

ATTENDANT LIST
2nd Joint Coordination Committee Meeting
EMC Serpong, 9 July 2004

No	Name	Institution
1	Mr. Arief Yuwono	Minister Secretary
2	Ms. Laksmi Dhewanthi	Ka APKLN, KLH
3	Ms. Ria RD	APKLN
4	Mr. Isa Karmisa A	Deputy I
5	R. Lubis	PTFI
6	Noer Adi Wardoyo	Standtek, KLH
7	Mrs. Masnellyarti Hilman	Deputy VII
8	Ms. Hermien R.	Asdep 1/IV
9	Mr. Ridwan Tamin	Asdep 1/V
10	Mr. Imam Hendargo	Asdep 1/VII
11	Prof. Syamsul Arifin	Head of Bapedalda NSP
12	Mr. Salmon Sius Girsang	Bapedalda NSP
13	Mr. Hari Wahyudi	Kabid I Sarpedal
14	Ms. Halimah Syafrul	Kabid III Sarpedal
15	Ms. Arum Prajanti	Kasubid 1/I Sarpeda
16	Mr. Wisnu Eko Yulianto	Kasubid 2/I Sarpedal
17	Mr. Anwar Hadi	Kasubid 2/II Sarpedal
18	Dra. Amalia R.	Kasubid 1/ III Sarpedal
19	Ms. Dewi Ratnaningsih	Kasubid 2/III Sarpedal
20	Ms. Rita	Staff Subid 1/III Sarpedal
21	Mr. Syaiful Bahri	Kasubid 1/IV
22	Ms. Novi Farhani	Kasubid 2/IV Sarpedal
23	Mr. Naito Tomoyuki	JICA Indonesia
24	Mr. Fujitsuka	JICA Adviser for KLH
25	Mr. Kuwata Kazuhiro	DEMS, Chief Adviser
26	Mr. Kawakita Tsunehiro	DEMS, Project Coordinator
27	Mr. Kamiya Akio	DEMS, Environmental Monitoring
28	Mr. Furuta Masaji	DEMS, Laboratory Management
29	Ms. Sumiati Widodo	DEMS, Staff

Meeting Memo

3rd Joint Coordination Committee Meeting of DEMS Project

Date : 22 February 2005
Time : 10:30 ~ 12:45
Venue : Sarpedal, Serpong
Attendant : *As per attached*

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

- 1) JCC meeting is aiming to make better understanding between the project members as well internally and/or externally between KLH and JICA, also supposedly to find the best solution on the problems that maybe occurred and to determine clear direction of project operation and strategies.
- 2) The agenda of today's meeting will consist of speech by the project director Ibu Masnellyarti, speech by chief advisor Mr. Komeiji Tetsuhito, report on the progress of DEMS activity, presentation on pollution load model estimation of Deli River by JICA expert Mr. Kunio Ishikawa, presentation on demonstration site for domestic waste countermeasures by JICA expert Mr. Furuta and following by discussion.

2. Introduction of Attendants

(Each attendant introducing his/her self)

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

- 1) I am pleased that the DEMS Project activities have been implemented smoothly as planning. Management Meeting with the counterpart at the SARPEDAL is open once a month, with the counterpart at the Pilot Project North Sumatera Province once three months and JCC Meeting once in every six months.
- 2) Pilot Project North Sumatera Province conduct continual monitoring of Deli River water quality and get data series to develop concept of water quality management system which in the future will be spread-out to other local governments.

Environmental laboratory of NSP is also has improve significantly and I hope will keep improvement of capability and to be learned by other local laboratories.

- 3) Right now, pilot project is mostly in the last stage of activities that are to develop countermeasures, to classify of pollution sources, develop pollution loads prediction model, and to prepare strategic program of environmental quality improvement. In developing pollution load prediction model, I hope NSP will cooperate with Deputy IV and Deputy V so that will synchrony with the national program.
- 4) In the activity of capacity development of SARPEDAL, air quality simulation model is being developed with reference to the scientific data of continual monitoring of air pollution in the DKI Jakarta and surrounding area, also to conduct study on air pollution impact by measuring of Pb in blood.
- 5) For the activity of capacity development of local government, training on air quality simulation model has been delivered and I am glad that panel discussion on air pollution and its impact human health that held on 16 December 2004 get good response especially from mass media. This article has been put in the front page of news paper its mean the article was important. I hope its can be use by Deputy I and Deputy V to convince to other ministries and stake holder to reduce pollution load as well from motor vehicle also from industry.
- 6) National Workshop on river water quality monitoring will be held from 9 ~ 10 March 2005 to evaluate national integrated river water quality monitoring according to the agreement and commitment made in December 2002.
- 7) I hope we can synchronize the program to achieve the project goal.

4. Speech by Chief Advisor DEMS Project Mr. Komeiji Tetsuhito

- 1) DEMS Project is aiming to strengthen capabilities of environmental management at the national and regional level through improving capability of personnel and provides some equipment. DEMS Project operating of three main category activities that are (1) Pilot Project at the Model Site, (2) Capacity Development of SARPELDA/EMC and (3) Capacity Development of Local Government.
- 2) Scientific study and monitoring has been executed in collaboration with party concern in order to find out a direction for more effective measure against pollution load particularly pollution in air and river water.
- 3) Supported by DEMS Project, SARPEDAL has produce fourteen (14) analytical method that accredited by National Committee of Accreditation up to this year.
- 4) At North Sumatera Province, water quality monitoring has been continued at 17 sites in Deli River which in 2004 was adding to analyze the new parameter of E coli and heavy metal.
- 5) Pollution load calculation technique has been transferred by Ms. Tomita (JICA expert) to NSP staff. Pollution load simulation model is necessary to calculate the target of disposed pollution load and calculate pollution load reduction.
- 6) I am pleased to inform that two short term experts in the field of Sea Water Analysis and Biology analysis will be dispatched in March 2005.

5. Presentation on the Progress of DEMS Project Period July 2004 ~ February 2005 (by Mr. Hari Wahyudi)

- 1) The expected output of the DEMS Project are:

- (1) Developed option of countermeasures against specific environmental problems 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.

2) Input of the DEMS Project are:

Long Term Expert

- (1) Chief advisor: Mr. Komeiji Tetsuhito (30-Sep-04 ~ 30-Jun-06)
- (2) Project Coordinator: Mr. Kawakita Tsunehiro
- (3) Environmental Monitoring: Mr. Mr. Ishikawa Kunio (22-Nov-04 ~ 11-Jul-05)
- (4) Laboratory Management: Mr. Furuta Masaji (27-Jun-04 ~ 30-Jun-06)
- (5) Applied Environmental Analysis (2 year assignment completed in 30-Jun-04)

Short Term Expert (July 2004 ~ Feb 2005)

1. Laboratory Waste Management: Mr. Arai Yuji (25-Aug-04 ~ 22-Nov-04)
2. Environmental Management System: Mr. Matsui Yoshio (6-Feb-05 ~ 26-Feb-05)

Equipment Provision (Project Type)

1. Project Type FY2004/2005 (in progress): USD 242,100
2. Equipment by Expert (disbursed in FY2004/2005): JPY 1,980,842
3. Local Purchase (disbursed in FY2004/2005) to support JICA expert activity: Rp. 108,127,700

Counterpart Training in Japan (July 2004 ~ Feb 2005)

1. Information System: A.M. Sholeh (SARPEDAL) 19-Jul-04 ~ 29-Oct-04
2. EMS: Rosdiana Simarmata (BAPEDALDA NSP) 19-Jul-04 ~ 29-Aug-04
3. Noise and Vibration: Muhammad Taufik (SARPEDAL) 20-Jan-05 ~ 22-Feb-05
4. Hazardous Waste Analysis: Ms. Asiah (SARPEDAL) 19-Feb-05 ~ 22-Mar-05

3) Counterpart

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

4) Progress of Activities (Period July 2004 ~ February 2005)

- (1) Activities in the Pilot Project North Sumatera Province
 - River water quality monitoring of Deli River is continuously conducted once two month since April 2004.
 - Technical meetings are open to discuss concerning laboratory management, river water survey, installation on water component analysis, etc.
 - Training on laboratory waste treatment for laboratory staff by SARPEDAL and JICA expert open on 25 October 2004.
- (2) Capacity Development of Sarpedal for development policy:

- Air pollution monitoring using passive sampling and improvement of air simulation model. Pollution load of SO_x in 2005 will be calculated to develop simulation model.
- Study risk assessment on toxic substances in automobile exhaust in the Jakarta Urban area to see the health impact caused by Pb pollution and now in progress to check the Pb concentration in the pupils blood samples of children at the 20 elementary schools.
- Designing system and prototype laboratory wastewater treatment at the SARPEDAL to treat/recover the laboratory waste which contain organic solvent

(3) Capacity Development of Local Government for environmental monitoring and surveillance:

- To conduct proficiency test in 2004 involved almost all environmental laboratory regional provinces that able to analyze heavy metal parameters (Cu, Fe, Mn, Cr, Ni).
- Conduct in house and national training and seminar for the staff of local government.
 - (1) Training on Air Pollution Simulation Model for BPLHD DKI staff
 - (2) Panel Discussion on Air Pollution and its Impact Toward Human Health held at Jakarta Hilton 16 December 2004
 - (3) Training on Laboratory Waste Treatment for Laboratory staff of BAPEDALDA NSP (25 October 2004)
 - (4) Training on Testing of Coli Form Bacteria held from 14 to 18 February 2005
 - (5) Training on Optimal Utilization of AAS and Spectrophotometer UV-Vis still in progress that open in this week (21 to 25 February 2005)
 - (6) National Workshop on Monitoring of River Water Quality will be open from 9 to 10 March 2005

6. Presentation on Pollution Load Model Estimation of Deli River and Schedule for implementation the countermeasures by Mr. Kunio Ishikawa

- 1) River pollution study is very important to improve river quality such as to analyze existing water quality and river flow, to analyze pollution mechanism in the basin, to estimate pollution load, to construct river water quality simulation model, to make future plan, to predict future projection of water quality and to select optimum countermeasures to protect water pollution.
- 2) The base concept of pollution load runoff for river water quality management system is firstly to collect the information of Point pollution load (domestic waste + industrial waste) & non point pollution load (rural household, livestock, land pollution load) after that following by calculate total pollution load generation to estimate pollution load runoff.
- 3) Standard Unit of BOD pollution load generation (refer from some guidelines) are:

Bovine	600g/head/day	Pasture land	1.00kg/km ² /day
Sheep & Goats	60g/head/day	Shrub/forest	0.75kg/km ² /day
Others	200g/head/day	Household	10.4g/person/day
Agriculture land	8.57kg/km ² /day		

- 4) GIS (Geographic Information System) is considered as the effective way to compile simulation model issues because GIS has large storage.
- 5) We will apply Basin Runoff Model for Deli River basin pollution load simulation that maybe rather simple to be formulate and to be apply.
- 6) After prediction of pollution load runoff model, the countermeasures proposed to be taken to decrease river water pollution are:
 - 1) Environmental education (campaign of clean waste disposal and recycle)
 - 2) Activities to improve water related environment (recycle of waste generated from households such as oil, improvement of kitchen wastewater using filter set-up at triangle corner)
 - 3) Environmental law enforcement (inspection industrial effluent and penalty for violated factory, improvement of industrial wastewater quality by installation of treatment plants)
 - 4) Improvement of wastewater quality (construction of sewer pipe network and treatment plant, construction of stabilization pond)

7. Presentation on Demonstration Site for Domestic Waste Countermeasure by Mr. Masaji Furuta

- 1) Establishment of Comprehensive river water quality management have some vision i.e. (1) water quality improvement, (2) Coordination for public and agency, (3) Biological community conservation, (4) Safe surface water without flood and drought and (5) watershed management system.
- 2) In this time, we are in the progress to establishment river water quality management system aiming to improve water quality and develops database.
- 3) Database is very important to establish comprehensive river water quality management. We will try to develop database sample of catchments area.
- 4) Suggested countermeasure against pollution load of Deli River that mostly 75% come from domestic effluent are:
 - To investigate the actual condition in detail of domestic effluent: (1) to collect the information of individual house night soil treatment including sludge treatment, (2) conduct research for the actual status of individual house gray water, (3) get data of 33 main drainage to Deli River
 - Establish demonstration site for domestic waste countermeasure.
Short term goal of domestic waste demonstration site development are to investigate the actual condition of domestic waste water in the catchments area of Deli River to improve prediction accuracy of runoff load model. In the long term, the objectives of this program are to education the public concerning their impact on the river and to conduct public education and public participation programs.
The basic concepts of this program are: the leading player are citizen residents, voluntary activity, continual activity, and establish optimum network.

8. Suggestion and Recommendation (Discussion)

- 1) Pak Arief Yuwono (Ministry Secretary, KLH)
Reviewing the highlight topics appears in this meeting are: we need internal spirit in KLH site, establish demonstration site as a model countermeasure against domestic pollution load, high response on the panel discussion on air pollution and

its impact toward human health and NSP improvement. Let us discuss starting from these points.

2) Ibu Masnellyarti (Deputy VII, KLH)

Concerning pollution load particularly pollution load from domestic waste is very high:

- ⊗ I would like to propose, let us open one day seminar and national seminar concerning pollution load to get more attention from public and stake holders.
- ⊗ To send staff to Japan to get more confidences and to have more capability especially in laboratory and domestic waste countermeasures.
- ⊗ I propose to Deputy IV (Pak Isa & Ibu Hermin) will more concentrate on pollution load and pollution control of DAS (river basin). Let us open internal discussion by inviting small group to make plan concerning this matter. I hope we can meet within two weeks from now.

3) Pak Isa Karmisa (Deputy IV)

Idea concerning countermeasures against pollution load:

- ⊗ To provide an input to the Spatial Planning at Public Work concerning arrangement of protected area for some specific area to prevent pollution distribution and environmental damage. In 1992 the government through Presidential Degree No. 32/90 provides policy concerning protection for some specific area to prevent pollution distribution and environmental damage i.e. 100 m protection for protected area, 50 m for DAS (River Basin) system, 10-15 m for urban area, and we succeeded under this program.
- ⊗ Secondly by re-enforcement of community surveillance system through empowerment of BPLHD (Regional Environmental Management Agency) i.e. in China, the government requires to the all community to planting bamboo. They can obtain both ecologist and economic benefit. Government provides technology to process bamboo become a special food with the market is three starts hotel and higher level.

4) Pak Hari Wahyudi (Sarpedal)

- ⊗ As KLH has Superkasih Program, is Superkasih can be synchronized with the program above?

5) Pak Isa Karmisa (Deputy IV)

- ⊗ Now days Superkasih have 10 target rivers involved in this program and it's depend on initiative of the regional government itself.
- ⊗ Firstly make an inventory of industry, identify the problem and ask the declaration letter signed by director of industry. If can be identified more than 25 industries and get their commitment, we can request approval from the Minister of Environment.
- ⊗ We will concern on pollution load planning to back-up pollution load study. I hope we can finalize (get commitment at least) concerning this plan before new structure in the Ministry of Environment is enacted.

6) Ibu Hermin (Asdep 1/IV)

- ⊛ Refer to the schedule of pollution load runoff program; NSP can make synergy with Prokasih Program.

7) Ibu Rosdiana Simarmata (BAPEDALDA NSP)

- ⊛ On behalf on BAPEDALDA NSP I would like to express our appreciation for the great support from KLH that make us have spirit.
- ⊛ As the Pilot Project of DEMS, we have conduct continual monitoring of Deli River and produce 2 years monitoring reports.
- ⊛ In this time we supported by SARPEDAL and JICA are engage to formulate concept of environmental management which in the future to be disseminate to other regional governments.
- ⊛ River management can not be cover by BAPEDALDA self but should cooperate with other related departments and stake holders. We admit it is the real problem in NSP that the protected area is not become protected area anymore.
- ⊛ We would very please if KLH and JICA will support NSP to open one day seminar/workshop concerning pollution load. We would like to propose to KLH/JICA to facilitate the workshop in order to raise environmental awareness particularly for related instances.
- ⊛ It is also the most important, after the concept of environmental management system is performed, we would like to ask for KLH support and advice how to implement it and how is the next?

8) Ibu Masnellyarti (Deputy VII)

- ⊛ Pollution load runoff is include into Spatial Planning, firstly we conduct one day seminar in NSP after that National Seminar.
- ⊛ We need to make complete design and make more clear mapping. Let us discuss concerning this matter within this two weeks.
- ⊛ Concerning next action after the concept of environmental management in NSP is developed; I hope this program will be continued. We will make new proposal to JICA for the next program.

9) Mr. Naito (JICA Indonesia office)

- ⊛ DEMS Project will terminate by the end of June 2006. Before end of the project, we will conduct joint evaluation that planned to be conduct by the end of 2005. I would like to ask KLH side to consider the way how implementing Joint Evaluation in the next JCC Meeting (September 2005).
- ⊛ JICA will conduct Mid Survey during four months from April ~ August 2005. This survey is aiming to collect information concerning new idea including request (i.e. new project, expert, training, etc). I hope the KLH International Cooperation Bureau (Ibu Laksmi) will submit request form within June 2005.
- ⊛ Concerning request for workshop and training in Japan, please send requirement information in detail what kind of workshop and what kind of training are needed. As we have many training program in Japan (i.e. group training, country focused), if the proposed training can be cover by the existing training program, maybe we can challenge through this opportunity.

- ⊙ JICA Long Term Expert for KLH (Mr. Fujitsuka) by hiring a consultant is now conducting survey on the current status of public/private environmental laboratories in order to create another model for strengthening of environmental management at local governments i.e. in East Java or another Local area else. We would like to ask KLH to cooperate with Mr. Fujitsuka/the consultant.

10) Ibu Masnellyarti

- ⊙ We would very please to cooperate with Mr. Fujitsuka/consultant in regard to the survey of local laboratories. Please JICA send a formal letter concerning this matter.

11) Pak Kawakita (DEMS Project, JICA team)

- ⊙ I would like to review the performance grid of the Mid-Term Evaluation Team. As mentioned in the indicator "by the year 2006, five guidelines are prepared and up-dated by SARPEDAL to the local governments". We would like to delete one guideline "Database guideline for water quality monitoring" because this guideline is only work reference for software operating. And we would like to add produce of another 2 (two) guideline that are (1) Biological analysis guideline, and (2) Sea water analysis guideline.

12) Ibu Ria Damapoli (International Cooperation, KLH)

- ⊙ As the JICA Mid Survey from April to August 2005, we will provide information through BAPPENAS (National Development Planning Agency). We will also prepare "request form" via BAPPENAS to include continuation of DEMS Project.

13) Pak Muns Hilman (SARPEDAL)

- ⊙ Deputy VII in cooperation with JICA will open national workshop on river management from 9 to 10 March 2005. This workshop will also presenting pollution load calculation beside to evaluate national monitoring of river water in 2004.

14) Ibu Masnellyarti (Deputy VII)

- ⊙ River management is not only responsibility Ministry of Environment but also other stake holder in Kabupaten/Kota, so I hope we will provide training and workshop for BAPPEDA and BAPEDALDA.
- ⊙ We will prepare proposal of next program after DEMS Project.

15) Ibu Rosdiana (BAPEDALDA NSP)

- ⊙ Team of development concept of comprehensive river water management will involve all stake holders, Public Work, Agriculture Department, Industrial Department, Health Department, Irrigation, Spatial Planning and other related Departments.
- ⊙ We will need an idea to socialize to the regional governments (Kabupaten/Kota) concerning how to implement the concept of comprehensive river water quality management.

16) Ibu Masnellyarti (Deputy VII)

- ◉ Inside the concept of River water quality management will also include spatial planning and Superkasih.
- ◉ KLH (Deputy) will issue a letter to the Governor of NSP concerning socialization of pollution load.

9. Conclusion

- 1) DEMS Project activity is running well implemented as planned and some activity still on going; JCC meeting is necessary to be open aiming to determine clear direction of project operation and strategies.
- 2) One day seminar on pollution load will be open in order to socialize and raise environmental awareness of community and stake holders.
- 3) KLH will concern about pollution load planning to back-up new organization. Plan and commitment concerning pollution load will be arranged before new structure Ministry of Environment is enacted.
- 4) Concept of river water quality management system for the local government produced by the Pilot Project NSP will be synchronized with the existing program (i.e. Prokasih & Superkasih), spatial planning and pollution load.
- 5) We have wide opportunity to extend the DEMS Project to implement the countermeasure according to the developed concept of comprehensive environmental management system.
- 6) Next JCC Meeting will be open in September 2005 with one of the agenda is to make some preparation for Joint Evaluation in December 2005.
- 7) JICA Mid survey will be conducted from April ~ August 2005 aiming to collect information concerning new idea including request i.e. expert, training, new project including continuation of DEMS Project.
- 8) KLH will send a letter to the Governor of NSP concerning planning and implementation of the concept of comprehensive river water quality management particularly socialization against pollution load to provide moral support of the Bapedalda NSP to implement developed model.
- 9) To delete the indicator "prepare guidelines of Database for water quality monitoring" from the performance grade written by mid term evaluation team, and additionally will add by 2006 will produce another 2 (two) guidelines (1) Biological analysis guideline, and (2) Sea water analysis guideline.
- 10) JICA is very welcome to receive proposal concerning request for workshop and training in Japan. KLH is requested to send requirement information in detail what kind of workshop and what kind of training are needed.

End ■

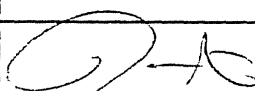
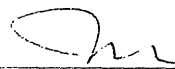
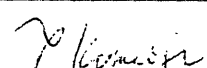
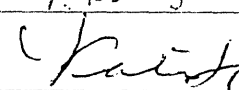
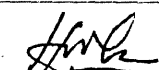

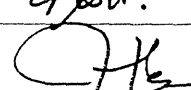
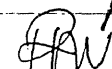
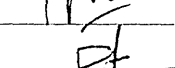

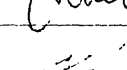

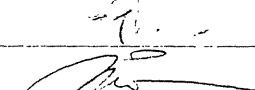
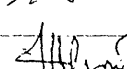

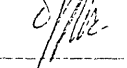

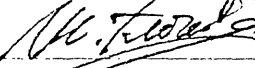


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15	Mr. Syaiful Bahri	Kasubid 1/IV
16	Ms. Novi Farhani	Kasubid 2/IV Sarpedal
17	Esrom Hamonangan	Lab Udara Sarpedal
18	Mr. Naito Tomoyuki	JICA Indonesia
19	Ms. Miyashita Ryoku	JICA Indonesia
20	Mr. Komeiji Tetsuhito	DEMS, Chief Adviser
21	Mr. Kawakita Tsunehiro	DEMS, Project Coordinator
22	Mr. Furuta Masaji	DEMS, Laboratory Management
23	Mr. Ishikawa Kunio	DEMS, Environmental Monitoring
24	Ms. Sumiati Widodo	DEMS, Staff

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Joint Coordination Committee (JCC) Meeting
DEMS Project

EMC Serpong, 22 February 2005

No	Name	Position & Affiliation	Signature
1	Vaito Tomoyuki	JICA	
2	Miyashita Ryoko	JICA	
3	Komeiji Tetsuhiko	JICA-DEMS	
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5	Hari Wahyudi	Sarpedal - KLH	
6	Lien Rosalina	Sarpedal - KLH	
7	Halimah, S	Sarpedal - KLH	
8	Ria R. Damopolii	Biro APKLH - KLH	
9	ESROM HP	SARPEDAL - KLH	
10	Muns Hilman	"	
11	Uly F	"	
12		"	
13	Dewi R.	"	
14	WICAKA EY	"	
15	Syaiful Bahri	"	
16	Kenio ISHIKAWA	JICA-DEMS	
17	Masaji FURUTA	"	
18	ATI	DEMS Project	
19	KOSDIANA S	BAPEDALDA - RI	
20	Arief Yuwono	KLH	
21	Ika Karmisa	Popedy IV, KLH	

Meeting Memo
4th Joint Coordination Committee Meeting of DEMS Project

Date : 08 September 2005
Time : 10:00 ~ 12:00
Venue : PUSARPEDAL, Serpong
Attendant : *As per attached*

Agenda:

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9. Closing and Conclusion.....	9

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

- 1) First off all I would like to inform that Ministry of the Environment have been restructured. Pak Isa is responsibly as Deputy VII and Pak Imam Hendargo handle the Bureau planning and international cooperation.
 - ⊛ The Ministry of the Environment is divided into 7 (seven) deputies that are: Deputy for Environmental Planning, Deputy for Environmental Pollution Control, Deputy for Natural Resource Conservation and Environmental Impact Control, Deputy for B3 and waste management, Deputy for Environmental Management, Deputy for Environmental Communication and Community Empowerment, and Deputy for Infrastructure Development and Capacity Building.
 - ⊛ To implement regional autonomy, KLH have five (5) regional environmental management centers that are: Riau is regional office for Sumatera Area; Balikpapan is regional office for Kalimantan Area; Denpasar is regional office for Bali dan Nusa Tenggara Area; Makassar is regional office for Sulawesi, Maluku dan Papua Area; and Yogyakarta is regional office for Java area.
 - ⊛ Function of the Regional Office is not as an operation unit or duplicate of BAPEDALDA but Regional Office work together with the BAPEDALDA to support capacity building. Regional office is a representative of KLH as the meeting point of local characteristic of ecosystem to combine with the environmental problem as we have 20 ecosystems.
 - ⊛ Minister for the Environment is also assisted by 5 (five) experts in the field of : (1)Global Environment and International Cooperation Mr. Agus Purnomo; (2) Environmental Economic and Raising of Poverty Mrs. Sri Hudiastuti; (3) Socio-Cultural Affairs and Partnership Mr. Henri Bustaman; (4) Environmental Law

and Inter Institution; and (5) Technology and Sustainable Development Mr. Dana A Kartakusuma.

- 2) In this JCC meeting we are in the most to last of project period. We should think about sustainable activity after the project. Hopefully we can continue the activity with improvement in the future.
- 3) Recently we visit some cities in Indonesia i.e. Aceh, South Sulawesi, Bali, NTT, Papua; one of the agenda is to sale some program including the JICA program. We hope we can hand to hand with other donor agency, and how we can expance to other provinces as they also wish to conduct same activity as NSP do.

2. Introduction of Attendants

(Each attendant introducing his/her self)

Mr. Naito Tomoyuki (JICA) statement: Let us maximize the effect of the project to improve environmental quality management in Indonesia.

Mr. Fujitsuka Tetsuro (JICA KLH): Let us cooperate to improve water and air quality in Indonesia.

3. Speech by Project Director, Deputy VII of KLH (Ir. Isa Karmisa Ardiputra)

- 1) KLH has been restructured, and I am appointed as Deputy VII, in the same time I have a new task as Project Director of the DEMS Project up to June '06.
- 2) DEMS Project activities have been implemented in smooth running and hopefully will be continued up the end of the project.
- 3) In this meeting we will share the progress and to evaluate them by looking at the purposed and output of the project. We will discuss the problem that maybe occurred and share opinion to find a solution.
- 4) DEMS Project activity is relevant with the environmental policy both KLH and regional government of NSP.
- 5) As the activity at pilot project NSP, with reference to the result data of continual monitoring, calculation of pollution load has been made and it is estimated that 70% pollution load come from domestic waste and 30% from Industrial waste and others. Demonstration site station, public campaign and environmental education as countermeasures have been taken to reduce domestic pollution load, and Superkasih & Proper Program taken to reduce industrial pollution load.
- 6) PUSARPEDAL/EMC in cooperation with the JICA has transfer of knowledge to the BAPEDALDA NSP and other BAPEDALDA Provinces personnel to improve capability on environmental management at the regional area. National Workshop (Rakernis) also has been conducted to discuss concerning environmental monitoring at the regional area and some commitment has been made in order to conduct integrated monitoring program as well to improve air and water quality also to implement environmental laboratory management system according to the prevailing standard.
- 7) Cooperation study with University of Indonesia concerning risk evaluation on toxic substances in automobile exhaust, and air pollution study by passive sampler in the Jakarta Urban Area and surrounding area is running well. Countermeasure to respond the result of the research is under progress of classifying pollution sources, socialization of air quality result and lead concentration in blood. We

need to cooperate with other Deputies of KLH and JICA support to classify pollution sources.

- 8) I hope we would work seriously to produce good output as we are most in the last stage of the project, and how we can expand to other area in the future.

4. Presentation on the Progress of DEMS Project Period March ~ September 2005 (by Dra. Halimah Syafrul, M.Si.)

- 1) I would like to recall the expected output of the DEMS Project to evaluate our project activities:

- (1) Developed option of countermeasures against specific environmental problems in the model site (North Sumatra Province) based on scientific knowledge and reliable monitoring data;
- (2) Capabilities of PUSARPEDAL 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.

- 2) To obtain the output, in FY2005/2006 JICA provide US\$ 1,100,000 in total that use for training in Japan, equipment procurement, expenditure for dispatching Japanese Expert, training for local government staff and some budget for supporting activities.

Long Term Expert

- (1) Chief advisor: Mr. Komeiji Tetsuhito
- (2) Project Coordinator: Mr. Kawakita Tsunehiro
- (3) Environmental Monitoring: Mr. Ishikawa Kunio
- (4) Laboratory Management: Mr. Furuta Masaji

Short Term Expert (come in September 2005)

1. Equipment Maintenance : Mr. Aoki Kazuyuki (5 Sept 2005 – 30 Nov 2005)
2. Air Pollution Diffusion Model: Dr. Kondo Akira (26 Sept 2005 – 26 Oct 2005)

Counterpart Training in Japan (Aug ~ Oct 2005)

1. Env. Monitoring Technology: Sri Unon (SARPEDAL) 17-Aug-05 ~ 29-Oct-05
2. Environmental Mng. Adm.: Mr. Purwadi (BAPEDALDA NSP) 17-Aug-05 ~ 1-Oct-05

- 3) Progress of Activities (Period March 2005 ~ August 2005)

- (1) Activities in the Pilot Project North Sumatera Province

- ⊗ Continue Water quality monitoring of Deli River at 11 sampling points.
- ⊗ Base on two years monitoring data (April 2003-March 2005) and pollution load calculation, it has estimate that 70 % pollution load come from domestic wastes and 30 % from industrial wastes. Therefore, in order to reduce pollution load from domestic waste we conduct some countermeasure i.e.:

- ☑ Demonstration Site Station (DSS) Program consist the activities:
 - ◆ Survey on domestic waste water at the DSS communities area, six times a year at 2 location (Simalingkar and RISPA residence)
 - ◆ Measure of water quality before and after socialization at DSS area

- ☑ Campaign and Socialization for environmental management at DSS community residence :
 - ◆ Environmental educations for community, elementary school's teacher
 - ◆ How to manage the domestic waste water and solid wastes (garbage, metal, glasses etc) including demonstration of soap making from used cooking oil.
 - ⊙ Meanwhile, the countermeasure taken to reduce Industrial pollution load:
 - ☑ Superkasih and Proper Program
 - ☑ Improving the waste water treatment
 - ☑ Regular inspection
 - ☑ Socialization to raising environmental awareness of small industries
 - ⊙ Preparing guideline of Deli River Model Site for Water Quality Management System based on monitoring data and secondary data (meteorology, land use, population, etc)
 - ⊙ Making data base on point and non point source, land use, socio economic for develop run off model
- (2) Capacity Development of PUSARPEDAL for development policy:
- ⊙ Continuous air quality monitoring by passive sampler
 - ⊙ To develop air pollution simulation model in Jakarta area
 - ⊙ Propose some countermeasure base on air quality monitoring data (passive sampler) in progress.
 - ⊙ Improving diffusion model, training on air pollution simulation model and manual publication.
 - ⊙ Socialization of air pollution result risk assessment study: Measurement Pb concentration in pupils blood
 - ⊙ Report of air quality monitoring in Jakarta city area was sampled by passive sampler and was send to SLHI for publication.
- (3) Capacity Development of Local Government for environmental monitoring and surveillance:
- ⊙ Proficiency test has been prepared for heavy metal and non heavy metal (COD and Total Phosphorous)
 - ⊙ Training staff on Water Quality Monitoring and Biological Monitoring in Japan (17-08-05 ~ 29-10-05)
 - ⊙ Developing procedure of analytical method for sea water and characteristic test (TCLP, Flash point test, corrosively test)
 - ⊙ In-House training for PCB's and methyl mercury analysis by JICA expert (Mr. Ishikawa)
 - ⊙ Developing "ground bound vibration measurement" cause of mechanical activities by short term expert
 - ⊙ Training of "run-off model" by JICA expert

5. Decentralized Environmental Management System (DEMS) Project in North Sumatra Province by Ms. Rosdiana Simarmata

- ⊙ First of all I would like to express our thanks for the sympathy in relation with Mandala crash. Once again we miss one of our environmental figure, but we do hope we can continue his spirit.

- ⊛ Secondly I would like to thanks also to KLH/EMC and JICA for have chosen NSP as the pilot project. This is have big meaning for us as this is our first experience have direct support from the international cooperation in regional level.
- ⊛ The activity at the Pilot Project to obtain the output are consist of improving laboratory management of environmental laboratory, conduct monitoring and assessment of specific issues particularly in the Deli River, and developing countermeasure against pollution load.
- ⊛ As the result of Deli River monitoring, 70% pollution loading in the Deli river is discharge from domestic waste, and we have get the formula (countermeasure) to reduce the domestic pollution load that are by Demonstration Site Station Program (in two sites: Simalingkar and Rispa), and Clean Deli River Campaign.
- ⊛ In this opportunity, we would like to propose next project after DEMS as continual activity:
 - (1) Domestic Waste Handling: Public awareness, construction of integrated domestic waste water treatment facility (model site), Recycle-Reuse-Reduce of domestic waste.
 - (2) Improvement of Deli River water quality: Estimation of supporting capacity and collecting capacity, Critical land handling at the upstream of Deli River, Handling of sedimentation problem in Deli River, Conduct monitoring of Deli River water quality, Data based system for monitoring, Set up GIS system for Deli River Basin
 - (3) Industrial Waste Handling: Improvement of the awareness of industry's authorities, Data based system for industrial performance, Improvement of human resources capacity, Development of cleaner production, Waste water treatment facility for industries and hospitals (model site/guideline)
 - (4) Strengthening of Environmental Laboratory: Development of hazardous waste laboratory (pesticide, industrial waste cleaning taste, corrosive, explosive, reactive), Construction of laboratory waste water treatment facility, Improvement of laboratory human resources, Making of management safety of laboratory data sheet, Produce material reference, Recycling material research.
 - (5) Capacity Building of Local Parliament (NSP): Improvement of local parliament awareness in environmental field, Development of solid regulation in environmental at North Sumatra.
So for we have do approach with the Parliament D Commission, and it show good progress on their environment attention.

6. Improving Environmental Laboratory Management of NSP by Ms. Hidayati

- ⊛ Environmental Laboratory BAPEDALDA NSP established with reference to the Governor NSP decree No. 660/1034, K 30 August 2002 with the base equipment supported by the RMCD Project collected from Public work Dept, Health Dept, and Trade & Industrial Dept.
- ⊛ Under the DEMS Project, KLH/EMC and JICA support is very meaningful to improve capacity of human resources and laboratory including provide laboratory equipment and materials. JICA also provide Automatic Water Sampler for monitoring of Deli River.

- o Under the DSS program, according to the laboratory analysis result, concentration of BOD, oil & grease parameter, etc are decrease in significant number just only in 2 (two) weeks after socialization.
- o Environmental Laboratory BAPEDALDA NSP has accredited by the National Accreditation Committee (KAN) for water quality parameters since August 2005.
- o Through the NSP APBD (regional budget), local government will provide some laboratory apparatus for hazardous waste monitoring by this year.

7. Comment by Chief Advisor DEMS Project Mr. Komeiji Tetsuhito

- 1) I am pleased that the progress of DEMS Project activity is going well. At the pilot Project NSP, as DSS program is one of the supreme and admirable countermeasure to reduce domestic waste, I hope it will bring much improvement of Deli River environment including create a beautiful environment. Besides, NSP is also necessary to decide other priority political countermeasures to reduce pollution load base on monitoring data and scientific knowledge pollution model. Basin runoff model is one of most useful tools to decide pollution reduction plan.
- 2) In the capacity building of PUSARPEDAL/EMC, EMC has accumulated much ability in the field survey and analysis especially for water quality parameters and has been accredited. Air quality is also become seriously problems in the country particularly in the metropolitan area including Jakarta. I hope EMC will obtain more parameters of air quality analysis to be accredited including hazardous chemical parameter, VOC, and others.
- 3) At the capacity building for local government, PUSARPEDAL/EMC has open many training courses and workshop for local government staff. EMC is one of general environmental management and investigation center in Indonesia have very important function. It is desirable that the systematic database will be more developed and used not only nationally but also internationally.

8. Suggestion and Recommendation (Discussion)

- 1) Pak Arief Yuwono (Ministry Secretary, KLH)
 - o As the meeting agenda today, let us review/evaluate the progress activity with reference to the project purpose and output as mentioned in the PDM. Also I would like to invite the floor idea concerning how to make sustainable activity of this project as we will terminate by the end of June 2006.
 - o Responding to the proposal of NSP, I agree with the NSP to empowered the three (3) main actors to tackling environmental problem: local government, parliament, and community.
- 2) Pak Isa Karmisa Ardiputra (Deputy VII, KLH)
 - o As restructured the organization of KLH, I hope in the next meeting we can invite Deputy I (Spatial Planning) to make improvement water quality in the Deli River.
 - o According to the President Decree No. 32/99 concerning protected area, Mr. Sabar Ginting is the related person for river protected area.
 - o As the monitoring result, 70% pollution load to the Deli River is come from domestic waste; let us do approach to empowered community in the protected river area and to raise their awareness on environment field.

- ⊛ Also in the next meeting hopefully we can invite head of Regional Center for Sumatera Area Mr. Nusyirwan.
- ⊛ Concerning NSP proposal, empowered Parliament is very important particularly to endorse financing. Other thing is empowered LSM/NGO is not always contradictive. In 2001, with reference to the collected data, LSM make an un-lead gasoline committee, we involve on this and later become a forum to goal implementation of un-lead gasoline.

3) Ibu Rosdiana Simarmata (BAPEDALDA NSP)

- ⊛ In the Deli River campaign we also invite Parliament IV commission and they provide good response.
- ⊛ By releasing the data monitoring result of Deli River, we have invited by mass media, NGO also get a response from USAID.
- ⊛ In the coming National Coordination Meeting 14 September 2005 at Brastagi, we will socialize the Deli River environmental management with the expected output is to formulate Deli River Awareness's Forum and hopefully can create a network.

4) Mr. Naito Tomoyuki (JICA Indonesia office)

- ⊛ I am very happy for the good result and good effect of the activity at the pilot project North Sumatera Province.
- ⊛ We have nine (9) months forward up to project end in June 2006. Anyhow, we need to review the meaning of "decentralized environmental management system" it self. The most important is not only the pilot project smooth running and successfully but how we can disseminate the result (how to apply) to other provinces. This is our big task. JICA would keep continue to find the definition of "decentralized environmental management system" before the end of the project as the output of the project.
- ⊛ Every area has difference characteristic. We should create a fundamental concept of "decentralized environmental management system", by what kind of method we can create the concept with the specific and fundamental condition.

5) Mr. Imam Hendargo (Bureau Planning and International Cooperation, KLH)

Reflected to the implemented the project activity:

- ⊛ We can cooperate with other Deputy to synchronize the program because this activity is very important and give a significant result. Let us sit together with other deputy to make same perception concerning this cooperation.
- ⊛ Concerning the result of activity at the pilot project NSP, I think we need to expanse to other area. This project still needs to be continuing not only responsible by Deputy VII and PUSARPEDAL output but more in large scope.
- ⊛ In January 2006 the evaluation team from Japan and Indonesian side will sit together to evaluate the project implementation and to provide recommendation. I hope we can bring those above matter in the forum.

6) Mr. Arief Yuwono (Ministry Secretary, KLH)

- ⊗ I myself agree with Pak Imam about continuation of this cooperation in more wide area not only responsible of Deputy VII but also with other Deputy.
 - ⊗ By announcing/presentation on the result of DEMS project, KLH can use the result contributed to other program in some other landscape, therefore we need synergy.
 - ⊗ In order to expand this activity to other area we must be careful. We should study carefully the local characteristic and general characteristic not only just to copy the activity as the existing one.
- 7) Mr. Fujitsuka Tetsuro (JICA advisor for KLH)
- ⊗ I am very happy that the output of DEMS Project will be commonly for national program.
 - ⊗ In a national conference we can invite DEMS staff to socialize the output of DEMS to other provinces. National coordination meeting in Brastagi nearly is a good opportunity to socialize the output of the DEMS Project.
- 8) Mr. Kawakita Tsunehiro (Project Coordinator, DEMS)
- ⊗ As the joint evaluation will be conducted in the end of January 2006, I hope Indonesia and Japan side will involve jointly in this final evaluation.
- 9) Ms. Lien Rosalina (PUSARPEDAL/EMC)
- ⊗ Concerning joint evaluation member, who will be the member, who will accomplish the evaluation, how to accomplish the project purpose if the EMC is not the project management.
- 10) Mr. Arief Yuwono (Ministry Secretary, KLH)
- ⊗ Technically the project is under PUSARPEDAL, but the result will be distributed to a bigger system. Other deputy will not be involved deeply during the project, but we will propose the result to other deputy. After finished the project and disseminate the result to other deputy and regional area, we will invite other deputy.
 - ⊗ I hope Pak Isa Karmisa will decide the member from Indonesian side to be involved in the joint evaluation in January 2006.
- 11) Ms. Lien Rosalina (PUSARPEDAL/EMC)
- ⊗ With reference to the collected data, I hope we can invite other deputy/section to make countermeasures for Deli River & DKI Jakarta air pollution study.
- 12) Mr. Naito (JICA Indonesia office)
- ⊗ Regarding dissemination the experiment result of Deli River Environmental Management, to setting up a forum for Deli River Care is a good idea.
 - ⊗ I hope we would also disseminate the result and provide environmental education to the house hold.
- 13) Ms. Hidayati (BAPEDALDA NSP)
- ⊗ Monitoring of Deli River will be continued. Monitoring by Automatic water sampler is taken in the Belawan area.

- ⊗ Concerning DSS program, after coordination meeting in Brastagi, we will train the house wife not only in the DSS area but also to the large community. Socialization and training will be conducted.

14) Mr. Esrom Hamonangan (PUSARPEDAL/EMC)

- ⊗ Concerning air quality study in the DKI Jakarta is running well. Monitoring by passive sampler is continuing under the PUSARPEDAL basis. We need support from JICA to develop countermeasure to reduce air pollution in the DKI Jakarta.
- ⊗ Simulation model by use the collected data is not enough to develop countermeasures, we need to make or renew the inventory of pollution sources.

15) Mr. Komeiji (Chief Advisor, DEMS Project)

- ⊗ Dr. Kondo will come to Indonesia on 26 September 2005 to transfer of knowledge and technology about air pollution monitoring and simulation model, and to advise development of air pollution countermeasure. Traffic data is very important, we can compare the past condition to the present condition, it would be easy consideration and not so much cost. Let us conduct survey and simulation model together.

9. Conclusion


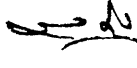
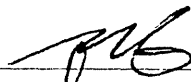

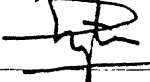

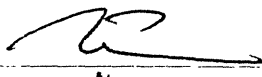

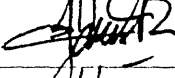
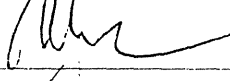
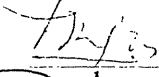

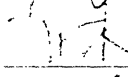
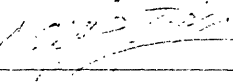



- 1) DEMS Project activity is relevant with the environmental policy both KLH and regional government of North Sumatera Province.
- 2) Reflecting to the on going and implemented project activities, cooperate with other Deputy to synchronize the program is necessary because this activity is very important and give a significant result. This project still needs to be extended in more large scope.
- 3) To improve environmental quality and environmental management at NSP, it is propose next project after DEMS as continual activity such as: Domestic Waste Handling, Improvement of Deli River water quality, Industrial Waste Handling, Strengthening of Environmental Laboratory, and Capacity Building of Local Parliament (NSP). Complete proposal will be sent later.
- 4) Those above ideas (item 2 & 3) will be bring to the joint evaluation in January 2006.
- 5) Further proposal of future plan activity will be made through evaluation of the project implementation, meeting, and intensive thinking to explore the matched formula to succeed the project locally and generic issues.
- 6) The joint evaluation member team from Indonesian side will be decided by the Deputy VII, Ministry of the Environment.
- 7) In the next, let us think over how to link this micro operation to macro policy of the environment, and the result of this project can be disseminated to internal and external stake holders.

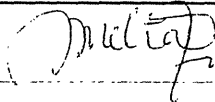

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ATTENDANT LIST

3rd Joint Coordination Committee (JCC) Meeting
DEMS Project

EMC Serpong, 8 September 2005

No	Name	Position & Affiliation	Signature
1	Imam M	Koran PRCW	
2	Seta Margono	Out Asup 2/I	
3	Pak Ariet Yuzoro	IKLH	
4	NOVE F	PUSARPEDAL	
5	Lien Rosalini	PUSARPEDAL	
6	ESRON H	PUSARPEDAL	
7	T. Naoto	JICA	
8	J. Komeiji	JICA DEMS	Komeiji
9	Dani R	PUSARPEDAL	
10	Asih	"	
11	Anwar Hadi	"	
12	Muns Hilman	"	
13	Liz Mulianingsih	"	
14	Halimah S	"	
15	Yuki Kazuyuki	DEMS JICA	
16	YASUJI FURUTA	DEMS JICA	
17	TSUNEHIRO KAWAKITA	"	
18	Tetsuro FUJITSUKA	JICA	
19	Anum	PUSARPEDAL	
20	Rina A	PUSARPEDAL	

No	Name	Position & Affiliation	Signature
21	Amelia R	Pusatpedal	
22	Dr. Restiana Satriawan	STL - FARICALDA SL	
23	Ir. Hidayati	Lut Haykanyon - FARICALDA SL	
24	Qili	JURA - DEWA FICJPS	
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Meeting Memo
5th Joint Coordination Committee Meeting of DEMS Project

Date : 07 February 2006
Time : 10:00 ~ 12:30
Venue : PUSARPEDAL, Serpong
Attendant : *As per attached*

Agenda:

1. Opening Speech by Mr. Arief Yuwono.....	1
2. Introduction of attendants.....	1
3. Presentation on the DEMS Progress Report	1
4. Presentation on DEMS Project at North Sumatera	3
5. Comment by DEMS Chief Adviser.....	4
6. Report on Terminal Evaluation on the DEMS Project.....	4
7. Suggestion and Recommendation.....	6
8. Closing and Conclusion.....	8

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

- 1) As the DEMS Project will terminate by the end of June 2006, JICA dispatch evaluation team which work jointly with the evaluation team from Indonesia side to examine whether the project is properly producing effect at the end of the project period and to draw on the lesson from the result to feed back to similar types of project in future.
- 2) I believed that the project activities have been implemented properly and the project purposes will be accomplished by the end of the project. By completion of the project we will obtain the output such as:
 - (1) Developed option of countermeasures against specific environmental problems in the model site (North Sumatra Province) based on scientific knowledge and reliable monitoring data;
 - (2) Capabilities of PUSARPEDAL 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.
- 3) I would say thanks to all project members for working hard to implement this project. I would also like to extend our great gratitude to JICA for this cooperation.

2. Introduction of Attendants

(Each attendant introducing his/her self)

3. Presentation on the Progress of DEMS Project (by Dra. Halimah Syafrul, M.Si.)

- 1) Progress of Activities (July 2002 ~ December 2005)
 - (1) Activities in the Pilot Project North Sumatera Province
 - o To develop NSP Environmental Laboratory

- ⊛ Conduct monitoring of Deli River (21 sampling points) from April 2003 (after evaluating the representative sampling point and considering of budget, the sampling point has been reduce from 21 points to 18 points from April 2004, and 11 points in 2005).
 - ⊛ Human resource improvement (in country and overseas training)
 - ⊛ Regular meeting (technical and management meeting)
 - ⊛ Technical assistance from EMC to NSP concerning monitoring technique and lab management.
 - ⊛ To identify the pollution source along the Deli River
 - ⊛ To publish Deli River Monitoring Report
 - ⊛ To organize seminar on river management program (2 times) and seminar for raising public awareness in environmental field
 - ⊛ To assist of accreditation process for NSP Laboratory.
 - ⊛ To estimate pollution load in the Deli River.
 - ⊛ Preparing guideline of Deli River Model Site for Water Quality Management System based on monitoring data and secondary data (meteorology, land use, population, etc). This guideline maybe disseminate to other regional area that have same characteristic with NSP and as reference for other provinces.
 - ⊛ Making data base on point and non point source, land use, socio economic for development run off model
- (2) Capacity Development of PUSARPEDAL for development policy (Jul '04 – Jul '05)
- ⊛ Continuous air quality monitoring by passive sampler at 21 points in Jakarta area for SO_x, NO₂, SPM and NO_x parameters.
 - ⊛ Observing traffic volume in Jakarta in 5 main roads representing each part of municipality area for developing air pollution simulation model.
 - ⊛ Propose some countermeasure base on air quality monitoring data (passive sampler) in progress.
 - ⊛ Improving diffusion model, training on air pollution simulation model and manual publication.
 - ⊛ Socialization of air pollution result risk assessment study: Measurement Pb concentration in pupil's blood. It is founding that Pb concentration in the Serpong area is high than standard. Now PUSARPEDAL work together with other instances concerned and stake holder is in progress doing the further research concerning this founding.
 - ⊛ Report of air quality monitoring in Jakarta city area was sampled by passive sampler and was send to SLHI for publication.
 - ⊛ Applying system and prototype laboratory waste water treatment to recover laboratory waste that content organic solvent.
 - ⊛ Developing procedure of analytical method for sea water and characteristic test (TCLP, Flash point test, corrosively test).
- (3) Capacity Development of Local Government for environmental monitoring and surveillance (July 2002 ~ June 2005):
- ⊛ Conducted training attended by the regional government staffs from 30 provinces all over Indonesia that consist of 10 trainings concerning environmental monitoring and surveillance methods (water, air, Sediment, and optimally utilize of AAS & UV-Vis) and laboratory management system,

3 time of workshops, and once panel discussion on Air Pollution and its Impact toward Human Health. The total number participant of the training and workshop are 349 persons.

- ◉ Conduct proficiency test attending by the environment laboratories under the supervision of State Ministry of Environment all over Indonesia some laboratories belonging to Private/State Owned Enterprises also Higher Education with the main task of evaluating water quality. The concentration of each substance to analyze in the test samples in each year are as follow: 2002: Pb, Cd, Cr, Zn and Cu; 2003: SO_4^{2-} , Cl^- , NO_3^- and Hg^{2+} ; 2004: Fe, Cu, Mn, Cr and Ni; 2005: COD, Total P, Hg, Pb, Cu and Fe.
- 2) To implement the activity, we get together in a regular meeting such as: Joint Coordination Committee Meeting (4 times), Management Meeting PUSARPEDAL (18 times), Management Meeting Pilot Project (11 times).
- 3) During the project we also prepare and update six (6) guidelines to the local government that are: 1) Water quality monitoring, 2) Sea water monitoring, 3) Laboratory waste management, 4) Verification and validation of environmental laboratory data, 5) Environmental Laboratory assessment, 6) Biology monitoring.
- 4) JICA dispatch 22 short term experts in various field to support PUSARPEDAL/EMC in order to improve capability on analytical technique and laboratory management.
- 5) 12 staffs of PUSARPEDAL/EMC, BAPEDALDA NSP and BPLHD DKI Jakarta (1 person) have attended training in Japanese Institutions in various subject.

4. Decentralized Environmental Management System (DEMS) Project in North Sumatra Province by Ms. Rosdiana Simarmata

- 1) Under the support and good cooperation in the DEMS Project, the capability of BAPEDALDA NSP has improve significantly such as improve laboratory management and monitoring technique particularly for water quality parameters, conduct monitoring and assessment of Deli River (from April 2003 ~ now), and to develop & implement countermeasure to improve environmental quality of Deli River and its surrounding area.
- 2) Technical transfer as well in house training or training in Japan is very useful to improve capability of staff (8 staffs have attend the training conducted in Japanese Institution during this 3 years).
- 3) With reference to the monitoring data, calculation of pollution load has been made, and it is estimated that 70% pollution load is effluent from domestic waste and 30% load from industrial waste and other.
- 4) Considering those, DSS program has been taken to control domestic waste pollution (such as waste water and garbage), and Company Rating, Proper & Superkasih Program for Industrial waste pollution control.
- 5) DSS program has show the good result by reducing in significant number of BOD, oil and grease concentration in water that measured before and after campaign. Eco Office and Eco House workshop has also been conducted by the support of Mr. Fujitsuka in order to improve environment awareness of government office staff and house wife.

- 7) SOP for river segmentation procedure has being developed under the support of JICA expert, also Guideline of River Water Quality Management System for Deli River Case.

5. Comment by Chief Advisor DEMS Project Mr. Komeiji Tetsuhito

- 1) Skilful development of NSP Environmental Laboratory is very important to support scientific policy and regional community awareness. I hope NSP will prepare applicable water quality standard for River improvement particularly for DSS Program. Application of water quality standard to Deli River would useful to control water quality standard of river for scientific and political goal of water quality management. Making report of the activity is also very important for further improvement of countermeasures and knowledges.
- 2) Implementation of political countermeasures should be conducted deliberately by NSP task force. Effective usage of pollution load model of river water quality is important to develop optional countermeasure to run-of/decrease pollution load.
- 3) In the future, NSP hopefully would always reconsider concerning domestic waste management, air pollution and other environmental issue in priority order in consensus along with the regional people. I would also suggest to NSP to propagate advance DSS program to other surrounding regency/city.
- 4) For capacity building of EMC, I would like to suggest EMC to develop maintenance manual for basic equipment in laboratory, also to make document of instrument list which common use by EMC staff. Long term program of equipment repair and installation should be considered based on research priority, i.e. to organize equipment management committee.
- 5) I would also suggest EMC to strengthen the role in term of information center function; by this role EMC will be able to cooperate in more widely as well as internationally.
- 6) Air pollution dispersion model should be certified more accurately using the recent emission inventory data. Application of up to date model will make it easy to elucidate the effects of regulation such as EU-2, Pb reduction in gasoline.
- 7) Lastly, I would like to suggest concerning air quality management. As EMC has accreditation in many SOP of water quality but not so much for air quality, I would suggest to EMC to make more effort against air pollution. Air quality monitoring by automatic analyzer should be established in EMC and some big city area. Monitoring of air quality should be more improved comprehensively and implemented for reduction of emission amount of air pollution.

6. Report on Joint Final Evaluation on the DEMS Project

- 1) The evaluation study of the DEMS Project was conducted by the joint evaluation team consisting of Japanese and Indonesian members.
- 2) Series discussion has been made as the part of evaluation activity including report analysis, field survey, questionnaire survey, and interview with the persons concerned and discussions with the official staffs concerned.
- 3) Evaluation has been made based on PDM and five evaluation criteria that are: relevance, effectiveness, efficiency, impact and sustainability.
- 4) According to the evaluation result in term of five criteria, the Project has been successfully progressing.

- 5) Most of the output (output 1 – output 3) have been accomplished as schedule.
- ☑ Output 1 has been achieved quite successfully in term of performance indicator in PDM. In NSP, option of countermeasures to water quality management for Deli River were developed and implemented.
 - ☑ Output 2 has been achieved satisfactory in term of performance indicators in PDM. The capability of environmental monitoring, analytical technique and laboratory management in PUSARPEDAL/EMC has been improved. The study on Jakarta air pollution is useful for formulating political countermeasures.
 - ☑ Output 3 has also been achieved quite successfully in term of performance indicators in PDM. Capability of environmental monitoring and surveillance for local governments have improved through trainings and workshops.
- 6) One remarkable achievement made by the project is: the Environmental Laboratory of BAPEDALDA NSP has strengthened its capability to collect and analyze environmental data with accuracy through the technical transfer from PUSARPEDAL/EMC. Based on the monitoring result, pollution sources of the Deli River has been identified and countermeasures were planned and implemented involving various stake holders including NGO and local communities under the initiative of BAPEDALDA NSP together with PUSARPEDAL/EMC. The comprehensive approaches have been producing remarkable result.
- 7) Finally we recommend the following things:
- ☑ PUSARPEDAL/EMC should continue the efforts to develop the collaboration with BAPEDALDA and to provide technical support to the BAPEDALDAs Province and local Environmental Laboratory as they have an important role correspond to the environmental issues across district/city; doing coordination between district/city and as the planner and management of environmental monitoring system in the province. KLH should make effort to secure the necessary budget for PUSARPEDAL/EMC, recognizing its important role in the process of the strengthening local environment management system in Indonesia.
 - ☑ Achievement of the Project at the pilot project NSP and improvement of PUSARPEDAL/EMC capabilities for monitoring and analytical technique should be widely disseminated to other section of KLH, BAPEDALDA, other ministries/department and citizen.
 - ☑ KLH is requested to make effort for the better management of equipment with a longer perspective, making a plan for the maintenance and renewal together with appropriate budgetary plan. A few equipments provided in the DEMS Project but not properly used should be ensured appropriate measures.
- 8) This a lessons learned, good collaboration of environmental authorities concerned, such as KLH, PUSARPEDAL, BAPEDALDAs, Regency/City, and NGO as well as local residents was a crucial factor for successful results of the pilot project in NSP. For proper environmental management system, collaboration among governments, laboratories, and citizens, etc is the key. This experience can be applied to other area.

7. Suggestion and Recommendation (Discussion)

- 1) Mr. Imam Hendargo (Bureau Planning and International Cooperation, KLH)
 - ⊙ Reviewing the mid term evaluation, I am pleased that the recommendations have been achieved.
 - ⊙ The objective of this final evaluation study is to examine whether the project is properly producing effects at the end of the project period and to draw on the lessons from the results of evaluation to feed back to similar types of projects.

- 2) Ibu Hermin Roosita (Asdep 1 Deputy I, KLH)
 - ⊙ I want to congratulate to BAPEDALDA NSP for the strong intension to be a successful pilot project. I would say that the BAPEDALDA NSP is great because by very limited budgeted can obtain the successful result.
 - ⊙ Other thing is I would like to comment regarding DSS program. How to determine DSS program and decrease the BOD and COD concentration.
 - ⊙ Beside BOD and COD, I suggest in the next time to also analyze other parameters.

- 3) Ibu Rosdiana Simarmata (BAPEDALDA NSP)
 - ⊙ Base on to the monitoring data and inventory data from upstream through the downstream, supported by the JICA expert we calculated the pollution load and it is estimated that 70% pollution load is domestic waste effluent, therefore we decided DSS program for domestic waste water and garbage reduction.
 - ⊙ BOD, COD and other parameter was measured before and after campaign in the DSS location, and its show that concentration of BOD, COD, oil and grease is decrease in significant number after the campaign.
 - ⊙ To tackle industrial waste, we joint the KLH program in Superkasih and Proper Program besides rating company. 25 industries intend to joint in the Superkasih program and have sign the commitment and will start in this year. I would like to say thank to Ibu Hermin for have sending staff for Superkasih program last year. The difference between Proper and Rating Company is: Proper use drop system and Rating Company is rating system. To control Industry effluent is not so much difficult because they are legal organization, but domestic waste is not so easy.
 - ⊙ Anyway, in this opportunity I would like to propose to Pak Antung (Asdep 5 Deputy III); 1) to install a simple waste water treatment in the inlet to the Deli River, 2) to make DSS Septic Tank Communal, the much problem one is in urban area.
 - ⊙ Thank you, we will analyze other parameter as Ibu Hermin suggest. So far we analyze the environmental parameters according to PP 20 of 2001.

- 4) Mr. Antung (Asdep 5 Deputy III, KLH)
 - ⊙ As NSP have the master plan, it is one significant step of guideline to improve environmental quality of environmental quality in Deli River basin and its surrounding area.

- ⊗ I would like to suggest the NSP to collect activity from Public Work to reduce and improve river banks. We can not do by self for this work, but must cooperation with other stake holders. KLH will also support for this.
 - ⊗ I would also like to suggest to BAPEDALDA NSP to make the master plan become the legal document as PERDA/Regional Regulation.
- 5) Mr. Marwoto for Mr. Ridwan Tamin (Asdep 5 Deputy II, KLH)
- ⊗ We do hope that the result data of mobile pollution from this project can be use by KLH to develop policy.
 - ⊗ I think the developed guideline on air pollution can be used by the other regional provinces.
 - ⊗ If this project to be extended or other project will be established, I hope we will handle also noise from vehicle not only dealing with noise pollution from industrial sector.
- 6) Mrs. Halimah Syafrul (Head of PUSARPEDAL/EMC)
- ⊗ Actually, measurement of noise from motor vehicle has also been made. Mr. Ridwan (Asdep 5 Deputy II) informs that the quality standard for motor vehicle noise will be launched in this year. We will cooperate with Deputy II concerning this matter.
- 7) Ms. Joice (Bureau Planning and International Cooperation, KLH)
- ⊗ I would like to confirm about how long DSS measurement is conducted so that BOD & COD concentration has reduced in significant number, and is this work cooperate with other stake holder.
 - ⊗ And would like to ask to Ibu Halimah concerning vehicle emission measurement.
- 8) Ibu Rosdiana Simarmata (BAPEDALDA NSP)
- ⊗ Measurement of Deli River is starting from routine monitoring once a month refers to DEMS Project PDM.
 - ⊗ We choose three DSS locations, but only two locations are running because community in Malibu area (real estate area) is not so much open.
 - ⊗ We did not involve Cleaning Department (Dinas Kebersihan) because they only cover garbage, not for water.
 - ⊗ We involving head of village (lurah), we distribute questionnaire and look their response. There are 9 local residence pay high attention to the environment, and we involve them to any campaign, meeting or other activity conducted by BAPEDALDA in relation with environmental care.
 - ⊗ We measure before and after campaign, actually not only BOD & COD but also other parameters.
 - ⊗ We learn about how to calculate pollution load from the JICA Expert that dispatched to NSP.
- 9) Ms. Halimah Syafrul (Head of PUSARPEDAL/EMC)
- ⊗ Vehicle emission has measured by passive sampler and comply it with simulation model. Result of this activity has been reported for SLHI.

10) Mr. K. Fujitsuka Tetsuro (JICA advisor for KLH)

- ⊕ As PUSPEDAL/EMC has collected many environmental data, I hope the PUSARPEDAL/EMC will disseminate the collected data to other deputies in KLH as well for other related institution/department.

8. Conclusion

- 1) As the final evaluation study result, the project activities have been implemented properly and the project purposes will be accomplished by the end of the project.
- 2) The Environmental Laboratory of BAPEDALDA NSP has strengthened its capability to collect and analyze environmental data with accuracy through the technical transfer from PUSARPEDAL/EMC
- 3) It is recommended to PUSARPEDAL/EMC to continue the efforts to develop the collaboration with BAPEDALDA and to provide technical support to the BAPEDALDAs Province and local Environmental Laboratory. KLH should make effort to secure the necessary budget for PUSARPEDAL/EMC, recognizing its important role in the process of the strengthening local environment management system in Indonesia.
- 4) The achievement of the Project at the pilot project NSP and improvement of PUSARPEDAL/EMC capabilities for monitoring and analytical technique will be disseminate widely to other section of KLH, BAPEDALDA, other ministries/department and citizen.
- 5) It is important to make effort for the better management of equipment with a longer perspective, making a plan for the maintenance and renewal together with appropriate budgetary plan. A few equipments provided in the DEMS Project but not properly used should be ensured appropriate measures.
- 6) Master plan of DSS program is one significant step of guideline to improve environmental quality of environmental quality in Deli River basin and its surrounding area. It is suggested the NSP to collect activity from Public Work to reduce and improve river banks, also to work together with other stake holders under the support of KLH. It is recommended to make the master plan become the legal document as PERDA/Regional Regulation.

■ end.

ATTENDANT LIST
5th Joint Coordination Committee Meeting, DEMS Project
EMC Serpong, 7 February 2006

No	Institution	Remarks
1	Mr. Arief Yuwono Minister Secretary, MoE	Chairman
2	Ir. Isa Karmisa Ardiputra Deputy for Infrastructure Development and Capacity Building, MoE	Project Director
3	Drs. Imam Handargo, MA Head of Bureau Planning and International Cooperation, MoE	Evaluator
4	Ir. Hermin Roosita, MM Deputy Assistance for Environmental Impact Assesment	Evaluator
5	Didin Khairuddin for Mr. Ridwan D. Tamin, MS Deputy Assistance for Mobile Emission Source Pollution Control	Evaluator
6	Ir. Antung Deddy Radiansyah Deputy Assistance for River and Lake Pollution Control, MoE.	Evaluator
7	Mr. Kiyoshi Matsumoto Group Director, Group 2 nd (Environment Management), Global Environment Department, JICA	Evaluator
8	Mr. Masaoki KOBAYASHI Planning and General Affairs Division/Chief Senor staff for Planning Environmental Pollution Control center (EPCC), Osaka Prefectural Government	Evaluator
9	Ms. Miwa Hiasa Environmental Management Team I, Group II, Global Environment Dept., JICA	Evaluator
10	Mr. Hideaki HIGASHINO Senior Consultant RECS International Inc. Planning & Management.	Evaluator
11	Ms. Daisa Joise Bureau Planning and International Cooperation, MoE	
12	Dra. Rosdiana Simarmata Head Env Technology BAPEDALDA NSP	
13	M. Hidayatuddin Regional Environmental Management Center for Sumatera Area	
14	Dra. Halimah Syafrul, M.Si. Head of PUSARPEDAL/EMC	Project Manager
15	Drs. Muns Hilman Head of Reference Laboratory Div., EMC	
16	Dra. Arum Prajanti. MEM Head of Testing Laboratory Sub Div. EMC	
17	Dra. Asiah Environmental Laboratory Development Sub Div. EMC	
18	Dra. Novi Farhani Head of Environmental Laboratory Service Div., EMC	
19	Dra. Ninik Triana Head of Testing and Calibration Sub Div. EMC	
20	Dra. Lia Mulianingsih Head of Environmental Monitoring Div. EMC	
21	Ir. Dewi Ratnaningsih Head of Environmental Monitoring Networking Sub Div. EMC	
22	Dra. Lien Rosalina, MM Program Development, Adminsitration and Human Resources Div. EMC	
23	Ir. Wisnu Eko Yulyanto Head of Program Development and Budgeting Sub Div. EMC	
24	Drs. Pramana Head of Administration and Human Resources Sub Div. EMC	
25	Dr. Esrom Hamonangan Counterpart from EMC for the DEMS Project	
26	Kresnawati, S.Si. Counterpart from EMC for the DEMS Project	
27	Mr. Nobuo IWAI JICA Indonesia Office	
28	Ms. Lingga Kartika JICA Indonesia Office	
29	Mr. Tetsuro FUJITSUKA JICA Adviser for KLH	
30	Mr. Komeiji Tetsuhito Chief Advisor, DEMS	
31	Mr. Kawakita Tsunehiro Project Coordinator, DEMS	
32	Mr. Masaji FURUTA Laboratory Management	
33	Mr. Kunio ISHIKAWA Environmental Monitoring, DEMS	
34	Sumiati Widodo Program staff, DEMS Project	