local Administration (DLA)	Task force 2	2006.Sep~present	
M r. Dusadee Suwatw	Bureau of System and Organizational Structure Development, Department of Local Administration (DLA)	Task force 2	2006.Sep~present	
M r. Supachai Khanta	Chief of Territorial Defence Volunteers Administration Development, Bureau of Territorial Defence Volunteers Administration, Department of Provincial Administration (DOPA)	Task force 2	2006.Sep~present	
M r. Rungson Sirayay	Director of Hydrology, Office of Hydrology and Water Management, Royal Irrigation Department (RID)	Task force 2	2006.Sep~present	
M r. Ruangwit Gnaos	Bureau of Research Development and Hydrology, Department of Water Resources (DWR)	Hydrologist Task force 2	2006.Sep~present	
M s. Kannika Khumw	Geo-Informatics and Space Technology Development Agency (GISTDA)	Task force 2	2006.Sep~present	
M s. Siriluksana Duan	Chief of Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 2	2006.Sep~present	
M r. Decha Reungon	Policy and Plan Analyst, Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 2	2006.Sep~present	
M r. Soontorapot Pan	Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Scientist Task force 2	2006.Sep~2007.Oct	Move to Regional Center in Pathunthani, officer
M r. Paitoon Naktae	Civil Engineer, Disaster Prevention Measures Bureau, DDPM	Task force 2	2006.Sep~present	
M r. Prasong Tham m	Scientist Information and Technology, DDPM	Task force 2	2006.Sep~present	
M r. Budit Theveeth	Director of Disaster Mitigation Directing Center, Department of Disaster Prevention and Mitigation (DDPM)	Task force 3	2006.Sep~present	
M r. Somchai Rujajar	Environmental Geology Division, Department of Mineral Resources (DMR)	Geologist Task force 3	2006.Sep~present	
M r. Chaiyasit Panich	Director of Division of Local Economic Development, Bureau of Social, Economic and Participation Development, Department of Local Administration (DLA)	Task force 3	2006.Sep~present	
M r. Wattanapong Po	Policy and Plan Analyst, Bureau of Social, Economic and Participation Development, Department of Local Administration (DLA)	Task force 3	2006.Sep~present	
M r. Supachai Khanta	Department of Local Administration (DLA), Personnel Officer	Task force 3	2006.Sep~present	
M r. Pongsthakorn Su	Expert on Hydrology, Royal Irrigation Department (RID)	Task force 3	2006.Sep~present	
M s. Supraneer Rung h	Hydrologist, Bureau of Research Development and Hydrology, Department of Water Resources (DWR)	Task force 3	2006.Sep~present	
G p. Capt. Chitipat Ped	Chief of Policy and Plan Division, National Disaster Warning Center (NDWC)	Task force 3	2006.Sep~present	
M rs. Saisanom Lak t	Chief of Natural Disaster Research and Development Division, Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 3	2006.Sep~present	
M r. Kritsana Phairoj	Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Scientist Task force 3	2006.Sep~present	
M r. Tanetsuan Kong	Policy and Plan Analyst, Research and Development Sub-Bureau, Research and International Cooperation Bureau, DDPM	Task force 3	2006.Sep~present	
M r. Anusorn Kaew k	Chief of Emergency Management Sub-Bureau, Disaster Mitigation Directing Center, DDPM	Task force 3	2006.Sep~2007.Oct	Move to Regional Center in Lampang, Director
M r. Wichit Sudtas o	Policy and Plan Analyst, Policy and Plan Analyst	Task force 3	2006.Sep~2007.Oct	Move to DPMA in Prachinburi
S gt. Pitsanu Poontho	Audio Visual Officer, Disaster Mitigation Directing Center, DDPM	Task force 3	2006.Sep~present	

M s. Paweena Ob-u-a-n	Policy and Plan Officer,Disaster Mitigation Directing Center, DDPM	Task force 3	2006.Sep~present	
M r. Winyu Gnou-um	Disaster prevention and mitigation officer,Disaster Mitigation Directing Center, DDPM	Task force 3	2006.Sep~present	
M r.Pichit Siriwan, M	Chief of Relief Sub-Bureau,Relief and Public Health Bureau,Thai Red Cross (TRC)	Task force 4	2006.Sep~present	
M r. Chainarong Was	Deputy Director of Disaster Prevention and Mitigation Academy,Deputy Director of Disaster Prevention and Mitigation Academy	Task force 4	2006.Sep~2007.Oct(TF4) 2007.Oct~Present(TF1)	Move to Task force1, Policy Bureau, 2007 Oct
M s. Siriluksana Duan	Chief of Reseach and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 4	2006.Sep~present	
M rs. Saisanom Lakt	Chief of Natural Disaster Research and Development Division,Research and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 4	2006.Sep~present	
M s. Jantana Phutthin	Policy and Plan Analyst,Research and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 4	2006.Sep~present	
M r. Anusorn Kaewk	Chief of Emergency Management Sub-Bureau,Disaster Mitigation Directing Center, DDPM	Task force 4	2006.Sep~present	Move to Regional Center in Lampang, Director
M r. Apiwat Laohaw	Policy and Plan Analyst,Disaster Prevention and Mitigation Policy Bureau, DDPM	Task force 4	2006.Sep~present	
M r. Wichit Sudtas	Policy and Plan Analyst,Disaster Mitigation Directing Center, DDPM	Task force 4	2006.Sep~present	
S gt.Pitsanu Poontho	Audio Visual Officer, Disaster Mitigation Directing Center, DDPM	Task force 4	2006.Sep~2007.Oct	Move to Ministry of Interior, Deputy of minister
M s. Paweena Ob-u-a-n	Policy and Plan Officer,Disaster Mitigation Directing Center, DDPM	Task force 4	2006.Sep~present	
M r. Winyu Gnou-um	Disaster prevention and mitigation officer,Disaster Mitigation Directing Center, DDPM	Task force 4	2006.Sep~present	
M r. Adisak Thepart	Director of Disaster Prevention Promotion Bureau,Department of Disaster Prevention and Mitigation (DDPM)	Task force 5	2006.Sep~present	
M r. Punlop Singhas	Director of Disaster Prevention and Mitigation Academy,Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~present	
M r. Somjai Yensaba	Environmental Geology Division,Department of Mineral Resources (DMR)	Geologist Task force 5	2006.Sep~present	
M r. Surapol Vanitse	Director of Local Personnel Development Institution,Department of Local Administration (DLA)	Task force 5	2006.Sep~present	
M r. Sattapong Sunta	Deputy Director of Local Personnel Development Institution,Department of Local Administration (DLA)	Task force 5	2006.Sep~present	
M r. Supachai Khanta	Chief of Territorial Defence Volunteers Administration Development,Bureau of Territorial Defence Volunteers Administration Department of Provincial Administration (DOPA)	Task force 5	2006.Sep~present	
M r.Lertchai Sri-anun	Director of Office of Hydrology and Water Management,Royal Irrigation Department (RID)	Task force 5	2006.Sep~present	
M r. Sairung Klunkh	Bureau of Research Development and Hydrology,Department of Water Resources (DWR)	Hydrologist Task force 5	2006.Sep~present	
M s. Wantanee Kong	Deputy Director of Relief and Public Health Bureau,Thai Red Cross (TRC)	Task force 5	2006.Sep~present	
M rs. Nittra Sripaipa	Policy and Plan Analyst,Research and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 5	2006.Sep~2007.Oct	Move to Internal Audit Unit, Officer
M rs. Umporn Chanta	Policy and Plan Analyst,Research and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 5	2006.Sep~present	
M s. Paorampai Juny	Policy and Plan Analyst,Research and Development Sub-Bureau,Research and International Cooperation Bureau, DDPM	Task force 5	2006.Sep~2007.Oct	Move to DPMA in Prathunthani

M r. Sompob Samita	Chief of Participation Promotion Sub-bureau, Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~2007.Oct	Move to Public Sector Development Group
A cting Sub Lt. Pichian	Chief of Volunteer Affair Sub-bureau, Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~present	
A cting Sub Lt. Nuttap	Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~2007.Oct	Move to Provincial Office, Director 2007 Oct
M r. Thana Phromdu	Chief of OTOS and Special Mission Sub-bureau, Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~present	
M r. Chainarong Was	Deputy Director of Disaster Prevention and Mitigation Academy, Disaster Prevention Promotion Bureau, DDPM	Task force 5 Task force 1	2006.Sep~2007.Oct 2007.Oct~Present	Move to Task force 1, Policy Bureau
M rs. Ruamporn Kerd	Chief of International Cooperation Sub-bureau, Disaster Prevention Promotion Bureau, DDPM	Task force 5	2006.Sep~present	
D r. Chinnapat B hum irat	Deputy Permanent Secretary Office of the Permanent Secretary, MOE	Task Force 6, Chairman	2007.June~Present	
M s. Churairat S angboonnum	Director International Relations Bureau, Office of the Permanent	Task Force 6	2007.June~Present	
M rs. Sararat L eepaiboon	Educational Officer Bureau of Academic Affairs and Educational Standards Office of Basic Education Commission	Task Force 6	2007.June~Present	
M rs. Boonruan P ooksawad	Educational Officer Bureau of Academic Affairs and Educational Standards Office of Basic Education Commission	Task Force 6	2007.June~Present	
M r. Preecha M onkong	Educational Officer Bureau of Academic Affairs and Educational Standards Office of Basic Education Commission	Task Force 6	2007.June~Present	
D r. Veerapan C hotivanit	Office of Vocational Education Commission	Task Force 6	2006.August ~2007. June	Retired June 2007
M s. Siriyupa P hurirak	policy and Plan Analyst Bureau of Vocational Education Policy and Planning Vocational Education Commission	Task Force 6	2007.June~Present	
M r. Somruam p ruksatien	Director Office of Private Education Commission Office of the Permanent Secretary, MOE	Task Force 6	2007.June~Present	
M sr. Vipawan W aithanom sap	Education Officer Non-Formal Education Promotion Center Office of Non-formal Education Commission Office of the Permanent Secretary, MOE	Task Force 6	2007.June~Present	
M s. Parichart Yenjai	Education Officer Planning Division Office of Non-formal Education Commission Office of the Permanent Secretary, MOE	Task Force 6	2007.June~Present	
M rs. Wannaporn P iansara	Policy and Plan Analyst Bureau of Policy and Strategy Office of the Permanent Secretary, MOE	Task Force 6	2007.June~Present	
M r. Taratorn Naksen	Assistance Inspector General Inspection and Evaluation Bureau, Office of the Permanent Secretary, MOE	Task Force 6	2007.June~Present	
M r. Kato Yasuhiko	Expert Representative of JICA	Task Force 6	2007.June~Present	
M rs. Orachart S uebsith	Deputy Permanent Delegate of Thailand to UNESCO International Relations Bureau	Task Force 6	2006.August ~2007. June	Deputy Permanent Delegate of Thailand to UNESCO from 2007.June
M r. Somsong N gamwong	Chief, Bilateral Cooperation Unit International Relations Bureau, Office of the Permanent	Task Force 6	2007.June~Present	
M s. Rungkan P unpukeedee	External Relations Officer International Relations Bureau, Office of the Permanent	Task Force 6	2007.June~Present	

(2) Thai Input

c. E Budget

(Unit: Thousand Yen)

Items	FY2005 (Oct2005-Sep2006)	FY2006 (Oct2006-Sep2007)	FY2007 (Oct2007-Sep2008)	Total	Remarks
(Personnel Expense)					
Personnel Services	0	413,027	413,027	826,055	Grant money for office staff from TICA
(Implementation Cost)					
Goods and Supplies	192,883			192,883	
Travel Expense and Per Diem	76,546	1,451,800	458,202	1,986,548	
Contracted Services	2,771	7,997	66,824	77,592	Holding Workshop
(Facility Maintenance Cost)					
Maintenance and repair service	0	0		0	
(Others)					
合計	272,200	1,872,824	938,053	3,083,078	

(2) Thai Input

c. E Budget

(Unit: Thousand Yen)

Items	FY2005 (Oct2005-Sep2006)	FY2006 (Oct2006-Sep2007)	FY2007 (Oct2007-Sep2008)	Total	Remarks
(Personnel Expense)					
Personnel Services	0	0	0	0	
(Implementation Cost)					
Goods and Supplies	0	0	0		
Travel Expense and Per Diem		775,915	950,100	1,726,015	
Contracted Services	0	0	0	0	
(Facility Maintenance Cost)					
Maintenance and repair service	0	0	0		
(Others)					
合計	0	775,915	950,100	1,726,015	

Appendix D

Collected Material List

資料リスト

平成 20 年 9 月 11 日作成

主管チーム長

図書館 受入日

地域	東南アジア	プロジェクト ID	- - -	実施番号	- - -	担当部署	
国名	タイ国	調査団名 又は 専門家氏名	タイ国防災能力向上プロジェクト	調査の種類 又は指導科目	技術協力プロジェクト	担当者氏名	
		配属機関名	内務省災害軽減局/教育省	現地調査期間 又は派遣期間	2006 年 8 月 29 日 ~2008 年 8 月 14 日		

番号	資料の名称	発行機関	形態*	種類					取扱区分	図書館記入欄
				収集 資料	専門家 作成資料	JICA 作成資料	テキスト	その他		
1	Master Plan for Flood, Windstorm and Mudslide Hazards Prevention, Mitigation and Recovery Services in Emergency Period (5-Year Master Plan)	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
2	National Civil Defense Plan 2005 (Disaster Prevention and Mitigation)	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
3	Fire Prevention and Precaution Handbook	Disaster Prevention and Mitigation Academy, DDPM	図書	○					JR・CR()・SC	
4	Civil Defense Volunteers Training Course (28 th -31 st August, 2006, Mai Kao SAO)	DDPM	図書	○					JR・CR()・SC	
5	Department of Disaster Prevention and Mitigation, Ministry of Interior Handbook	DDPM	図書	○					JR・CR()・SC	
6	2006 Annual Report of Mai Kao SAO	Mai Kao SAO	図書	○					JR・CR()・SC	
7	2004 Annual Report of Geo-Informatics and Space Technology Development Agency (GISDA)	GISDA (Public Organization)	図書	○					JR・CR()・SC	
8	National Civil Defense Plan 2005 (Disaster Prevention and Mitigation)	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	

9	Seminar: Draft Thailand Water Resources Law and Japan River Law	Office of National Water Resources Committee, Secretariat of the Prime Minister and JICA	図書	○					JR・CR()・SC	
10	Draft Water Resources Act	Office of National Water Resources Committee, Secretariat of the Prime Minister	図書	○					JR・CR()・SC	
11	Provincial Environmental Education Center	Department of Environmental Quality Promotion, Ministry of Natural Resources and Environment	図書/CD	○					JR・CR()・SC	
12	2005 Annual Report of DDPM	DDPM	図書	○					JR・CR()・SC	
13	Satellite Imagery of Flooding	GISDA, Ministry of Science and Technology	図書	○					JR・CR()・SC	
14	Community-based Disaster Risk Management (Field practitioners' handbook and integration to socio-economic development process	ADPC	図書/CD	○					JR・CR()・SC	
15	Master Plan of Tsunami Evacuation	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
16	2007 Geo-Informatics Training	GISDA, Ministry of Science and Technology	図書	○					JR・CR()・SC	
17	U.S. Indian Ocean Tsunami Warning System (IOTWS) Program (Integrated Program Work Plan 2005-2006)	The IRG-Tetra Tech Joint Venture	図書	○					JR・CR()・SC	
18	RCC 4 Report, Fourth Meeting of ADPC Regional Consultative Committee on Disaster Management	ADPC	図書	○					JR・CR()・SC	
19	Building Disaster Risk Reduction in Asia: A Way Forward ADPC Looks Ahead To 2015	ADPC	図書	○					JR・CR()・SC	
20	Protection of Internally Displaced Persons in Situations of Natural Disaster	Office of the United Nations High Commissioner for Human Rights	図書	○					JR・CR()・SC	
21	The Clean Development Mechanism (CDM) and JI in Charts	Ministry of the Environment, Japan and Institute for Global Environmental Strategies	図書	○					JR・CR()・SC	

22	Final Report: Learning and estimating the risk of Tsunami disaster and recommend Tsunami monitored system and warning system	Ministry of Natural Resources and Environment and Chulalongkorn University	図書	○					JR・CR()・SC	
23	Strategic Development Plan of Mai Kao SAO	Mai Kao SAO, Tha-Lang District, Phuket	図書	○					JR・CR()・SC	
24	2005 Annual Report of DDPM	DDPM	図書	○					JR・CR()・SC	
25	2007 Geo-Informatics Training	GISDA, Ministry of Science and Technology	図書	○					JR・CR()・SC	
26	Tsunami 2004 Nam Chai Thai	The National Identity Board, Royal Thai Government	図書	○					JR・CR()・SC	
27	Kindness Diary: Tsunami Disaster (Nam Chi Thai)	Office of the National Culture Commission, Ministry of Culture	図書	○					JR・CR()・SC	
28	Tsunami Warning Sign and Evacuation Route	DDPM	図書	○					JR・CR()・SC	
29	Tsunami Evacuation Drill Handbook	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
30	Master Plan for Tsunami Evacuation	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
31	Department of Disaster Prevention and Mitigation, Ministry of Interior Handbook	DDPM	図書	○					JR・CR()・SC	
32	Tsunami Information	TMD	図書	○					JR・CR()・SC	
33	Master Plan for Tsunami Evacuation	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC	
34	Geo-Informatics for Tsunami Area Monitoring in Thailand	GISDA	図書	○					JR・CR()・SC	
35	Community and Tourist Destination and Environmental Rehabilitation Project for Tsunami	Department of Public Works and Town & Country Planning, Ministry of Interior	図書	○					JR・CR()・SC	
36	Tsunami Recovery Impact Assessment and Monitoring System	UN, WHO and International Federation of Red Cross and Red Crescent Societies	図書	○					JR・CR()・SC	
37	Tsunami Risk Mitigation Strategy for Thailand	Ministry of Natural Resources and Environment	図書	○					JR・CR()・SC	

38	School and Victims that got the effect from Tsunami and Assistance	Office of Basic Education Commission, Ministry of Education	図書	○					JR・CR()・SC
39	Final Report on Technical Assistance for Flood Control	JICA	図書	○					JR・CR()・SC
40	Tsunami Risk Mitigation Strategy for Thailand	Ministry of Natural Resources and Environment	図書	○					JR・CR()・SC
41	Report of Joint FAO/MOAC Detailed Technical Damages and Needs Assessment Mission in Fisheries and Agriculture Sectors in Tsunami Affected Six Provinces in Thailand 11-24 January 2005	Food and Agriculture Organization of the United Nations and Ministry of Agriculture and Cooperatives	図書	○					JR・CR()・SC
42	スマトラ沖大地震・津波被害に対する緊急支援視察と人口・開発問題に関する議員活動活性化プログラム	(財)アジア人口・開発協会	図書	○					JR・CR()・SC
43	Geo-Informatics for Tsunami Area Monitoring in Thailand	GISDA	図書	○					JR・CR()・SC
44	Final Report: Learning and estimating the risk of Tsunami disaster and recommend Tsunami monitored system and warning system	Ministry of Natural Resources and Environment and Chulalongkorn University	図書	○					JR・CR()・SC
45	Tsunami Thailand; One Year Later	National Response and Contribution of International Partners	図書	○					JR・CR()・SC
46	Disaster Prevention Manual on Tsunami	Department of Mineral Resources, Ministry of Natural Resources and Environment	図書	○					JR・CR()・SC
47	Visiting Programme for Tsunami Disaster Relief Projects and Activation of Parliamentarian Activities on Population and Development	Asian Population and Development Association	図書	○					JR・CR()・SC
48	National Civil Defense Plan 2005 (Security on Critical Situation)	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC
49	Master Plan for Landslide and Flash Flood Evacuation	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC
50	Humanitarian Aid European Commission	ECHO	図書	○					JR・CR()・SC
51	Disaster Prevention Manual on Tsunami	Department of Mineral Resources, Ministry of Natural Resources and Environment	図書	○					JR・CR()・SC

52	Report of The Coordination Meeting on Progress in Post-Tsunami Rehabilitation in the Fisheries Sector in Thailand on 28 March 2006	Department of Fisheries and FAO Regional Office for Asia and the Pacific	図書	○					JR・CR()・SC
53	Assisting People Affected by the Tsunami; Rehabilitation Strategies for the Fishery Sectors in Thailand and Indonesia	Fish for the People Magazine	図書	○					JR・CR()・SC
54	Assessment of Capacity Building Requirements for an Effective and Durable Tsunami Warning and Mitigation System in the Indian Ocean	UNESCO	図書	○					JR・CR()・SC
55	Tsunami Information	UN/ISDR	図書	○					JR・CR()・SC
56	Second U.S Indian Ocean Tsunami Warning System (IOTWS) Program Coordination Workshop	IOTWS	図書	○					JR・CR()・SC
57	Indian Ocean Earthquake - Tsunami 2005	Office for the Coordination of Humanitarian Affairs (OCHA)	図書	○					JR・CR()・SC
58	Tsunami Information ; Tsunami The Great Wave	International Tsunami Information Centre (ITIC) and Intergovernmental Oceanographic Commission (IOC)	図書	○					JR・CR()・SC
59	Accident and Disaster Record 2005 - 2006 (JAN-APRIL 2006)	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
60	Building Disaster Risk Reduction in Asia: A Way Forward ADPC Looks Ahead To 2015	ADPC	図書	○					JR・CR()・SC
61	The WHO Story; Moving Beyond the Tsunami	WHO	図書	○					JR・CR()・SC
62	Project on Tsunami Risk Reduction Measures with Focus on Land use and Rehabilitation (CD)	CCOP and Department of Mineral Resources (DMR)	図書/CD	○					JR・CR()・SC
63	Tsunami Evacuation Route Map for Ranong, Pang Nga, Phuket, Krabi, Trang and Stool	DMR	図書/CD	○					JR・CR()・SC
64	Thailand Rescue Dog Association (Thai RDA)	International Rescue Dog Organization (IOR) and General Chatchai Choonjavan Foundation	図書/CD	○					JR・CR()・SC
65	Flood (Natural disaster)	Office of Civil Defense Committee Secretariat, DDPM / adpc	図書	○					JR・CR()・SC

66	Vocabulary and Definition on Disaster	DPMA	図書	○					JR・CR()・SC
67	Disaster Prevention and Mitigation Act 2007	Disaster Prevention Measure Bureau, DDPM	図書	○					JR・CR()・SC
68	Earthquake (Natural Disaster)	DMR	図書	○					JR・CR()・SC
69	Tsunami Signage and Evacuation Route	Disaster Prevention Measure Bureau, DDPM	図書	○					JR・CR()・SC
70	Mr. Warning	DDPM	図書	○					JR・CR()・SC
71	Mr. Warning	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC
72	DDPM Manual	DDPM	図書	○					JR・CR()・SC
73	Tsunami Warning	UN/ISDR	図書	○					JR・CR()・SC
74	Tsunami Aftermath, Violations of women's Human Rights Thailand	Asia Pacific Forum on Women, Law and Development (APWLD)	図書	○					JR・CR()・SC
75	CBDRM Manual for People	Disaster Prevention Promotion Bureau, DDPM	図書	○					JR・CR()・SC
76	The office of the basic education commission	MOE	図書	○					JR・CR()・SC
77	Fire Fighting Manual and Drill	DPMA	図書	○					JR・CR()・SC
78	National Civil Defense Plan 2005, Disaster Prevention and Mitigation Section	Office of Civil Defense Committee Secretariat, DDPM	図書	○					JR・CR()・SC
79	Let's learn Disaster Prevention; Hazard Risk Reduction (Games and Project)	UN/ISDR/UNICEF	図書	○					JR・CR()・SC
80	Ways of monitoring and warning in risk areas, Chumporn Province	Office of Hydrology and Water Management 8, RID	図書	○					JR・CR()・SC
81	Disaster Risk Reduction starts at school	UN/ISDR	図書	○					JR・CR()・SC
82	Master Plan on Gender Equality Promotion	Personnel Section, DDPM	図書	○					JR・CR()・SC
83	Where was I that day? Tsunami a story told by Andaman children	Foundation for Women	図書	○					JR・CR()・SC
84	The Great Wave (Thai)	Chai Pattana Foundation	図書	○					JR・CR()・SC
85	RNUS Seminar 2008; Toward a Partnership on Disaster Management and Remote Sensing/GIS Technology	ICUS / IIS / The University of Tokyo and AIT	図書	○					JR・CR()・SC
86	Family Adaptation of Consequences of the Tsunami	Ministry of Social Development and Human Security	図書/CD	○					JR・CR()・SC
87	Violence to women after Tsunami in Thailand	Actionaid	図書	○					JR・CR()・SC

88	Sexual, border people class and Tsunami Cases which effect to women	Foundation for Women	図書	○					JR・CR()・SC
89	Guideline for Development and Utilization of Tsunami Disaster Management Map	ASEAN-Japan Transport Partnership / PARI / OCDI / MLIT	図書	○					JR・CR()・SC
90	Joint Workshop on Disaster Management Study and Disaster Prevention Management System	DDPM / MOE / JICA Expert Team	図書	○					JR・CR()・SC
91	JCC Meeting Material	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
92	Master Plan for Flood, Windstorm and Mudslide Hazards Prevention, Mitigation and Recovery Services in Emergency Period (5 Years Master Plan) (English)	DDPM	図書	○					JR・CR()・SC
93	Master Plan for Flood, Windstorm and Mudslide Hazards Prevention, Mitigation and Recovery Services in Emergency Period (5 Years Master Plan) (Thai)	DDPM	図書	○					JR・CR()・SC
94	Civil Defense Plan of Chumporn Province	Chumporn DPM, DDPM	図書	○					JR・CR()・SC
95	Meeting Material for Disaster Management Plan (TF1)	Disaster Prevention and Mitigation Policy Bureau, DDPM	図書	○					JR・CR()・SC
96	Development Plan, Tha Sae District, Chumporn	Tha Kam SAO	図書	○					JR・CR()・SC
97	Activity Report 2006, Mae Hong Sorn Provincial DPM	Mae Hong Sorn Provincial DPM	図書	○					JR・CR()・SC
98	Pilot Area Assessment, Baan Tha Chat Chai, Phuket	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
99	Pilot Area Assessment, Baan Nong Rieng, Chumporn	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
100	Pilot Area Assessment, Baan Nam Hu, Mae Hong Sorn	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
101	Pilot Area Assessment, Baan Nam Hu, Mae Hong Sorn	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
102	Workshop on Disaster Management in Thailand and Japan	JICA Expert Team and Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC
103	DPMA Development Plan (Draft)	DPMA	図書	○					JR・CR()・SC
104	Provincial Disaster Prevention and Mitigation Plan 2008 (Draft)	Disaster Prevention and Mitigation Bureau, DDPM	図書	○					JR・CR()・SC
105	JCC Meeting Material	Research and International Cooperation Bureau, DDPM	図書	○					JR・CR()・SC

106	International Consultation on Framework for the rules of Engagement for Disaster Management of Thailand	DDPM	図書	○					JR・CR()・SC
107	Tsunami Disaster Management Seminar in Thailand	NDWC / Ministry of Transport / PARI / OCDI / MLIT	図書	○					JR・CR()・SC
108	White Paper 2007	DDPM/JICA	図書	○					JR・CR()・SC
109	Analysis Manual for Hazard Map using GIS Spatial Analysis	DDPM/JICA	図書		○				JR・CR()・SC
110	Guide book for Disaster Risk Management based on Hazard map & GIS database(Draft)	DDPM/JICA	図書		○				JR・CR()・SC
111	A Community Guide to Disaster Prevention (CBDRM Manual)	DDPM/JICA	図書		○				JR・CR()・SC
112	CBDRM Facilitator Guide	DDPM/JICA	図書		○				JR・CR()・SC
113	Supplementary Reading and teacher's Guide	MOE/JICA	図書		○				JR・CR()・SC
114	E-learning Material	DDPM/JICA	CD-R		○				JR・CR()・SC
115	Teachers Guide and Supplementary Reading for Student	DDPM/JICA	図書		○				JR・CR()・SC

* 図書、地図、ビデオテープ、電子媒体等