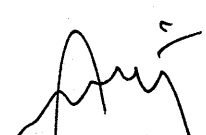
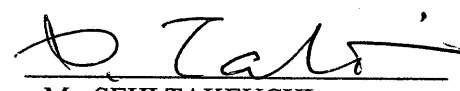


**MINUTES OF THE MEETING
ON
INCEPTION REPORT
FOR
THE STUDY
FOR
THE MAINTENANCE, REHABILITATION AND IMPROVEMENT PLANNING
METHODOLOGY OF NATIONAL IRRIGATION SYSTEMS**

Metro Manila
September 29, 2005

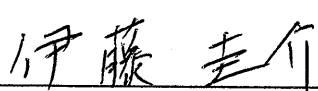


Mr. PROCESO T. DOMINGO
Administrator,
National Irrigation Administration (NIA)



Mr. SEIJI TAKEUCHI
Leader of Study Team,
Japan International Cooperation
Agency (JICA)

Witnessed by



Mr. KEISUKE ITO
Project Monitor,
Japan International Cooperation
Agency (JICA)

Following the Implementing Arrangement (hereinafter referred to as "I/A") on "the Study for the Maintenance, Rehabilitation and Improvement Planning Methodology of National Irrigation Systems (hereinafter referred to as "the Study") , which has been agreed upon between the Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of the Republic of the Philippines on June 23, 2005, JICA fielded a Project Monitor in the person of Mr. Keisuke Ito and a Study Team headed by Mr. Seiji Takeuchi of the Sanyu Consultants, Inc. to Philippines on September 27, 2005.

The Study Team submitted 30 copies of the Inception Report (hereinafter referred to as "Ic/R") and presented its contents. A series of discussions was held between the Study Team and NIA, chaired by Mr. Edilberto B. Punzal, Department Manager, Project Development Department (PDD) at the Systems Management Department (SMD) Office of NIA Central Office, Quezon City on September 28, 2005. The list of participants in the meetings is shown in Annex-1.

NIA accepted the contents of the Ic/R such as the study methods, procedures, schedules, etc. The main points discussed and agreed upon are as follows:

- 1) The proposed contents and direction of the study appear to be quite comprehensive and adequate to the points agreed upon in the I/A mentioned above.
- 2) The Study Team requested to nominate full-time counterpart personnel to work together with the Study Team, and NIA nominated the following staff as the counterparts:

SMD

- | | |
|------------------------------|------------------------|
| 1. Mr. Edilberto B. Payawal* | Department Manager |
| /Mr. Leonaldo E. Balite* | Division Manager |
| 2. Mr. Celso G. Bernardo | Supervising Engineer A |
| 3. Mr. Fidel O. Ramos | Engineer A |
| 4. Ms. Grace A. Ramos | Engineer A |

PDD

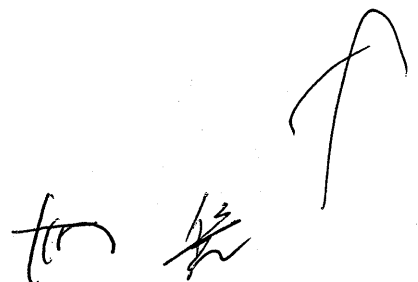
- | | |
|-------------------------------|----------------------|
| 1. Mr. Edilberto B. Punzal* | Department Manager |
| 2. Mr. Reynaldo L. Baloloy | Principal Engineer A |
| 3. Mr. Silvino A. Alonzo, Jr. | Principal Engineer A |

Re: *Not full time.

- 3) Regarding the selection of the three Pilot Areas, the decision will be made by the Study Team together with NIA after due consideration of the factors identified in the Ic/R including the security situation.
- 4) The Study Team will utilize the available data under the Geographical Information System (hereinafter referred to as "GIS"). However, the modification and improvement of the GIS itself will not be included in the scope of the Study.
- 5) NIA Central and Regional Irrigation Offices shall carry out the inventory survey for the 192 NISs during the period between Phase 1 and Phase 2 of the Study, as agreed in the I/A.

- 6) The Study Team requested NIA to provide the undertakings for the Study as indicated in the I/A, such as office spaces, telephone line for the facsimile equipment, etc. NIA agreed to provide their requests promptly.

- 7) NIA requested to include the data collection on the watershed area in the Study. The Study Team agreed that the necessary information concerning water resources subjects at the diversion site, such as an average rainfall in the basin, available runoff discharges, etc. will be collected depending on data availability and necessity for maintenance, rehabilitation and improvement planning, however, the necessary countermeasures to improve those watershed areas will not be included in the Study.

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LIST OF PARTICIPANTS OF THE MEETING

I. Philippine side

National Irrigation Administration (NIA)

1. Mr. Proceso T. Domingo Administrator
2. Mr. Edilberto B. Payawal Manager, Systems Management Department (SMD)
3. Mr. Edilberto B. Punzal Manager, Project Development Department (PDD)
4. Mr. Leonardo E. Balite Division Manager,
Operation and Management Division (O&M), SMD
5. Mr. Augustrese S. Torres Division Manager A,
Research and Development (R&D) Division, SMD
6. Mr. Reynaldo L. Baloloy Principal Engineer A, IEWND, PDD
7. Mr. Silvino A. Alonzo, Jr. Principal Engineer A, WRUD, PDD
8. Mr. Mario M. Sagum Chief, Researcher Analyst, R&D Division, SMD
9. Mr. Celso G. Bernardo Supervising Engineer A, O&M Division, SMD
10. Ms. Maria Gracia A. Ramos Engineer A, O&M Division, SMD

JICA Expert to NIA

1. Mr. Tadashi Kunieda JICA Expert to NIA

Japanese Side

JICA

1. Mr. Keisuke Ito Project Monitor, Paddy Field Based Farming Area Team II, Group I, Rural Development Department, JICA Headquarters
2. Mr. Kiyofumi Takashima Assistant Resident Representative, Program Operation Section, JICA Philippine Office
3. Ms. Kristine San Juan Program Assistant, JICA Philippine Office

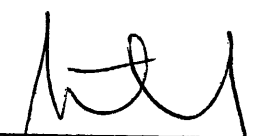
JICA Study Team

1. Mr. Seiji Takeuchi Team Leader/Irrigation Improvement Planning
2. Mr. Tsuneo Kuwahara O&M of Irrigation Facilities / Water Management
3. Mr. Fumihiko Komada Water Resources




**MINUTES OF THE MEETING
ON
PROGRESS REPORT
FOR
THE STUDY
FOR
THE MAINTENANCE, REHABILITATION AND IMPROVEMENT PLANNING
METHODOLOGY OF NATIONAL IRRIGATION SYSTEMS**

Metro Manila
November 30, 2005



Mr. BALTAZAR H. USIS
Administrator,
National Irrigation Administration
(NIA)



Mr. SEIJI TAKEUCHI
Leader of Study Team,
Japan International Cooperation Agency
(JICA)

Following the Implementing Arrangement (hereinafter referred to as "I/A") on "the Study for the Maintenance, Rehabilitation and Improvement Planning Methodology of National Irrigation Systems (hereinafter referred to as "the Study") , which has been agreed upon between the Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of the Republic of the Philippines on June 23, 2005, JICA fielded a Study Team headed by Mr. Seiji Takeuchi of the Sanyu Consultants, Inc. to Philippines on September 27, 2005.

At the end of the Phase-1 field work, the JICA Study Team submitted 10 copies of Progress Report (hereinafter referred to as "Pr/R") to the National Irrigation Administration (NIA). The Pr/R summarizes;

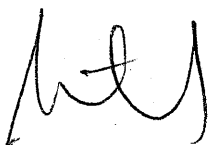
- (1) The Study Team's activities,
- (2) Formulation of preliminary inventory survey formats ,
- (3) Preliminary analysis of study results, and
- (4) Subsequent works contents and schedule

After submitting the Pr/R, a series of discussions was held between the Study Team and NIA, chaired by Mr. Edilberto B. Payawal, Department Manager, System Management Department (SMD) at the SMD Office of NIA Central Office, Quezon City on November 30, 2005.

This Minutes of Meeting summarizes the issues discussed and the understandings reached in the above explanation meeting with the attendances of the related officials concerning the national irrigation systems of NIA. The lists of participants in the meetings are shown in Annex-1.

NIA accepted the contents of the Pr/R such as the study results, procedures, schedules, etc. The main points discussed and agreed upon are as follows:

- 1) The proposed contents and direction of the study appear to be quite comprehensive and adequate to the points agreed upon in the I/A mentioned above.
- 2) NIA questioned about the measuring devises, especially for observation of rainfall, river runoff and diverted intake discharges. The Study Team replied that rainfall would be available from PAGASA, PDD Hydrology Section, or actual observation records observed by simple rainfall gauges provided by NISO around the diversion site. And, also runoff discharges are observed by using staff-gauges provided in main canals by NISO.
- 3) NIA asked about the possibility for cost estimation to be needed for facility improvement. The Study Team replied that these works inclusive of the required cost estimation, created benefit estimation by the investment of the costs, and evaluation of prioritization for facility improvement using EIRR or B/C ratio would be done during the Phase-2 study.
- 4) NIA confirmed that the survey on the item of water right (water permit) should be included in the inventory survey. The Study Team showed the item already included in the general information of the inventory survey.
- 5) The Study Team confirmed about the work schedule of inventory surveys for 193 NISs, which are planned to be undertaken by NIA responsibility by the end of March 2006, although these



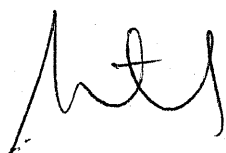
subject have been emphasized in the workshop seminars held on November 22, 2005. Regarding this confirmation, NIA replied that NIA Central and Regional Offices would make maximum efforts to complete the surveys within the proposed schedule.

- 6) The Study team additionally explained in case that if no replies on the said inventory survey for the NIS are existed, the systems are automatically evaluated to be no necessary of facility improvement, which leads to low priority of system improvement among the NISs.
- 7) The Study Team pointed out the accuracy of data depending on the data sources. NIA replied that appropriate confirmations of data in terms of "proposed" or "approved" would be needed in the courses of data collection works.
- 8) The Study Team questioned about the procedures of budget allocation systems for system improvement among NISs. NIA replied that the budgets would generally allocated depending on the size of NIS itself by each Regional Office, although general allocation plan are formulated by NIA Central Office considering the regional situations.

At the end of the meeting, the Study Team once again requested NIA side to complete 193 NIS inventory surveys by the end of March 2006, and send them to the Study Team in Japan through the Sanyu Consaltants Manila Office. The Study Team stated that they would do the preliminary analysis and evaluation on the implemented NIS inventory survey, prior to start of the Phase-2 field works.

NIA-SMD manager thanked the Study Team for their activities in this phase of works. He mentioned that the Study Report would be effective for maintenance, rehabilitation and improvement planning for NISs, and the Study Team has done an enormous study. On behalf of NIA, he thanked again the Study Team members for their contribution.

The Team Leader of the Study Team finally expressed his appreciation for the cooperation and assistances rendered to the Study Team, and also questions and comments, which were raised during the discussion.



LIST OF PARTICIPANTS OF THE MEETING

National Irrigation Administration (NIA)

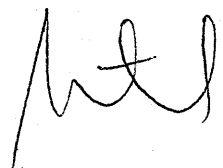
1. Mr. Edilberto B. Payawal Manager, Systems Management Department (SMD)
2. Mr. Augustrese S. Torres Division Manager A (SMD)
3. Ms. Ma. Grace A. Ramos Engineer A, O & M Division (SMD)
4. Ms. Vera R. Ladion Engineer A (SMD)
5. Ms. Ma. Lourdez J. Garriga Senior Engineer A (SMD)
6. Ms. Apolonia S. Cumbe Chief Soil Tech. A (SMD)
7. Mr. Basilio E. Lozano Jr. Senior Economies (SMD)
8. Ms. Elizsa C. Ragudo Senior Engineer A (SMD)
9. Mr. Rodelito I. Caacbay Principal Engineer A (SMD)
10. Mr. Mariano R. Catan Jr. Senior Engineer A (SMD)
11. Mr. Jesus R. Esperitu Engineer A (SMD)
12. Mr. Cesar F. Manelab Senior Engineer A (SMD)
13. Ms. Luzviminda G. De Principal Engineer A (SMD)
 Guzman
14. Ms. Purita C. Guzman Senior Engineer (SMD)
15. Mr. Mario M. Sagum Chief Research Analyst (SMD)
16. Mr. Arthur R. Dela Cruz Principal Engineer A (SMD)
17. Mr. Johnny Garcia Senior Research Analyst (SMD)

JICA Expert to NIA

1. Mr. Tadashi Kunieda JICA Expert to NIA-PDD

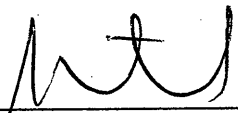
JICA Study Team

1. Mr. Seiji Takeuchi Team Leader/ Irrigation Improvement Planning
2. Mr. Tsuneo Kuwahara O&M of Irrigation Facilities/ Water Management
3. Mr. Fuhimiko Komada Water Resources

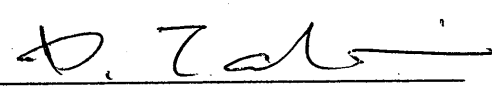


**MINUTES OF THE MEETING
ON
INTERIM REPORT
FOR
THE STUDY
FOR
THE MAINTENANCE, REHABILITATION AND IMPROVEMENT PLANNING
METHODOLOGY OF NATIONAL IRRIGATION SYSTEMS**

Metro Manila
May 26, 2006



MR. BALTAZAR H. USIS
Administrator,
National Irrigation Administration (NIA)



MR. SEIJI TAKEUCHI
Leader of Study Team,
Japan International Cooperation
Agency (JICA)

Witnessed by



MR. KENICHI MATSUMOTO
Project Monitor,
Japan International Cooperation
Agency (JICA)

Following the Implementing Arrangement (hereinafter referred to as "I/A") on "the Study for the Maintenance, Rehabilitation and Improvement Planning Methodology of National Irrigation Systems (hereinafter referred to as "the Study") , which has been agreed upon between the Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of the Republic of the Philippines on June 23, 2005, JICA fielded a Project Monitor in the person of Mr. Kenichi Matsumoto and a Study Team headed by Mr. Seiji Takeuchi of the Sanyu Consultants, Inc. to Philippines on May 23, 2006.

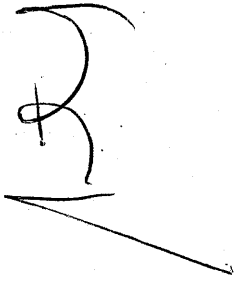
The Study Team submitted 30 copies of the Interim Report (hereinafter referred to as "IT/R") and presented its contents. A series of discussions was held between the Study Team and NIA, chaired by Mr. Leonardo E. Balite, Division Manager, Operation and Maintenance Division (O&M), Systems Management Department (SMD) at the SMD Office of NIA Central Office, Quezon City on May 24, 2006. The list of participants in the meetings is shown in Annex-1.

NIA accepted the contents of the IT/R such as the study methods, procedures, schedules, etc. The main points discussed and agreed upon are as follows:

- 1) At the beginning of the meeting, the Study Team expressed heartfelt thanks for the close cooperation rendered to the Study Team for carrying out inventory survey for 193 NISs by the end of March 2006. The Study Team showed the latest accomplishment rates of the inventory survey as of May 18, 2006 were 92.4 percent with the electric file monitoring rates of 85.5 percent.
- 2) The proposed contents and direction of the 2nd-year study appear to be quite comprehensive and adequate to the points agreed upon in the I/A mentioned above.
- 3) The Study Team requested to NIA to nominate additional counterpart personnel belonging to the Design and Specification Department of NIA to assist the Study Team in the fields of design and cost estimates of irrigation and drainage facilities, and NIA promised to nominate the adequate NIA staff for the purposes.
- 4) The Study Team pointed out some misunderstandings by NISOs staff in accomplishing questionnaires in the format with specified units used in the inventory survey, especially in the fields of "Water Resources and Irrigation Water Requirement". After thorough deliberation on this matter both sides of the Study Team and NIA agreed to use in the inventory format local units (for instance cavan/ha, etc.) which is familiar with field staff.
- 5) Furthermore, the Study Team stated that some unclear data or no reply data on some specified items in the questionnaires are included in the inventory survey. In the courses of the 2nd-year study, the issue on these data will be clarified by the Study Team and NIA through proper consultation from concerned field personnel.
- 6) In connection with above issues mentioned in the items 4) and 5), NIA suggested to hold joint meeting to be attended by one Irrigation Superintendent and Regional Manager for each Region to clarify these problem issues. Proposed date to hold the joint meeting is tentatively set on June 23, 2006, the day after the NIA anniversary celebration which will be held at NIA Central Office

on June 22, 2006.

- 7) For an expectation of smooth and efficient implementation of the inventory survey, appropriate survey timing in the year and survey interval were raised in the discussion. Both sides agreed that such issue will only be solved and finalized after thorough discussion to determine the best time and timing interval of the inventory survey.



List of Participants of the Meeting

I. Philippine Side

National Irrigation Administration (NIA)

- | | |
|----------------------------------|---|
| 1. Mr. Baltazar H. Usis | Administrator |
| 2. Mr. Marcelino V. Tugaoen, Jr. | Deputy Administrator |
| 3. Mr. Edilberto B. Payawal | Manager, Systems Management Department (SMD) |
| 4. Mr. Leonardo E. Balite | Division Manager, Operation and Maintenance Division (O&M), SMD |
| 5. Mr. Mario M. Sagum | Chief, Researcher Analyst, R&D Division, SMD |
| 6. Mr. Ildefonso E. Custodio, Jr | Section Chief, O&M Division |
| 7. Mr. Arthur R. Dela Cruz | Section Chief, O&M Division |
| 9. Mr. Celso G. Bernardo | Supervising Engineer A, O&M Division, SMD |
| 10. Ms. Maria Gracia A. Ramos | Engineer A, O&M Division, SMD |

JICA Expert to NIA

- | | |
|------------------------|--------------------|
| 1. Mr. Tadashi Kunieda | JICA Expert to NIA |
|------------------------|--------------------|

II. Japanese Side

JICA

- | | |
|---------------------------|--|
| 1. Mr. Kenichi Matsumoto | Project Monitor, Paddy Field Based Farming Area Team I, Group I, Rural Development Department, JICA Headquarters |
| 2. Mr. Kiyofumi Takashima | Assistant Resident Representative, Program Operation Section, JICA Philippine Office |
| 3. Ms. Kristine San Juan | Program Assistant, JICA Philippine Office |

JICA Study Team

- | | |
|------------------------|---|
| 1. Mr. Seiji Takeuchi | Team Leader/Irrigation Improvement Planning |
| 2. Mr. Tsuneo Kuwahara | O&M of Irrigation Facilities / Water Management |
| 3. Mr. Fumihiko Komada | Water Resources |

**MINUTES OF THE MEETING
ON
DRAFT FINAL REPORT
FOR
THE STUDY
FOR
THE MAINTENANCE, REHABILITATION AND IMPROVEMENT PLANNING
METHODOLOGY OF NATIONAL IRRIGATION SYSTEMS**

Metro Manila
September 25, 2006

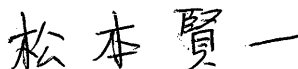


MR. ARTURO C. LOMIBAO
Administrator,
National Irrigation Administration (NIA)



MR. SEIJI TAKEUCHI
Leader of Study Team,
Japan International Cooperation
Agency (JICA)

Witnessed by



MR. KENICHI MATSUMOTO
Project Monitor,
Japan International Cooperation
Agency (JICA)

Following the Implementing Arrangement (hereinafter referred to as "I/A") on "the Study for the Maintenance, Rehabilitation and Improvement Planning Methodology of National Irrigation Systems (hereinafter referred to as "the Study")", which has been agreed upon between the Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of the Republic of the Philippines on June 23, 2005, JICA fielded a Project Monitor in the person of Mr. Kenichi Matsumoto in JICA Headquarter and a Study Team headed by Mr. Seiji Takeuchi of the Sanyu Consultants, Inc. to Philippines on September 19, 2006.

The Study Team submitted 30 copies of the Draft Final Report (hereinafter referred to as "DF/R") and presented its contents. A series of discussions was held between the Study Team and NIA, chaired by Mr. Edilberto B. Payawal, Department Manager, System Management Department (SMD) at the Conference Room, DCIEP Building of NIA Central Office, Quezon City on September 21 and 22, 2006. The list of participants in the meetings is shown in ANNEX-1.

NIA accepted the contents of the DF/R such as the study methods, procedures, schedules, etc. The main points discussed and agreed upon are as follows:

- 1) At the beginning of the meeting, the Study Team expressed heartfelt thanks for the close cooperation rendered to the Study Team for carrying out the Study since September 2005.
- 2) NIA officers from regions asked if it was possible to consider the damages in reservoir area caused by flood and flood control measures. The Study Team answered that the flood damages were not included in the survey results.
- 3) NIA officers from regions asked how the study results were utilized without financial sources for physical implementation. The Study Team answered that the study results should be utilized for regular works.
- 4) NIA officers asked the better way of water management during drought period and inclusion of improvement on the system operation into recommendations of the study outcome. The Study Team answered that rotation and to minimize the conveyance and operation loss were advisable means and the Study Team would consider including the system operation into recommendations in the Final Report (hereinafter referred to as "F/R").
- 5) NIA officers from regions asked if it was possible to simplify the format of the Inventory Survey. The Study Team answered that possible corrections based on comments and suggestions from NIA would be reflected to the final outputs.
- 6) Regarding the implementation timing of the Inventory Survey, the Study Team explained that the proposed survey periods from April to November were not necessarily followed, especially starting time of April, which would be decided depending upon individual farming situation in the area. However, compiling period of the Inventory Survey in November should be followed in the line of the proposed period.
- 7) NIA officers from regions pointed out that the amount for rehabilitation and improvement

works in the study result would be too much cheaper than the generally said amount for rehabilitation (50,000 to 60,000 Pesos/ha). The Study Team answered that the figure was derived from the actual result of the Inventory Survey, and does not consider the actual area affected represented by the Firmed-Up Service Area.

- 8) NIA officers from regions asked what were the countermeasures to improve the viability under Irrigation Management Transfer (IMT). The Study Team replied that the solutions for such a problem were out of scope of the Study.
- 9) NIA officers from regions asked if it was possible to include activities like greasing to gates, mechanization of gates and preventive measures of gates from stealing into maintenance, rehabilitation and improvement (MRI) plan. The Study Team replied technical matters were taken into consideration in the planning methodology, but the social aspect was not within the bounds of the Study.
- 10) NIA officers from regions asked how facility conditions were classified objectively into three grades of "Severe", "Moderate" and "None". The Study Team answered that the classification of facility conditions was made based on the results of the Inventory Survey.
- 11) NIA officers from regions asked that it was advisable to remove some formulas in the part of organization and O&M within the DF/R, because they might mislead the readers. The Study Team replied that it would consider revising.
- 12) NIA officers from regions pointed out that it was very difficult to implement the Inventory Survey without additional sources of finance and personnel. The Study Team answered that the long period of six months for the Inventory Survey and utilization of existing data would avail the implementation within the regular budget and manpower. The Study Team also added that volume of information to be surveyed after the second time would be much less than the initial survey.
- 13) NIA officers from regions pointed out that it was not possible to eliminate the political aspect on the prioritization of projects. The Study Team replied that the prioritization in the Study was a technical back-up data and the actual implementation of projects was a different matter.
- 14) NIA officers from regions asked how classification of prioritization criteria was made objectively. The Study Team answered that the explanation for the part had not been included in the DF/R due to time constraints, but it would be included in the F/R.
- 15) NIA officers from regions pointed out that NIA should utilize the outcome of the Study as much as possible based on the I/A and this issue was confirmed by majority of the participants.
- 16) NIA officers from regions requested the Study Team to furnish simplified spreadsheet indicating overall information from the commencement of Inventory Survey to the data compilation management, which would involve the information of survey procedures, data tabulation, various analysis of data, facilities and system classification by damaged degrees, cost estimation for MRI works, prioritization analysis, etc. The Study Team replied those spreadsheet would

additionally be attached in the F/R.

- 17) Appropriate interval of the Inventory Survey, which was a main topic in the meeting, was debated among the participants of the meeting, although the Study Team recommended undertaking the Inventory Survey annually, considering effective utilization of survey results for the annual Program of Works (PoWs) to be prepared by the end of November. Finally, the issues were reached in an agreement of annual implementation through decisions made by the majority of the participants from the regional offices, but with reservations pending compliance to the request as states as item 16.
- 18) In the courses of the explanation meeting and discussion, following requests were raised by NIA side.
 - Supports for the procurement of adequate computers to use Inventory Survey and current meters to improve water management
 - Supply of compact diskette (CD) storing a series of materials used in the explanation meeting
 - Implementation of similar studies for the areas of the Communal Irrigation Systems (CIS)
- 19) The Study Team requested NIA side to prepare the comments on the submitted DF/R, if any, and send them to JICA Philippine Office by October 20, 2006. These comments will be reflected on the F/R to be compiled during the home office work in Japan after this explanation meeting of the DF/R.
- 20) Project Monitor of the JICA Headquarter stated that since JICA was interested in the utilization of the Inventory Survey, it was expected that NIA would provide the possible utilization plans of the inventory survey results along with the comments mentioned in the above.

Department Manager of SMD thanked JICA Expert and Study Team for their activities implemented during the study period. He mentioned that the Study Report would be effective for operation and maintenance works of NISs in the Philippines. On behalf of NIA, he thanked again the Study Team members for their contribution.

The Team Leader of the Study Team finally expressed his appreciation for the cooperation and assistances rendered to the Study Team, and also questions and comments, which were raised during the explanation meeting and discussion.

ATTENDANCE LIST FOR DISCUSSION MEETING

Date : September 21, 2006

Venue : NIA-Consult Seminar Room

No.	Office	Name	Position	Signature
1	CAR	TRAVIS A. GAWIGAWEN	Division Manager A	
2		LIZA JANE C. CHUGSAYAN	Senior Engr. A	
3	Reg.-I	ROBERTO Q. ABULE	Division Manager A	
4		GAUDENCIO M. DE VERA	Senior Engr. A	
5	Reg.-II	TRANQUILINO AGUIRRE	Supervising Engr. A	
6				
7	MRIIS	MARIANO G. DANCEL	OIC, Eng'g. & Operation Div.	
8		WILFREDO G. GLORIA	Supervising Engr. A	
9	Region III	ELMER C. STO. TOMAS	Engr. A	
10	UPRIIS	CARLITO M. GAPASIN	Division Manager A	
11		SANTOS B. VIERNES	Supervising Engr. A	
12	Reg.-IV	FLORENTINO R. DAVID	Division Manager A	
13		CESAR M. POBRE	Supervising Engr. A	
14	Reg.-V	CEZAR F. GARCIA	OIC, O&M Division	
15		LUZVIMINDA N. MARTINEZ	Supervising Engr. A	
16	Reg.-VI	LOURDES M. ARJONA	Senior Engr. A	
17		HENRY S. VENTURANZA	Prov. Irrigation Officer	
18	Reg.-VII & VIII	ANICETA G. PALOMA	Engr. A	
19		CONRADO M. SAMSON	WRFT	
20	Reg.-IX	AMPELA A. ORONG	OIC, O&M / IDD	
21		VIVREN B. APATAN	Senior Engr. A	
22	Reg.-X	ROMULO M. SILVESTRE	Division Manager A	
23		NELIA M. APALE	Senior Engr. A	
24	Reg.-XI	ROLANDO R. ZACARIAS	Senior Engr. A	
25		VIRGINIA L. ONG	Senior Engr. A	
26	Reg.-XII	RAMON A. BUGACIA	Division Manager A	
27		ANASTACIO D. RACELIS JR	Supervising Engr. A	
28	Reg.-XIII	RAFAEL A. ALAS JR.	OIC, Operation Division	
29		RAMON B. COLIPAPA	Information Officer B	
30	SMD	LEONARDO E. BALITE	O&M, Division Manager	
31		ARTHUR DELA CRUZ	Principal Engr. A	
32		CELSO G. BERNARDO	Supervising Engr. A	
33		MARIO M. SAGUM	Chief, Research Div.	
34		FIDEL O. RAMOS	Engr. A	
35		MA. GRACIA A. RAMOS	Engr. A	
36		APOLONIA S. CUMBE	Chief, Soil & Water Lab. Services	
37	MA. LOURDES J. GARRIGA	Senior Engr. A		
38	PDD	REYNALDO L. BALOLOY	Principal Engr. A	
39		ISIDORA M. CAMAYA	Senior Hydrologist	
40	JICA	KUNYOSHI ISHIZAKA	JICA Expert for IDD	
41		TADASHI KUNIEDA	JICA Expert to NIA-PDD	
42		KENICHI MATSUMOTO	Jica HQ Tokyo	
43	REG 3	ROBERTO DELA CRUZ		

44 Study Team TAKEUCHI SEIJI

Team Leader

45 " KOMADA FUMIHIKO

Water Resources

46 " KUWAHARA Tsuneo

Org. & O&M

ATTENDANCE LIST FOR DISCUSSION MEETING

Date : September 22, 2006

Venue : NIA-Consult Seminar Room

No.	Office	Name	Position	Signature
1	CAR	TRAVIS A. GAWIGAWEN	Division Manager A	
2		LIZA JANE C. CHUGSAYAN	Senior Engr. A	
3	Reg.-I	ROBERTO Q. ABULE	Division Manager A	
4		GAUDENCIO M. DE VERA	Senior Engr. A	
5	Reg.-II	TRANQUILINO AGTARAP	OIC, O&M Division	
6				
7	MRIIS	MARIANO G. DANCEL	OIC, Eng'g. & Operation Div.	
8		WILFREDO C. GLORIA	Supervising Engr. A	
9	Reg.-III	ROBERTO DELA CRUZ	OIC, O&M Division	
		ELMER C. STO. TOMAS	Engr. A	
10	UPRIIS	CARLITO M. GAPASIN	Division Manager A	
11		SANTOS B. VIERNES	Supervising Engr. A	
12	Reg.-IV	FLORENTINO R. DAVID	Division Manager A	
13		CESAR M. POBRE	Supervising Engr. A	
14	Reg.-V	CEZAR F. GARCIA	OIC, O&M Division	
15		LUZVIMINDA N. MARTINEZ	Supervising Engr. A	
16	Reg.-VI	LOURDES M. ARJONA	Senior Engr. A	
17		HENRY S. VENTURANZA	Prov. Irrigation Officer	
18	Reg.-VII & VIII	ANICETA G. PALOMA	Engr. A	
19		CONRADO M. SAMSON	WRFT	
20	Reg.-IX	AMPELA A. ORONG	OIC, O&M / IDD	
21		VIVREN B. APATAN	Senior Engr. A	
22	Reg.-X	ROMULO M. SILVESTRE	Division Manager A	
23		NELIA M. APALE	Senior Engr. A	
24	Reg.-XI	ROLANDO R. ZACARIAS	Senior Engr. A	
25		VIRGINIA L. ONG	Senior Engr. A	
26	Reg.-XII	RAMON A. BUGACIA	Division Manager A	
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43 Study Team TAKEUCHI SEIJI Team Leader

44 " KOMADA FUMIHIKO Water Resources

45 " KUWAHARA TSUNEO Org & O&M

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Region	コメント並びに提案	コメント並びに提案に対する対応
CAR	コメントなし	
Region 1	コメントなし (流速計の要請)	
Region 2	コメントなし	
MRIIS	<p>MARII や UPRIIS のような大規模国営灌漑システムにおける維持管理においては、インベントリーの調査項目として洪水予測並びに警報システム、貯水池関連項目についても含めるべきである。</p> <p>水稻の作付体型は各 Region で異なっている。インベントリー調査の実施時期については、調査を担当するスタッフの対応可能時期に調査を実施する事を提案したい。インベントリー調査のデータ更新頻度については、ケースバイケースで考えるべきである。即ち、毎年灌漑施設に関するデータを更新すべき調査活動、及び施設の変更時に適宜調査を実施する活動である。</p>	<p>9月21日及び22日の両日開催したドラフト・ファイナル・レポート(DF/R)の説明・協議において説明・回答したように、貯水池内の洪水被害、洪水予測並びに警報システムなど貯水池関連施設については、今回のインベントリー調査には含めない方針である(議事録2)参照。</p> <p>上記 DF/R の説明・協議で説明したように、地域によって乾期及び雨期の灌漑用水の送水時期は異なるため、インベントリー調査の調査時期を4月から11月と暫定的に決めているが、これを厳守する必要はない。但し、調査の締切り期限は、事業実施計画(PoWs)の締切りが12月であることから、この時期については守るよう説明し、参加者の同意をえた(議事録6)参照。</p> <p>また、調査の頻度についても、同説明・協議会で毎年実施する事で参加者の同意を得た(議事録17)参照。</p>
Region 3	<p><u>インベントリー調査について</u></p> <p>今回のインベントリー調査は、以下の内容が考慮されればより有益と考えられる。</p> <p>a) 施設の改修資金支援</p> <p>b) 人的資源</p> <p>c) NIA 内部規定による強制 (例えば、Memorandum Circular)</p>	<p>Memorandum Circular 等によるインベントリー調査の強制、さらに NIS 現場事務所の関係 O&M スタッフの技術トレーニングの実施については勧告に記載する(6.1、2) 及</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>d) 水利用の有効利用を図るため、灌漑施設維持管理業務を妨げている無断居住者排除のための NIA によるキャンペーンの実施</p> <p>e) 灌漑排水施設の維持管理のための諸機材の整備（車両、コンピューター、プリンター、調査器具など）</p> <p>f) IA の強化</p> <p><u>勧告について</u></p> <p>1. 灌漑排水施設の維持管理のための活動、インベントリー調査に従事する現地スタッフのトレーニング、さらにセミナーで合意されたように毎年のインベントリー調査の結果の提出などを考慮すると、インベントリー調査に必要な費用の対策を最優先で考えてもらいたい。さらに、その他灌漑排水施設の改修のため NIA 上層部を奨励するための Memorandum Circular の公布が必要である。種々の資金による NIA の直営による事業実施は、資金の節約と雇用の機会を創出し本インベントリー調査実施上においても有益である。</p> <p>2. インベントリー調査の各項目を毎年の実施し、データの分析、改修計画を策定するためには、NIA スタッフの能力強化対策が重要である。</p> <p>3. インベントリー調査の実施に協力しない Region 若しくは NISO に対する制裁処置並びに処罰を盛り込んだ Memorandum Circular の公布の必要性。例えば、インベントリー調査未提出 NISO に対する明確な評価の提示を含む。</p> <p>4. 灌漑施設内の無法居住者の排除対策として、関連する地方政</p>	<p>び 6.2、8)参照)。</p> <p>インベントリー調査は、4月から11月の8ヶ月間に実施する計画であることから、通常の維持管理業務と併行して実施出来ること、また2年度からは施設の諸元調査は必要なく、施設の新たな被害箇所のみを調査する事となり、作業量も少なくなる。このため、現有のスタッフで対応可能と説明した（議事録12）参照）</p> <p>c)の対応参照</p> <p>c)の対応参照</p> <p>勧告に無法居住者対策について追加文書を加える。</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>府機関による調整機関の設立の必要性。</p> <p>5. 毎日の灌漑排水施設の維持管理のための必要な資機材の供与。特に Region 3 では、車両、コンピューター並びにプリンターが最優先資機材である。コンピューターは老朽化しており、更新の必要がある。大量のインベントリー調査データの整理・分析、さらに水利費 (ISF) 徴収業務にはコンピューターは必須である。</p> <p>6. 末端施設の維持管理のための NIA のよる農民及び水利組合 (IA) へのキャンペーンの実施</p>	<p>勧告の 6.1.1、5)及び 6.1.2、5)、6)及び 7)参照</p>
UPRIIS	コメントなし	
Region 4	<p>1. インベントリー調査のデータ整理・分析、さらに報告書提出手順に関するフローの提示 維持管理事業計画 (改修事業計画は除く) の策定は、5月に実施されるインベントリー調査のデータの整理・分析・評価、さらに維持管理上の問題点の把握に基づいて 6 - 7月の間に実施される。この事業計画書は MOOE 予算計画書に反映される。MOOE 予算計画書は、Regional レベルの維持管理予算書が策定される (通常 8月に策定) 前に Regional 事務所に提出される。改修事業計画書は、上述のフローに基づいて策定される。</p> <p>2. ゲートの維持管理関連項目の一つとして、グリース注入作業の必要性 頭首工、ポンプ場、幹・支線水路の通常維持管理業務の一つである鋼鉄部の塗装とは別に、ゲート類の効率的な操作を図るため、グリースの注入作業についても包含すべきである。</p> <p>3. 灌漑排水施設の改修事業における優先度検討に適用された手</p>	<p>ゲートの維持管理関連項目として、グリース注入作業についても含める。</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>法について 優先改修事業選定基準に適用されている得点手法（高い：5、中：3、低い：1）に代わり、各基準の明確なパラメータを適用してはどうか。例えば、灌漑面積、事業量、面積当たりのコスト等から成る維持管理・改善事業(MRI)の規模は、インベントリー調査結果から明らかとなる。これらの数値から施設の状況を容易に読み取る事が可能である。</p>	<p>得点手法からパラメータ手法に変更しても評価をランク付けする事に変わりなく、現方法で適切と考える。</p>
Region 5	<p>1. ページ S-7 から S-8 に述べられている「3.4 インベントリー調査結果の更新」についての提案</p> <p>1.1 インベントリー調査、資料収集、データ整理などの作業は、乾期作が終了し灌漑用水の送水の終了後に計画されている。この時期は、水路に水が無いことから施設の状況が容易に観察でき出来ると同時に、ISF の徴収時期と合致するのを避ける事が出来ると記されている。一方、質問票(Questionnaire)によると、多数の回答が2月から3月と答えている。</p> <p>1.2 インベントリー調査結果の分析・評価及び問題点の解明は、Operation Plan が策定される時期に一致する8月が計画されている。</p> <p>2. ページ 2-4、「2.3.1 Master List」で記載されている「Region 5 の約半数の地区を除いて(except for about a half of Region-V) 」の削除</p> <p>Region V の NIS に関する Management Action Plan (MAP) の最終レポートは 2005 年 10 月 14 日に提出されている。従って、この記述は SMD が作成する MAP の最終レポートに従って調整してもらいたい。</p>	<p>インベントリー調査の実施時期については、質問票では確かに2月から3月と答えた Regional Office が多かったが、通常の維持管理業務との関連、調査の容易さ、関係者との協議結果などから、インベントリー調査の開始時期として4月以降が適切と判断されたことから、このように提案し了解を得た。</p> <p>Except for about a half of Region V は削除する。</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>3. ページ 2-9、「2.3.9 Inventory Survey in the Study on the Irrigators Association Strengthening Project」について</p> <p>3.1 ページ 2-9、「The GIS database designed in the above inventory survey mentioned in paragraph 2.2.8」は 2.3.8 に修正する。</p> <p>3.2 ページ 2-10、「To fully utilize the reconfigured GIS database ...」の記述は「Further, for full utilization of GIS database, NIA institute a program to acquire application licenses of Software (Arc View) and corresponding training for distribution to RO and NISO where the GIS database is needed for their day-to-day functions.」と変更してほしい。</p>	<p>2.3.8 に修正する。</p> <p>コメント通り修正する。</p>
	<p>4. ページ 3-21 から 3-23 に述べている「3.2.6、2)、 a) Inventory Survey Timing and Interval」の内容と同じ記述が、要約のページ S-7 から S-8 に述べている「3.4 1) Updating Procedures of Inventory Survey-on Timing and Submission Procedures」がある。</p> <p>5. ページ 3-24 から 3-25、及びページ 4-11 に述べている組織及び維持管理の能力判定基準について再検討の要がある。</p> <p>5.1 NIS の職員の数は 205 地区のうち 99 地区に相当する 48% のデータに基づいて次式が策定されているが、妥当な算定式とは考えられない。</p> <p>Number of Personnel = 0.0043 x FUSA + 4</p> <p>将来、この式で NIS の職員の数をレビューされた場合誤解を生ずる事が懸念されるため、式の適用に当たっては十分な注意が必要と考える。</p> <p>5.2 水利費徴収率の算定は次式で表示されているが、IA の機能基準の要素が適切な相関を示していない事から、再検討</p>	<p>要約と本文が同一となっている。</p> <p>別紙-1 のように変更した。</p> <p>別紙-2 のように変更した。</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>の必要がある。 ISF C.E (%) = 12 x AI Functionality Point</p> <p><u>マニュアルについて</u></p> <p>1. インベントリー調査の実施時期と頻度について 上記4と同じ</p> <p>2. ページ 2-5 に記述されている 2.3.1、3) Organization and Operation and Maintenance Information の中の表に、全国平均の数値の他に比較する意味で、NIS 及び NISO の数値も記述してはどうか。</p> <p>3. ページ 3-8 からページ 3-19 に記述されている 3.2.2、3) MRI 計画について フローチャートを利用しやすいよう図に判定基準を含めてはどうか。</p>	<p>NIS 及び NISO の数値については、スペースの都合上 Appendix の表 A2-7 に添付した。</p> <p>図に判定基準を含めるとスペースが取れないため、図の注の最初の行に明示した。</p>
Region 6	コメントなし	
Region 7&8	コメントなし	
Region 9	コメントなし	
Region 10	<p><u>コメント</u></p> <p>1. インベントリー調査全体の展開図(Spreadsheet)の作成は調査を進める上で有益と考える。即ち各 NIS の現場事務所フィールドスタッフは、十分な調査能力を備えている者は少なく、技術トレーニング等の経験が必要な状況である。このため作成された Spreadsheets は現場レベルでは必須である。</p> <p>2. NIS 及び NISO 現場事務所のスタッフにおける効率的なインベントリー調査実施の遂行責任、及び O&M データの収集・更新作業の実施の重要性の認識の欠如が見られる。</p>	<p>インベントリー調査の実施、データの整理・分析、MRI 事業計画、改修事業の優先度の検討などを図示した Spreadsheet を作成し、3.2.6、2)に追加した。</p>

Region	コメント並びに提案	コメント並びに提案に対する対応
	<p>3. O&M 報告に関するモニタリング・評価の不備は、NIA の長年の欠点である。</p> <p>4. NIS の背後地にある流域管理について本調査では検討していない。</p> <p><u>勧告</u></p> <p>1. NIS の現場事務所のスタッフ能力を考慮して Spreadsheet の簡略化は有効な手法である。</p> <p>2. NIS 現場事務所の O&M スタッフの再教育</p> <p>3. 絶対的な強制力並びにペナルティーを具体化した Memorandum Circular No. 43S, 2006 による厳正なインベントリー調査の実施。特に、Irrigation Superintendent (IS) 及び Irrigation Superintendent Officer (ISO) 活動評価は重要である。可能なら、NIA 本部の評価責任者による O&M データ及び調査活動の評価作業が現場で実施されるべきである。</p>	<p>NIS の流域管理については、Department of Environment and Natural Resources (DENR)-Forest Management Bureau (FMB) と NIA とのデマケにより、DENR-FMB が担当する事に成っている。</p>
Region 11	コメントなし	
Region 12	コメントなし	
Region 13	コメントなし	
DF/R 説明・協議時の NIA 側提案	<p>上記の DF/R に対するコメント以外に、DR/R 説明・協議時に NIA 側から以下の項目について追加記述の要請が出されている。</p> <p>1. 渇水期の水管理対策並びに灌漑システム改善について</p> <p>2. RI の優先事業選定分析の詳細資料について</p>	<p>6.2 に追加した。</p> <p>Manual に詳細資料を添付した。</p>