

Meeting Memo

1st Joint Coordination Committee Meeting of DEMS Project

Date : 25 September 2003
Time : 10:30 ~ 12:45
Venue : Sarpedal, Serpong
Attendant : *As per attached*

Agenda:

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1. Opening Speech by Mr. Arief Yuwono (Ministry Secretary), Chairman

- 1) The EMC Project was implemented started from 1993. The cooperation term of the project was extended until March 2000 for evaluating the results obtained from the project by the time of March 1997. The project purpose was successfully achieved when the project was completed in March 2002. The DEMS Project is a consecutive project.
- 2) The EMC itself (such as building and facilities) was built in July 1993 under the bilateral grants of Japan. The objective of the Japanese grant aid is (1) to develop a reference laboratory, (2) to formulate and enforcement of national environmental program, (3) collection and analysis of environmental information and enforcement of training program for local governments.
- 3) Event though the EMC Project was successfully achieved, we still have a problems. We have weakness insufficient capability on environmental management system in the regional governments.
- 4) Therefore, the government of Indonesia requested another new support from the government of Japan to cope this issue. The government of Japan and government of Indonesia then agree to bring the project in operation as "Project for Strengthening Decentralized Environmental Management System in Indonesia (DEMS Project)".
- 5) This is the first joint coordination committee meeting since start of the DEMS Project on July 1st 2002. This coordination meeting is necessary to be held periodically to review the progress of the project activity and to make good understanding between the project people.

2. Introduction of Attendants

(Each attendant introducing his/her self)

3. Speech by Mrs. Masnellyarti Hilman (Deputy VII), Project Director

- 1) The DEMS Project has been smooth running for the past one year even though it does not fully meet the requirements of EMC especially in the field of some Japanese short term experts in the last time.
- 2) In the next opportunity for inviting Japanese expert, I hope the counterparts and DEMS experts will make TOR more clear so as to ensure the Japanese experts meeting our need.
- 3) The results in cooperation with the Bapedalda North Sumatera Province show good progress and improvement.
- 4) In order to improve capability of the staff in the regional government, particularly EMC has conducted training as to laboratory quality management and environmental monitoring in cooperation with the DEMS-JICA team. We also have already opened a national meeting/workshop with the head/representatives of 30 Bapedalda provinces to make a commitment for environmental quality monitoring (water quality monitoring) network at a national level and optimal utilization of Environmental Laboratory. Cooperative works like this improve capability of the regional governments as well as the North Sumatera Province.
- 5) The EMC has been trying to support the North Sumatera Province as the pilot model project to establish a typical environmental management system for the regional governments.
- 6) Indonesia totally has 33 provinces now. Twenty-six provinces of the 33 provinces already have environmental laboratory equipment supported by Bapedal (now KLH) in cooperation with the OECF (now JBIC) and the Australian Agency. The other seven provinces do not have laboratory equipment, so they request to the KLH to provide the same instrument as ones in the other provinces. I hope we can cooperate with JICA to provide the facilities.
- 7) Other matter, when I visited some Bapedalda province, they are expecting DEMS Project to extend the model project to them. Responding to this matter, how we are considering how to go this matter, how we can expand this cooperation to the other provinces.
- 8) Five provinces, such as Aceh, Jambi, West Sumatera, Lampung and NTB has established environmental laboratories under the individual Sarpedal, and they request us (EMC) to make technical and budget support to maintain the laboratory operation. I hope JICA to cooperate to support these problems.
- 9) I do hope this cooperation will be continued more better.

4. Presentation of DEMS Project and Progress Report by Mr. Imam Hendargo (Asdep Sarpedal/EMC), Project Manager

- 1) DEMS Project is follow-up project of the EMC project that was implemented as Project Type Technical Cooperation (PTTC) from 1993 through 2002. The project purpose of the EMC project was to establish functions such as (1) a reference

laboratory and as the center for environmental quality monitoring, (2) formulation and enforcement of national environmental program, (3) collection and analysis of environmental information and enforcement of training program for local governments.

- 2) Project period: DEMS Project is to be implemented for 4 years from 1 July 2002 to 30 June 2006
- 3) The project area: The project covers the area of the DKI Jakarta and North Sumatera Province as pilot model
- 4) Output: The expected output of the project are:
 - (1) Option of countermeasures against specific environmental problems is developed in the model site (North Sumatra Province) based on scientific knowledge and reliable monitoring data;
 - (2) Capabilities of SARPEDAL are reinforced to provide KLH and BAPEDALDA scientific knowledge (information) and technical guidance;
 - (3) Strategies for proper environmental monitoring and surveillance methods are transferred to BAPEDALDA.
- 5) Project Activity: There are 3 main activities of the DEMS Project:
 - (1) Pilot project at the model site
 - (2) Capacity Development of SARPEDAL on Development of Policies
 - (3) Capacity Development of Local Governments on Environmental Monitoring and Surveillance
- 6) Progress of Activities
 - (1) Activities in the North Sumatera Province

Bapedalda North Sumatera Province was selected as a model site, because the Bapedalda NSP has own laboratory, and has comparatively significant environmental problem in Medan.

The activity so far made in the NSP (period July 2002 to June 2003):

 - > Conduct preliminary environmental monitoring
 - ☞ Construct an environmental laboratory with good installation facility as a model in NSP.
 - ☞ Hold Management meetings with PUSARPEDAL (EMC), NSP and JICA three times.
 - ☞ Investigate emission inventory and prepare database for it.
 - ☞ Collect information for inventories of pollutant source along Deli River in NSP
 - ☞ Give a technical transfer & training for to improve the capability of the staff of NSP especially regarding water quality monitoring.
 - > Actual Deli River Monitoring.
 - ☞ Conduct Deli River monitoring once a month from April 2003
 - (2) Capacity Development of Sarpedal:
 - > Produce standard methods/procedure for sampling and analysis for 10 parameters to get accreditation from Indonesian Accreditation Committee (KAN-BSN).

- Produce reference materials for heavy metals in matrix of water and river sediment.
- Make preliminary design of the laboratory waste water treatment by short-term expert (Mr. Ishibashi) and EMC staff
- Reevaluate EMC network for Environmental Information System through improvement of anti-virus abatement, change of some hardware, install a new server and construct a line of database system.
- Conduct an investigation of air pollution analysis such for NO_x, SO₂, and TSP from April once a month.
- Develop air pollution modeling by using data obtained with passive samplers at 21 points in Jakarta Metropolitan Area.

(3) Capacity development of the local governments:

Train staff of local laboratories for advanced analytical techniques in the 30 provinces and produce training modules of environment management for local governments.

- (1) Training on laboratory quality management system
- (2) Training on Sampling and Analysis water quality
- (3) Technical assistance to north Sumatera province for implementation methods of environmental monitoring and surveillance
- (4) National workshop to make agreement and commitment on Environmental Quality Monitoring and Optimalization of Environmental Laboratory has been conducted in December 2002.

7) Input

(1) Short Term Expert

Five short-term experts have been come to Indonesia to give a lecture and technical guidance to the staff of Sarpedal (and BPLHD DKI Jakarta):

- (1) Selection and Maintenance of Machines for Environmental Analysis
- (2) Laboratory Waste Management
- (3) Air Pollution Monitoring
- (4) Environmental Information System
- (5) Reference Materials (CRMs) Preparation

(2) Equipment Procurement

Equipment has been delivered in the fiscal year 2002 to the Sarpedal and the Environmental Laboratory of NSP.

(3) Counter-Part Training in Japan

Two staff of Sarpedal/EMC and staff of Bapedalda NSP took received training in Japan for Laboratory Management and Water Quality Analysis for 3 months.

8) Consideration to optimize the project:

- (1) To provide sufficient budget for all activities
- (2) To enhance cooperation with the DKI Jakarta

5. Report on the activity at the North Sumatera Province by Mrs. Shinta Marpaung and Mrs. Halimah Syafrul

- 1) North Sumatera Province has been intensively conducting the Deli River monitoring once a month since April 2003
- 2) There is a constraint in conducting this intensive monitoring because the available budget is only enough to do monitoring twice a year.
- 3) Bapedalda North Sumatera province has sent a letter asking the DEMS Project to provide chemical reagent for sample analysis.

6. Comment by DEMS Chief Adviser (Mr. Kuwata Kazuhiro)

- 1) The DEMS project is a cooperation program between KLH and JICA. Basically, EMC takes initiative actions to spread out environmental management system to the local governments and JICA supports EMC and local governments in respect to technical purposes.
- 2) EMC has grown up functions such as a reference laboratory, formulation and enforcement of national environmental program, collection and analysis of environmental information and enforcement of training programs by the first environmental program (the phase one).
- 3) This 4-year DEMS project is different type of the project from ones so far conducted in that the ownership or initiative of the project is basically under EMC and Environmental ministry (KLH) not under the JICA team. The JICA team is under a position providing technical aid and sometimes-financial aid so that EMC can independently extend environmental management system to the local governments in Indonesia.
- 4) The purpose of the project is to strengthen capabilities of EMC in promoting these environmental programs and to build up frameworks so that the national and the local governments work together to transfer environmental techniques and environmental protection programs to the local governments in Indonesia.
- 5) The project mainly consists of 3 activities: (1) Pilot project in North Sumatera Province for monitoring water quality of Deli River in Medan. (2) Capacity development of EMC necessary for transferring environmental management system to the local governments. (3) Capacity development of local government regarding environmental monitoring. It has passed one year and 2 months since the project started. The fruitful results are getting obtained with efforts of the EMC staffs concerned.
- 6) There may occur some other necessary plans or problems to be solved in the future. There might be necessary to change Project Design Matrix (PDM) as the project moves ahead in the future.
- 7) I will report the comments of Ibu Nelly to the JICA head quarter: (1) Seven provinces of 33 provinces do not have laboratory equipment as provided by JIBIC and request KLH to provide same instrument. (2) Five provinces, such as Aceh, Jambi, West Sumatera, Lampung and NTB, have established environmental laboratories under the individual PUSARPEDALDA, and request us (DEMS) to make technical and budget assistance to maintain laboratory operation.

7. Recommendation and Suggestion

1) Mr. Naito Tomoyuki (JICA Indonesia office)

- (1) The period of the DEMS Project is four years from July 2002 to June 2006.
Year by year we should have focused on target.
In the 1st year We have focused on the preparatory and to collect data to develop environmental management system
In the 2nd year EMC make consensus among related divisions/deputy
In the 3rd year To review project such as what is the recognized as outcome of the pilot model project
In the 4th year To think together how to make future plan after this project; to review the strategy; and evaluation before termination of this project.
- (2) The project purpose has mentioned that “..to establish environmental monitoring systems at the environmental laboratory” but I think the definition itself is not clear. We should clarify the actual project purpose and what is participation of the EMC to realize the purpose?

2) Mr. Fujitsuka Tetsuro

- (1) We should make sure the mechanism to implement good environmental governance.
- (2) So far I know, right now we do not have enough the scientific data for good environmental management system, but we have good skill to collect the environmental data.
- (3) We should make sure about what data we need, what kind data should be have in KLH
- (4) In this 2nd year of DEMS Project, let we make a survey in the project area.
- (5) We also should make sure the scope of Environmental Management itself. Environment management is to includes: monitoring, analysis, collect the data and to use the data of monitoring.
- (6) From now, we will cooperate closely with the KLH members. I am ready to be a bridge to make close cooperation between the JICA and KLH

Comment by Ibu Masnellyarti Hilman

- (1) The task of Deputy VII unfortunately is clear for environmental management, how to coordinate, enforcement, surveillance, monitoring and implementation. We have strategic plans for environmental management, and we have “synergic activity plan”
- (2) We use the DEMS Project to strengthen our facilities available in the 26 provinces.
- (3) In the last year, we have improved the capability of monitoring for the personnel in the 30 provinces particularly for water quality monitoring.
- (4) KLH has asked to the DPR (house of representative) to provide stimulant funding for water quality monitoring, in the regional, and as a result each province get 18 million for river water monitoring twice a year.

- (5) During the time we support regional governments to improve capability at the province level. It is considerable to conduct a training take place in local government, so that more participants of the local government staff (provincial and kabupaten) can joint in the training. So we send instructors to the regional province.
- (6) We are planning to conduct monitoring in the strategic area this year. We have budget but very limited, if possible, we would like to ask JICA to support this activity.
- (7) We need to conduct training focused on the strategy area for the staff of Kabupaten.
- (8) To produce data of environmental monitoring, we should cooperate with the other deputies.
- (7) Our problem this time is about information system;
 - > how to improve our capability to use internet, so we can communicate by internet
 - > To develop direct link information in the Sarpedal with the Central of KLH, so as to make communication faster.
- (8) For the impact of regional autonomy, we need more flexibility to accommodate dynamic changes of Indonesia
- (9) As to the request mechanism, so far we use this particular mechanism:
Intern discussion in Deputy Level – Discussion in Echelon I (Deputy) – Suggest to make proposal – Send the proposal

Comment by Mr. Naito:

- (1) Regarding your strategy, have you asked opinion to the other related government institutions?
- (2) If possible, I would like to have the strategic plan of the KLH

Response by Pak Arief Yuwono:

- (1) Regarding “synergic activity”, let us open discussion among the other related government institutions and other donor agencies to discuss how we can cooperate to achieve the goal.
 - (2) I promise to give our strategic plan to JICA.
- 3) Mrs. Hermin
- (1) We have direct relationship with the North Sumatera Province particularly in monitoring work. We want intensively conduct monitoring of the Toba Lake.
 - (2) Is it possible for the project to support this activity i.e. to provide chemicals reagents.
 - (3) Beside Toba Lake monitoring, we have planning to conduct intensive monitoring for other two rivers in the NSP i.e. Asahan River and Siak River.
 - (4) It is possible to propose other subject i.e. regarding “Proper”?

- 4) Mr. Heru Waluyo (Asdep. Domestic Waste)
- (1) This project is very useful to improve capability of EMC
 - (2) My Asdep is concerned on domestic waste and vehicle emission. Is it possible for us to make an innovative proposal regarding study on domestic waste and vehicle emission?

- 5) Mrs. Fitri (Air Quality)

This project is developing "air quality simulation in the DKI Jakarta" now. Is it possible to distribute the result of the study to the other deputies?

☞ Ibu Nelly: This study now is still under progress. Surely we will distribute the result of this study to the others deputy after this study finished.

8. Conclusion as recommendation

- 1) Joint coordination committee meeting is necessary to be held periodically to review the implementation of the project activity and to make good understanding among the project people. The meeting audiences agree to conduct review meeting twice a year if necessary, and also joint technical meeting if necessary.
- 2) The characteristic of the Project would respond more flexible to dynamic change of Indonesia without leaving the project platform.
- 3) The Pilot Project in North Sumatera Province may be expended to the other provinces.
- 4) How to make good organization internally and externally
 - > To improve internal mechanism (KLH – KLH)
 - > To improve external mechanism (KLH – JICA)
 - > Good synergic result
 - > More close relationship between counterpart and JICA Expert

ATTENDANT LIST
Joint Coordination Committee Meeting
EMC Serpong, 25 September 2003

No	Name	Institution
1	Mr. Arief Yuwono	Minister Secretary
2	Mr. Panggung S	Staff Kajian Deputy II
3	Prof. Dr. Tanwir Y. Mukawi	Deputy V
4	Mrs. Masnellyarti Hilman	Deputy VII
5	Ms. Hermien R.	Asdep 1/IV
6	Ms. Fitri	Asdep 1/V
7	Mr. Heru Waluyo	Asdep 2/V
8	Mr. Imam Hendargo	Asdep 1/VII
9	Dra. Shinta Melur Marpaung	Deputy Head of Bapedalda NSP
10	Mr. Hari Wahyudi	Kabid I Sarpedal
11	Ms. Halimah Syafrul	Kabid III Sarpedal
12	Mr. Wisnu Eko Yulianto	Kasubid 2/I Sarpedal
13	Ms. Lien Rasalina	Kasubid 1/ II Sarpedal
14	Mr. Anwar Hadi	Kasubid 2/II Sarpedal
15	Dra. Amalia R.	Kasubid 1/ III Sarpedal
16	Ms. Rita	Subid 1/III Sarpedal
17	Mr. Endang	Subid 2/III Sarpedal
18	Ms. Novi Farhani	Kasubid 2/IV Sarpedal
19	Mr. Koshin Kiyohara	Embassy of Japan
20	Mr. Naito Tomoyuki	JICA Indonesia
21	Mr. Fujitsuka	JICA Adviser for KLH
22	Mr. Kuwata Kazuhiro	DEMS, Chief Adviser
23	Mr. Kawakita Tsunehiro	DEMS, Project Coordinator
24	Mr. Ishihara Taketoshi	DEMS, Applied Env. Technology
25	Mr. Kamiya Akio	DEMS, Environmental Monitoring
26	Ms. Sumiati Widodo	DEMS, Staff
27	Ms. Ria	JICA KLH, Secretary

Project Design Matrix

Project Name : Project for Strengthening Decentralized Environmental Management System in Indonesia (PSDEMS)

Project Duration: July 1, 2002 to June 30, 2006

Project Area : JABOTABEK, North Sumatra Province

Target Group : Staffs of PUSARPEDAL and Local Governments

Date: March 22nd, 2002

Narrative Summary	Objective Variable Indicators	Means of Verification	Important Assumption
<p>[Overall Goal]</p> <ul style="list-style-type: none"> The national and local levels' capabilities of environmental management are strengthened 	<ol style="list-style-type: none"> The implementation environmental monitoring and surveillance by the local governments (provincial BAPEDALDAs) with well managed laboratory The countermeasures are implemented based on the reliable monitoring and surveillance data 	<ul style="list-style-type: none"> Environmental Statistics KLH annual reports Regional Environmental Quality Status (NKLD) 	<ul style="list-style-type: none"> The policy of the Indonesian Government remains unchanged regarding the roles of KLH and BAPEDALDAs on environmental management
<p>[Project Purpose]</p> <ul style="list-style-type: none"> A framework of environment management in which PUSARPEDAL and BAPEDALDA work together is established by initiative of PUSARPEDAL 	<ol style="list-style-type: none"> By the year 2006, some of options of countermeasures in three environmental fields are implemented by NS BAPEDALDA and PUSARPEDAL together By the year 2006, five guidance are prepared and updated by PUSARPEDAL to the local governments By the year 2006, 360 staffs of the local governments (including local environmental laboratories) are trained by PUSARPEDAL 	<ol style="list-style-type: none"> 1-1 Project report 1-2 NKLD of NS BAPEDALDA 1-3 PUSARPEDAL annual reports 2-1 Project reports 2-2 PUSARPEDAL annual reports 3-1 Project reports 3-2 PUSARPEDAL annual reports 	<ul style="list-style-type: none"> The positive effects of the options implemented in the model site are recognized The cases and procedures of the pilot project are opened to the other local Stakeholders such as factories dose not oppose the project
<p>[Outputs]</p> <ol style="list-style-type: none"> Options of countermeasures to specific environmental problems are developed in the model site (North Capabilities of PUSARPEDAL for providing BAPEDAL and BAPEDALDA with scientific knowledge and technical guidance on environmental management are reinforced 	<ol style="list-style-type: none"> 1-1 Three monitoring and surveillance reports are prepared every year by NS BAPEDALDA and PUSARPEDAL together by the year 2006 1-2 Three times of meetings for development of options are organized every year by NS BAPEDALDA and PUSARPEDAL together by the year 2006 2-1 Three reports regarding scientific knowledge are submitted to the other sections of KLH from PUSARPEDAL every year by the year 2006 2-2 Five SOPs are prepared every year by PUSARPEDAL by the year 2006 	<ol style="list-style-type: none"> 1-1 Project report 1-2 NKLD of NS BAPEDALDA 1-3 PUSARPEDAL annual reports 2-1 Project report 2-2 NKLD of NS BAPEDALDA 2-3 PUSARPEDAL annual reports 	<p>The some of developed options are implemented in the model site</p>

<p>3. Know-how of proper environmental monitoring and surveillance methods are transferred.</p>	<p>2-3 By the year 2006, sixty analytical parameters are accredited by KAN on ISO 17025 in PUSARPEDAL</p> <p>3-1 Three training modules are prepared every year by PUSARPEDAL by the year 2006</p> <p>3-2 By the year 2006, the proficiency tests to the environmental laboratories on eighteen parameters are conducted by PUSARPEDAL.</p> <p>3-3 The tow times of workshops for the staff of the local governments, are organized by PUSARPEDAL every year by the year 2006</p>	<p>3-1 Project report</p> <p>3-2 NKLD of NS BAPEDALDA</p> <p>3-3 PUSARPEDAL annual reports</p>	
<p>[Activities] (see attachment paper)</p>	<p>[Inputs] Japan</p> <p>(1) Personnel</p> <p>1) Long-term experts</p> <ul style="list-style-type: none"> - Chief Advisor/Environmental Management 48M/M - Project Coordinator/Training Program 48M/M - Environmental Monitoring 48M/M - Laboratory Management 24M/M - Applied environmental analysis 24M/M <p>2) Short-term experts</p> <p>(2) Equipment</p> <p>(3) Training in Japan 3 persons/year</p> <ul style="list-style-type: none"> - Counterparts - Staffs on NS BAPEDALDA 	<p>Indonesia</p> <p>(1) Personnel</p> <p>1) Project Director</p> <p>2) Project Manager</p> <p>3) Counterparts in the following fields</p> <ul style="list-style-type: none"> - Environmental quality test - Environmental monitoring and surveillance (air quality) - Environmental monitoring and surveillance (water quality) - Laboratory management - Calibration and maintenance - Environmental information system - Air Pollution - Water Pollution - Toxic and hazardous substance <p>(2) Facilities</p> <p>Land, building, analysis laboratory and equipment, training facilities</p>	<ul style="list-style-type: none"> • Trained Technical staff continue working for PUSARPEDAL • Trained staff of local governments continue working for each local government (or relevant organization) <p>[Preconditions]</p> <ul style="list-style-type: none"> • The policy of the Indonesian Government remains unchanged regarding the decentralization

DEMS (Decentralized Environmental Management System)

1. Latar Belakang

"Proyek Sarana Pengendalian Dampak Lingkungan" di Indonesia telah dimulai sejak bulan January tahun 1993, menanggapi permohonan dari pemerintah Indonesia. Proyek tersebut diselenggarakan berdasarkan keinginan kedua Negara akan kebutuhan untuk membentuk sebuah lembaga khusus yang mempunyai pengetahuan dan teknik dalam pemantauan lingkungan hidup di seluruh propinsi di Indonesia. EMC (PUSARPEDAL: Pusat Sarana Pengendalian Lingkungan) telah dibangun sejak tanggal 1 Juli 1993 melalui hibah pemerintah Jepang, sebagai institusi yang mengelola kerjasama antara pemerintah pusat dan daerah dan memperkuat kemampuan pengelolaan lingkungan di pemerintah daerah.

Proyek EMC telah dilaksanakan melalui Project Type Technical Cooperation (PTTC) dimana prinsip pelaksanaannya berdasarkan Record of Discussion pada bulan Oktober, 1992 antara Japan International Cooperation Agency (JICA) dan Badan Pengendalian Dampak Lingkungan (BAPEDAL). Tujuan proyek ini adalah agar PUSARPEDAL mempunyai fungsi sebagai 1) laboratorium rujukan, 2) Pelaksana perencanaan nasional untuk pemantauan lingkungan 3) pengumpulan dan analisa informasi lingkungan dan data, 4) melaksanakan program pelatihan. Kerjasama dalam Proyek EMC telah diperpanjang sampai dengan Maret 2000 berdasarkan hasil evaluasi proyek pada bulan Juli 1997, dan proyek tersebut telah menyelesaikan tujuan proyek pada bulan Maret 2002. Tujuan proyek ini adalah agar PUSARPEDAL mempunyai fungsi sebagai 1) laboratorium rujukan, 2) Pelaksana perencanaan nasional untuk pemantauan lingkungan 3) pengumpulan dan analisa informasi lingkungan dan data, 4) melaksanakan program pelatihan. Kerjasama dalam Proyek EMC telah diperpanjang sampai dengan Maret 2000 berdasarkan hasil evaluasi proyek pada bulan Juli 1997, dan proyek tersebut telah menyelesaikan tujuan proyek pada bulan Maret 2002.

Di lain pihak, diketahui bahwa di Indonesia, teknik pemantauan lingkungan masih imiatur dan pengetahuan mengenai teknik pemecahan polusi lingkungan masih belum cukup khususnya di laboratorium lokal. Pengelolaan lingkungan belum

Jibentuk di pemerintah daerah. Untuk mengata. masalah tersebut, Pemerintah Indonesia kembali meminta bantuan baru dari Pemerintah Jepang. Pemerintah Jepang telah memutuskan untuk menyelenggarakan "Proyek untuk memperkuat System Pengelolaan Lingkungan Daerah di Indonesia" yang disebut sebagai "Decentralized Environmental Management System" melalui Proyek Kerjasama Bantuan Lunak. JICA dan Kementerian Lingkungan Hidup telah menandatangani Record of Discussion R/D dan Minutes of Meeting (M/M) pada tanggal 22 March 2002.

Nama PUSARPEDAL telah diganti menjadi SARPEDAL (Saran Pengendalian Dampak Lingkungan) berdasarkan keputusan presiden No. 02 dan 04, 2002.

2. Masa Proyek

Proyek ini akan diselenggarakan selama 4 tahun dari tanggal 1 July 2002 sampai dengan tanggal 30 Juni 2006.

3. Wilayah Sasaran

JABOTABEK dan Propinsi Sumatra Utara

4. Tujuan Proyek

Tujuan proyek ini diharapkan untuk memperkuat kemampuan EMC dalam membuat sistem pengelolaan lingkungan, dan untuk melengkapi kerangka kerja yang sudah ada, berdasarkan inisiatif dari EMC, pemerintah pusat dan daerah bekerja bersama-sama mengenai sistem pengelolaan lingkungan kepada pemerintah daerah.

Berikut adalah keterangan yang tertera dalam dokumen proyek: "Dalam kerangka kerja sistem pengelolaan lingkungan, terbentuknya kerjasama antara Asdep. SARPEDAL dan BAPEDALDA berdasarkan inisiatif dari Asdep. SARPEDAL."

Propinsi Sumatra Utara telah dipilih sebagai contoh model tahap pertama untuk membuat sistem pengelolaan lingkungan di laboratorium lingkungan. Hasil bagus yang diperoleh diharapkan bisa diambil sebagai contoh dan dipergunakan di propinsi lain dimasa mendatang.

5. Overall Goal

Tujuan secara menyeluruh diartikan sebagai imbas yang diharapkan sebagai hasil setelah tercapainya

tujuan proyek. Dengan kata lain, ini berhubungan dengan dampak positif yang dihasilkan oleh pelaksanaan dari tujuan dan arah proyek.

Tujuan proyek secara keseluruhan seperti dijelaskan dalam dokumen proyek adalah sebagai berikut: "Kemampuan pengelolaan lingkungan baik dipusat maupun di daerah seluruh Indonesia akan setara dan lebih menguat.

6. Output

- Hasil yang ingin dicapai melalui proyek ini adalah:
- 1) Meningkatnya kemampuan pengukuran pada masalah khusus lingkungan di daerah contoh (Propinsi Sumatra Utara) berdasarkan pemantauan lapangan dan ilmu pengetahuan.
 - 2) Terdorongnya kemampuan PUSARPEDAL untuk menyediakan pengetahuan and panduan teknik kepada KLH dan
 - 3) Tertransferynya semua pengetahuan mengenai metode pemantauan dan pengawasan lingkungan secara tuntas

7. Kegiatan

1. Pilot Project in the Model Site (activities for output 1)

- 1-1 Meningkatkan pengelolaan laboratorium di PUSARPEDALDA
 - 1-1-1 Melaksanakan perawatan dan kalibrasi pada alat-alat laboratorium.
 - 1-1-2 Meningkatnya sistem pengelolaan laboratorium.
 - 1-1-3 Membentuk QA/QC di setiap laboratorium.
- 1-2 Melaksanakan pemantauan dan membuat ketetapan pada masalah-masalah khusus.
 - 1-2-1 Mengadakan pemantauan dan pengawasan.
 - 1-2-2 Mengadakan studi mengenai tingkat dan sumber polusi.
- 1-3 Meningkatkan penyortiran dan pengukuran
 - 1-3-1 Menetapkan penyebab-penyebab polusi.
 - 1-3-2 Menyediaan program strategi untuk peningkatan kualitas lingkungan.

2. Peningkatan kebijakan PUSARPEDAL pada peningkatan kebijakan (activities for output 2)

- 2-1 Meningkatkan pengelolaan laboratorium di PUSARPEDAL.



- 2-1.1 Membuat metode/prosedur baku untuk sampling dan analisa.
- 2-1.2 Membuat SRM/CRM.
- 2-1.3 Meningkatkan sistem pengelolaan laboratorium.
- 2-2 Melakukan studi pada pemantauan dan pengelolaan lingkungan
 - 2-2.1 Mengevaluasi fasilitas pengendalian polusi.
 - 2-2.2 Mengevaluasi the existing environmental standards based on background data.
 - 2-2.3 Melakukan studi mengenai kualitas air percontohan (Jakarta)

3. Membuat kebijakan pemerintah daerah mengenai pemantauan dan pengawasan lingkungan.

- 3-1 Meningkatkan kemampuan pengelolaan di laboratorium local.
 - 3-1-1 Pelatihan staff laboratorium daerah mengenai metode analisis lanjut.
 - 3-1-2 Mengadakan test proficiency.
 - 3-1-3 Pelatihan staff laboratorium lokal mengenai sistem pengelolaan kualitas laboratorium (LQMS).
 - 3-1-4 Mengadakan workshops antar laboratorium lokal untuk tukar informasi.
- 3-2 Pelatihan mengenai metode pemantauan dan pengawasan lingkungan.
 - 3-2-1 Memberi bantuan teknis kepada laboratorium lokal untuk penyelenggaraan metode pemantauan dan pengawasan..
 - 3-2-2 Mengadakan bimbingan teknis kepada pemerintah daerah mengenai pemantauan dan pengawasan lingkungan.
 - 3-2-3 Pelatihan untuk staf pemerintah daerah mengenai pemanfaatan data hasil pemantauan untuk membuat peraturan.
- 3-3 Pelatihan untuk Impact Assessment
 - 3-3-1 Membuat modul pelatihan mengenai pengelolaan lingkungan untuk pemerintah daerah.
 - 3-3-2 Pelatihan untuk staf pemerintah daerah mengenai pengelolaan lingkungan.
 - 3-3-3 Mengadakan workshop antar pemerintah daerah mengenai pengelolaan lingkungan.

Responsible Personnel KLH & Asdep. SARPEDAL

Chairman: Minister Secretary
Mr. Arif Yuwono
Project Director: Deputy Minister VII
Mrs. Masnellyarti, M.Sc.
Member of JCC: Deputy Minister II
Ir. Gempur Adnan
Member of JCC: Deputy Minister IV
Ir. Isa Karmisa
Member of JCC: Deputy Minister V
Prof. Dr. Tanwir Y Mukawi, dr. DSPA
Project Manager:
Drs. Imam Hendargo
North Sumatra Model Project
Dra. Halimah Syafrul
Capacity Building of EMC
Ir. Hari Wahyudi
Training for Impact Assessment
Drs. Muns Hilman

BAPEDALDA North Sumatra Province

Ir. Saongkopian Siregar, M.Sc
Ir. Igor R. Hutagalung
Dra. Rusdiana Simarmata
Ir. Hidayati, M.Si.

JICA DEMS Project

Chief Advisor: Dr. Kuwata Kazuhiro
Project Coordinator: Mr. Kawakita Tsunehiro
Applied Analysis: Mr. Ishihara Taketoshi
Environmental Monitoring: Mr. Kamiya Akio

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(Decentralized Environmental Management System)

A Cooperative Project
between

The Ministry of Environment (KLH)

&

Japan International Cooperation Agency (JICA)

Asisten Deputi Urusan Sarana Pengendalian Dampak
Lingkungan (Asdep Urs. SARPEDAL)

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DEMS (Decentralized Environmental Management System)

1. Introduction

"The Environmental Management Center Project in the Republic of Indonesia (EMC Project)" started in January 1993 in response to a request from the Government of Indonesia. The project was based on the common recognition between the both governments that a principal institution was essential to ensure proper knowledge and techniques for environmental monitoring throughout the Indonesian provinces. The EMC (PUSARPEDAL: Pusat Sarana Pengendalian Lingkungan) was built in July 1993 under the Japanese bilateral grants as an institution ensuring cooperation between the central and local governments and strengthening capabilities of environmental management in the local governments.

The EMC project was implemented as Project Type Technical Cooperation (PTTC) principally based on the Record of Discussion in October, 1992 between the Japan International Cooperation Agency (JICA) and the Environmental Impact Management Agency (BAPEDAL: Badan Pengendalian Dampak Lingkungan). The project purpose was to establish functions such as (1) a reference laboratory, (2) formulation and enforcement of national environmental program, (3) collection and analysis of environmental information and enforcement of training program for local governments. The cooperation term of the project was extended until March 2000 for evaluating the results obtained from the project by the time of March 1997. The project purpose was successfully achieved so that the project was completed in March 2002.

On the other hand, technical strategies for environmental monitoring and environmental pollution control may be revealed to be immature and/or insufficient especially in local laboratories in Indonesia. Environmental management system has not yet been established in these local laboratories. The Indonesian Government thus requested another new assistance to the Japanese Government to cope with these issues. The Japanese Government accepted the assistance and determined to forward a project titled as "Project

for Strengthening Decentralized Environmental Management System in Indonesia (DEMS)" under PTTC so as to establish a frame to propagate environmental management systems over the local governments in Indonesia.

The JICA and the Ministry of Environment (KLH: Kementerian Lingkungan Hidup) signed the R/D and the Minutes of Meeting (M/M) on 22 March 2002.

The name of PUSARPEDAL has been changed to SARPEDAL (Environmental Impact Control Facility) according to the presidential decree No. 02 and 04, 2002.

2. Project Period

The project is to be implemented for 4 years from 1 July 2002 through 30 June 2006.

3. Project areas

JABOTABEK and North Sumatra Province

4. Project Purpose

The project purpose is expected to strengthen capabilities of EMC in establishing environmental management systems, and to complete frame work that, by initiative of EMC, the national and local governments work together for transferring the environmental management system to the local governments.

The following description is made in the project document: "A framework of Environmental Management System in which Asdep. SARPEDAL and BAPEDALDA work together is established by initiative of Asdep. SARPEDAL."

The North Sumatra Province is selected as a pilot model at a first stage to establish environmental monitoring systems at the environmental laboratory. The fruitful results obtained here will be expectedly applied to other provinces in the future.

5. Overall Goal

The overall goal is defined as effects expected as a result after accomplishment of project purpose. In other words, this refers to positive impact affected by achievement of the project purpose and direction of the project.

The overall goal is described in the project document as follows: "The capabilities of environmental management are strengthened at the national and local levels in Indonesia."

6. Output

The outputs are expected in the project as follows:

- (1) Option of countermeasures against specific environmental problems is developed in the model site (North Sumatra Province) based on scientific knowledge and reliable monitoring data.
- (2) Capabilities of SARPEDAL are reinforced to provide KLH and BAPEDALDA scientific knowledge (information) and technical guidance.
- (3) Strategies for proper environmental monitoring and surveillance methods are transferred to BAPEDALDA.

2. Activities

1. Pilot Project in the Model Site (activities for output 1)

- 1-1 Improving Laboratory Management of PUSARPEDALDA
 - 1-1-1 Implement maintenance and calibration of laboratory equipment.
 - 1-1-2 Develop Laboratory Management System.
 - 1-1-3 Establish QA/QC in the Laboratory.
- 1-2 Conducting Monitoring and Assessment of Specific Issues
 - 1-2-1 Conduct Monitoring and surveillance.
 - 1-2-2 Conduct study on Pollution level and pollution source.

1-3 Developing Option of Countermeasures

- 1-3-1 Assess causes of pollution.
- 1-3-2 Prepare strategic program of environmental quality improvement.

2. Capacity Development of SARPEDAL on Development of Policies (activities for output 2)

- 2-1 Improving Laboratory Management of SARPEDAL.
 - 2-1.1 Produce standard methods/procedures of sampling and analysis.
 - 2-1.2 Produce SRM/CRM.

- 2-1.3 Develop laboratory management system.
- 2-2 Conducting Studies on Environmental Monitoring and Management
 - 2-2.1 Evaluate pollution control facilities.
 - 2-2.2 Evaluate the existing environmental standards based on background data.
 - 2-2.3 Conduct study on air quality modeling (Jakarta)
- 3. **Capacity Development of Local Governments on Environmental Monitoring and Surveillance**
 - 3-1 Improving Management Capabilities of Local Laboratories
 - 3-1-1 Training staff of local laboratories on advanced analytical methods.
 - 3-1-2 Conduct proficiency tests.
 - 3-1-3 Training staff of local laboratories on laboratory quality management system (LQMS).
 - 3-1-4 Hold workshops among local laboratories for exchanging information.
 - 3-2 Training for Methods on Environmental Monitoring and Surveillance
 - 3-2-1 Provide technical assistance to local laboratories for implementation methods of monitoring and surveillance.
 - 3-2-2 Implement technical guidance to local governments on environmental monitoring and surveillance.
 - 3-2-3 Train staff of local governments on utilization of monitoring data for development of policies.
 - 3-3 Training for Impact Assessment
 - 3-3-1 Produce training modules of environmental management for local governments.
 - 3-3-2 Train staff of local government on environmental management
 - 3-3-3 Hold workshops among local governments on environmental management.

**Responsible Personnel
KLH & Asdep. SARPEDAL**

Chairman: Minister Secretary
 Mr. Arif Yuwono
 Project Director: Deputy Minister VII
 Mrs. Masnellyarti, M.Sc. *Hilman*
 Member of JCC: Deputy Minister II
 Ir. Gempur Adnan
 Member of JCC: Deputy Minister IV
 Ir. Isa Karmisa
 Member of JCC: Deputy Minister V
 Prof. Dr. Tanwir Y Mukawi, dr. DSPA
 Project Manager: Drs. Imam Hendargo
 North Sumatra Model Project *5.4*
 Dra. Halimah Syafrul
 Capacity Building of EMC
 Ir. Hari Wahyudi
 Training for Impact Assessment *Capacity Dev. of local Gov.* (Decentralized Environmental Management System)
 Drs. Muns Hilman.

BAPEDALDA North Sumatra Province

Ir. Saongkohan Siregar, M.Sc
 Ir. Igor R. Hutagalung
 Dra. Rusdiana Simarmata
 Ir. Hidayati, M.Si.

JICA DEMS Project

Chief Advisor: Dr. Kuwata Kazuhiro
 Project Coordinator: Mr. Kawakita Tsunehiro
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 Environmental Monitoring: Mr. Kamiya Akio

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DEMS

(Decentralized Environmental Management System)
 A Cooperative Project
 between
 The Ministry of Environment (KLH)
 &
 Japan International Cooperation Agency (JICA)

Asisten Deputi Urusan Sarana Pengendalian Dampak
 Lingkungan (Asdep Urs. SARPEDAL)
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Pilot Project at North Sumatra
Schedule of Pre-Monitoring and Surveillance FY2002

Sub Activity: - Conduct Preliminary Monitoring & Surveillance

No	Activity Content	Date	Implementation		PLAN																											
			Attendant		2002				2003				2003																			
			JICA DEMS, Sarpedal, KLH, etc	Bapedalda North Sumatra	September				October				November				December				January				February				March			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
1	Technical Meeting (Meeting between EMC, BAPEDALDA North Sumatra & JICA-DEMS) Collect the information regarding Deli River condition, Source of Pollutant, River Use, etc Collect the information of monitoring activities that has been done, Laboratory and Personnel Capacity Collect the data of Prokasi Program as the baseline of monitoring data Discuss regarding kind of short training needed by the staff of BAPEDALDA SU	13-Sep-02	1) Dr Kuwata (DEMS) 2) Mr Kawakita (DEMS) 3) Dra Halimah Syafrul (EMC)	1) Ir. Soangkupon Siregar 2) Dra Rosadiana Simarmata, 3) Ir Hidayati, M.Si, 4) Abner Tarigan, ST.																												
2	Make an inspection of technical capabilities of the analysis personnel in conducting the testing by use the essentials parameters Carry out test sampling at Existing Sampling Point in the Deli River Pre Treatment of Sample Check up the analytical ability of water quality for particular parameters Discuss inspection result, future project implementation, training, etc	9 - 11 Oct 2002	1) Mr Ishihara (DEMS) 2) Ms Siti Rohmah (EMC)	1) Dra Rosadiana Simarmata, 2) Ir Hidayati, M Si, 3) Abner Tarigan, ST, 4) Laksana Umanda Sitanggang, ST																												
3	Regular Management Meeting of SARPEDAL, BAPEDALDA North Sumatra, and JICA DEMS 1st Management Meeting	30-31 Oct 2002	1) Dra Halimah Syafrul (EMC) 2) Ir Siti Rohmah (EMC, Div I) 3) Mr Unisuga Shinsuke (KLH) 4) Mr Nursiwan Taqim (Dep II, Asdep for Sumatra -- Pekan Baru) 5) Dr Kuwata Kazuhiro (DEMS) 6) Mr Kawakita Tsunehiro (DEMS) 7) Mr Ishihara Taketoshi (DEMS) 8) Ms Atli W (DEMS)	1) Ir Soangkupon Siregar (BAPEDALDA, Chairman) 2) Ir Igor R Hutagalung (BAPEDALDA) 3) Dra Rosdiana Simarmata (BAPEDALDA) 4) Ir. Hidayati (BAPEDALDA)																												
4																																
5																																
6																																
7																																

		Parameter	Unit Cost	Remarks
River Water	Organics	1 BOD	70,000	
Ground Water		2 COD	75,000	
		3 MBAS	69,000	
		4 Phenol	80,000	
		5 TOC	132,000	
		6 Oily matters	40,000	
		7 DO	40,000	
	Inorganics	8 hardness	30,000	x
	Non-metals	9 temperature	15,000	
		10 pH	25,000	
		11 TSS	30,000	
		12 nitorgen-ammonium (NH4-N)	75,000	
		13 nitrate-N (NO ₃ -N)	48,000	
		14 nitrate-N (NO ₂ -N)	48,000	
		15 Boron (B)	64,000	x
		16 Fluoride (F)	78,000	
		17 Chloride (Cl)	52,000	
		18 Phosphate (PO ₄ -P)	65,000	
		19 Cyanide (CN)	90,000	
		20 Aluminium (Al)	112,000	*
		21 Arsenic (As)	112,000	
		22 Iron (Fe)	112,000	
		23 Cadmium (Cd)	112,000	
		24 Manganese (Mn)	112,000	
		25 Mercury (Hg)	133,000	
		26 Sodium (Na)	112,000	x
		27 Nickel (Ni)	112,000	*
		28 Zinc (Zn)	112,000	
		29 Copper (Cu)	112,000	
		30 Lead (Pb)	112,000	
		31 Hexa-valent Chromium (Cr ⁺⁶)	90,000	
	TOTAL	31 parameters	2,469,000	
River Sediment	Inorganics	1 Al	165,000	
Soil		2 As	159,000	
Solid Waste		3 Fe	135,000	
		4 Cd	135,000	
		5 Mn	135,000	
		6 Hg	159,000	
		7 Na	159,000	
		8 Ni	135,000	*
		9 Zn	135,000	
		10 Cu	135,000	
		11 Pb	135,000	
		12 Cr ⁺⁶	159,000	
		13 B	165,000	x
		14 Fe	159,000	
		15 CN	159,000	
	TOTAL	15 parameters	2,229,000	

x : unnecessary

* : In the case that there are factories using the material.
probably, unnecessary

			discount 20%	discount 30%
River. Ground W	15	37,035,000	29,628,000	25,924,500
River Sediment,	12	26,748,000	21,398,400	18,723,600
TOTAL		63,783,000	51,026,400	44,648,100
River. Ground W	20	49,380,000	39,504,000	34,566,000
River Sediment,	12	26,748,000	21,398,400	18,723,600
TOTAL		76,128,000	60,902,400	53,289,600

Meeting Memo

2nd Joint Coordination Committee Meeting of DEMS Project

Date : 9 July 2004
Time : 10:00 ~ 12:00
Venue : Sarpedal, Serpong
Attendant : *As per attached*

Agenda:

1. Opening Speech by Mr. Arief Yuwono.....	1
2. Introduction of attendants.....	1
3. Speech by Deputy VII-KLH.....	1
4. Presentation on the DEMS Progress Report	2
5. Speech by DEMS Chief Adviser.....	6
6. Suggestion and Recommendation.....	7
7. Conclusion.....	10
8. Closing.....	11

1. Opening Speech by Mr. Arief Yuwono (Ministry Secretary), Chairman

- 1) This 2nd JCC meeting would supposedly find the best solution on the problems that occur and determine clear direction of project operation.
- 2) As we discussed in the previous meeting, let us discuss how we can accommodate dynamic change of Indonesia without leaving the project platform.
- 3) In the future time let us establish more fruitful cooperation between JICA and KLH externally and/or internally.

2. Introduction of Attendants

(Each attendant introducing his/her self)

3. Speech by Deputy VII of KLH (Mrs. Masnellyarti Hilman)

- 1) The DEMS Project has been smoothly running for the past half project period, and I hope it would more better implementation in the future.
- 2) As the objective of the project was to strengthen capabilities of EMC in establishing environmental management systems, and to complete frame work that by initiative of EMC, the national and local governments work together for transferring the environmental management system to the local governments. And the overall goal of the project is "The national and local levels' capabilities of environmental management are strengthened"
- 3) It is not easy work to achieve the goal. However for the goal a further cooperation and commitment is needed as well internally in KLH or JICA side also externally between both JICA and KLH.

- 4) The joint mid-term evaluation team has reviewed the progress and achievements of the DEMS Project and concluded that the project activities have been properly implemented according to the Plan of Operations.
- 5) We should pay attention on the recommendation of the joint mid-term evaluation team in order to attain the smooth implementation for the remaining cooperation period. The team recommended that the project should be closely reviewed concerning the progress frequently and should be exchanged the information between the key members of the project team as well as with the joint coordination committee. We need to ensure the appropriate amount in order to secure the sustainability of the activities conducted by the project after cooperation period.
- 6) The activity at the Pilot Project North Sumatera Province has showed the good progress and should be improved somewhat. I hope the good model can be spread-out to other local governments.
- 7) Cooperation with DKI Jakarta is good running on monitoring of air quality and developing dispersion model of air pollution.
- 8) In order to improve capability at the regional government, the project has been conducted some training concerning some technique of environmental monitoring as well as for laboratory management.
- 9) KLH in cooperation with JBIC and Austria have developed environmental laboratory at 26 provinces. The five (5) provinces, such as Aceh, Jambi, West Sumatera, Lampung and NTB have established environmental laboratories under the individual Sarpedalda. Papua (West, Central, East) get big problem to do analysis, and difficult to send sample to other province. Seven (7) provinces do not have equipment and instrument for environmental laboratory operation. I hope JICA will cooperate to cope these problems. (\Rightarrow should apply to PBIS)

4. Presentation on the Progress of DEMS Project (by Mr. Imam Hendargo)

1) Background.

Based on the success of the EMC project and since decentralization has been occurred in Indonesia government system, the initiative of environmental management has been shifted to local government. Monitoring techniques and knowledge to solve environmental pollution are not sufficient. It is necessary to improve capability the local governments for implementation of environmental management

2) Overall Goal

The overall goal of the DEMS Project is "the capabilities of environmental management are strengthened at the national and local levels in Indonesia."

3) Output: The expected output of the project are:

- (1) Option of countermeasures against specific environmental problems is developed in the model site (North Sumatra Province) based on scientific knowledge and reliable monitoring data;
- (2) Capabilities of SARPEDAL are reinforced to provide KLH and BAPEDALDA scientific knowledge (information) and technical guidance;
- (3) Know-how of proper environmental monitoring and surveillance methods are transferred.

4) Input

Long Term Expert

- (1) Chief Advisor: Dr. Kuwata Kazuhiro
- (2) Project Coordinator: Mr. Kawakita Tsunehiro
- (3) Environmental Monitoring: Mr. Kamiya Akio
- (4) Applied Environmental Analysis (Mr. Ishihara Taketoshi, already completed his assignment by the end of June 2004 → 2 years assignment)
- (5) Laboratory Management (June 2004 for 2 years)

Short Term Expert

No. /FY	FY2002: <u>5</u> persons	FY2003: <u>6</u> persons	FY2004: <u>5</u> person (plan)
1.	Selection and Maintenance of Machines for Environmental	Air Pollution Monitoring	Laboratory Waste Management
2.	Analysis Laboratory Waste Management	Laboratory Waste Management (construction)	Vibration Measurement Development
3.	Environmental Information System	Wastewater Treatment Plant Operation	Environmental Biological Analysis
4.	Reference Material (CRM) Preparation	Maintenance for Air Quality Monitoring System	Sea Water Analysis
5.	Air Pollution Monitoring	Environmental Management System (for Bapedalda NSP)	Environmental Management System (for Bapedalda NSP)
6.		Procurement for Environmental Analysis Equipment	

Equipment Provision (Project Type)

	2002	2003	2004
Japan	¥ 28,595,700	¥ 21,764,355	available
Indonesia	Rp. 392 million equipment provision	Rp. 252 million equipment provision	Rp. 218 million LIMS development

Local Cost Allocated by Indonesia*

	2002	2003	2004
SARPEDAL	-	Rp. 1,275 million	Rp. 1,703 million (plan)
BAPEDALDA NSP	-	Rp. 100 million	Rp. 162 million (plan)

*Sarpedal's local cost is come from APBN and allocated for some activities which related to the DEMS project such as:

- ☞ Monitoring of river water in 30 provinces. (Rp. 17 million in 2003 and Rp. 20 million in 2004) to each province.
- ☞ Ambient air monitoring in 33 stations in 10 cities in Indonesia
- ☞ Proficiency test for environmental laboratory.
- ☞ Implementation of Quality Laboratory System, ISO 17025.

- ☞ Sampling and analytical method development.
- ☞ Laboratory waste management.
- ☞ Capacity building of Sarpedal
- ☞ Some environmental cases

Counterpart Training in Japan

No. /FY	FY2002: <u>2</u> persons	FY2003: <u>3</u> persons	FY2004: <u>4</u> person (in progress)
1.	Laboratory Management (SARPEDAL)	Environmental Monitoring (SARPEDAL)	Environmental Monitoring (SARPEDAL)
2.	Environmental Analysis Technique (BAPEDALDA NSP)	Environmental Monitoring (BAPEDALDA NSP)	Information System (SARPEDAL)
3.		Laboratory Management (SARPEDAL)	Environmental Management System (BAPEDALDA NSP)
4.			Hazardous Substance Analysis (LD50) (SARPEDAL)

In 2004, the SARPEDAL would like to get a training concerning Hazardous Substance Analysis because since EMC Project Phase-I JICA can not consider to dispatch Japanese Expert in the field of Hazardous Substance Analysis.

5) Counterpart

- (1) Pilot project at the model site: Dra. Halimah Syafrul
- (2) Capacity development of SARPEDAL on development of policies: Ir. Hari Wahyudi
- (3) Capacity development of local governments on environmental monitoring and surveillance: Drs. Muns Hilman

6) Progress of Activities (Period July 2003 ~ June 2004)

(1) Activities in the Pilot Project North Sumatera Province

- ☞ To develop environmental laboratory this has capability to analyze water quality, Microbiology.
- ☞ To Monitor (Sampling and analysis) of Deli river and compile data which has been conducted since April 2003
- ☞ To Publish the Deli River Monitoring report.
- ☞ Technical Assistant from EMC to NSP staff.
- ☞ To compile the pollution source along the Deli River.
- ☞ Estimation of pollution load in Deli River.
- ☞ Technical and management meeting regularly.
- ☞ Review the project agreement document.
- ☞ Process the accreditation for laboratory.
- ☞ Seminar on river protection program followed by campaign and cleaning of the Deli River.

(2) Capacity Development of Sarpedal:

- ☞ To produce the RM for heavy metal in water and sediment river.
- ☞ To treat the chemical waste by PPLI and design the prototype of lab. waste water treatment.
- ☞ To produce the standard method of sampling and analysis to get the accreditation from KAN.
- ☞ To develop SARPEDAL database management system.
- ☞ To Monitor of NO_x, SO_x and particulate for development air simulation model in DKI-Jakarta 021 sampling point
- ☞ To study the health effect of air pollution in Jakarta Area by Indonesia University.

(3) Capacity Development of Local Government:

- ☞ Train staff of local laboratories for advanced analytical techniques in the 30 provinces and produce training modules of environment management for local governments.
 - a. Training on Water Quality Monitoring
 - b. Training on Monitoring Mercury in Water and Sediment
 - c. Workshop on Monitoring of River Water Quality
 - d. Training on Monitoring Lead (Pb) in Ambient Air
- ☞ Conduct Proficiency test
(In 2003 was involving 45 laboratories of local governments and 7 non-governmental laboratories as water quality testing laboratories; and in 2004 will involved all provinces environmental laboratories which can analyst heavy metal parameters (Cu, Fe, Mn, Cr. And Ni)
- ☞ To support the technical assistance to local laboratories on site.

7) Mid Term Evaluation of DEMS Project

- a. The joint evaluation team had a series of discussions and exchanged views on the progress and achievements of the Project and measures to be taken.
The main objective main of this mission is to conduct a comprehensive evaluation of the achievements of the Project in accordance with the original plan described in the R/D, PDM and PO and to make recommendations on the Project regarding future project activities and amendments of PDM etc. at the intermediate stage of the Project.
- b. The joint mid team evaluation team have concluded that the project activities have been properly implemented as a whole according to the Plan of Operations, and the project plan is relevant to the present environmental policies and strategies of KLH and North Sumatra Province (the model site) as well as to the ongoing decentralization policy.
- c. The team has recommended the following matter order to attain the smooth implementation for the remaining cooperation period.
 - 1) The Joint Evaluation Team advises modifying the descriptions in PDM, and targets should be clearly set forth for each of the objectively verifiable indicators

for the project purpose and the outputs in PDM as well as respective activities listed on the Plan of Operations at the earliest opportunity.

2) Appropriate amount of funds should be ensured in order to secure the sustainability of the activities conducted by the project.

3) More frequent meetings of the Joint Coordinating Committee are advised to closely review and supervise the project activities toward the successful implementation of the project.

4) For the success of the pilot project in North Sumatra Province, feasible options of countermeasures to water pollution control in Deli River should be considered taking account of opinions of stakeholders.

5. Comment by DEMS Chief Adviser (Mr. Kuwata Kazuhiro)

1) It has already passed 2 years since the DEMS Project started. The project has been in a good progress and so far produced various fruitful results. The project is cooperation between KLH and JICA. Basically, EMC takes initiative actions to decentralize environmental management system for the local government and JICA support EMC and local governments in respect to technical purposes. From the JICA side, 4 long-term experts are responsible for supporting the project and short-term experts are invited to develop special technical field as necessary.

2) Ownership or initiative of the project is basically under EMC and KLH. The JICA team is providing technical aid and sometimes financial aid so that EMC can independently prevail environmental monitoring system for the local governments to formulate and implement environmental protection programs in Indonesia. For this reason, the DEMS Project is deeply concerned with works in Deputy II, IV, V, as well in KLH.

3) As Mr. Imam presents, the project is going well. The project mainly consists of 3 categories: (1) pilot project in North Sumatra Province (NSP), (2) capacity development of SARPEDAL in environmental monitoring and environmental management techniques and (3) capacity development of local governments on environmental monitoring and environmental management.

(1) In the Pilot Project NSP, for the past two years, the environmental laboratory has been arranged as a result of Rp. 600 million of NSP investment and Rp. 350 million of DEMS support. The analytical techniques at the environmental laboratory have been enhanced by continuing training of Standard Operation Procedures (SOPs) by the EMC and JICA staff. For e-coli test remained, the SOP will be soon transferred. Seminar and campaign were successfully performed to let the public aware of importance of river protection.

The monitoring report has been published for Deli River water quality from April 2003 to March 2004. This includes an out-breaking method in estimating pollution load from emission sources as well as analysis of the river condition.

Further investigation of emission inventories of pollution sources such as industrial, domestic, agricultural and others will be expected by the NSP staff themselves to effectively use the information on the environmental management system.

- (2) In capacity development of EMC, the Jakarta air pollution study is being well continued for two-years period schedule to develop an air dispersion model and to investigate risk assessment of automobile exhaust. Air pollution parameters are monitored once a month and respiratory track diseases are investigated for 400 children living near at the sampling points by main roads. The result may be expected to show importance of protection measures against automobile exhaust. A laboratory waste treatment system is constructed at EMC by the aid of the short term experts to avoid serious pollution by hazardous substances. This system might be expected to be widely used in local governments in the near future.
- (3) For the capacity development of local government, training courses are continued for monitoring techniques of pollution parameters in river water and in ambient air. The trainings have been implemented for about 90 local staff per year from the 32 local governments.
- The proficiency test will involve all the provinces having environmental laboratories in 2004, investigating heavy metal parameters (Cu, Fe, Mn, Cr. and Ni)
- 4) The intermediate evaluation team coming from the headquarters of JICA (from 16 ~ 27 May 2004), has concluded that the project activities have been properly implemented as a whole and the project plan is relevant to present environmental policy and strategies of KLH and NSP. Several recommendations are made such as modification of PDM to understand easily, acquirement of appropriate funds, more frequent JCC meeting etc.
- 5) In any case, we should continue close communication each other to drive forward the DEMS project, while understanding the individual situations. I hope the JCC members could also continuously cooperate to drive forward the project and then to share fruitful results in environmental protection programs.

6. Suggestion and Recommendation (Discussion)

1) Pak Arief Yuwono (Ministry Secretary, KLH)

We can take the starting point of this discussion concerning conclusion and recommendation of the mid-term evaluation team and feasibility to expand the pilot project to other province.

2) Ibu Masnellyarti Hilman (Deputy VII, KLH)

- o Ibu Nelly agreed to make more flexible the project characteristic such as to expand to other province. We do not know exactly the situation out-side us, many problems maybe occur in other provinces, we should more strengthen capability of local government.
- o Concerning JCC meeting, at least we must open once in a year. The progress of activities should be reported to the party concerned and JCC member in every six months i.e. in July and December. It is necessary to review the progress and to make plan of activity or to modify the program adjusting with situation change if necessary.

- ⊙ In regard to the Pilot Project North Sumatera Province, I hope the Bapedalda will make coordination with the Kabupaten/Kota and Dinas in North Sumatera Province. I hope the Bapedalda NSP will be as a leader and introduced the model to other regional government. In the near future, KLH (and JICA I hope) will support this activity. Ibu Nelly will make schedule to visit Medan to discuss concerning this matter.
- ⊙ Concerning air quality modeling in the DKI Jakarta, the BMG develop some simulation system. I hope we can cooperate with them to develop simulation model. We can exchange the information on metrological data, to discuss how we can implementing the developed simulation model, or we invite the BMG to present the result of their survey, etc.

3) Mr. Naito Tomoyuki (JICA)

- ⊙ It is good idea to make more flexible the characteristic of the DEMS project. But anyway, JICA have several other projects related to living environment besides DEMS project.
- ⊙ Responding the matter concerning expanding to other province, as we have NSP as pilot project, let us read the result after four (4) years, let us see the output. Before the end of the project we will evaluate the result and will make recommendation for the measures to be taken. As to the other province, maybe cover by other landscape (other project of JICA).

4) Prof. Syamsul Arifin + Pak Girsang(Bapedalda NSP)

- ⊙ He expresses his gratitude appreciation for the KLH and JICA to choose the NSP as pilot project. By the year 2006, he hopes we can develop model of river management (Deli River) including its ecosystem.
- ⊙ Deli River is passing through 3 Kabupaten/Kota. So far, monitoring has been conducted by Bapedalda, not integrated in one system with Kabupaten/Kota. Some time we get difficulty to coordinate with Kabupaten/Kota. After enacted the PP 82/2001, Kabupaten/Kota become more sensitive with their coverage area. This monitoring there was also correlated with the Forest Service and Industrial Department.

5) Ibu Masnellyarti

- ⊙ By enacted the PP 82/2001, the regional governments have an authority to manage living environment in their area. For river management, the province has an authority to coordinate monitoring of river water that pass through 2 (two) or more regencies/cities in one province.
- ⊙ As the follow-up of national workshop of river water monitoring, the KLH provides stimulant budget in order to support the local government to implement the role according the PP 82/2001 and to strengthen capability of local government.
- ⊙ I hope NSP will conduct more intensive monitoring, to make a suitable model work together with the stake holders. And I hope NSP will also make a concrete

plan involving the stake holder following-up the recommendation of the mid-term evaluation team.

6) Mr. Fujitsuka Tetsuro (JICA Adviser for KLH)

- ◉ I would think necessary to open Seminar to present the output of two years activity at the pilot project North Sumatera and to disseminate the model to other province.

7) Ibu Masnellyarti

- ◉ Once in a year we open workshop to exchange information and to make annual plan for national integrated monitoring.

8) Ibu ...

- ◉ In North Sumatera, there is a program called "Toba Lestari". Government should monitor day by day the Toba Lake water quality.

9) Ibu Masnellyarti

- ◉ We have monitoring program for some strategic area such as Toba Lake, also monitoring of acid rain is some area.

10) Pak Isa Karmisa (Deputy I)

- ◉ For river monitoring, we have such program i.e. Proper, Superkasih for clean river program in West Java, Riau (Siak River). To make more effectiveness the activities at the pilot project, I think it will better if NSP will also joint in that such program. Later let us discuss with Pak Syamsul concerning Superkasih program.

11) Pak Esrom Hamonangan

- ◉ In connection cooperation with BMG, we have cooperation on monitoring acid rain deposition by exchange data of meteorological monitoring. We can also cooperate on air quality simulation model.

12) Ibu Masnellyarti

- ◉ Let we design together combine with the Deputy I program and according to the available budget.

13) Ibu Halimah

- ◉ We are planning to make a "monitoring map" and distribute it to the local governments.
- ◉ We will make a typical model based on 3 matters: (1) monitoring data, (2) Pollution Source Inventory, and (3) estimation of pollution load.
- ◉ We will try to prepare the model in and from the next year. We would like ask JICA (Mr. Fujitsuka) support.

14) Mr. Fujitsuka Tetsuro

- o I agree to develop map of river monitoring and disseminate it to local governments. JICA will be able to support printing cost of the map development.

15) Ibu Laksmi Dhewanthi (APKLN-KLH)

- o Concerning to the result of mid term evaluation, we should concern on "impact" and "sustainability" of the project.
 - ☞ We should decide the criteria of the impact of this project
 - ☞ To make a scenario for sustainability of the project activities

16) Mr. Ridwan Tamin (Asdep 1 / V)

- o In term on air quality, let us focus on implement of air quality modeling.
- o Concerning flexibility of the project characteristic, I hope this project will expanding road site monitoring program.

17) Ibu Masnellyarti Hilman

- o Concerning Pak Tamin idea, let us invite/discuss with the other deputy

18) Mr. Kuwata (DEMS JICA team)

- o In term of air quality, so far we have been conducting air quality modeling at the 21 points, and also investigate risk assessment of automobile exhaust for 400 school children near main road in the DKI Jakarta and Tangerang area. These data will be useful to formulate and implement automobile exhaust prevention program in the near future.

19) Mr. Naito

- o Besides JCC meeting, let us open technical meeting to share technical information when necessary i.e. concerning air quality modeling.

7. Conclusion

- 1) We can get flexibility of the project to accommodate situation change. It is necessary to review the progress in every six month and to make plan of activity or modify the program adjusting with corresponding to a situation change if necessary.
- 2) To make focus on impact and sustainability of the project, we should decide the criteria of the impact and make a scenario for sustainability. Therefore improvement in communication is needed as well among Project team, KLH, JICA and Regional Governments (Province, Kabupaten/Kota) internally and externally.
- 3) North Sumatera Province as pilot project will make a typical model of environmental management in local government. The fruitful result will be expected spread-out to other local government.
- 4) In order to increase effectiveness of the project, we should discuss how to connect to the other environmental management programs such as Prokasih, Superkasih and BMG.

- 5) We should share the results obtained in the Air pollution modeling in the DKI Jakarta. Let us continue technical meeting
- 6) JCC meeting should be open at least once in a year. Review of the progress should be made every six months. Joint technical meeting will be open to exchange technical matters.
- 7) The good model obtained in the pilot project and air quality modeling in the DKI Jakarta should be disseminated to other province.

8. Closing

- 1) Ibu Nelly expresses her appreciation to all audience for the valuable input. It would very useful for smooth implementation of the project.
- 2) Harder work and cooperation with other party is required to make more effectiveness of the project.
- 3) We should make this project more useful to strengthen environmental management system in Indonesia and to sustain the activity in the future.
- 4) Make more cooperation with the JICA team, if JICA have such scheme feasible to improve this project. Please open to us to send proposal.

End ■