JICA-LGED-TA Project

FINAL REPORT

on

Study on Improvement of Subproject Development Processes – Preparatory and Support Services

Submitted by

Joint Venture of

Socioconsult Ltd. (SCL)

and

SETS Consultant Ltd. (SETS)

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Joint Venture of SCL- SETS

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December 28, 2014

To
Toru Kumagai
Chief Adviser
JICA-LGED-TA Project
Local Government Engineering Department (LGED)
RDED Bhaban (Level-6),
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Subject: Submission of the Final Report.

Dear Sir,

We submit herewith the Final Report on Study on Improvement of Subproject Development Processes – Preparatory and Support Services in five hard copies along with the soft copy for your kind approval.

Thanking you

Sincerely yours

28/12/2014
(Md. Shafiqul Islam)
Coordinator,
Study on Improvement of Subproject Development Processes –
Preparatory and Support Services

Encl. Five hard copies of final report with one soft copy

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ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
BDT	Bangladesh Taka
BWDB	Bangladesh Water Development Board
CAD	Command Area Development
DD	Detail Design
EIA	Environmental Impact Assessment
FM	Flood Management
FMD	Flood Management & Drainage
FS	Feasibility Study
IEE	Initial Environmental Evaluation
IFAD	International Fund for Agricultural Development
IWRMU	Integrated Water Resources Management Unit
JICA	Japan International Co-operation Agency
LGED	Local Government Engineering Department
LGI	Local Government Institution
MFSA	Mymensigh, Faridpur & Sylhet Areas
NGO	Non-governmental Organization
O & M	Operation and Maintenance
PIC	Project Implementation Consultant
PMO	Project Management Office
PRA	Participatory Rural Appraisal
PSSWRSP	Participatory Small Scale Water Resources Sector Project
SCL	Socioconsult Ltd.
SETS	Socio-economic Environmental & Technological Services
SIDA	Swedish International Development Agency
SP	Subproject
SSWRDP	Small Scale Water Resources Development Project
ToR	Terms of References
UDCC	Union Development Coordination Committee
UE	Upazila Engineer
UP	Union Parishad
USD	United States Dollar
WMCA	Water Management Cooperative Association
WRE	Water resources Engineer
WRS	Water Retention Structure
XEN	Executive Engineer

1. INTRODUTION

1.1 General

The Local Government Engineering Department (LGED), with its long drawn experience of working with Local Governments (LGs) at Union and Upazila levels in small scale surface water development activities through involvement in Thana Irrigation Programme (TIP) from the 1960s, SSWR component of SIDA-assisted Infrastructure Development Project in greater Faridpur and Kurigram districts during 1986-96 implementing 60 SSWRD Sub-projects with Participatory Planning and giving O&M responsibilities to the beneficiaries, undertook implementation of Small Scale Water Resources Development Sector Project (SSWRDSP) from 1995 as fully fledged water resources development project with external financing of US$ 68 million from ADB, IFAD and the Government of the Netherlands. The project envisaged to achieve sustainable agricultural development through institutionalization of stakeholders participatory involvement for integrated development of water resources including cost sharing and full responsibility of O&M of the subprojects. Subsequently, the National Water Policy (NWPo) reiterated the need for active involvement of stakeholders, prescribed integrated development of water resources within hydrological units and devolved the ownership of subprojects smaller than 1,000 ha area under Local Government Institutions (LGIs). LGED, being the engineering arm of the LGIs, is the implementing agency of the SSWRD Projects.

Built on the reasonable success of SSWRDSP, LGED implemented 300 SPs under Second Scale Water Resources Development Sector Project (SSWRDSP-2) over a period of seven years (2002-09). It is implementing and Participatory Small Scale Water Resources Project (PSSWRSP) over a period of 2010-2017 in 61 districts of Bangladesh, excluding three districts (Rangamati, Khagrachari and Bandarban) of the Chittagong Hill Tracts, which would further strengthen the established methods of participatory management and operationalize relevant provisions of the NWPo. Besides, JICA is also implementing SSWRDSP over the period of 2009-2017 in 15 districts of Greater Mymensingh, Sylhet and Faridpur districts.

While implementing Sub-projects (SP)s in all over the country, LGED also established Integrated Water Resource Management Unit (IWRMU) in its headquarter for monitoring of the existing small scale water resource management facilities and WMCAs activities. Since small scale water resource management is relatively new for LGED, experience and capacity of IWRMU needs to be strengthened.

In this connection, JICA started a technical cooperation project named "Capacity Development Project for Participatory Water Resource Management through Integrated Rural Development "from October 2012 for five years period. In this project, total four pilot sites have been selected. Among four pilot sites, construction of new infrastructures is to be implemented at three sites and one pilot site mainly focuses on institutional capacity aspects of the existing WMCA.

1.2 Subproject Development Process

1.2.1 Overview

SSWRDP subprojects must be identified by local people and initially processed through their elected representatives in the Union Parishad using a simple format

developed in Bengali (form-1) and signed by Union Parishad and forwarded to the Upazila Engineer.

On receipt of the Subproject Identification form, the Upazila Engineer is to arrange field inspections and public meetings. Together with local peoples' representatives, leaders and beneficiaries he is to visit the area to assess the problems and solutions and record perceptions of the likely benefited/affected people inside and outside the area under the proposed plan. The Upazila Engineer has, hardly, any time to look into the proposal rather he places the proposal with whatever information he gets from people available within his quick reach. When the Upazila Engineer feels that the subproject has both technical and social potential, he collects more information and prepares a Subproject Technical Proposal. He along with the UP Chairperson presents the proposal at the Union Development Coordination Committee (UDCC) meeting for acceptance. Following acceptance of the proposal by the UDCC, the Upazila Engineer sends the proposal, including any amendments recommended by the UDCC meeting, to the district LGED Executive Engineer using form-2.

The Executive Engineer reviews the subproject in the context of the district strategies and guidelines for SSWR interventions. If satisfied, that the subproject will contribute to the development objectives of the district, the Executive Engineer forwards it to the Integrated Water Resources Management Unit (IWRMU) of LGED in Dhaka.

Following submission of subproject proposals to IWRMU in Dhaka each subproject will go through consecutive steps of analysis and reviews as listed below,

- » Pre-screening of the subproject proposal (PIC/PMO)
- » Multidisciplinary field reconnaissance (PIC/PMO)
- » Participatory Rural Appraisal (NGO)
- » Feasibility Studies (Consulting firm)
- » Clearance by the District Level Inter Agency Project Evaluation Committee
- » Detail Engineering Design (Consulting Firm/PIC)

The feasibility study starts after meeting the requirements under first three steps.

Following successful completion of the subproject Feasibility Report (having obtained DLIAPEC clearance), which means the subproject has met the socio-economic and environmental selection criteria, a number of steps related to institutional development including registration of WMCA and collection of beneficiary contribution shall be under taken prior to start of construction.

The whole process takes a long time. The activities involve sequential activities. Some of the activities are repetitive as well as overlapping. At times the activities fall short of requirement as for in case of future evaluation. In consideration of the above stated facts a study named "Improvement of Subproject Development Process – Preparatory and Support Services" has been awarded to SCL-SETS, a consultancy joint venture to obtain field level information on how these activities may be streamlined to give maximum output from the inputs given by consultants/ NGOs engaged on contract. This is an assignment where the participatory method has been encouraged to be followed.

1.3 Objective of the Study

This assignment is to support the preparation of improved development processes for small scale water resource subprojects.

The main objectives of the assignment are to investigate how the present subproject development process pertaining to PRA, FS and DD may be improved to enhance the effectiveness of work carried out by 3rd party firms / NGOs while simultaneously reducing transaction costs and time and if any post construction support may be provided by 3rd party firms / NGOs.

1.4 Scope of Service

The services to be rendered will include:

- How to reduce transaction costs and time taken for PRA and FSDD currently (2013 prices) PRA studies cost about TK.150, 000/SP and FSDD costs about Tk.500, 000/SP.
- Dropping overlapping activities / work/ content of the PRA and FSDD reports.
- Dealing with coordination issues/problem between the NGO/ Firm carrying out PRA work and the firm carrying FSDD work.
- Long time taken to prepare subproject for construction.
- How best to accommodate the different complexity of subprojects, which very form simple drainage type to complex regulatory (gated structure)types to very complex CAD types.
- How to make better use of technology- for example Google earth imagery
- The post construction (O&M) support needs of completed subprojects and whether firms/NGOs should be engaged for this and if so for how long and for what.

Information on above issues may be obtained through

- Conducting Key informants interview (KII) to gather opinions
- Compiling the activities in the form of an Interim Report and presentation in a workshop.
- Preparation of a Final Report based on field work and work shop opinions and suggestions.

2. REVIEW OF PRA AND FEASIBILITY STUDIES REPORTS

Going through the PRA and FS reports it is noticed that on average 15 days is needed for PRA studies and 2 months is needed for feasibility studies. In reviewing it is noticed that some sections of PRA and FS reports are almost similar. Both of the studies deal with engineering, social, agricultural, fishery and environmental aspects. PRA teams spent in field 5-6 days and FS team only 1 day except the social survey and topographic survey. Both for PRA and FS, there are 5 members in each team as shown below.

Sl. No.	Feasibility team	PRA team
1	Team leader/WR Planning engineer	Team Leader/Sociologist or Agriculturist
2	Design engineer	Water Resources Engineer
3	Agriculturist	Agriculturist
4	Sociologist	Gender Development Specialist
5	Environmentalist/Fishery expert	Aquaculture Specialist & Environmentalist

For feasibility study, all types of analysis are included: Engineering-water level, rainfall, agricultural, social and fishery whereas in PRA focused on public opinion based on transect walk, FGD and semi structured interview, where ever required. It is to be noted that from proposal to FSDD, the stakeholders support to the SP is to be assessed, whether they are ready to contribute 1st Year O&M cost (3% for the earthwork and 1.5% for the structure) and to form WMCA.

Our approach is commensurate with objective and scope of work given in the ToR. The assignment is expected to identify how to reduce the transaction costs and make effective use of time and effort of the consultant's/NGO team. Therefore, the approach is to find out means how overlapping of activities and repetition at different stages like reconnaissance, PRA, PCR of FS and FSDD may be avoided.

The *Study on Improvement of Subproject Development Process* was made through a participatory approach. ToR has accordingly stressed on the opinion of persons who are involved in the process from subproject initiation to operation and management. LGED personnel in the field mainly in the XENs office at present are conversant with the process.

As it is a time bounded assignment with short study period, the KII of individuals have been replaced by group discussion with a number of persons who are involved in the project at different stages from initiation to completion. The persons involved are:

(i) Staff in XEN & UZ offices who are involved from initiation to post implementation O&M

(ii) Line Department officials of DAE, DOF, DCO etc

(iii) Local level Government Institutions which include chairman, member and local elite.

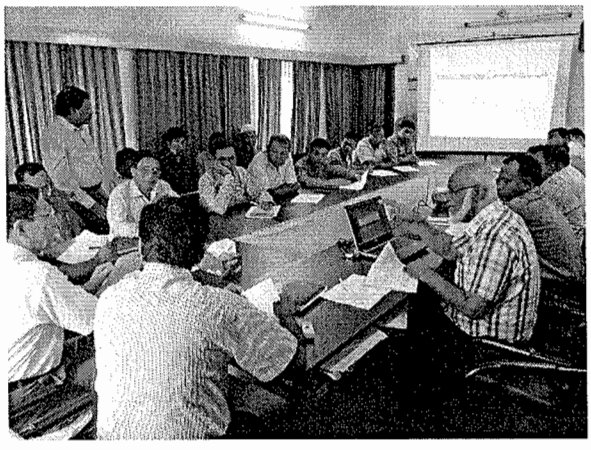
A list of Participants are attached in **Appendix-A.** As all people are not involved at all stages of development, the KII checklist was devised to give the information of acquisition of data on agriculture, fishery, environment, socio-economic and gender. The responses obtained would be analyzed to give frequency of answers given in respect of an issue.

3. METHODOLOGY

The following methodologies briefly were followed for data acquisition, public consultations, analysis and presentation.

Development of Checklist: Structure checklist was prepared in a tabular form. The table constrains four columns. First three columns briefly compares the activities and time frames required for reconnaissance, PRA and FS stages of present SP development process. In forth column some questions are administered for obtaining opinion from the participants. Free spaces were kept between the questions for recording of opinions by the participants. The checklist **(Appendix-B)** was consulted with the expert of the JICA-LGED-TA Project in advance.

Holding of KII Group Discussion: The participants were invited at LGED Conference Room of pilot Districts. At the beginning of the discussion session, the participants were asked whether they were aware about PRA and FS. Although some of the participants were found to be aware but most of them were not aware at all. The participants, who were aware are LGED personnel. Therefore, they were briefed before discussion on the checklist. The checklist was discussed step by step and the participants recorded their opinion. At the end of the session, the participants are asked to give opinion on the issues not covered in the checklist. The checklists filled up by the participants were collected by the Consultants' team for analysis.



KII Group Discussion at Natore

KII Group Discussion at Tangail

Holding of KII with Experts: The checklist used for KII group discussion was also used to obtain opinions of PD, TL and DTL of PSSWRSP and SSWRDP-MFSA. The consultants meet with them, delivered the checklist and later collected the checklists with responses.

Data Entry, Analysis and Reporting: Opinions recorded by the field level participants in the checklist were coded. The numeric values thus obtained were entered and analyzed using MS excel 2007.

KII Group Discussion at Jhalakati

4. FINDINGS FROM KII

4.1 Findings from KII Group Discussion

Out of invited 90 participants in three districts, 70 participants attended the discussion meeting. Only Socio-economist, LGED read PRA Report. The response of the participants of KII group discussion is as follows:

4.1.1 Contract for PRA and FSDD

Table-1: Distribution of Opinions of Field Level Persons on having Separate Contracts for PRA & FSDD

Response	Location of Discussion				%
	Jhalakati	Natore	Tangail	All	
Retain separate contracts for PRA and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants)	8	4	0	12	17.14
PRA should be dropped but some important PRA activities included in either Reconnaissance or FSDD activity.	11	15	27	53	75.71
Not Answered	3	0	2	5	7.14
Total	**22**	**19**	**29**	**70**	**100**

A majority of (75.71%) the attendants of discussion in the field opined that PRA should be dropped and some important PRA activities should be included in either Reconnaissance or FSDD activity. It means that more than 80 % of the respondents were in favour of dropping one step of activities undertaken during PRA.

The conversant Specialists working on the project or a similar project were asked to give their opinion in this respect. Three Specialists, Project Director (PD) PSSWRSP (Respondent -1), Deputy Team Leader, PSSWRDSP (Respondent -2), and TL, Small Scale Water Resources Development Project funded by JICA (Respondent -3) gave

opinions on the queries made by the study team. Two of them opined that PRA should be dropped and important PRA activities should be carried out during FSDD. The opinions are given below:

Table-1 (a) Opinion of the Specialist at LGED HQ

Respondent-1	Respondent-2	Respondent-3
Drop PRA and include important PRA activities in the reconnaissance /FSDD.	Increasing the cost of survey may not give quality report. It depends on qualified persons involved in survey	Drop PRA and include important PRA activities in reconnaissance /FSDD

4.1.2 Carrying out Separate Baseline Survey

In response to the query if fully fledged base line survey should be carried out for each subproject, 24.9% opined that full baseline should be carried out under separate contract while 67.14% opined that base line survey should be carried out by the FSDD team. 8.57% did not answer to t he query. The distribution of field level responses is given at **Table-2.**

Table-2: Distribution of Field Opinion on Conducting Socio-economic Baseline Survey

Response	Jhalakati	Natore	Tangail	All	%
Retain separate contracts for baseline and FSDD	7	5	5	17	24.29
Carrying out baseline for all SPs and merging with FSDD contract	13	14	20	47	67.14
Not Answered	2	0	4	6	8.57
Total	**22**	**19**	**29**	**70**	**100**

The specialists at the HQ felt that separate contracts should be considered but with caution and simplification. The opinions expressed are given below:

Table-2 (a): Opinion of the Specialist at LGED HQ

Respondent -1	Respondent -2	Respondent - 3
have separate contract for baseline survey	Separate contract may be retained with cautions, simplification etc.	have separate contracts for Baseline and FSDD

4.1.3 Redistribution of Categories of Subproject

In response to the query, if the categories of subproject be redistributed according to the complexities of those, at field level proper response was not given as is evident from table at **Appendix -C.** Their response meant that the redistribution is immaterial for them.

Two of three respondent Specialists at the HQ felt that Rubber dam may a subcategory. But at present only 3% of Subprojects are CAD project and only a small

fraction is in the category. So, further subdivision needs further consideration. The opinions expressed are given in table below:

Table-3: Opinion of the Specialist at LGED HQ

Respondent -1	Respondent -2	Respondent- 3
SP category is based on O&M. So no need to increase no of categories.	SPs with Rubber Dam for conservation can be a sub-category.	No expect perhaps SP type for Rubber Dam

In consequence of the suggestion for dropping PRA how some activities which are not covered by FSDD may be accomplished by different experts working in the FS team.

4.1.4 Effective Use of FSDD Team Members

Most of field people considered that the input of WRE, Agronomist, Fishery Specialist and Environmentalist may be effectively used if PRA is merged with FSDD. It means activities performed by WRE during PRA should be done during PCR preparation during FSDD.

About 38.57% participants feel that merging PRA with FSDD helps avoiding duplication and effective use of the All experts of .FSDD (response of 40% participants are not relevant). The distribution of opinion expressed in the field level is given below:

Table-4: Distribution of Field Opinion on Avoiding Duplication and Effective Use of FSDD Team Members

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA with PCR of FS	12	7	8	27	38.57
2	Answer not relevant	7	9	12	28	40.00
3	Not Answered	3	3	9	15	21.43
	Total	**22**	**19**	**29**	**70**	**100**

The specialist at HQ also considered that dropping of PRA as separate activity will avoid most of duplication of activities performed by FS team members.

The opinion on Mode of Engineering data collection and mapping was sought. In this respect the WRE is main person in the team.

4.1.5 Opinions on Engineering Data Collection and Mapping

Opinions on engineering data collection and mapping and related activities, which are mostly carried out by the WRE was sought. The performance of the Water Resources Engineer on following aspect is as follows:

4.1.5.1 Use of Google Earth Image in Planning and Concept Development:

Only 1.43% of attendants felt the need of consultation Google earth Image. Remaining people failed to give any opinion as they are not conversant with use of Google Earth Image and the facilities in the tool.

Table-5: Distribution of Field Opinion on Use of Google Earth Imagery

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	No need of using Google Imagery	1	0	0	1	1.43
2	Answer not relevant	19	18	20	57	81.43
3	Not Answered	2	1	9	12	17.14
	Total	**22**	**19**	**29**	**70**	**100**

The Specialists at the HQ opined in favour of using the tool in the preparation of maps which is first done at reconnaissance stage. The TL JICA team is in favour of including one GIS person in the Team. The opinions expressed are shown in **Table-5 (a):** below:

Table-5 (a): Opinion of the Specialist at LGED HQ

Respondent-1	Respondent-2	Respondent-3
During reconnaissance Google Earth imagery should be used.	It's too much for a NGO. But in FS study Google map is very much useful	Include GIS person on team Use imagery to prepare maps, determine areas.

4.1.5.2 Modality of Preparation of Base, Index and Hydrological Maps

At the field level most of the participants do not know when maps are prepared and for what purpose. About 37% of attendants of the discussion opined that all map should be prepared during PCR stage. only 2.86% stressed on the consultation of mouza maps during drawing preparation. The distribution of opinions is given below:

Table-6: Distribution of Opinion at Field Level on Preparation Maps

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Maps are to be prepared at PCR stage	16	7	3	26	37.14
2	Maps should be prepared with Mouza Map	0	1	1	2	2.86
3	Answer not relevant	3	9	17	29	41.43
4	Not Answered	3	2	8	13	18.57
	Total	**22**	**19**	**29**	**70**	**100.00**

The Specialists at the HQ opined that base map should collect and consulted at PCR stage and other two maps are to be prepared during FS stage. The opinions expressed are shown in Table-6(a) below:

Table-6 (a): Opinion of Specialists at LGED HQ

Respondent -1	Respondent -2	Respondent- 3
During PCR of FS no need to use or collect irrigation planning maps.	At FS stage	Base map and Conceptual map should be prepared at reconnaissance stage and Index map at FS

4.1.5.3 Awareness Building in the SP Area

In support of the opinion 37% of the respondents considered that FS team should work in the creation of awareness regarding the subproject among the sub-project area people. But the majority of the attendants refrained from giving any positive opinion on the role of FS team in this respect. The distribution of opinions is given in **Table -7** below:

Table-7: Distribution of Field Level Opinions on whether Awareness Building be Part of FS or not

Sl No.	Response	Location of Discussion				%
		Jhalakati	Natore	Tangail	All	
1	Yes (through meeting)	6	4	16	26	37.14
2	No	1	4	10	15	21.43
3	Answer not relevant	14	11	0	25	35.71
4	Not Answered	1	0	3	4	5.71
	Total	**22**	**19**	**29**	**70**	**100**

The Specialists at the HQ mostly opined that it should not be any specific responsibility of awareness building in the SP area. The planning meeting and design meeting will generate awareness among the subproject area people. The opinions expressed by individuals are shown in **Table 7(a)** below:

Table-7(a): Opinion of Specialists at LGED HQ

Respondent-1	Respondent-2	Respondent-3
No	Yes	SP level meeting (N.B Planning meeting and design discussion meeting-OK)

4.1.5.4 Mode of Communication with Relevant Organizations in Respect of Sub-projects.

Most of the field level respondents opined that XEN of the relevant Division should be responsible for communication with relevant organizations etc. BWDB, BMDA, BADC

etc to avoid overlapping activities. only 1.43% considered that the consultants should also be involved. The distribution of opinions is given at Table-8 below.

Table-8: Distribution of Field Opinion on Delegation of Responsibility for Communication with Other Agencies to Avoid Overlapping Activity in the SPs.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	XEN, LGED	11	6	22	39	55.71
2	XEN, LGED -Consultant Combined	0	1	0	1	1.43
3	Answer not relevant	3	1	0	4	5.71
4	Not Answered	8	11	7	26	37.14
	Total	**22**	**19**	**29**	**70**	**100**

The specialist at the HQ had differing opinions. The first respondent suggested that it should be responsibility of the DLIAPEC, while the second thought it should be responsibility of LGED with some involvement of the consultant while the third thought that it should solely lie with LGED. The opinions of the specialists are given below:

Table-8 (a): Opinion of Specialists at LGED HQ

Respondent-1	Respondent-2	Respondent-3
DLIAPEC is to see the overlapping/duplication. So that is the right approach and should be followed in future	Mainly by XEN, LGED. But the consultants can play a role of information	Yes. Leave to LGED

4.1.5.5 Appropriateness of Planning of Development Concept

The merger of PRA with FSDD will bring changes in responsibility of WRE. The responsibilities during PRA included determining the outline of the subproject which was also the responsibility of the FS team. The WRE in PRA team carried out transect walk and identification hydraulic structure and direction flow of water through these structures, locations and layout of khals and embankments. Now these should be the responsibility of the WRE of the FS team. He develops interventions required by transect walk and discussion with local people. In respect of development planning concept, which is responsibility of WRE 77.14% attendants at field level opined that the activities performed by the engineer is acceptable.

In respect of activities performed by the in planned development, remaining attendants refrained from giving any opinion. The distribution of opinions is given at **Table-9.**

Table-9: Distribution of Field Opinion on Acceptance of Existing Planned Development Concept

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Acceptable	17	17	20	54	77.14
2	Not Answered	4	2	9	15	21.43

3	Answer not relevant	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

The specialists at HQ also thought that the concept is acceptable but one suggested for reduction of cost and time. The opinions expressed are given below:

Table-9(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Acceptable	Yes	Ok. But we need to reduce time/costs

4.1.6 Agricultural Data Collection & Mapping

At present under PRA the Agronomist prepares agricultural map, prepared table showing land under flooding, drainage congestion, drought constrained etc. by consulting people of different parts of the SP. During FS data on flood phase, cropping and cropping pattern, input use, damage loss to crops etc. are collected. These lead to the determination of pre and post project crop production and yield. Due to dropping of PRA some activities is likely to be increased at the FS stage. So the opinions expressed in some of the issues are discussed below:

4.1.6.1 Should the Land Features according to Flooding, Drainage Congestion etc. be Included in Agronomist's Responsibility.

The attendants at field level discussion considered that the table on land category as prepared in PRA report is important. 96.66% of respondents felt that this table should be included in the FS. The distribution of field level opinions is given at Table – below:

Table10-: Distribution of opinion for inclusion of table under PRA for land under flooding, drought etc.

Sl	Response	Jhalakati	Natore	Tangail	All	%	% of valid respondents
4	Yes	16	17	25	58	82.86	96.66
3	No	2	0	0	2	2.86	3.36
1	Answer not relevant	2	2	0	4	5.71	
2	Not Answered	2	0	4	6	8.57	
	Total	**22**	**19**	**29**	**70**	**100**	

The specialist at the HQ also felt that the table should be included. The opinions expressed are given below.

Table10 (a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Not answered	Just as an indicative but final table in FS.	Yes

4.1.6.2 Determination of Affect of Proposed Interventions on Agriculture inside the SP and in Adjacent Area.

About 76% of the participants feel that remedial measures for the adverse impact on agriculture due to implementation of the SP should be identified by the Agronomist during FS by discussion with the local people. The distribution of field level opinions is given at **Table-11** below:

Table-11: Distribution of Field Opinion for Identification of Remedial Measures for Harmful Effect of the SP by Discussion with the Local People

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	11	22	53	75.71
2	Not relevant	0	1	0	1	1.43
3	Not Answered	2	7	7	16	22.86
	Total	**22**	**19**	**29**	**70**	**100**

The specialist at the HQ also felt that the Agronomist should consult the local area people to determine if there will be any adverse effect of the proposed interventions. The opinions expressed are given below.

Table-11(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Yes, indeed	Agronomist's activity will be to correctly reflect the field situation by collecting data from statistical department and as well as by field verification. Remedial measures can be discussed. But if discussions find that the SP is harmful for the area, the SP can be dropped at that stage.	Yes.

4.1.7 Assessment of Fishery Situation

At present under PRA the Fishery Expert prepares fisheries map showing migration route, if any, prepares table showing production of capture and culture fish, fishing community etc. FS also carries out similar activities but does not show the map. Due to dropping of PRA some activities is likely to be increased at the FS stage. So the opinions expressed in some of the issues are discussed below:

4.1.7.1 Initiative for Taking Fisheries Data during Reconnaissance Survey

About 71% of the participants opined that more initiative is required for collecting data on fishery during reconnaissance but they were not specific. The distribution of field level opinions is given at **Table-12** below:

Table-12: Distribution of Opinion on Initiative to be taken By Reconnaissance Team for Collecting Information during Field Visit

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Need more initiative	15	19	16	50	71.43
1	Answer not relevant	4	0	4	8	11.43
1	Not Answered	3	0	9	12	17.14
	Total	**22**	**19**	**29**	**70**	**100**

The specialist at the HQ also felt that the reconnaissance team's responsibility should remain as present. The opinions expressed are given below.

Table-12 (a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
It could remain the same	The present format for reconnaissance team is sufficient to collect initial information	Yes

4.1.7.2 Involvement of Women in Fishery Activity

Majority of the participants (about 67 %) at the field level feels Involvement of women in fishery is needed. The distribution of field level opinions is given at **Table-13** below:

Table-13: Distribution of opinion on the necessity of data collection on involvement of women in fishery

Sl	Response	Jhalakati	Natore	Tangail	All	%
2	Yes	19	17	11	47	67.14
3	No	0	2	13	15	21.43
1	Not relevant	2	0	0	2	2.86
4	Not Answered	1	0	5	6	8.57
	Total	**22**	**19**	**29**	**70**	**100**

The opinions of specialists at the HQ were very much divided on the issue. one considered that it might be useful, the second considered it to be useful while the third the Team leader was not sure of the usefulness. In almost all reports no role of women is found in fishery. The opinions expressed are given below.

Table-13(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
May be collected	Yes	Not Sure

4.1.7.3 Identification of Location of Fish Sanctuaries during FS

Importance on including fishery component in PSSWRSP has increased. So, it is important to identify probable location of sanctuary at early stage of investigation. In

this respect most of the filed level participants (about 87%) opined that the locations of probable fish sanctuaries by identified at early stage of investigation. The distribution of field level opinions is given at **Table –14** below:

Table-14: Distribution of Opinion at Field on Identification of the Locations of Probable Fish Sanctuaries

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	18	18	25	61	87.14
2	No	2	0	1	3	4.29
3	Answer not relevant	1	1	0	2	2.86
4	Not Answered	1	0	3	4	5.71
	Total	**22**	**19**	**29**	**70**	**100**

The opinions of specialists at the HQ also considered this to be very useful. The opinions expressed are given below.

Table-14 (a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
May be useful	Yes, Useful	Yes, useful

4.1.8 Environmental Data Collection and Analysis

At present under PRA the Environmentalist collects data on historical and cultural spots, people likely to be affected, and quality of water, effect on endangered or threatened species. He also collects data on land acquisition requirement, PAPs. Almost similar activities are carried out during FS. Due to dropping of PRA some minor activities are likely to be increased at the FS stage. The opinions expressed in some of the issues are discussed below:

4.1.8.1 Appropriateness of Environmental Data collection Tool

About 54% participants opined that checklist for environmental data collection is OK. But about 24% of them think that the checklist is not sufficient. They suggested emphasizing more on adverse impact, social environment and addressing LA issue at FS stage. The distribution of field level opinions is given at **Table –15** below:

Table-15: Distribution of Opinion at Field on Adequacy of Existing Checklist for Environmental Data, LA and Resettlement Data Collection

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	13	6	19	38	54.29
2	No, give more emphasis on adverse impact	0	0	5	5	7.14
3	No, give more emphasis on social environment	2	0	0	2	2.86
4	No, address LA issue more at FS stage	4	6	0	10	14.29
5	Not Answered	3	7	5	15	21.43
	Total	**22**	**19**	**29**	**70**	**100**

The opinions of specialists at the HQ were different on the issue. one emphasized on environmental safeguard policy while the second considered the present checklist to be OK. The third refrained from responding to the query. The opinions expressed are given below.

Table-15(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Safeguard policy should be followed. PSSWRSP procedure could be consulted.	Present checklist is OK.	Not answered

4.1.8.2 Environmental Data Collection and Analysis

At present under PRA the Environmentalist collects data on historical and cultural spots, people likely to be affected, and quality of water, effect on endangered or threatened species. He also collects data on land acquisition requirement, PAPs. Almost similar activities are carried out during FS. Due to dropping of PRA some minor activities are likely to be increased at the FS stage. The opinions expressed in some of the issues are discussed below:

4.1.9 Social Aspect.

4.1.9.1 Appropriateness in Social Data Collection

In response to the query most of the participants were in favour of keeping the present system of data collection. Half of them thought that some issues not covered should be included in the SE survey checklist. But they could not tell issues that are to be included. The distribution of field level opinions is given at **Table-16** below:

Table-16: Distribution of Field Opinion on Present System of Socio-Economic Data Collection

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes , present system is appropriate	5	0	20	25	35.71
2	Include necessary issue in SE survey	7	18	2	27	38.57
3	Answer not relevant	8	1	3	12	17.14
4	Not Answered	2	0	4	6	8.57
	Total	**22**	**19**	**29**	**70**	**100**

Two of three specialists at HQ opined that the present form of socio-economic data collection is OK but the third member feels that Baseline survey should be carried out for limited number of project. The opinions are described below:

Table-16(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Existing Socio-economic survey is OK	Baseline survey will not be required for each SP	Present checklist is OK

This response here is in contradiction with the response to query on Carrying out Separate Baseline Survey at Page 7 where 67% of field persons were in favour of separate baseline survey. So, were the specialists. This aspect has to be resolved by further discussion as the issue of future evaluation has been disregarded while to the query.

4.1.9.2 Confidence Level and Error Margin in SE Baseline Survey

This is a statistical issue and the field level could not understand the implication and could not give appropriate response. The distribution of field level opinions is given at Table – below:

Table-17: Distribution of opinion on confidence level and Error margin in SE baseline survey

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Answer not relevant	14	18	17	49	70.00
2	Not Answered	8	1	12	21	30.00
	Total	**8**	**1**	**12**	**21**	**100**

The specialists also did not respond to the query properly, as it is a statistical issue. The opinions expressed are given below;

Table-17 (a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Not Known	Not Answered	±30%

None could identify the confidence level and error margin for SE baseline survey, So this should be left to the statistician, who would determine sampling size on scientific consideration, if Base line survey is to be carried out

4.1.9.3 Collection of Socio-economic data by Environmentalist

Most of the attendants could not respond to the query. However, the appropriate respondents were not in favour of data collection by Environmentalist. The distribution of field level opinions is given at Table – below:

Table-18: Distribution of Field Opinion whether Social Environmental Data Should be Collected by the Environmentalist During Concept Report Preparation.

Sl	Response	Jhalakati	Natore	Tangail	All	%
2	Yes	0	3	2	5	7.14
3	No	1	0	12	13	18.57
1	Answer not relevant	11	7	7	25	35.71
4	Not Answered	10	9	8	27	38.57
	Total	**22**	**19**	**29**	**70**	**100**

The specialists were not in favour of undertaking base line survey as a part of feasibility study; rather they considered that base line survey for BME should something separate. The opinions expressed are given below:

Table-18(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Baseline survey for BME should be separated from FS as it is done now. for BME baseline survey, social environmental data should be collected	Not Answered	Avoid baseline survey here-It will lead to delay

4.1.10 Women Aspect.

Some data on women aspect are collected during PRA which is not done during FS. However, there were some common aspects. So, some queries were made in this respect as described in the following sections.

4.1.10.1 Modification socio-economic data collection format for collecting Gender Information

Modification of Socioeconomic data collection format for Integrating Women Data
The appropriately responding field people were almost divided in modification of the format. But the persons averse too modification could state how the missing information should be collected. The distribution of field level opinions is given at Table – below:

Table-19: Distribution of Field Opinion Whether Socio-Economic Data Collection format should be Modified to Collect Gender Related Data

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	10	16	1	27	38.57
2	No	5	0	21	26	37.14
3	Answer not relevant	5	3	2	10	14.29
4	Not Answered	2	0	5	7	10.00
	Total	**22**	**19**	**29**	**70**	**100**

The Specialists at HQ were unanimous in the modification of the Data collection instrument to collect gender related information. The opinions are shown below:

Table-19(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Should be collected	Gender related data should be included in socio-economic study as FS stage	Some gender information should be included

4.1.10.2 Information on Water and Non water use Data

The field persons were mostly in favour of collection of the data though these are not at all used in FS report preparation. The distribution of field level opinions is given at **Table -20** below:

Table-20: Distribution of opinion whether data (water and non water use related information) collected during FS is superfluous or not .

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	10	6	4	20	28.57
2	No	3	2	18	23	32.86
3	Answer not relevant	4	3	0	7	10.00
4	Not Answered	5	8	7	20	28.57
	Total	**22**	**19**	**29**	**70**	**100**

The Specialists were also divided on this aspect but the Team Leader, SSWRDP thought that it is unnecessary as he deals with all feasibility reports of SPs. The opinions are shown below:

Table-20(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Not Known	No	Yes: avoid unnecessary data collection

4.1.11 Post Construction Support Needs

In response to the query 41.43% attendants felt that a third party should be engaged to giving O&M support while 31.43% thought present system should continue. The distribution of field level opinions is given at **Table -21** below:

Table-21: Distribution of Field Opinion on Post-Construction Support Needs

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Continue with no change to current situation	4	17	1	22	31.43
2	Engage a 3rd party firm for O&M support	9	1	19	29	41.43
3	Answer not relevant	1	0	0	1	1.43
4	Not Answered	8	1	9	18	25.71
	Total	**22**	**19**	**29**	**70**	**100**

The specialists at HQ had differing opinion. But majority of them advocated for better O&M support. B t the DTL, PSSWRSP , advocated for O&M through WMCA. But TL, SSWRDP complex projects should get better O&M support. The opinions are shown below:

Table-21(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Continue with no change to current situation	O & M through WMCA	We should support better O&M Should be targeted with more complex type of SP (CAD etc)

4.1.12 Subproject Development Process

4.1.12.1 Allocation of Time for Different types of subprojects

The SPs are divided in three broad categories. Among these drainage improvement projects are simple, water conservation and flood management projects are structural and not too complex while CAD SPs are complex.

In the field 72.86% attendants were in favour of maintain status quo while only 8.57% wanted redistribution of time. The distribution of field level opinions is given at **Table –22** below:

Table-22: Distribution of Field Opinion on Allocation of Equal Time for Data Collection of All Types of Subproject.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes(Same time should be given)	15	16	20	51	72.86
2	No (Different time should be given according to complexity of SP)	0	2	4	6	8.57
3	Answer not relevant	6	1	1	8	11.43
4	Not Answered	1	0	4	5	7.14
	Total	**22**	**19**	**29**	**70**	**100**

The specialists at HQ thought that the time allocation for data collection should be based on complexity of subprojects. The opinions are shown below:

Table-22(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Different time and method should be used	Time for data collection should depend on type of SP such as simple, complex & Very complex	More for complex types

4.1.12.2 Time for Data Analyses for Different types of subprojects

At the field 77.14% of the attendants of discussion meeting felt that time for analyses for different types of SPs should be different allowing more time for depending on degree of complexity. only 4.29% thought same time should be given for all types of SPs. The distribution of field level opinions is given at Table – below:

Table-23-: Distribution of Field Opinion on Same Time Allocation for Data Analysis of All Types of Subproject.

Sl	Response	Jhalakati	Natore	Tangail	All	%
4	Same time should be given for all SPs	1	1	1	3	4.29
1	Time should be allocated according to complexity of SPs	16	18	20	54	77.14
2	Answer not relevant	4	0	2	6	8.57
3	Not Answered	1	0	6	7	10.00
	Total	**22**	**19**	**29**	**67**	**96**

The specialists at HQ thought that the time allocation for analyses should be based on complexity of subprojects. The opinions are shown below:

Table-23(a): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
Yes, same time may be given	Time for analysis should depend on type of SP such as simple, complex & Very complex	No. Time should be according to the complexity of SPs

4.1.12.3 Combining Planning and Design Meeting

Most of the persons (82.86%) of field considered that simple drainage improvement and not too complex SPs (may be with one structure) opined that both the meetings should be combined. In contrast, 75.71% of the attendants of discussion meeting felt that separate meetings should be held for complex SPs like CAD, Rubber Dam SPs etc. The distribution of field level opinions is given at **Tables-24 (a)-(c)** below:

Table-24 (a): Distributions of Field opinion for holding one combined planning and design meeting for Simple Drainage Improvement Subprojects

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	15	23	58	82.86
2	No	0	0	2	2	2.86
3	Not Answered	2	4	4	10	14.29
	Total	**22**	**19**	**29**	**70**	**100**

Table-24 (b): Distributions of Field opinion for holding one combined planning and design meeting for Simple Structural Subproject

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	14	24	58	82.86
3	No	0	1	0	1	1.43
2	Not Answered	2	4	5	11	15.71
	Total	**22**	**19**	**29**	**70**	**100**

Tble-24(c): Distribution of opinion for holding separate planning and design meeting for complex structural subproject having more than one structure and CAD SPs.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	9	24	53	75.71
2	No	0	1	0	1	1.43
3	Answered not relevant	0	2	0	2	2.86
4	Not Answered	2	7	5	14	20.00
	Total	**22**	**19**	**29**	**70**	**100**

The specialists at HQ thought that the planning and design meeting should be done simultaneously for Drainage subprojects but for others separate meetings should be held. The opinions are shown below:

Table-24 (d): Opinion of Specialists at LGED HQ

Respondent – 1	Respondent – 2	Respondent – 3
It is Ok for drainage SP	Yes	Good idea

4.1.12.4 Design Time Requirement for Different Types of SPs

The time requirement for design at the field could hardly be assessed. More than 81% of attendants felt that 5 days are sufficient for all types of projects. The distribution of field level opinions is given at **Tables-25(a)-(c)** below:

Table-25(a): Distribution of Field Opinion on Design Time Requirement for Simple Drainage Subprojects

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1- 2days	1	17	25	43	61.43
2	3-5days	8	2	4	14	20.00
4	>5 day	12	0	0	12	17.14
5	Not Answered	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

Table-25(b): Distribution of Field Opinion on Design Time Requirement for Simple Structural Subprojects

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2 days	1	17	25	43	61.43
2	3-5 days	8	2	4	14	20.00
3	4 day	0	0	0	0	0.00
4	>5 days	12	0	0	12	17.14
5	Not Answered	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

Table-25(c): Distribution of Field Opinion on Design Time Requirement for CAD Subprojects

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2 days	0	17	24	41	58.57
2	3-5 days	2	2	5	9	12.86
3	>5 days	18	0	0	18	25.71
4	Not Answered	2	0	0	2	2.86
	Total	**22**	**19**	**29**	**70**	**100**

The specialists at HQ thought that the time for design should be according to the complexity of SP. The PD PSSWRS project did not respond to the query. Other two thought simple drainage SPs should take 7-10 days, structural SPs should take 12 – 21 days and complex SPs should get 20 -28 days The opinions are shown below:

Table-25(c): Opinion of Specialists at LGED HQ

Type of SP	Time Requirement by Type of SPs		
	Respondent – 1	**Respondent – 2**	**Respondent – 3**
Simple Drainage SP	Not answered	7 days	7-10 days
Structural SPs	Not answered	12 days	14-21 days
CAD SPs	Not answered	20 days	21- 28 days

4.1.13 Time Requirement of FS Team in the Field during Conceptualization of Sub-Project.

On dropping PRA the time requirement of the FS team has to be increased to gather pertinent and adequate information from the field. In this respect queries were made at the discussion meetings at field. 60% of the attendants thought that the Team Leader should stay in the field for two days and 25.71% thought that the time should be 3-5 days. only 2.86 % thought that the stay should be for more than 5 days.

Among the attendants 40% thought that the Planning Engineer should stay for 1-2 days while 42.86 % thought it should be for 3-5 days and a small fraction of 5.71% considered the requirement to be more than 5 days.

Among the attendants 45.71% thought that the Agriculturist should stay for 1-2 days while 31.43 % thought it should be for 3-5 days and a small fraction of 10% considered the requirement to be more than 5 days.

Among the attendants 49.3% thought that the Environmentalist should stay for 1-2 days while 36.62 % thought it should be for 3-5 days and a small fraction of 1.41% considered the requirement to be more than 5 days.

Among the attendants 36.49% thought that the Sociologist should stay for 1-2 days while 43.24 % thought it should be for 3-5 days and a small fraction of 5.41% considered the requirement to be more than 5 days. The distribution of field level opinions is given at **Table-26** below:

Table-26: Distribution of Field Opinion for Allocation of Days to be Used by the FS Team to have Effective Conceptualization.

Response	Jhalakati	Natore	Tangail	All	%
Team Leader					
1-2 days	13	12	17	42	60.00
3-5 days	4	5	9	18	25.71
>5 days	0	2	0	2	2.86
Not Answered	5	0	3	8	11.43
Total	**22**	**19**	**29**	**70**	**100**
Planning Engineer					
1-2 day	6	11	11	28	40.00
3-5 days	11	7	12	30	42.86
> 5days	0	1	3	4	5.71
Not Answered	5	0	3	8	11.43
Total	**22**	**19**	**29**	**70**	**100**
Agriculturist					
1-2 day	8	13	11	32	45.71
3-5 days	8	5	9	22	31.43
>5 days	1	1	5	7	10.00
Not Answered	5	0	4	9	12.86
Total	**22**	**19**	**29**	**70**	**100**
Environmentalist					
1-2 days	9	14	12	35	49.30
3-5 days	8	5	12	26	36.62
>5 days	0	0	1	1	1.41
Not Answered	5	0	4	9	12.68
Total	**22**	**19**	**29**	**71**	**100**
Sociologist					
1-2 days	5	14	8	27	36.49
3-5 days	10	3	15	32	43.24
>5 days	0	2	2	4	5.41
Not Answered	7	0	4	11	14.86
Total	**22**	**19**	**29**	**74**	**100.0**

The specialists at HQ thought that the time of stay of each consultant during concept development should be according to the complexity of SP. The duration proposed mostly varied from 3-4 days. As the team will work together it is advisable that whole team works in the field for four days. The opinions are shown below:

Table-26 (a): Opinion of Specialists at LGED HQ

Consultant	Time Requirement by Type of SPs in days		
	Respondent – 1	Respondent – 2	Respondent – 3
Team Leader	A threshold value	2	3-4
Planning Engr.	A threshold value	4	4-6
Agriculturist	A threshold value	4	3
Environmentalist	A threshold value	3	2
Sociologist	A threshold value	3	4
Fishery Specialist	A threshold value	3	1-4

4.2 Findings of Open Discussion.

Simultaneously with the discussion on structured checklist open discussion was held on process development. During this deliberations the Executive Engineer, Natore LGED Division, Upazila Engineer and a person attending on behalf of DAE opined that the subprojects are related with planning and design which are specifically attended to by the specialists at HQ. **(Appendix-D).** They do not get the copies of reports for which they are not aware of the processes involved. They clearly expressed that process development and modification could be done by the experts, who have knowledge on PRA and FSDD, at the Head Quarter. None of the participants have gone through the reports except PRA by Socio-economist.

Executives Engineer, Tangail LGED Division emphasized on fish sanctuaries. District fisheries officer supported his opinion. The XEN opined for increasing simple structure subprojects. He also thinks that it is not the consultant's responsibility to check sp overlapping. He also suggested engaging consultant for O&M. Upazila Chairman stressed on drainage subproject with a structure for preventing seepage loss of irrigation water. Socio-economist opined for not staying of all consultant's in the field for same time. He thinks that WMCA is enough for maintaining simple subprojects. He along with community organizer, Sakhipur and Upazila Chairman advised for reducing no of visiting teams.

Executive Engineer, Jhalakati stressed on engaging third party preferably UZ or UP for O&M. Jhalakati Sadar Upazila Engineer along with Basunda UP stated that, it is difficult to opine by most of the participants as they are not acquaint with the contents of checklist. District Co-Operative Officer mentioned loss motivation among the beneficiaries after implementation as the major reason for ineffectiveness of most of the WMCA of drainage subproject. Socio-economist stressed on micro-credit fund programme funded by Japan fund poverty reduction program for activating inactive WMCA. Jhalakati Sadar Upazila Chairama stress on implementing more drainage subproject in their region to restore the heritage of Barishal.

4.3 Review of Discussions and Findings at Meetings

Most of issues were properly responded to both at the field as well as HQ level. But some issues had diverging opinions. These issues need further discussion before a manual can be developed.

The requirement of a baseline Socio-economic survey using quantitative method was overwhelmingly supported (72% of proper respondents) at the field level. The experts expressed that separate contracts be made for base line survey.

In the course of discussion on social aspects all in the field were in favour of retaining the existing method of group discussion, rather than household survey if required with some modification. The specialists also opined that the present form of socio-economic data collection is OK. However, one Specialist considered this may be done in limited number of subprojects. It was considered by them that quantitative Baseline Survey would cause delay.

The opinions on same issue at two stages have diverge opinion. This need to be resolved before the manual modification is taken up.

The use of Google imagery could not be understood at the field level. However, the specialists at HQ stressed upon the use at SP concept development stage.

The opinion on what types of maps should be drawn at what stage could not be properly responded at the field rather about 37% of them opined that maps should be prepared at PCR stage. The specialists stressed on preparation of at FS stage though few stressed on preparation of base map at reconnaissance stage.

In the absence of PRA awareness building on subproject by FSDD team was stressed in the field but through meeting. The Specialists did not think this should be part of the responsibility of the FSDD team. However, Planning and Design discussion meetings play some role in the awareness building process.

Confidence level and Error margin in baseline survey. This aspect could not be understood at field as it is fully statistical issues. The responses of the specialists were also not adequate. This needs further discussion if baseline Survey using quantitative method is used.

Collection of Water and non water Use data on women was stressed by 28.57% at field while specialists at HQ advised on avoiding this issue.

The time requirement of different members of the FSDD team could not be properly assessed by field level discussants but the Specialists suggested plausible time frame.

4.4 Summary Findings of KII Group Discussion

- PRA and FSDD should be merged to avoid duplication of activities for reducing subproject implementation time and cost
- All subprojects should be covered under baseline study with FSDD contract.
- Selection of type of subproject depends on the problem of the area.
- Base map and Conceptual map should be prepared at reconnaissance stage and Index map at FS
- Executive Engineer, LGED alone will be responsible for communicating with other agencies to avoid duplication of subproject.
- Table used in PRA showing flooding, drought etc. should be prepared in FS.

- More initiative is required for collecting data on fishery and environment during reconnaissance survey. Involvement of women in fishery is needed to be including in FS.
- Probable fish sanctuaries should be indentified during FS.
- LA issue should be addressed during FS.
- Present system for collection of SE data is appropriate. However, SE data collection format should be modified to cover necessary issues.
- Third party should be included for O&M
- Different time should be allocated for data collection for different type of SP
- one combine planning and design meeting should be held for simple types of SP. But for complex type separate planning and design meeting is needed.
- FS conceptualization needs -2 days for Team Leader, 3-5 days for Planning Engineer & sociologist and 1-2 days for Agriculturist & Environmentalist.

5. RECOMMENDATIONS

5.1 Recommendation Based on findings of the Checklist

- PRA and FSDD may be combined. Some article/map of PRA is to be included in the PCR like Transact walk, Agricultural and Fishery map and debriefing session.
- *It would be better if base line study can be conducted for all Subprojects, if fun is available. Otherwise, at least 20% Subprojects should be covered under baseline study for better impact analysis. It may be combined with the FS, if all SPs is considered. Otherwise, separate contract should be considered.*
- Selection of type of subproject depends on the problem of the area. Emphasis should be given on FMD & WC for Natore and Tangail areas and for Dr and DR-Irr.for Jhalakati areas. Rubber Dam SP may be considered as WC type of SP.
- Duplication may be avoided by combining PRA and FSDD.
- Google map should be used for the Subproject.
- All maps should be prepared during PCR stage. *Index map must be updated showing the all existing infrastructures.*
- *for PCR, Consultant team should visit the site for 4 days including debriefing session.*
- Awareness building should be continued through debriefing session, FGD, planning and design discussion meeting and also through CO and WMCA.
- XEN will be responsible for getting clearance from the other agencies where there is overlapping. Consultant team has no responsibility; as such discussion with the field XEN of BWDB and BADC is not needed by the consultant team.
- Existing planned concept is OK.
- Table used for land under flooding, drought may be included in FS.
- Mitigation measures should be undertaken if there is any adverse impact due to implementation of the Subproject.
- Data on involvement of women in fishery is necessary and should be included in the FS.

- Location of probable fish sanctuary should be identified during FS.
- Checklist for environmental data collection is OK. LA and resettlement issue should be addressed in FSDD especially during design for land acquisition. However, safeguard policy should be followed and procedure of PSSWRSP should be consulted.
- Socioeconomic survey should be conducted with minimum error margin.
- For O&M, 3rd party may be considered. For O&M, some fund is need for O&M Consultant.
- Different time should be allocated for different type of SP and also different size of SP. Design time may vary from 10-30 days.
- for SP involved only earthwork, no design meeting is needed. for SPs with structure, separate planning and design meeting should be conducted.
- Subproject development process shown in Figure is OK.
- Cost of FSDD should be reviewed.
- Development of internal road, market, construction of culvert etc. may be consider in the enhancement SP.
- A planning and design cell may be created within IWRM Unit

(Note: italic sentence represent the comment of the consultant)

5. 2 Recommendation Based on findings from FS and others

- Production of some agricultural crops like maize, water melon, vegetable (droughty, flooded), Jute (flooded, droughty), betel leaf etc. should considered.
- Net cultivable area should be mentioned along with gross area and net benefited area.
- Actual yield for different agricultural crops and fish recorded by the agronomist and fishery specialist respectively during field visit should be considered.
- Economic and financial value needs updating. For economic analysis, simpler format may be used.
- Up to date hydrological data should be used. Presently it is used up to 2002.
- for drainage runoff, shape, size of the catchment area and soil type is not considered.
- The project life of all types of SP is considered for 30 years. It may be reviewed for type of SP and region.
- WMCA is mostly inactive in drainage SPs. for effective WMCA credit programme should be continued.
- To reduce time of FS, consulting firm may be allocated cluster of SPs in a district.
- The SP should be consulted to the Union Development Coordination committee (UDCC) during PCR.
- *O&M cost may be reviewed- it should vary on type of soil and type of embankment: Submersible or full protection embankment*

5. 3 Recommended Table of Contents for Participatory Feasibility Study

Table of Contents for Participatory Feasibility Studies is shown below:

Acronyms
Glossary
Executive Summary or Salient Feature of the Subproject

1. INTRODUCTION

2. SUB-PROJECT OVERVIEW

2.1 Location and Map
2.2 Concept Development
2.3 History of Water Development Related Activities
2.4 Interaction with Projects of BWDB, BADC and other Agencies
2.5 Conformity with National/Regional Strategies
2.6 Planning of Subproject Physical Works
2.7 Major Cost Components

3. DESCRIPTION OF THE ENVIRONMENT

4. IMPACTS AND IMPACT MANAGEMENT MEASURES

4.1 Hydrology/Land Types
4.2 Agriculture
4.2.1 Land Types and Major Cropping Pattern
4.2.2 Pre-project Crop Production
4.2.3 Post project Crop production
4.2.4 Crop Production Limitation

4.3 Fisheries
4.3.1 Seasonal Water Bodies
4.3.2 Perennial Water Bodies
4.3.3 Fish Migration Route
4.3.4 Fishing Community
4.3.5 Pre-project Fish Production
4.3.6 Post- project Fish Production

4.4 Social and Socio-economic
4.4.1 Distribution of Benefit Household by Occupational Category
4.4.2 Benefitted Area operated by Different farmers
4.4.3 Attitude of Stakeholder towards the SPs
4.4.4 Gender Role in the Subproject
4.4.5 Impact of SP on Employment of Women

4.6 Environmental
4.6.1 Environmental Sensitive Area
4.6.2 Use of Chemicals and Fertilizers

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LIST OF CHARTS

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Appendix-1: Engineering salient Features
Appendix-2: BACK-UP FILES
Appendix-***3:*** IEE/EIA REPORT
Appendix -4: EMP Report
Appendix – 5: Agricultural Field data
Appendix – 6 Fishery data
Appendix 7: Socio-economic Survey Report
Appendix 8: SES Data
Appendix 9: Minutes of Debriefing Session
Appendix--10:Minutes of Planning Meeting

6.0 Discussion at LGED HQ after the JV's Recommendations

6.1 1st Discussion Meeting on SSW Subproject Development Process Improvement

Date	:	22nd September 2014
Venue	:	Conference Room, Level-4, LGED Bhaban
Agenda	:	i) Presentation of the Interim Report (by JV of SCL-SETS) ii) Discussion on Improvement of SSWR Subproject Development Process
Chairperson	:	Mr. Shyama Proshad Adhikari *Additional Chief Engineer (IWRM), LGED*
Key Persons	:	Mr. Md. Joynal Abedin *Superintending Engineer (O&M), IWRM Unit, LGED* Mr. Md. Shahidur Rahman Pramanik *Superintending Engineer (P&D), IWRM Unit, LGED and* PD,TL,DTL with consultant of water sector project & XEN, Sr.AE, AE from IWRMU
Presented by	:	Mr.Md.Shafiqul Islam *Coordinator, JV of SCL &SETS*
Participants	:	IWRMU (All) Project Director (SSWRDP-JICA, PSSWRSP-ADB, Rubber Dam Project) Team Leader/DTL(SSWRDP-JICA, PSSWRSP-ADB) JICA-TA Project Experts Sociologist, Agronomist and others Total 30 persons

Minutes of the Discussion Meeting on
Study on Improvement of Subproject Development Processes –
Preparatory and Support Services

Date: 22nd September, 2014

A discussion meeting on SSW Subproject Development Process Improvement was held at the conference room of LGED on 22nd September, 2014. Mr. Shyama Prosad Adhikari, Additional Chief Engineer (IWRM) presided over the meeting.

The Chairperson welcomed the participants and requested Mr. Joynal Abedin, **SE (O&M)** IWRM to conduct the discussion session.

SE(O&M), at the beginning, requested the participants to share their comments. He said that present SP implementation process involves three major steps, which overlaps and requires long time. This study will help to find out way to avoid overlapping and minimizing time for implementation. He briefly discussed about the steps of the study. He thanked HQ respondents to give their valuable comments. He told that it will be better if all other relevant personnel gave their comments, which may be valuable for the study.

Mr. Chairman asked the consultant team, whether the checklists were distributed to all other relevant personnel or not. Mr. Manoranjan Mojumder (Team Leader of the consultant team) replied that checklists were distributed only to four personnel out of whom three responded. He also asked the HQ respondents whether they distributed their officials or not. The respondents replied that they did not distribute.

Mr. Moshiur Rahman (PD, SSWRDP-JICA) supplementing the reply of the respondents told that, the respondents gave their comment with consultation of their officers.

Mr. Chairman asked SE(O&M) to carry on discussion meeting. SE(O&M) requested Mr. Md. Shafiqul Islam (**Coordinator** of the consultant team) to present the findings of the study.

During presentation, Mr. Chairman asked the Coordinator about the participants of KII Discussion Session. The Coordinator described the KII participants. Mr. Chairman told that most of the personnel may not aware about the whole implementation process. The Coordinator replied that since the SSWRDP subprojects are implemented using bottom up approach, opinions of field level personnel were considered.

Mr. Chairman also asked about the steps of PRA that overlaps steps of FSDD. The Coordinator explained the overlapping steps.

Mr. Chairman told that dropping PRA not sounds good. Because, PRA and FSDD methods are being practiced for long. He suggested using suitable terminology instead. The Coordinator replied that PRA will not be dropped; rather it will be merged with FS. Mr. Chairman also asked about the third party, who is proposed for O&M. The Coordinator replied that they may be NGO or contractor. Supplementing his reply SE(O&M) referring finding from KII Discussion at Jhalakati District told that Upazila Parishad or Union Parishad was proposed for. He suggested holding a KII Group Discussion like field level.

Mr. Shahidul Haque (PD, PSSWRSP) told that FS is done considering parameters of the subproject. In that case day requirement for FS depends on SP type, intervention and interviews with the beneficiaries and stakeholders. Therefore, will it be rationale to fix days? He also suggested exploring total time requirement by different consulting firms for total

analysis. He think that merging of PRA and FS alone cannot solve the problem. The Coordinator replied that, day proposed for only field visit and not for data analysis. PD of SSWRDP-JICA told that there is a guideline for time requirement that needs to be reviewed.

SE(O&M) suggested taking opinion of relevant officers and firms. Supporting his suggestion Mr. Chairman suggested distributing a brief report of that study that will consists of methodology, findings and checklist for KII to relevant PDs, SEs and Project Consultants and thereby requested the respondents to give their responses within seven (7) days. After getting their comments another discussion meeting will be held within fifteen (15) days. He suggested the respondents to give their comments consulting with their relevant officers.

Mr. Alan Clark (TL, Project Consultant team, SSWRDP-JICA) suggested giving brief recommendation preferable in the form of flow chart. He also suggested not spending too much time for this study as it may delay upcoming JICA funded SSWRDP project. Mr. Chairman appreciated his suggestion.

Mr. Chairman suggested replacing the word "Development" with suitable word from the study title. Mr. Chairman also suggested to reduce the recommendations. All the recommendations provided in the present report may be considered as working paper for future guidelines of SSWRDSP.

The meeting was concluded with a vote of thanks from the Chair.

Government of the People's Republic of Bangladesh
Local Government Engineering Department
IWRM Unit, LGED Headquarter, RDEC (Level-6)
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207

Memo No: LGED/SE(IWRM)/08SM/T-3/13/370 Date: 03-09-2014

Notice

A discussion meeting on **SSW Subproject Development Process Improvement** will be held on **22nd September** 2014 (Monday) at 10:00AM, at the Conference Room (Level-4), LGED Bhaban, under the Chairmanship of Mr. Shyama Prosad Adhikari, Additional Chief Engineer (IWRM).

All concerned are requested to attend the meeting on time and share your valuable comments.

Agenda:

1. Presentation of the Interim Report (by JV of SCL & SETS)
2. Discussion on Improvement of SSW Subproject Development Process

Attachment:

- IWRMU-SSWRD Documentation (Tentative), for your reference
- Interim Report on "Study on Improvement of Subproject Development Process" (JV of SCL & SETS)

(Md. Joynal Abedin)
Superintending Engineer (O&M)
IWRM Unit, LGED
and Project Manager of JICA TA

Distribution (With request to attend the meeting)

1. Additional Chief Engineer (IWRMU), LGED
2. Superintending Engineer (P&D), IWRMU, LGED
3. Project Director, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
4. Executive Engineer (All), IWRMU, LGED
5. Senior Assistant Engineer (All), IWRMU, LGED
6. Assistant Engineer (All), IWRMU, LGED
7. JICA Expert (All), JICA TA Project, LGED
8. TL/DTL, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
9. Sociologist/ Institution Specialist, IWRMU/ SSWRDP-JICA/ PSSWRSP-ADB, LGED
10. Agronomist, IWRMU/ SSWRDP-JICA/ PSSWRSP-ADB, LGED
11. Representatives, JV of SCL & SETS/ BISR/ BETS

CC: (for his kind information)

- Chief Engineer, LGED

Study on SSW Subproject Development Process Improvement

Discussion Meeting on the Interim Report

1. Background of the Study

Reconnaissance, PRA, Project Concept Report and Feasibility Study includes repetitive and overlapping activities, requiring time, efforts and money. In spite of such efforts, kinds of conflicts are happening in various SP sites, causing problems in P&D and severe delay in implementation of subprojects.

2. Scope of Work

- How to reduce transaction costs and time taken for PRA and FSDD.
- Dropping overlapping activities / work/ content of the PRA and FSDD reports.
- How best to accommodate the different complexity of subprojects.
- How to get real participation of local stakeholders and achieve integration with rural development plan.
- How to make better use of technology- for example Google earth imagery.
- The post construction (O&M) support needs of completed SPs and whether firms/NGOs should be engaged for this, and if so for how long and for what.

3. Methodology

1) Development of Checklist
2) Discussion workshop in three pilot-districts (Jhalokathi, Natore and Tangail)
3) *Discussion meeting on Interim Report, all water-sector at LGED HQ*
4) Discussion meeting on Draft Final Report (Inter-unit meeting at LGED HQ)

→ followed by Modification of existing Manuals and Guidelines.

4. Summary Findings from the Interim Report

- PRA and FSDD should be merged to avoid duplication of activities for reducing subproject implementation time and cost.
- Base map and Conceptual map should be prepared at Reconnaissance stage and Index map at FS.
- Third party (firms) should be involved in O&M to some extent.
- Many others

To be discussed

IWRMU-SSWRD Documentation (tentative)

Documents		Remarks
Strategy and Manual		
M1	SSWR Development Strategy, Process and Support	Draft prepared by JICA consultant team in December 2013
Guidelines		
G1	Operation and Maintenance Guideline for SSWR Subprojects	Completed in July 2013
G2	Performance Enhancement Guideline for Existing Subprojects	PSSWRSP-ADB
G3	Participatory Rural Appraisal	Restructuring?
G4	Feasibility Studies	
G5A	Design Guideline & Criteria for SSWR Subprojects: Part A - Simple & Regulatory subprojects	
G5B	Design Guideline & Criteria for SSWR Subprojects: Part B - CAD subprojects	Draft prepared by JICA consultant team in November 2011
G5C	Design Guideline & Criteria for SSWR Subprojects: Part C - Rubber Dams	
G6	LCS Management and Works Implementation	January-2004
G7	Construction and Quality Control	
G8	Environmental and Social Safeguard Guidelines including Gender	Action plan in 2011
G9	Fisheries Development	Approach to Fisheries in 2010
G10	Crop Agricultural Development	
G11	Management Information System and Monitoring & Evaluation Guidelines Part A: MIS Part B: Sub-project Grading Part C: Effect Monitoring & Evaluation (EME) Part D: Impact Evaluation Studies	 SQL Base On-line Database November-2001
Other Documentation		
	Hydrological Data	1990s
	Standard Design Catalogue	1990s
	Standard Specifications	1990s

(Source: Monthly Progress June 2014, SSWRDP-JICA)

SSWRD by LGED is informed by ***various manuals and guidelines*** which have been prepared since the start of SSW-1 in 1996. A start has made to review these guides and update them as necessary taking into account changes in recent years.

بسم الله الرحمن الرحيم

ASSALAMU ALAIKUM

Welcome to

Presentation on

Study on Improvement of Subproject Development Processes – Preparatory and Support Services

Under

Capacity Development Project for Participatory Water Resources Management through Integrated Rural Development (JICA-LGED-TA Project)

Presented by

JV of Socioconsult-SETS

Objectives

The main objectives of the assignment are:

- ✓ To investigate how the present subproject development process pertaining to Participatory Rural Appraisal (PRA), Feasibility Study(FS) and Detailed Design (DD) may be improved to enhance the effectiveness of work carried out by 3rd party firms / NGOs while simultaneously reducing transaction costs.
- ✓ To consider what if any post construction support may be provided by 3rd party firms / NGOs.

Subproject Development Process

- Identification of Proposal by UP
- Submission of Proposal to SE by UE through XEN
- Pre-screening of the subproject proposal (PIC/PMO)
- Multidisciplinary field reconnaissance (PIC/PMO)
- Participatory Rural Appraisal (NGO)
- Feasibility Studies (Consulting firm)
- Clearance by the District Level Inter Agency Project Evaluation Committee
- Detail Engineering Design (Consulting Firm/PIC)

The whole process takes a long time. The activities involve sequential activities. Some of the activities are repetitive as well as overlapping.

Team Compositions of FS and PRA

Sl. No.	Feasibility Study Team	PRA Team
1	Team leader/WR Planning engineer	Team Leader/Sociologist or Agriculturist
2	Design engineer	Water Resources Engineer
3	Agriculturist	Agriculturist
4	Sociologist	Gender Development Specialist
5	Environmentalist/Fishery expert	Aquaculture Specialist & Environmentalist

Findings of Open Discussion

- Participants at Natore LGED Division clearly expressed that process development and modification could be done by the experts at the Head Quarters, who have knowledge on PRA and FSDD.
- Socio-economist (Tangail), CO & Upazila Chairman (Shakhipur) advised for reducing number of visiting teams.
- Executive engineer, Jhalakati LGED Division stressed on engaging third party preferebly UZ or UP for O&M .

Summary Findings of KII Group Discussion (1)

- **PRA and FSDD should be merged to avoid duplication of activities for reducing subproject implementation time and cost**
- All subprojects should be covered under baseline study with FSDD contract.
- Selection of type of subproject depends on the problem of the area.
- Base map and Conceptual map should be prepared at reconnaissance stage and Index map at FS
- Executive Engineer, LGED alone will be responsible for communicating with other agencies to avoid duplication of subproject.
- Table used in PRA showing flooding, drought etc. should be prepared in FS.
- More initiative is required for collecting data on fishery and environment during reconnaissance survey. Involvement of women in fishery is needed to be including in FS.

Summary of Findings of KII Group Discussion (2)

- Probable fish sanctuaries should be indentified during FS.
- LA issue should be addressed during FS.
- Present system for collection of SE data is appropriate. However, SE data collection format should be modified to cover necessary issues.
- Third party should be included for O&M
- Different time should be allocated for data collection for different type of SP
- one combine planning and design meeting should be held for simple types of SP. But for complex type separate planning and design meeting is needed.
- FS conceptualization needs 1-2 days for Team Leader, 3-5 days for Planning Engineer & sociologist and 1-2 days for Agriculturist & Environmentalist.

RECOMMENDATIONS (1)

Recommendation Based on findings of the Checklist

- PRA and FSDD may be combined. Some article/map of PRA is to be included in the PCR like Transact walk, Agricultural and Fishery map and debriefing session.
- *It would be better if base line study can be conducted for all Subprojects, if fund is available. Otherwise, at least 20% Subprojects should be covered under baseline study for better impact analysis. It may be combined with the FS, if all SPs is considered. Otherwise, separate contract should be considered.*
- Duplication may be avoided by combining PRA and FSDD.
- Google map should be used for the Subproject.
- All maps should be prepared during PCR stage. *Index map must be updated showing the all existing infrastructures.*
- *for PCR, Consultant team should visit the site for 4 days including debriefing session.*

RECOMMENDATIONS (2)

Recommendation Based on findings of the Checklist

- Awareness building should be continued through debriefing session, FGD, planning and design discussion meeting and also through CO and WMCA.
- XEN will be responsible for getting clearance from the other agencies where there is overlapping. Consultant team has no responsibility; as such discussion with the field XEN of BWDB and BADC is not needed by the consultant team.
- Existing planned concept is OK.
- Table used for land under flooding, drought may be included in FS.
- Mitigation measures should be undertaken if there is any adverse impact due to implementation of the Subproject.
- Data on involvement of women in fishery is necessary and should be included in the FS.

RECOMMENDATIONS (3)

Recommendation Based on findings of the Checklist

- Location of probable fish sanctuary should be identified during FS.
- Checklist for environmental data collection is OK. LA and resettlement issue should be addressed in FSDD especially during design for land acquisition. However, safeguard policy should be followed and procedure of PSSWRSP should be consulted.
- Socioeconomic survey should be conducted with minimum error margin.
- for O&M, 3rd party may be considered. for O&M, some fund is need for O&M Consultant.
- Different time should be allocated for different type of SP and also different size of SP. Design time may vary from 10-30 days.

RECOMMENDATIONS (4)

Recommendation Based on findings of the Checklist

- for SP involved only earthwork, no design meeting is needed. for SPs with structure, separate planning and design meeting should be conducted.
- Cost of FSDD should be reviewed.
- Development of internal road, market, construction of culvert etc. may be consider in the enhancement SP.

RECOMMENDATIONS (5)

Recommendation Based on findings from FS and others

- Production of some agricultural crops like maize, water melon, vegetable (droughty, flooded), Jute (flooded, droughty), betel leaf etc. should considered.
- Net cultivable area should be mentioned along with gross area and net benefited area.
- Actual yield for different agricultural crops and fish recorded by the agronomist and fishery specialist respectively during field visit should be considered.
- Economic and financial value needs updating. For economic analysis, simpler format may be used.

RECOMMENDATIONS (6)

Recommendation Based on findings from FS and others

- Up to date hydrological data should be used. Presently it is used up to 2002.
- for drainage runoff, shape, size of the catchment area and soil type is not considered.
- The project life of all types of SP is considered for 30 years. It may be reviewed for type of SP and region.
- WMCA is mostly inactive in drainage SPs. for effective WMCA credit programme should be continued.
- To reduce time of FS, consulting firm may be allocated cluster of SPs in a district.
- The SP should be consulted to the Union Development Coordination committee (UDCC) during PCR.
- *O&M cost may be reviewed- it should vary on type of soil and type of embankment: Submersible or full protection embankment*

RECOMMENDATIONS (7)

Recommended Table of Contents based on Present PRA & FSDD

6.2 2nd Discussion Meeting on SSW Subproject Development Process Improvement

Date	:	29th September 2014
Venue	:	IWRMU, Level-6, RDEC Bhaban
Agenda	:	Review of the Summary Findings of the Study on Improvement of SP Development Process done by the Joint Venture-SCL & SETS
Chairperson	:	Mr. Md. Joynal Abedin *Superintending Engineer (O&M), IWRM Unit ,LGED*
Participants	:	IWRMU (All) PD (SSWRDP-JICA, PSSWRSP-ADB, Rubber Dam Project) TL/DTL (SSWRDP-JICA, PSSWRSP-ADB) Sociologist, Agronomist and others Total 25 persons

MEETING NOTES

29th September 2014

SSW SUBPROJECT PLANNING & DESIGN PROCESS IMPROVEMENT

The meeting chaired by SE O&M discussed / reviewed the summary findings of of the Study on Improvement of SP Development Process on 29th September 2014. The broad conclusions / recommendations of the meeting are tabulated below.

Nr	Study Findings of KII Group Discussions	IWRMU Meeting Comments / Recommendations
1	PRA and FSDD should be merged to avoid duplication of activities for reducing subproject implementation time and cost	Agreed – merging PRA and FSDD will: (i) reduce costs from procuring services of two separate firms; (ii) reduce the numbers of people visiting the subproject; (iii) avoid loss of understanding / development concept that sometimes occurs between two separate firms, etc. However it was noted that PRA / mass awareness development is important and must be incorporated into the merged / single contract. It was envisaged that the single FSDD study would comprise three stages: (i) Stage 1: PRA & SP development planning culminating in the Project Concept Report and Planning Meeting. (ii) Stage 2: feasibility assessment and draft/ preliminary designs culminating in the Detailed Design Meeting. (iii) Stage 3: Final design and cost estimate
2	All subprojects should be covered under baseline study with FSDD contract	Not agreed. Baseline surveys are very detailed and costly their incorporation into feasibility would be expensive and cause delays. There should be no change to current practice with detailed baseline surveys done for a sample (about 10%) of subprojects.
3	Selection of type of subproject depends on the problem of the area	This finding is obvious and not worthy of mention/ no comment
4	Base map and Conceptual map should be prepared at	Agreed through the statement is rather vague.

Nr	Study Findings of KII Group Discussions	IWRMU Meeting Comments / Recommendations
	reconnaissance stage and Index map at FS	A reasonably accurate Concept/Base Map should be prepared at reconnaissance rather than just a sketch. This may be done by using imagery from Google earth (or similar free imagery). At feasibility stage the Index Map should be both accurate as well as having the necessary details of the proposed works.
5	Executive Engineer, LGED alone will be responsible for communication with other agencies to avoid duplication of subproject	Agreed within his area of jurisdiction.
6	Table used in PRA showing flooding, drought etc. should be prepared in FS	Agreed – however with a single PRA-FSDD study the whole contents of the combined report needs to be reviewed including map and table requirements.
7	More initiative is required for collecting data on fishery and environment during reconnaissance survey. Involvement of women in fishery is needed to be including in FS	Essentially not agreed with. However this will depend on the characteristics of the SP. For example where fisheries are very important for local livelihoods (haor SPs) then more work will be justified.
8	LA issue should be addressed during FS	It was agreed that LA issues should be identified, eg decimals of land take if khal was widened, for the WMCA office if Gvt land was not available, etc.
9	Present system for collection of SE (socio-economic)_data is appropriate. However, SE data collection format should be modified to cover necessary issues	Details of what is proposed are needed.
10	Third party should be including for O&M	There was some confusion here. No third party should be involved in implementation of O&M, but 3rd party support for (field level) capacity development of WMCA/ farmers was agreed. This would be focused most on Regulatory and CAD subprojects. Support could perhaps also cover WMCA institution/ agriculture/ fishery/ micro-credit/ etc as appropriate.
11	Different time should be allocated	Agreed – but the time needed will be

Material for Discussion on SSW Subproject Plan & Design Process Improvement, and O&M Support

RESULT OF THE STUDY ON THIS ISSUE DONE BY JV of SCL&SETS

METHODOLOGY

The following methodologies briefly were followed for data acquisition, public consultations, analysis and presentation.

Development of Checklist: Structure checklist was prepared in a tabular form. The table constrains four columns. First three columns briefly compares the activities and time frames required for reconnaissance, PRA and FS stages of present SP development process. In forth column some questions are administered for obtaining opinion from the participants. Free spaces were kept between the questions for recording of opinions by the participants. The checklist **(Appendix-B)** was consulted with the expert of the JICA-LGED-TA Project in advance.

Holding of KII Group Discussion: The participants were invited at LGED Conference Room of pilot Districts. At the beginning of the discussion session, the participants were asked whether they were aware about PRA and FS. Although some of the participants were found to be aware but most of them were not aware at all. The participants, who were aware are LGED personnel but did not read the reports. Therefore, they were briefed before discussion on the checklist. The checklist was discussed step by step and the participants recorded their opinion. At the end of the session, the participants are asked to give opinion on the issues not covered in the checklist. The checklists filled up by the participants were collected by the Consultants' team for analysis.

Holding of KII with Experts: The checklist used for KII group discussion was also used to obtain opinions of PD, TL and DTL of PSSWRSP and SSWRDP-MFSA. The consultants meet with them, delivered the checklist and later collected the checklists with responses.

Data Entry, Analysis and Reporting: Opinions recorded by the field level participants in the checklist were coded. The numeric values thus obtained were entered and analyzed using MS excel 2007.

SUMMARY FINDINGS OF KII GROUP DISCUSSION

- PRA and FSDD should be merged to avoid duplication of activities for reducing subproject implementation time and cost
- All subprojects should be covered under baseline study with FSDD contract.
- Selection of type of subproject depends on the problem of the area.
- Base map and Conceptual map should be prepared at reconnaissance stage and Index map at FS

- Executive Engineer, LGED alone will be responsible for communicating with other agencies to avoid duplication of subproject.
- Table used in PRA showing flooding, drought etc. should be prepared in FS.
- More initiative is required for collecting data on fishery and environment during reconnaissance survey. Involvement of women in fishery is needed to be including in FS.
- Probable fish sanctuaries should be indentified during FS.
- LA issue should be addressed during FS.
- Present system for collection of SE data is appropriate. However, SE data collection format should be modified to cover necessary issues.
- Third party should be included for O&M
- Different time should be allocated for data collection for different type of SP
- one combine planning and design meeting should be held for simple types of SP. But for complex type separate planning and design meeting is needed.
- FS conceptualization needs -2 days for Team Leader, 3-5 days for Planning Engineer & sociologist and 1-2 days for Agriculturist & Environmentalist.

Checklist for Subproject Preparation Process

The FSDD process after preliminary assessment (Prescreening -Stage-5 of SSWRDP: Detailed Subproject Development Process, May 2009) is subjected to field activities, analysis and subsequently design. The activities during reconnaissance are conducted by Planning and Design Section of IWRMU. PRA is conducted by NGOs or Engineering firms. Feasibility study and Detail design is done by consulting firms. Project concept development and feasibility study includes repetitive, overlapping activities, requiring time, efforts and money. Time for too much participatory activities is hardly available.

Typical Costs of SP preparatory work and baseline surveys carried out by 3rd Parties:

- PRA contracts: Tk 150,000 / SP
- FSDD contracts: Tk 500,000 / SP
- Baseline survey contracts for subsequent impact assessment: Tk 600,000 / SP (Note: under on-going JICA and ADB projects baseline is carried out for 5-10% of projects. This is to keep costs to a minimum and avoid delays in feasibility report completion.

Check-1: In the light of these time and costs, discuss advantages / disadvantages of the following:

- Option A: Retain separate contracts for PRA and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants)
- Option B: Cancel PRA but with some important PRA activities included in either Reconnaissance or FSDD activity. For this option identify important PRA activities and if they should be included in: (i) Reconnaissance; or (ii) FSDD
- Option C: Other (specify)

Check-2: Concerning baseline surveys discuss advantages / disadvantages of the following:

- Option A: Retain separate contracts for baseline and FSDD
- Option B: Carrying out baseline for all SPs and merging with FSDD contract
- Option C: Other (specify)

Check-3: Subproject (SP) Categories and Types

Category	SP Type	Proportions of SPs
Simple (Non-regulatory)	Dr, Dr and Irr	30% of SPs are in this category
Complex (Regulatory – gated)	WC, FM, FMD etc.	67% of SPs are in this category
Very Complex	CAD	3% of SPs are in this category

Would there be any advantage in increasing the number of categories (i.e. divide up regulatory SPs in some way e.g. According to number of gates)? Discuss.

Check-4: Engineering Data Collection and Mapping

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1.The Upazila map showing location is reviewed along with sketch by the project initiator. 2.Subproject location (mouza, union), accessibility, area, hydrological boundary, topography, water level gauge station location, location of outfall river and morphology, inventory of infrastructure are collected by brief discussion but not verified in most cases. 3. Technical viability of the SP is guessed. 4. Maximum half to one day is used by a multidisciplinary team. It is too short for awareness development	1. Conceptual map is prepared showing boundary, structures (existing and proposed). Time line is shown The following data are collected using PRA method: i). Subproject location (village, mouza, union), accessibility, area, hydrological boundary, population, history of water resources development activity ii). subproject development plan/concept iii). Interaction with project of BWDB and other organizations. iii). Water related problem and mitigation measures iv). Expected impact of the interventions 2. Three (3) days of intensive field activities (total time 7 days). It also build awareness among beneficiaries by WRE	1. Location on 1:50000 Upazila map. 2. Index map on 1:15840 contour map is prepared. This map prepared 50 years back does not have many existing infrastructures. 3. Regional Hydrological Map (1:750000) 4. The following data are collected from inspection and discussion with local people. a. Subproject location (village, mouza, union), accessibility, area, hydrological boundary, water level gauge station location, location of outfall river and morphology. b. Subproject development plan/concept c. Interaction with project of BWDB and other organizations (informative).	1. What is your suggestion to avoid duplication and effective use of the WRE? State: 2. How Google earth Imagery be used for improvement of reconnaissance, PRA and FS? 3. How base, index and hydrological maps are to be prepared and at what stage?

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
		4. One day of field activities by multidisciplinary team including one WRE.	4. How many days are to be used by the FS team to have effective conceptualization? TL: ---days Planning Engr: --- days Agriculturist:--- days Environmentalist:--- days Sociologist:--- days 5. Should awareness building be part of FS. Yes / No. If yes how? 6. Should the district XEN, LGED is mainly responsible for communication with agencies like BWDB, BMDA, BADC etc to avoid overlapping activity in the SPs. Consulting firms may talk but do not have the authority. Should it be dropped from consultant's task? State: 7. Do you think that existing planned development concept is acceptable? If not please opine.

PRA=Participatory Rural Appraisal, PCR=Project Concept Report, FS=Feasibility Study

Check-5: Agricultural Data Collection and Mapping.

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1. Present cropping patterns/crops presently grown in each season are Obtained by discussion and bird's eye view. 2. Present water resources related problems in the proposed area are identified. 3. Opinion of local stakeholders to mitigate the problems is obtained. 4. Half day action	1. Land under flooding, drainage congestion and drought are listed in a table by discussion at different places using a format. 2. ***Agricultural map*** showing above information is prepared. 3. Mitigation measures are discussed. 4. Expected impact of the proposed interventions on crop production are obtained. 5. Three(3) days of intensive field activities in total seven days field work	1.Agricutural data on flood phase & cropping pattern , crop cultivation process & input use, damaged area (% total cropped area) and crop yield , farmers views and opinions are obtained by using a set of formats 2.Variation inside the SP is hardly identified 3. One day activity	1. What is your suggestion to avoid duplication and effective use of Agronomist? State: 2. Should the table under PRA for land under flooding drought etc. be included in FS? 3. How much time is to be used by the Agronomist during PCR/FS? What should be his activities? 4. If the existing interventions under the SP are harmful for some area inside or outside the SP, are the remedial measures be identified by discussion with the local people?

Check-6: Assessment of Fishery Situation

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
Existing fishery situation and anticipated possible impact.	1. Fisheries resources base is identified. 2. Fish production under different water bodies (seasonal & perennial) is discussed. 3. Fish bio-diversity is discussed. 4. ***Fish migration routes*** are identified on map. 5. Different fishing community within the SP is identified. 6. Involvement of women in fishery is discussed. 7. Likely impact stated. 8. Seven (7) days of intensive field activities	1. Fishery resource area information is collected using format. 2.Fish biodiversity is discussed. 3.Fish production under open culture fishery is collected. 4. One day of activity.	1. What is your suggestion to avoid duplication and effective use of Fisheries Expert? State: 2. Do you think that reconnaissance team should take more initiative for collecting information during field visit? How? 3. Do you think collection of data on involvement of women in fishery is necessary? 4. Should the locations of probable fish sanctuaries be identified? 5. How much time to be used by the Fishery Expert during PCR/FS?

Check-7: Environment Data Collection and Analysis

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1. Indicate on map if is there any historical/ archaeological site, which may be threatened or may have demolished. 1. Is there any land acquisition required 2. Identify anticipated adverse impact in the SP area 3. Is there any resettlement need. 4. Environmental soundness of the SP is guessed. 5. One to half day activity.	Following data are collected: 1. Historical site, conserved wet land and forest that may be threatened. 2. Water beneficiaries that may be affected. 3. Land acquisition issue. 4. Description of navigation. 3. Villages/areas vulnerable to flooding. 4. Use of chemical & fertilizers. 5. Impact of the subproject. 6. Project affected people (PAP) and mitigation measures 7. List of PAPs. 8. Seven (7) days of intensive field activities	1. General topography of the SP area 2. Present condition of navigation 3.Land acquisition issue 4. Resettlement issue 5. Project affected people(PAP) In addition to the above, the following data are collected during FS: a. Description of environment (physical & ecological resources) b. Human & economic development c. Quality of life value d. ***Mouza Map*** 6 One day of activity	1. What is your suggestion to avoid duplication and effective use of Environmentalist? State: 2. Do you think the checklist for environmental data collection is appropriate? If not • What aspects are to be addressed? • How and when LA and resettlement issues are to be addressed? 3. What should be the duration of the environmentalist in the field?

Check-8: Social (Men and Women response)-Social aspects

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1.Opinion of Union Parisads chairman, members (including female members) 2. Availability of local labors. 3. Total beneficiary HH. 4. How many HH support? 5. How many oppose? 6. Are beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures)? 7. Anticipated adverse impact 8. Foreseeable social conflict. 9. Percentage of benefited landless sharecroppers, marginal and small farmers. 10. Social acceptability of the SP is guessed	1. Number and percentage of stakeholder groups in the SP area. 2. Collection of data on % of landless to small farmers to meet project requirement. Inventory of landless and destitute adult male and female in SP area. 3.General problem ranking and proposed solution 4. History of cooperation 5. Social conflict 6. Description of existing organization and groups 7. Indigenous people and groups 8.Beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures 8. Seven (7) days of intensive field activities **Note:** Data collected is not suitable for future evaluation	1. Broad popular support for the SP 2. Is there any opposition 3. Any negative environmental impact 4. Beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures 5. One day of activity In addition to the above, the following data are collected during FS: a. Farm size distribution b. Occupation c. Immigration and Emigration d. Agricultural Labour Wage rate e. Poverty situation f. Existing organization/ Institution g. Opinion about SP h. Scenario of outside village 6. Three (3) days of intensive field activity **Note:** Data collected through group discussion is not suitable for future evaluation	1. What is your suggestion to avoid duplication and effective use of Sociologist? State: 3. Do you think present system of data collection is appropriate or a quantitative socioeconomic baseline survey should be carried out? Are any issues not covered in the Socio-economic Survey (SE) survey should be included? 4. What should be the confidence level and error margin in SE baseline survey? 5. If baseline survey is to be carried out should data on social environment be collected by the Environmentalist during concept report preparation?

Check-9: Women aspects

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
No activity	1.Demographic data 2.Non-water related problem 3. Water related problem 4.Mobility status 5. Seven (7) days of intensive field activities	No activity	1. Should the socio-economic data collection format be modified to collect gender related data during base line survey or socio economic survey? 2. Are the following data collected during FS is superfluous e.g. water and non water use related information?

Check-10: Post construction Support Needs

The O&M requirements of the different categories of SP are summarized below:

Category	*SP Type*	*Maintenance Requirements*	*Operation Requirements*
Simple (Non-regulatory)	DR, DR & IRR	Earthworks (de-silting of khal etc) Collection of funds from beneficiaries	None (no gate)
Complex (Regulatory – gated)	WC, FM, FMD, etc	Earthworks + gate greasing, etc. Collection of funds from beneficiaries	Gate operations according to operations calendar Collection of funds from beneficiaries for gate operator
Very Complex	CAD	Maintenance of pumps, control values / gates, etc Collection of funds from beneficiaries	Pump start up / shut off Water distribution Collection of funds from beneficiaries for pump operator, linesmen, diesel / electricity costs, etc

So far no Project has spent significant money of O&M after scheme completion though O&M class room training and support to development O&M plans is done.

Consider and discuss the following:

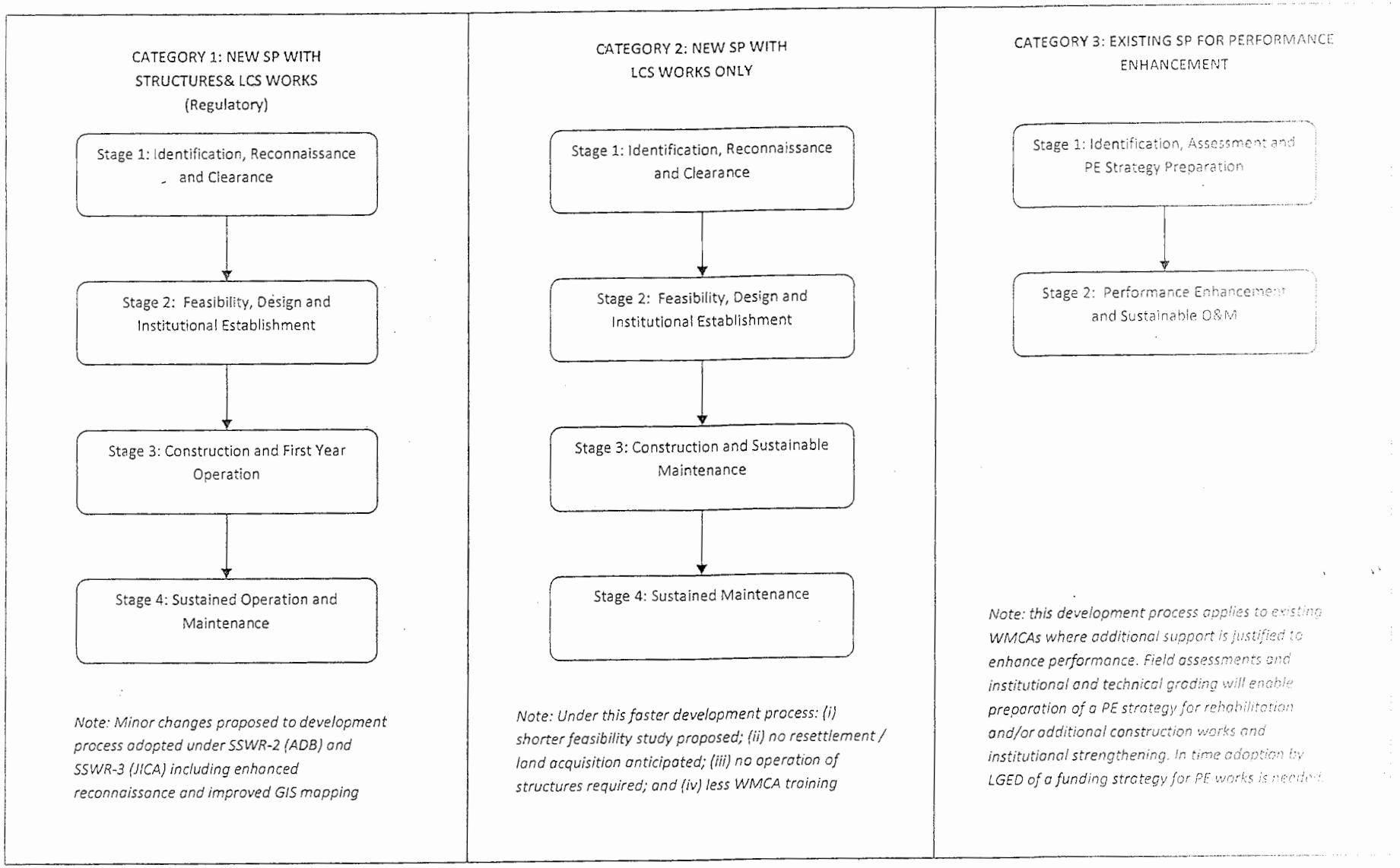
Option A: Continue with no change to current situation

Option B: Engage a 3rd party firm for O&M support after construction is complete. For this option should O&M support be given to all categories of SP or targeted?

Check-11: Subproject Development Process for different types

1. Engineering and other surveys are undertaken 2. Analyses are carried out to determiner feasibility 3. Planning meeting is conducted with stakeholders. 4. Design meeting is carried out with stake holders irrespective of type (Dr, FMD, WC and CAD) subproject. 5. Same time is allowed for all types of SPs	1. Do you think same time should be allowed for data collection of all types of subproject? 2. Do you think analyses for different types of project be given same time? 3. Give your suggestions on the following: a) One combine planning and design meeting should be for simple drainage improvement subprojects b) One combine planning and design meeting for subprojects having one small structure. c) Separate planning and design meeting for complex structural subproject having more than one structure and CAD SPs. 4. Give your suggestions on the following: a) Design time for simple drainage subprojects should be --- days b) Design time for simple structural subprojects should be --- days c) Design time for CAD subprojects should be --- days

Do you think the sp development process is depicted as given in the figure below?



6.3 3rd Discussion Meeting on SSW Subproject Development Process Improvement

Date	:	11th November 2014
Venue	:	IWRMU, Level-6, RDEC Bhaban
Agenda	:	i) Subproject Categories and Development Process-Overview ii) New Flow Chart (Summary) iii) Existing Flow Chart (Summary) iv) New Flow Chart (Detail)
Chairperson	:	Mr. Md. Mohsin *Additional Chief Engineer (IWRM), LGED*
Key Persons	:	Mr. Md. Joynal Abedin *Superintending Engineer (O&M), IWRM Unit, LGED* Mr. Elias Morshed *Superintending Engineer (P&D), IWRM Unit, LGED* PD, TL, DTL with consultant of water sector project XEN, Sr.AE,AE from IWRMU, and JICA-TA Experts
Presented by	:	Mr. Alan Clark *Team Leader* of *SSWRDP-JICA*
Participants	:	IWRMU (All) Project Management Office (key persons) Project Consultants (TL, DTL, Institution Specialist, others) JICA-TA Project Experts Total 27 persons

Subject : *Discussion Meeting on SSW Subproject Development Process Improvement*

Reference : LGED/SE(IWRM)/O&M/T-3/13/467 Date: 09-11-2014
Date : 10-11-2014 **Time:** 11:30 am – 13:00 pm
Venue : Level-6, IWRM Unit, RDEC Building, LGED Bhaban
Agenda : i) Subproject Categories and Development Process-Overview
ii) New Flow Chart (Summary)
iii) Existing Flow Chart (Summary)
iv) New Flow Chart (Detail)

Chairperson : **Mr. Md Mohsin,** *Additional Chief Engineer (IWRM), LGED*

Key Persons : Mr. Md. Joynal Abedin, *Superintending Engineer (O&M)*, IWRM Unit, LGED
Mr. Elias Morshed, *Superintending Engineer(P&D)*, IWRM Unit, LGED
PD, TL, DTL with consultant of water sector project
XEN, Sr.AE, AE from IWRMU, and JICA-TA Experts

Presentation by: Mr. Alan Calrk, *Team Leader of SSWRDP-JICA*

Participants : 27 Persons

Mr. Chairperson welcome everyone to join the meeting and request SE (O&M) to brief the meeting background.

Mr. Md. Joynal Abedin, SE (O&M) informed that with a view to simplify and to reduce the planning & preparation process for taking a new subproject into account the TA project initiate a study work by a consultant firm. He also informed that based on the receiving feedback from the consultant, IWRM unit would like share the finding with all concern to reach a unified and collective decision about the changes/upgrading in the existing process which will be followed by the upcoming projects. In light of this situation he called this today's meeting. At this moment he request Mr. Alan Clark to share and explain the diagram flow chart as if he proposed this for future up gradation.

Majority of the participants has viewed that it will not be wise to make "Big Changes" in the existing process as the nature of small scale water resources project is more participatory with local people and stakeholders compare to the other kind of project. So, naturally it's take a lengthy process in planning, preparation and implementation process. So, based on the detail participatory discussion among all, the following decision has taken for future to do in this regard-

1. Prepare a pre-feasibility report by the project along with reconnaissance report to understand and establish the type and potentiality of the proposed subproject
2. Keep a period range rather fix for conducting PRA, Feasibility and other institutional framework
3. Updating/modernize the using method for the work done by LCS
4. Agreed not to name as "new" flow chart rather to call "modified" flow chart
5. Advise SE's PD's, TL's and other potential consultant to review the matter with more attention and find for effective input
6. Agreed to avoid duplication of activity
7. Agreed to reduce processing period at least so far possible

বিদেশী সংস্থা জড়িত বিধায় ইংরেজীতে লিখা হইল

Government of the People's Republic of Bangladesh
Local Government Engineering Department
IWRM Unit, LGED Headquarter, RDEC (Level-6)
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207

Memo No: LGED/SE(IWRM)/O&M/T-3/13/ 467 Date: 09-11-2014

Notice

A discussion meeting on **SSW Subproject Development Process Improvement** will be held on **10th November 2014** (Monday) at 11:30AM, at the IWRM Unit (Level-6), RDEC Bhaban, under the Chairmanship of Mr. Md. Mohsin, Additional Chief Engineer (IWRM).

All concerned are requested to attend the meeting on time and share your valuable comments.

Agenda:

1. Discussion on Improvement of SSW Subproject Development Process (New Flow Chart)

Attachment:

- Subproject Categories and Development Process-Overview
- New Flow Chart (Summary)
- Existing Flow Chart (Summary)
- New Flow Chart (Detail)

10/11/2014

(Md. Joynal Abedin)
Superintending Engineer (O&M)
IWRM Unit, LGED
and Project Manager of JICA TA

Distribution (With request to attend the meeting)

1. Additional Chief Engineer (IWRMU), LGED
2. Superintending Engineer (P&D), IWRMU, LGED
3. Project Director, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
4. Executive Engineer (All), IWRMU, LGED
5. Senior Assistant Engineer (All), IWRMU, LGED
6. Assistant Engineer (All), IWRMU, LGED
7. JICA Expert (All), JICA TA Project, LGED
8. TL/DTL, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
9. Institution Specialist, / SSWRDP-JICA/ PSSWRSP-ADB, LGED
10. Agronomist, IWRMU/ SSWRDP-JICA/ PSSWRSP-ADB, LGED

CC: (for his kind information)

- Chief Engineer, LGED

SUBPROJECT CATEGORIES AND DEVELOPMENT PROCESS - OVERVIEW

CATEGORY 1: NEW SP WITH STRUCTURES & LCS WORKS

Stage 1: Identification, Planning and Clearance
(0 - 4 months)

↓

Stage 2: Feasibility, Design and Institutional Building
(4 - 12 months)

↓

Stage 3: Construction and First Year Operation
(12 – 24 / 36 months)

↓

Stage 4: Sustainable Operation and Maintenance
(24 / 36 - 36 / 48 months)

Note: Minor changes proposed to development process adopted under SSWR-2 (ADB) and SSWR-3 (JICA) including enhanced reconnaissance including mapping exercise, and PRA includes as part of feasibility

CATEGORY 2: NEW SP WITH LCS WORKS ONLY

Stage 1: Identification, Planning and Clearance
(0 - 4 months)

↓

Stage 2: Feasibility, Design and Institutional Building
(4 - 12 months)

↓

Stage 3: Construction and Sustainable Maintenance
(12 – 24 months)

Note: Under this development process: (i) no tendering and works under Contract required; (ii) shorter feasibility study proposed; (iii) no resettlement / land acquisition anticipated; (iv) no operation of structures required; and (v) less WMCA training required particularly following construction

CATEGORY 3: EXISTING SP FOR PERFORMANCE ENHANCEMENT

Stage 1: Identification, Assessment and PE Strategy Preparation
(0 - 6 months)

↓

Stage 2: Performance Enhancement and Sustainable O&M
(6 - 24 months)

Note: this development process applies to existing WMCAs where additional support is justified to enhance performance. Field assessments and institutional and technical grading will enable preparation of a PE strategy for rehabilitation and/or additional construction works and institutional strengthening. In time adoption by LGED of a funding strategy for PE works is needed.

SUBPROJECT DEVELOPMENT STAGES FOR NEW SUBPROJECTS - CATEGORY 1

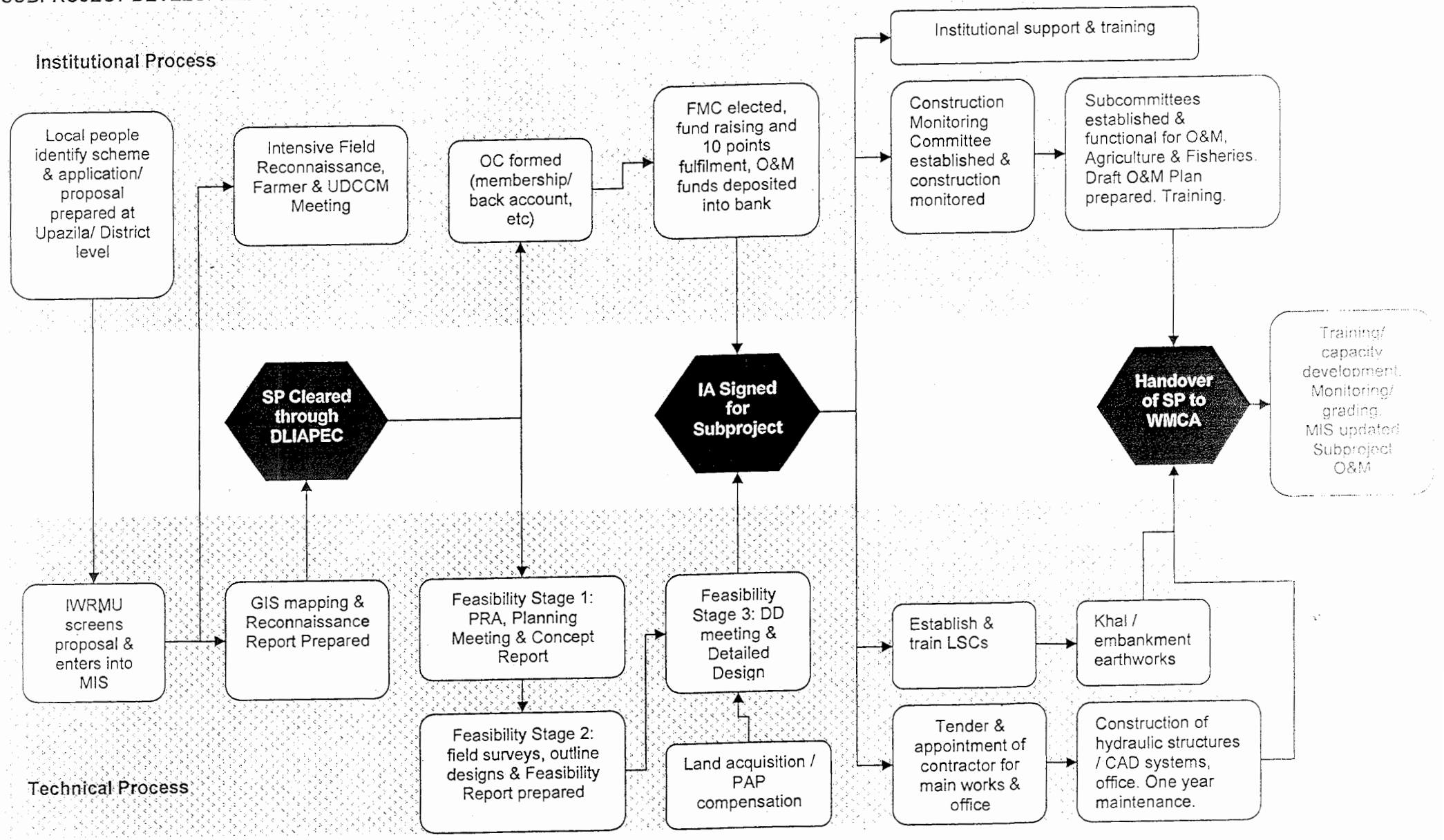
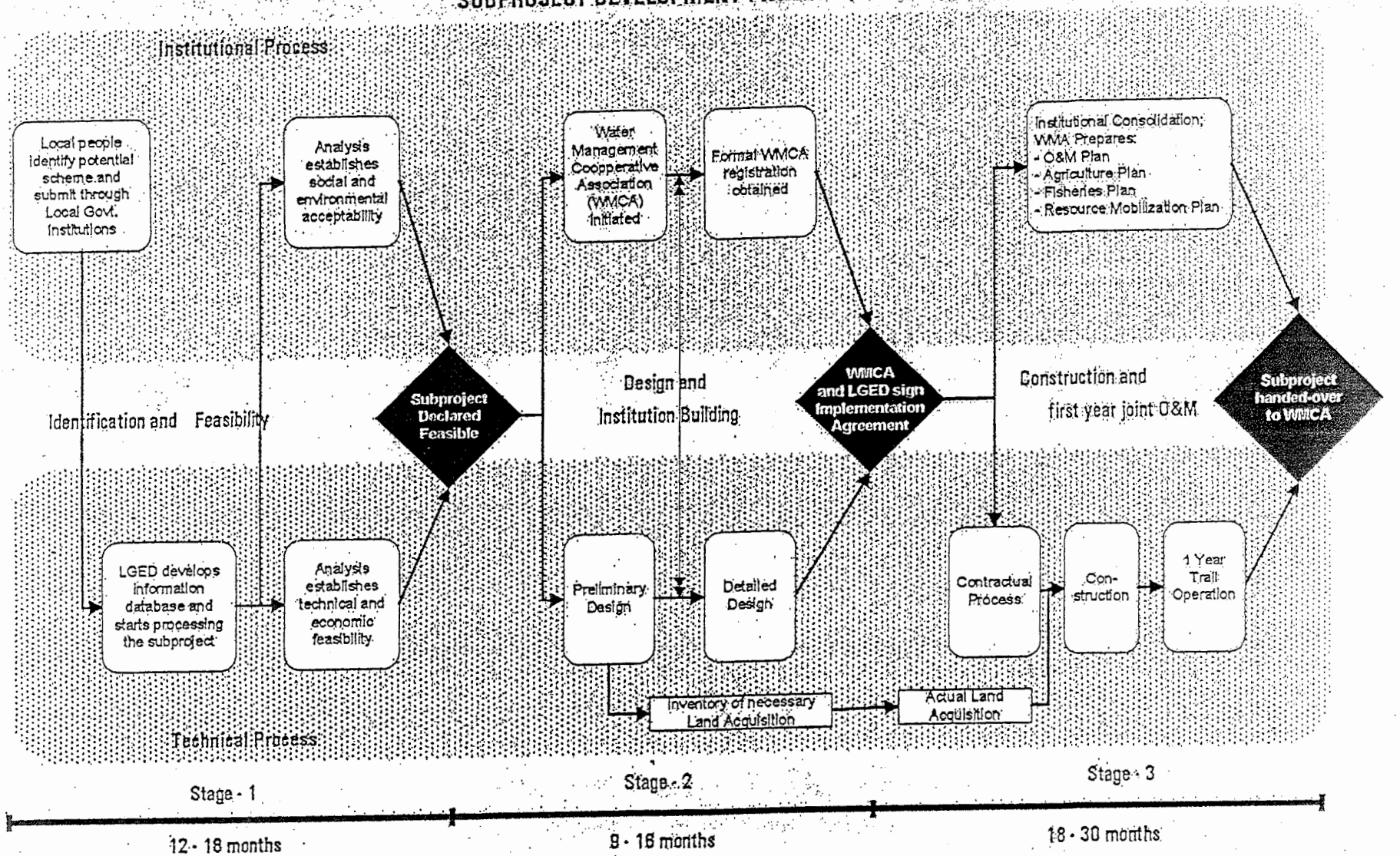


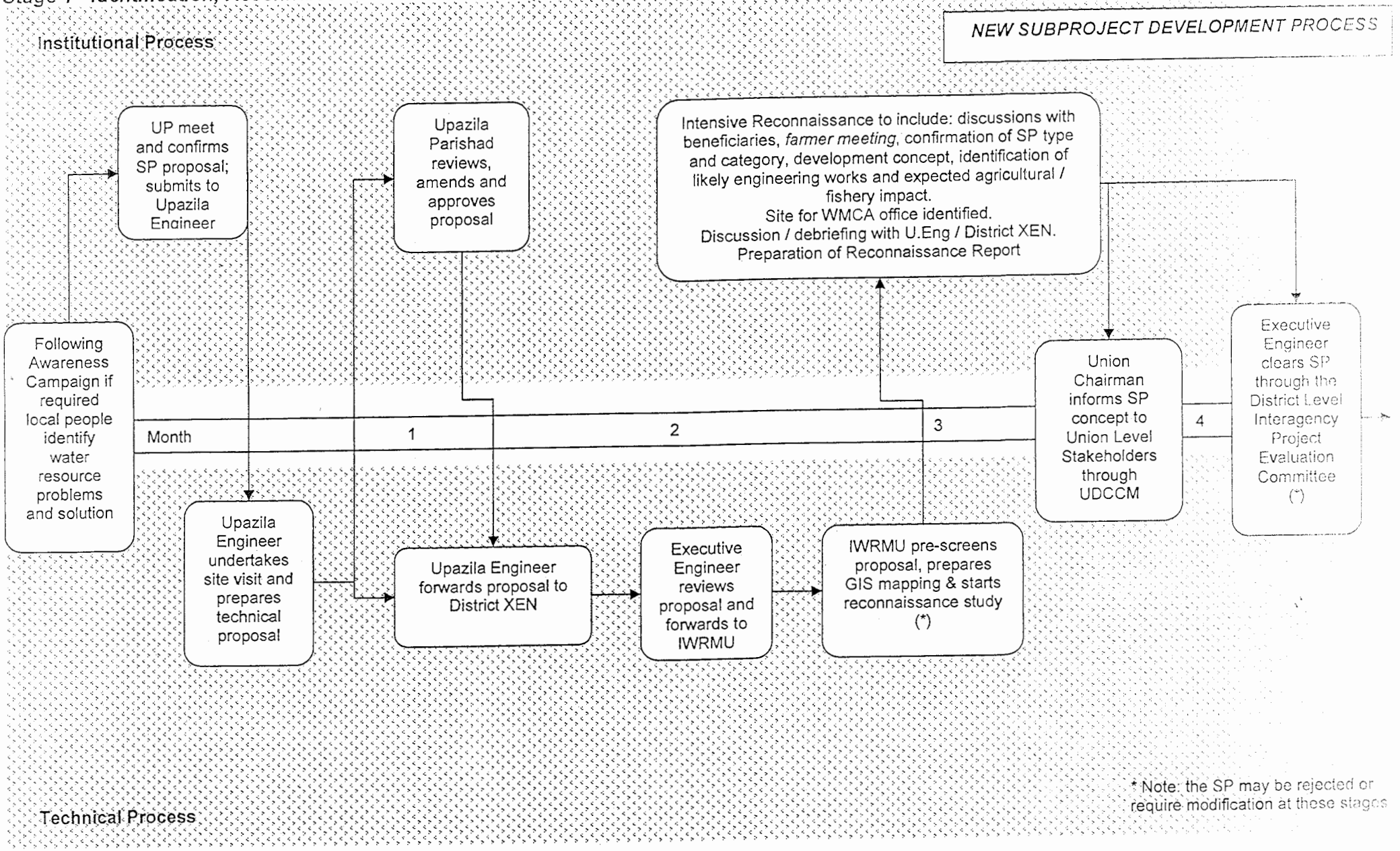
Figure 1

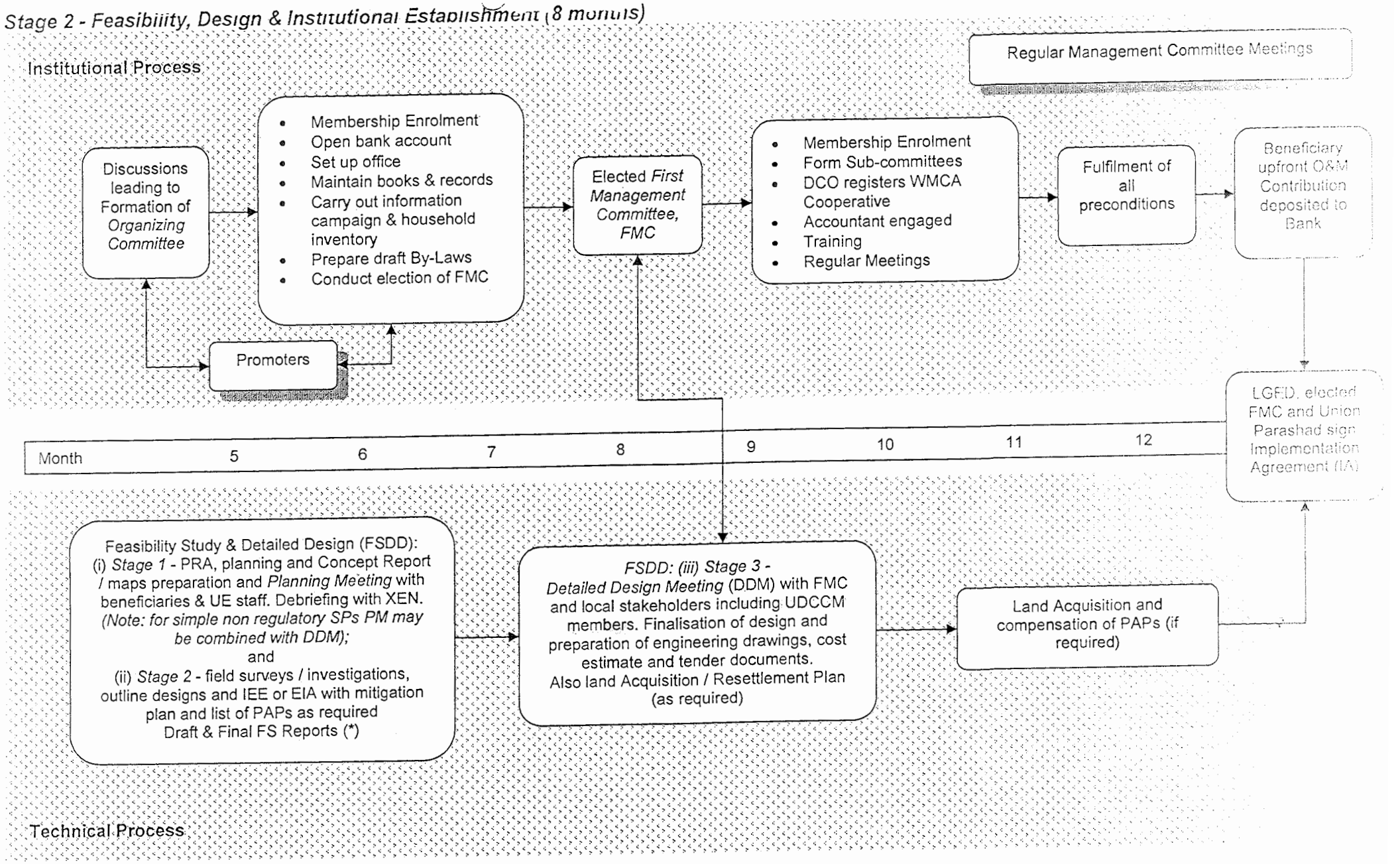
SMALL SCALE WATER RESOURCES DEVELOPMENT PROJECT
SUBPROJECT DEVELOPMENT PROCESS (SUMMARY)



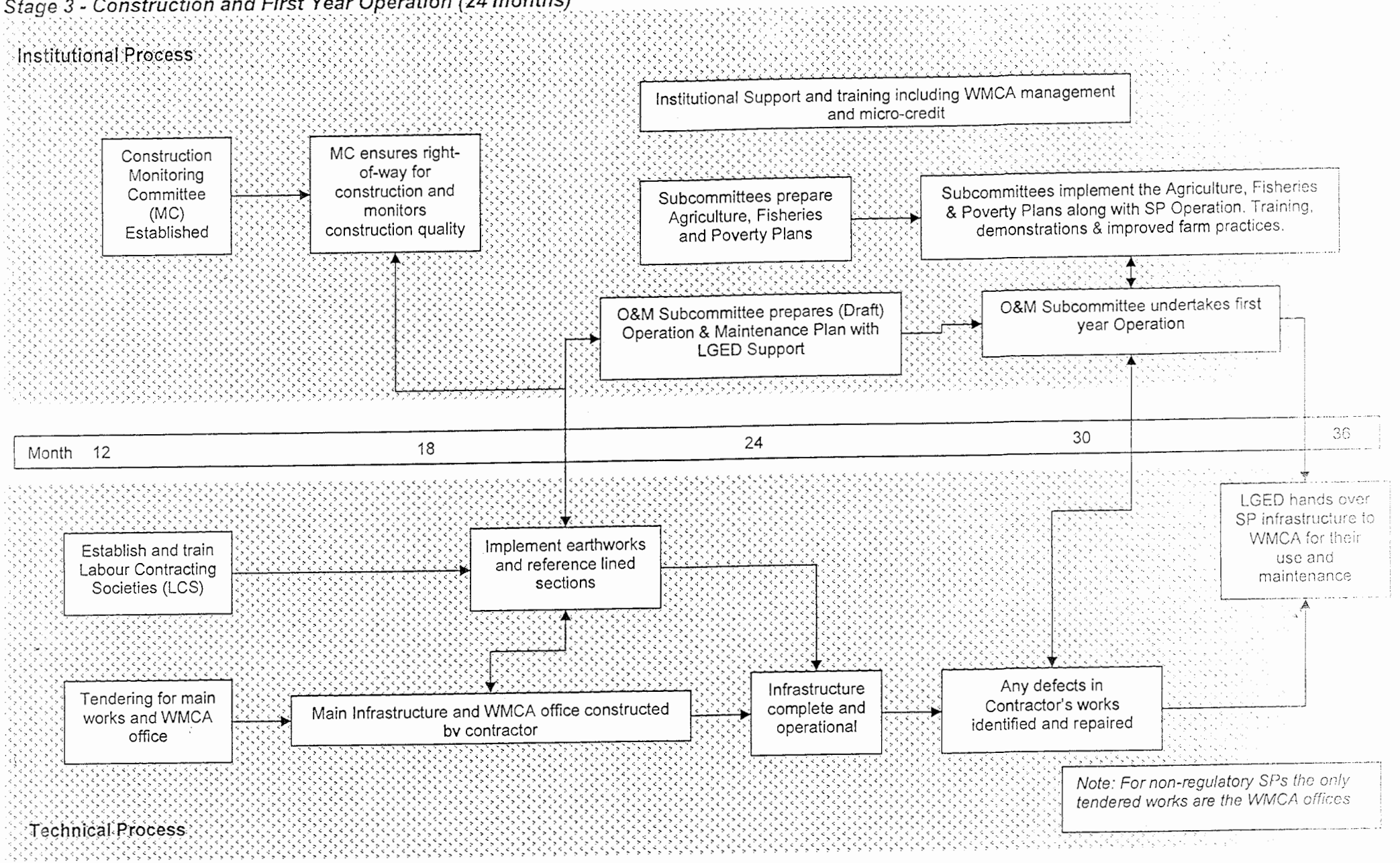
3 May 2009

Stage 1 - Identification, Reconnaissance and Clearance (4 months)

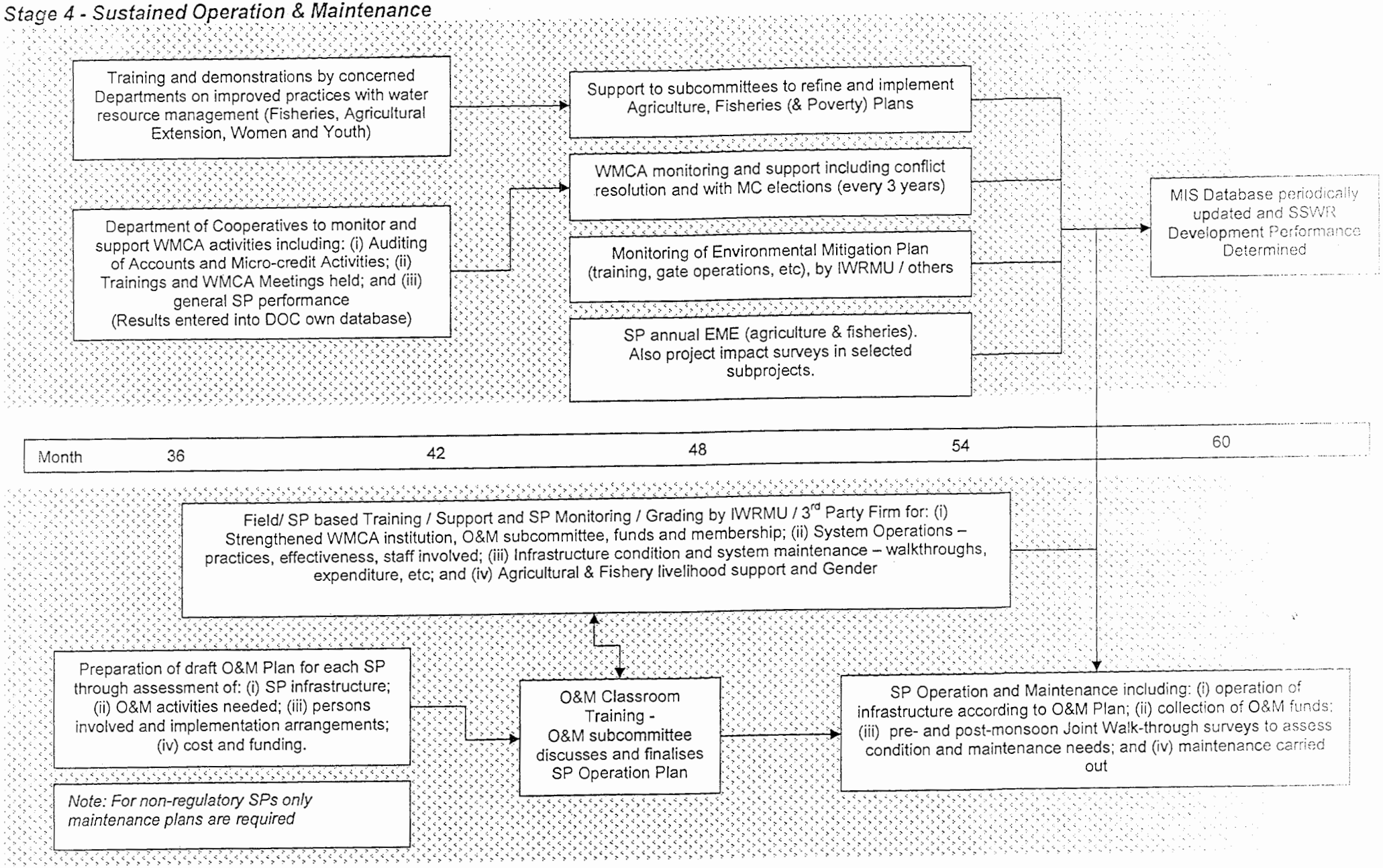



Stage 2 - Feasibility, Design & Institutional Establishment (8 months)
Institutional Process
Regular Management Committee Meetings
Discussions leading to Formation of Organizing Committee
Membership Enrolment
Open bank account
Set up office
Maintain books & records
Carry out information campaign & household inventory
Prepare draft By-Laws
Conduct election of FMC
Promoters
Elected First Management Committee, FMC
Membership Enrolment
Form Sub-committees
DCO registers WMCA Cooperative
Accountant engaged
Training
Regular Meetings
Fulfilment of all preconditions
Beneficiary upfront O&M Contribution deposited to Bank
LGED, elected FMC and Union Parashad sign Implementation Agreement (IA)
Month
5
6
7
8
9
10
11
12
Feasibility Study & Detailed Design (FSDD):
(i) Stage 1 - PRA, planning and Concept Report / maps preparation and Planning Meeting with beneficiaries & UE staff. Debriefing with XEN. (Note: for simple non regulatory SPs PM may be combined with DDM);
and
(ii) Stage 2 - field surveys / investigations, outline designs and IEE or EIA with mitigation plan and list of PAPs as required
Draft & Final FS Reports (*)
FSDD: (iii) Stage 3 - Detailed Design Meeting (DDM) with FMC and local stakeholders including UDCCM members. Finalisation of design and preparation of engineering drawings, cost estimate and tender documents.
Also land Acquisition / Resettlement Plan (as required)
Land Acquisition and compensation of PAPs (if required)
Technical Process

Stage 3 - Construction and First Year Operation (24 months)



Stage 4 - Sustained Operation & Maintenance



6.4 4th Discussion Meeting on SSW Subproject Development Process Improvement (Core members' discussion on the flow chart)

Date	:	19th November 2014
Venue	:	IWRMU, Level-6, RDEC Bhaban
Agenda	:	Amended Development Process for new SPs (Flow Chart)
Chairperson	:	Mr. Md. Mohsin *Additional Chief Engineer (IWRMU),LGED*
Participants	:	SE (P&D, O&M), IWRMU PD (SSWRDP-JICA, PSSWRSP-ADB, Rubber Dam) TL/DTL (SSWRDP-JICA, PSSWRSP-ADB) Chief Adviser (JICA-TA)

Total 10 persons

বিদেশী সংস্থা জড়িত বিষয় ইংরেজীতে লিখা হইল

Government of the People's Republic of Bangladesh
Local Government Engineering Department
IWRM Unit, LGED Headquarter, RDEC (Level-6)
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207

Memo No: LGED/SE(IWRM)/O&M/H3/13/14/477 Date: 16-11-2014

Notice

A discussion meeting on **SSW Subproject Development Process Improvement** will be held on **19th November 2014** (Wednesday) at 11:00AM, at the IWRM Unit (Level-6), RDEC Bhaban. Draft of Amended Development Process (Flow Chart) has already been circulated by Mr. Toru KUMAGAI, Chief Adviser, JICA-LGED TA Project.

All concerned are requested to attend the meeting on time and share your valuable comments.

Agenda:

1. Discussion on Improvement of SSW Subproject Development Process

Attachment:

- Amended Development Process

(Md. Joynal Abedin)
Superintending Engineer (O&M)
IWRM Unit, LGED
and Project Manager of JICA TA

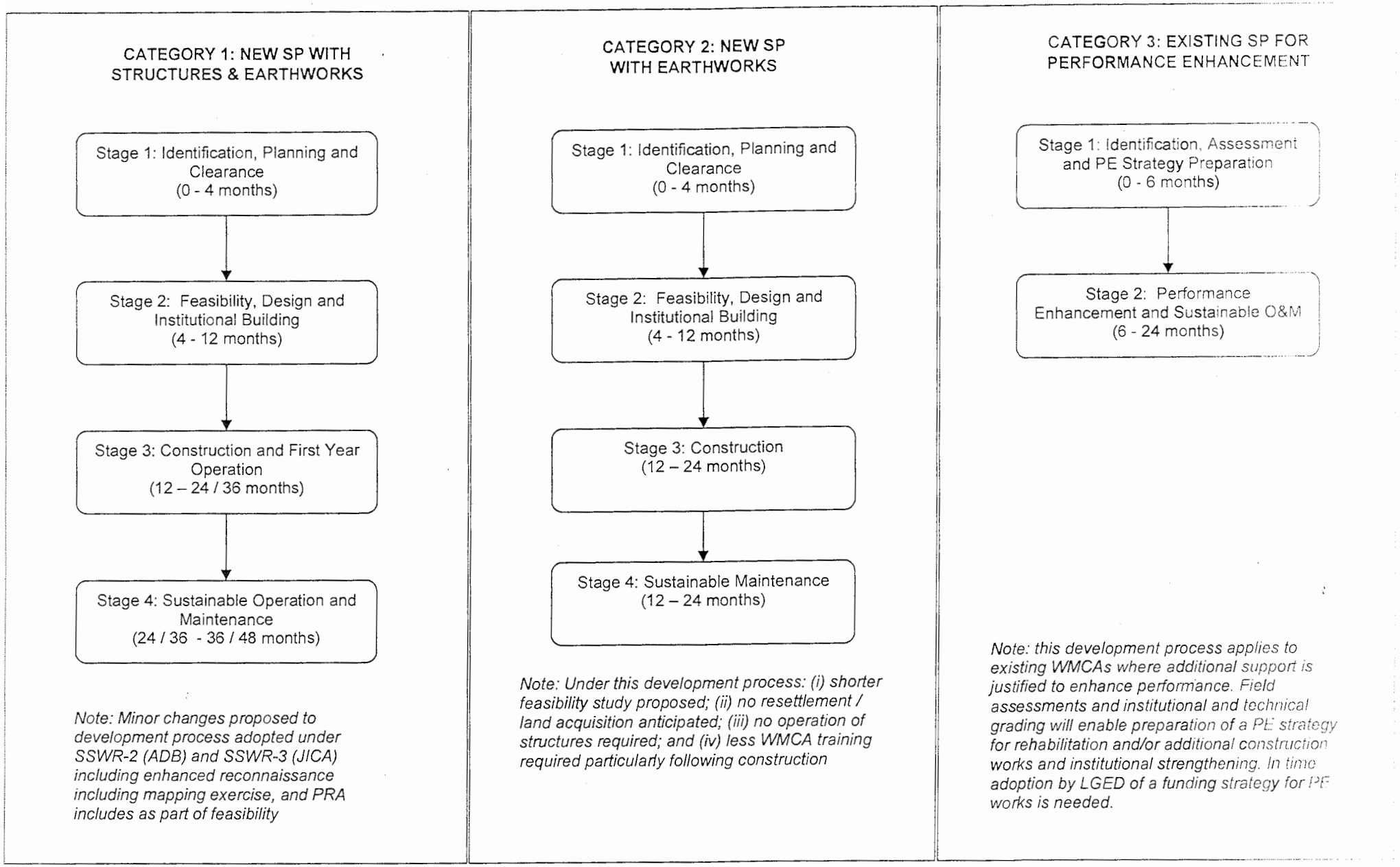
Distribution (With request to attend the meeting)

1. Additional Chief Engineer (IWRMU), LGED
2. Superintending Engineer (P&D), IWRMU, LGED
3. Project Director, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
4. Chief Adviser, JICA TA Project, LGED
5. TL/DTL, SSWRDP-JICA/ PSSWRSP-ADB, LGED

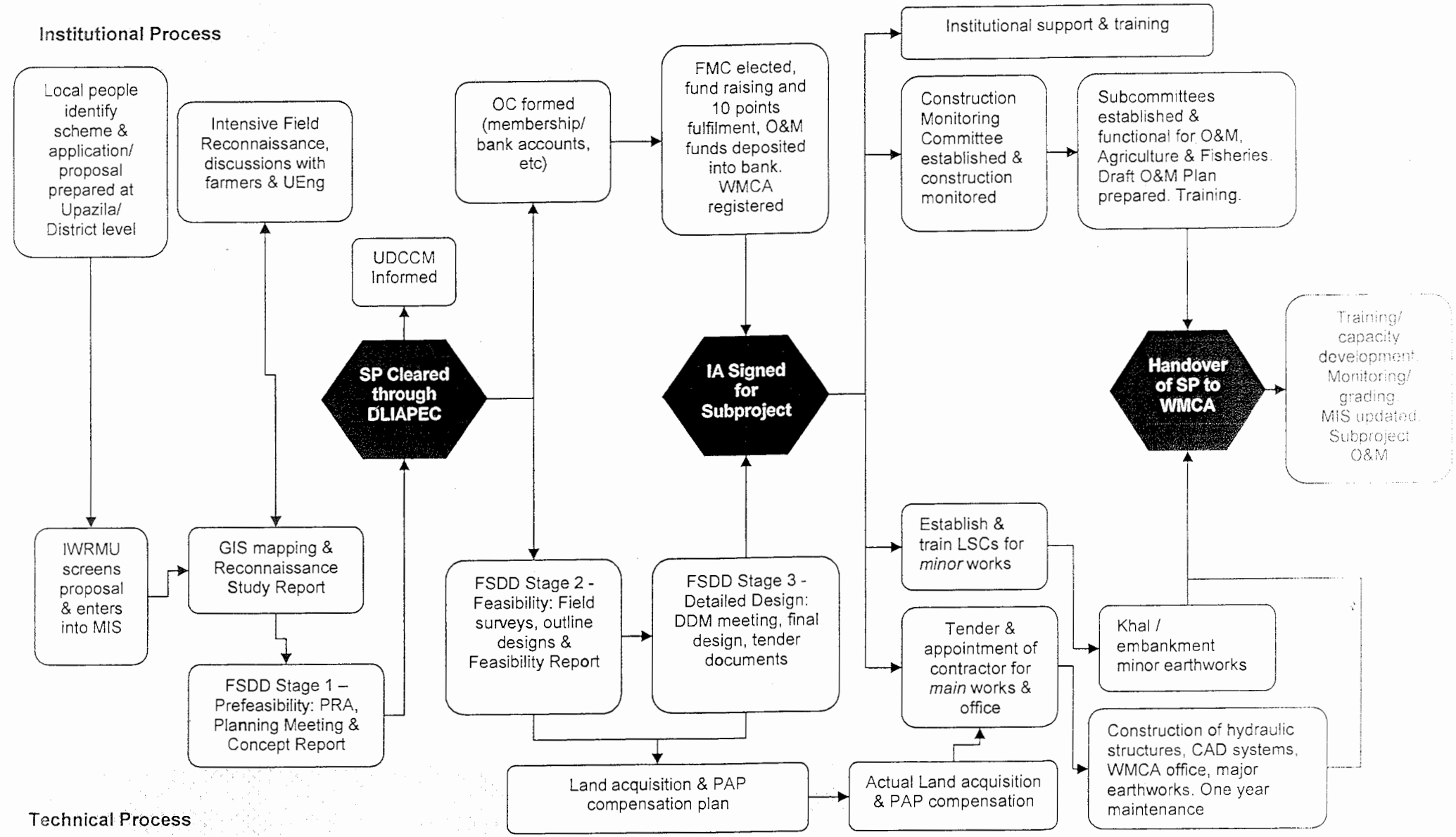
CC: (for his kind information)

- Chief Engineer, LGED

SUBPROJECT CATEGORIES AND DEVELOPMENT PROCESS - OVERVIEW

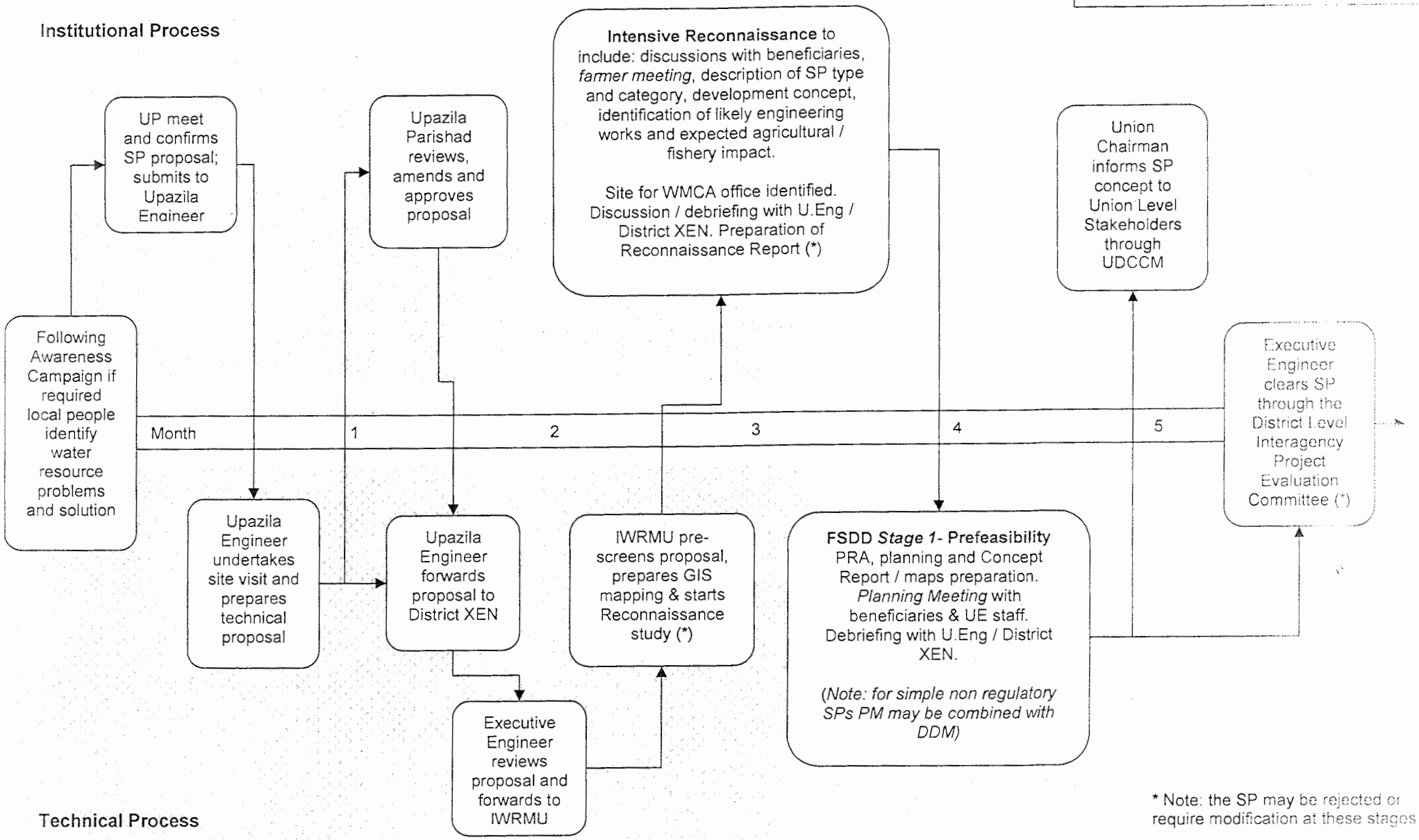


SUBPROJECT DEVELOPMENT STAGES FOR NEW SUBPROJECTS - CATEGORY 1 & 2



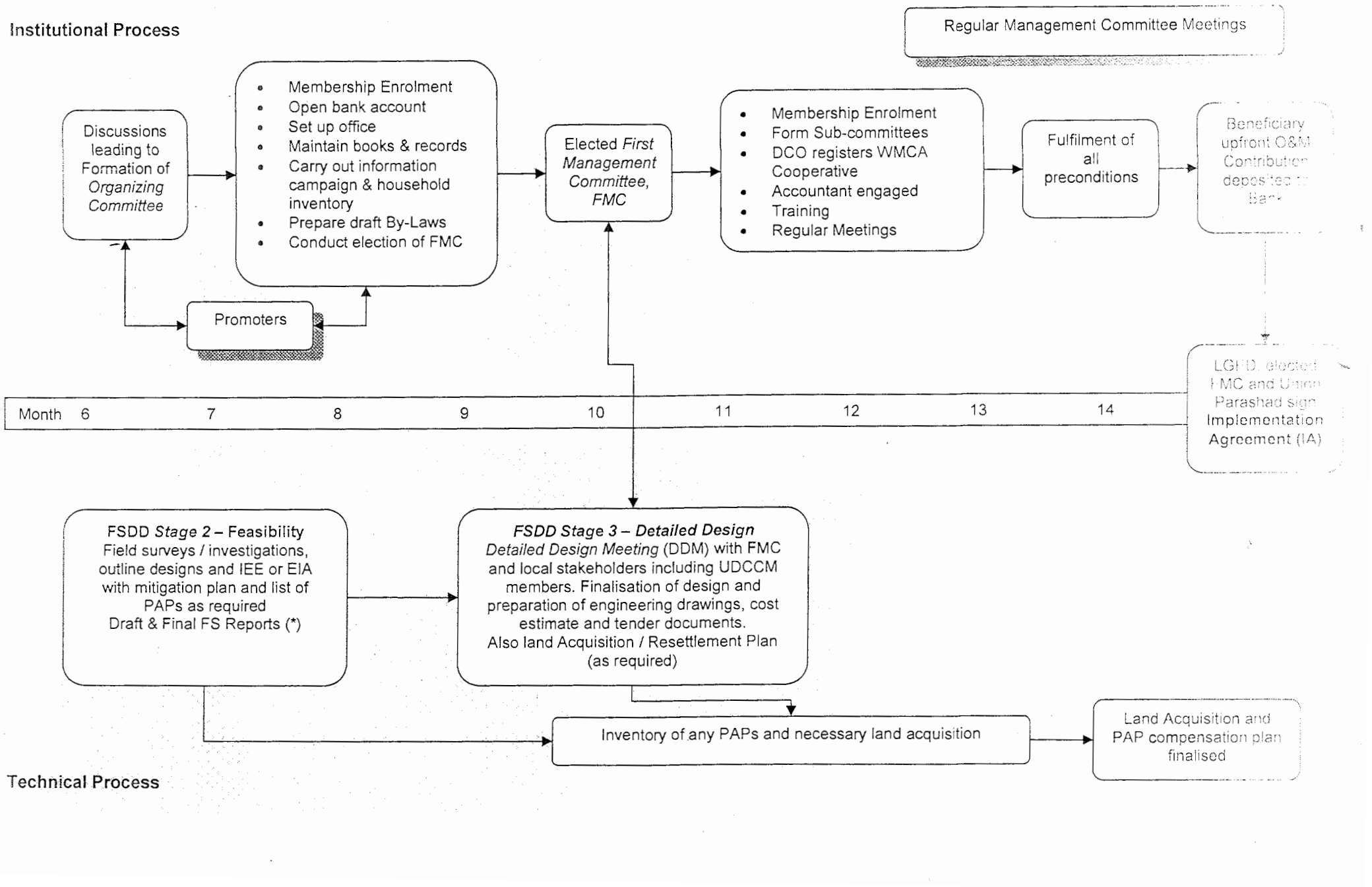
Stage 1 - Identification, Reconnaissance, Prefeasibility and Clearance (3-6 months)

AMENDED DEVELOPMENT PROCESS FOR NEW SPs

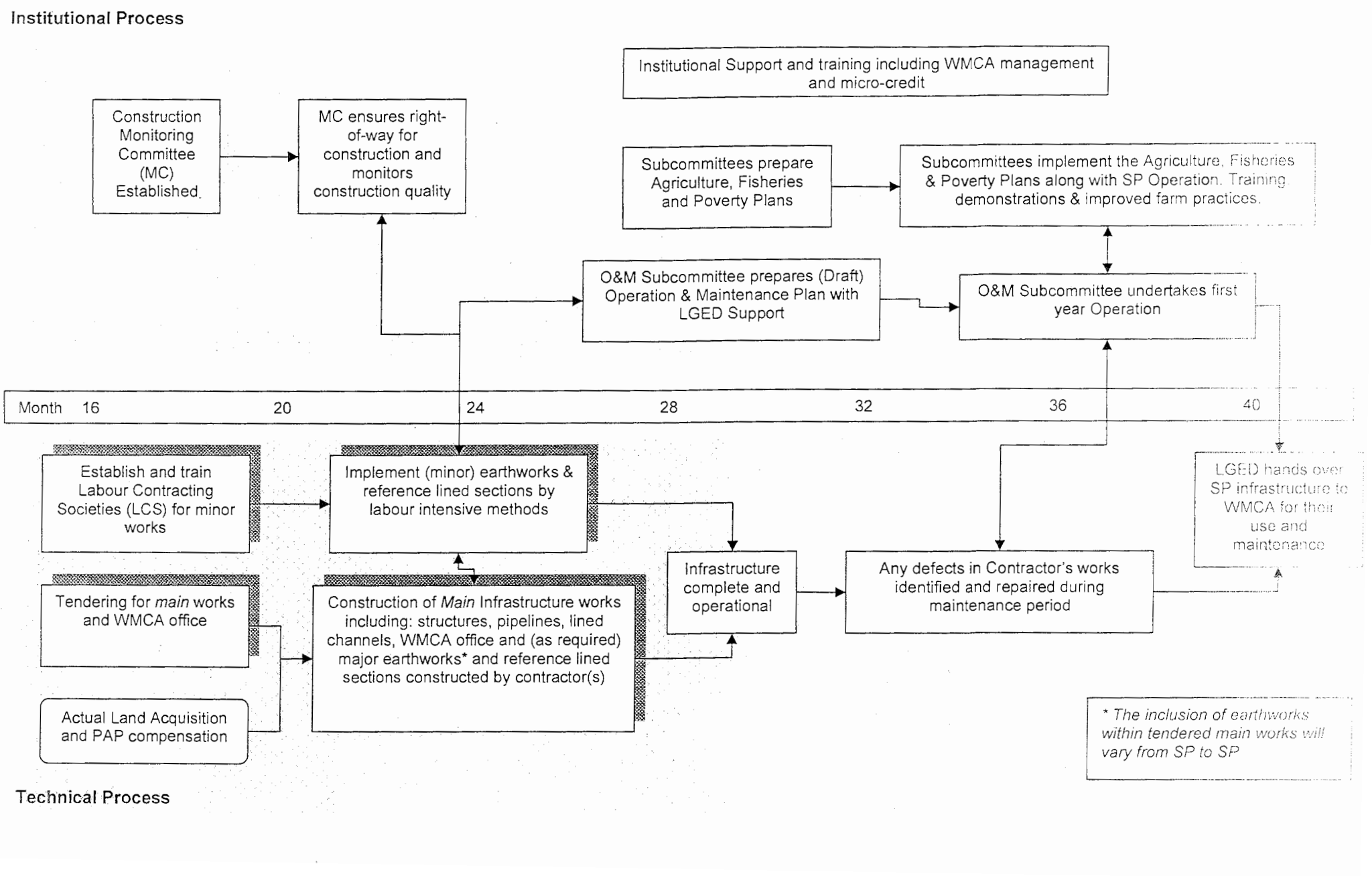


* Note: the SP may be rejected or require modification at these stages

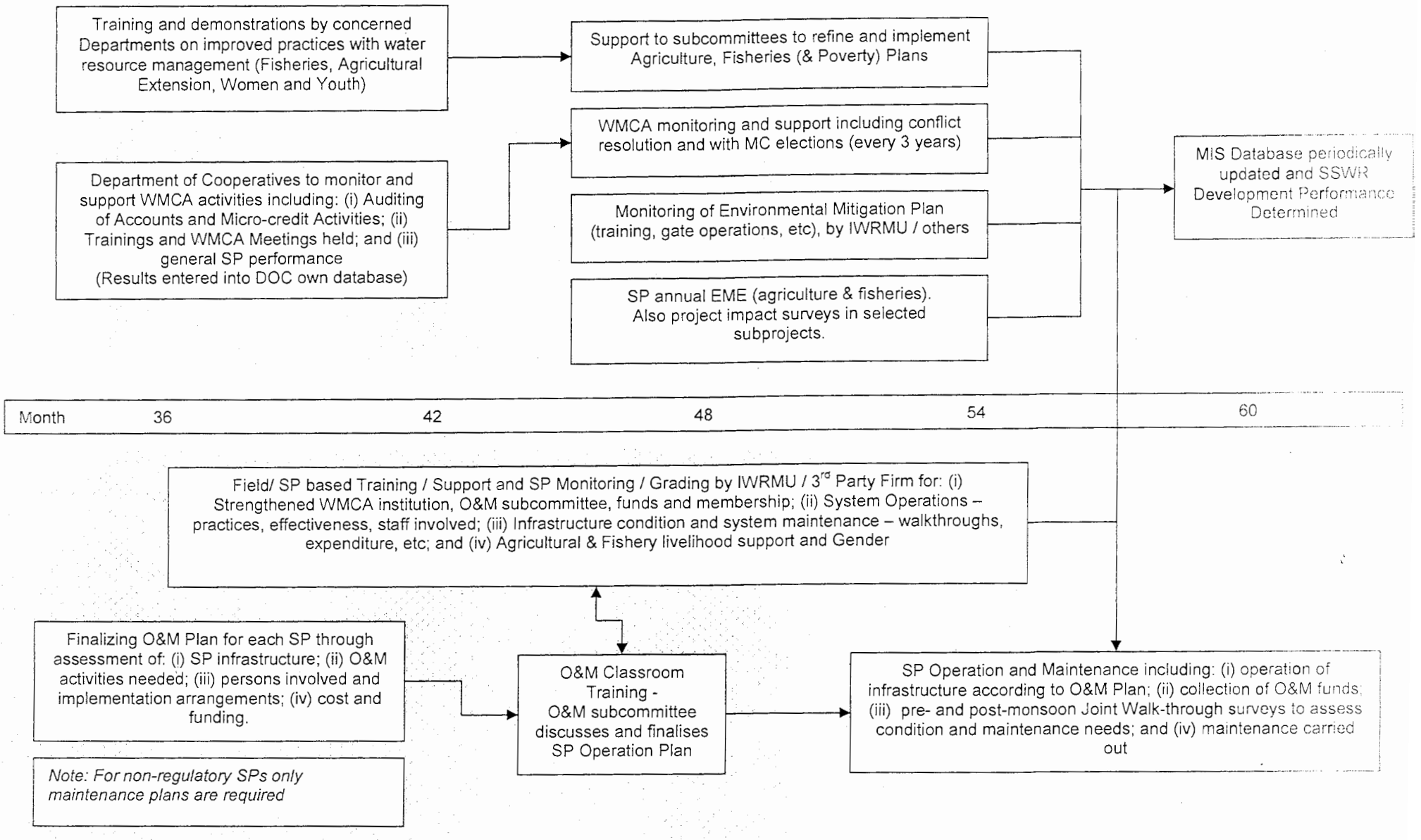
Stage 2 – Feasibility, Design & Institutional Establishment (8-10 months)



Stage 3 - Construction and First Year Operation (12-30 months)



Stage 4 - Sustained Operation & Maintenance



6.5 5th Discussion Meeting on SSW Subproject Development Process Improvement (Core members' discussion on the flow chart)

Date	:	04th December 2014
Venue	:	IWRMU, Level-6, RDEC Bhaban
Agenda	:	Amended Development Process for new SPs (v.2) Performance Enhancement for Existing SPs
Chairperson	:	Mr. Md. Mohsin *Additional Chief Engineer (IWRMU),LGED*
Participants	:	SE (P&D,O&M), IWRMU PD (SSWRDP-JICA, Rubber Dam) (PSSWRSP-ADB gave his comments in advance and XEN of PMO attended the meeting) TL/DTL (SSWRDP-JICA, PSSWRSP-ADB) Chief Adviser (JICA-TA) Total 10 persons

বিদেশী সংস্থা জড়িত বিধায় ইংরেজীতে লিখা হইল

Government of the People's Republic of Bangladesh
Local Government Engineering Department
IWRM Unit, LGED Headquarter, RDEC (Level-6)
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207

Memo No: LGED/SE(IWRM)/O&M/T-13/ 14/ 532 Date: 30-11-2014

Notice

The 5th discussion meeting on **SSW Subproject Development Process Improvement** will be held on **04th December 2014** (Thursday) at 12:00PM, at the IWRM Unit (Level-6), RDEC Bhaban. Draft of Amended Development Process (V2) has already been circulated by Mr. Toru KUMAGAI, Chief Adviser, JICA-LGED TA Project.

All concerned are requested to attend the meeting on time and share your valuable comments.

Agenda:

1. Discussion on Improvement of SSW Subproject Development Process

Attachment:

- Amended Development Process *(V.2 and Performance Enhancement)*

(Md. Joynal Abedin)
Superintending Engineer (O&M)
IWRM Unit, LGED
and Project Manager of JICA TA

Distribution (With request to attend the meeting)

1. Additional Chief Engineer (IWRMU), LGED
2. Superintending Engineer (P&D), IWRMU, LGED
3. Project Director, SSWRDP-JICA/ PSSWRSP-ADB/ Rubber Dam Project, LGED
4. Chief Adviser, JICA TA Project, LGED
5. TL/DTL, SSWRDP-JICA/ PSSWRSP-ADB, LGED

CC: (for his kind information)

- Chief Engineer, LGED

SUBPROJECT CATEGORIES AND DEVELOPMENT PROCESS - OVERVIEW

CATEGORY 1: NEW SP WITH STRUCTURES & EARTHWORKS

Stage 1: Identification, Planning and Clearance
(3 - 6 months)

↓

Stage 2: Feasibility, Design and Institutional Building
(8 – 10 months)

↓

Stage 3: Construction and First Year Operation
(12 – 30 months)

↓

Stage 4: Sustainable Operation and Maintenance

Note: Minor changes proposed to development process adopted under SSWR-2 (ADB) and SSWR-3 (JICA) including enhanced reconnaissance including mapping exercise, and PRA includes as part of feasibility

CATEGORY 2: NEW SP WITH EARTHWORKS

Stage 1: Identification, Planning and Clearance
(3 - 4 months)

↓

Stage 2: Feasibility, Design and Institutional Building
(8 - 10 months)

↓

Stage 3: Construction
(6 – 18 months)

↓

Stage 4: Sustainable Maintenance

Note: Under this development process: (i) shorter feasibility study proposed; (ii) no resettlement / land acquisition anticipated; (iii) no operation of structures required; and (iv) less WMCA training required particularly following construction

CATEGORY 3: EXISTING SP FOR PERFORMANCE ENHANCEMENT

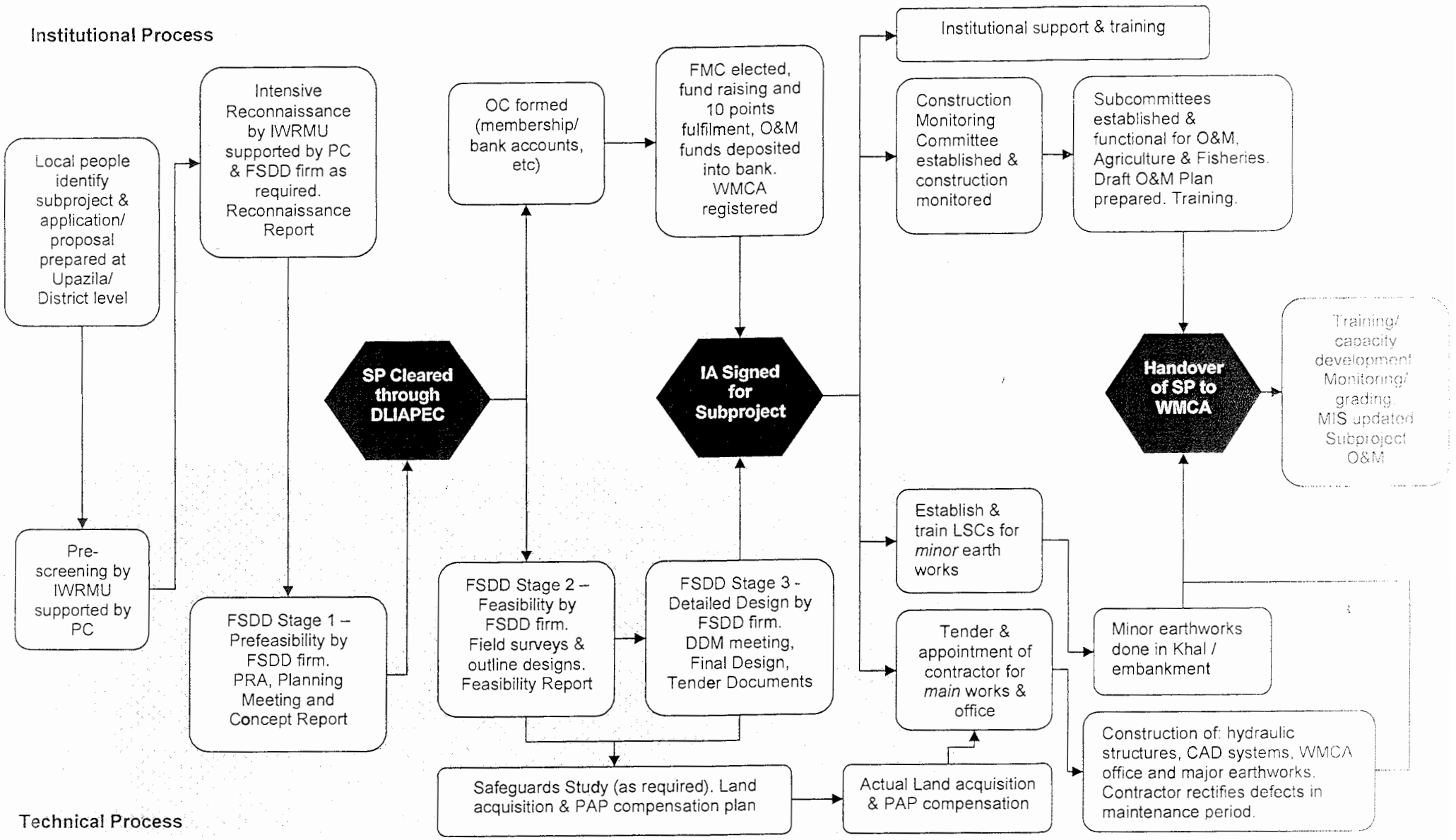
Stage 1: Identification, Assessment and PE Strategy Preparation
(4-8 months)

↓

Stage 2: Performance Enhancement and Support for O&M
(6 - 24 months)

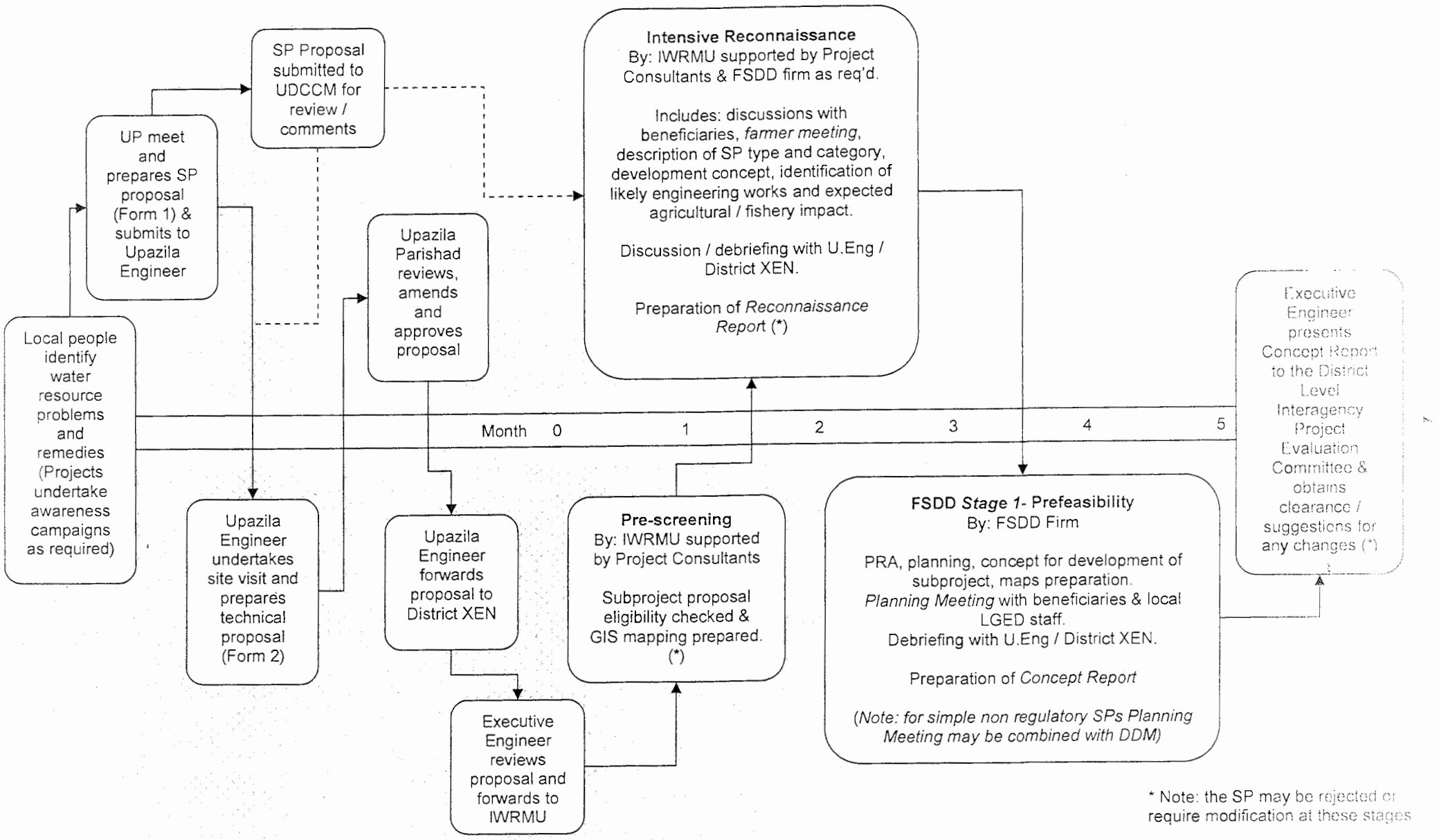
Note: this development process applies to existing WMCAs where additional support is justified to enhance performance. Field assessments and institutional and technical grading will enable preparation of a PE strategy for rehabilitation and/or additional construction works and institutional strengthening. In time adoption by LGED of a funding strategy for PE works is needed.

SUBPROJECT DEVELOPMENT STAGES FOR NEW SUBPROJECTS - CATEGORY 1 & 2

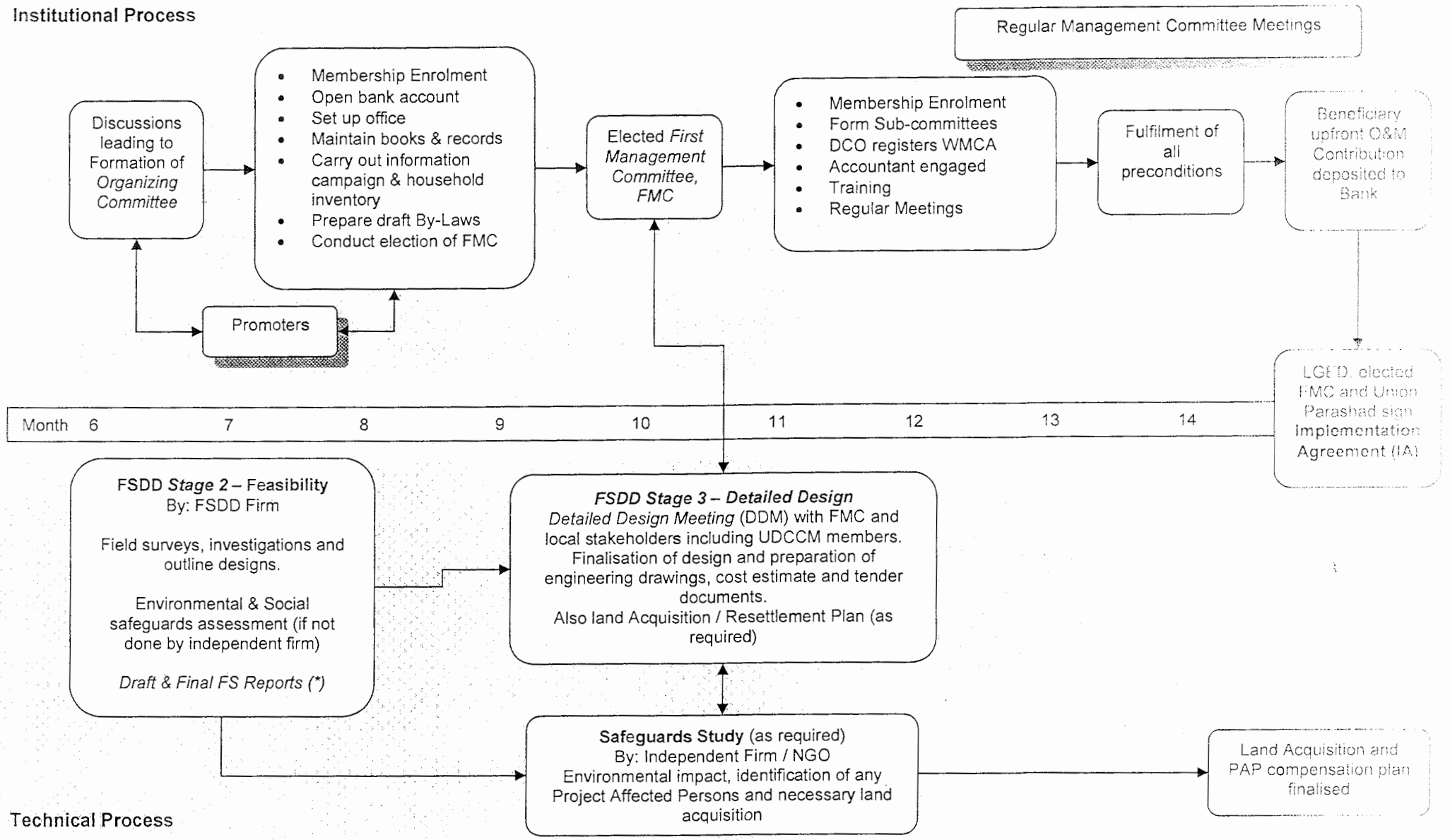


Stage 1 - Identification, Reconnaissance, Prefeasibility and Clearance (3-6 months)

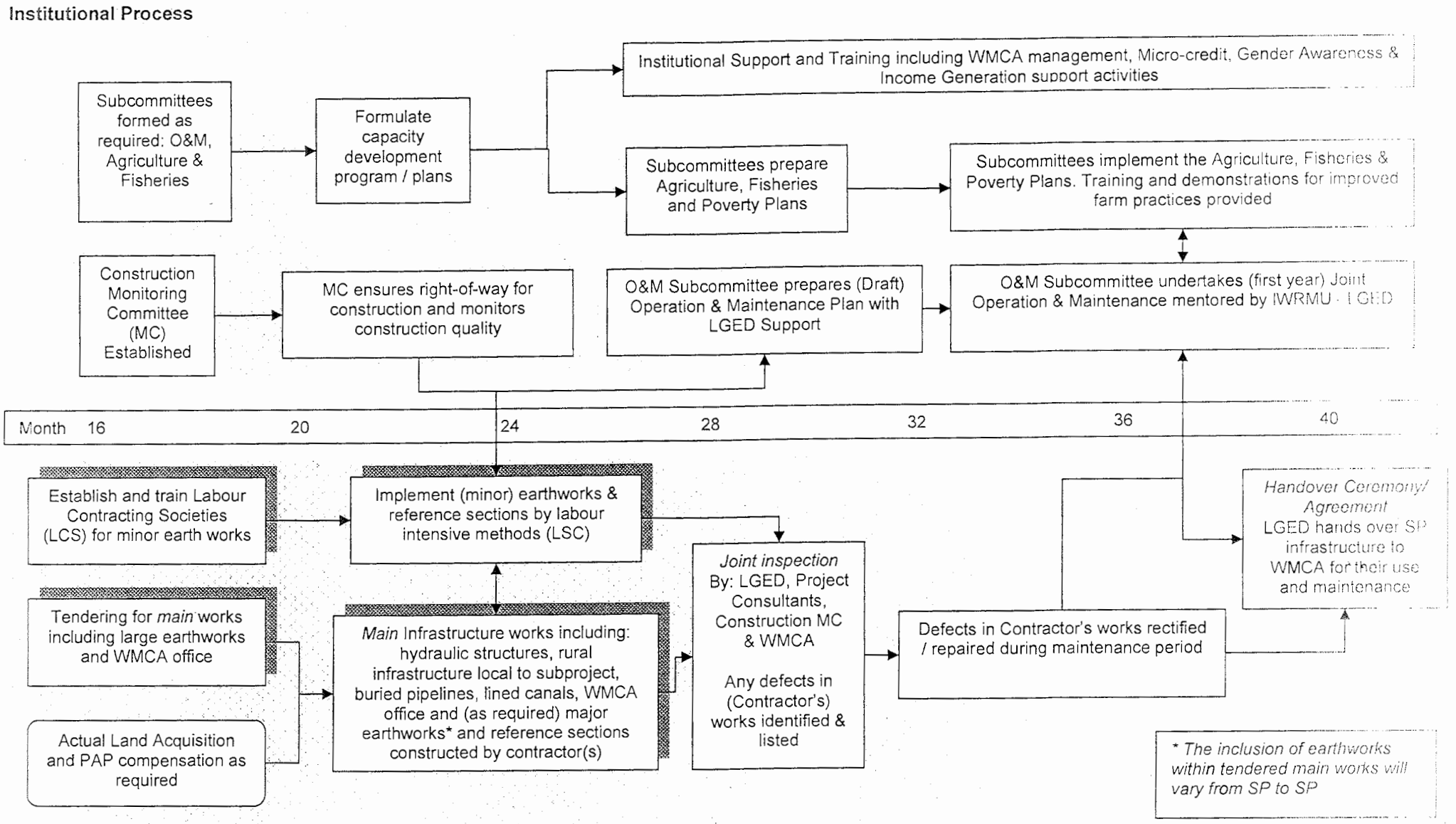
AMENDED DEVELOPMENT PROCESS FOR NEW SPs (v2)



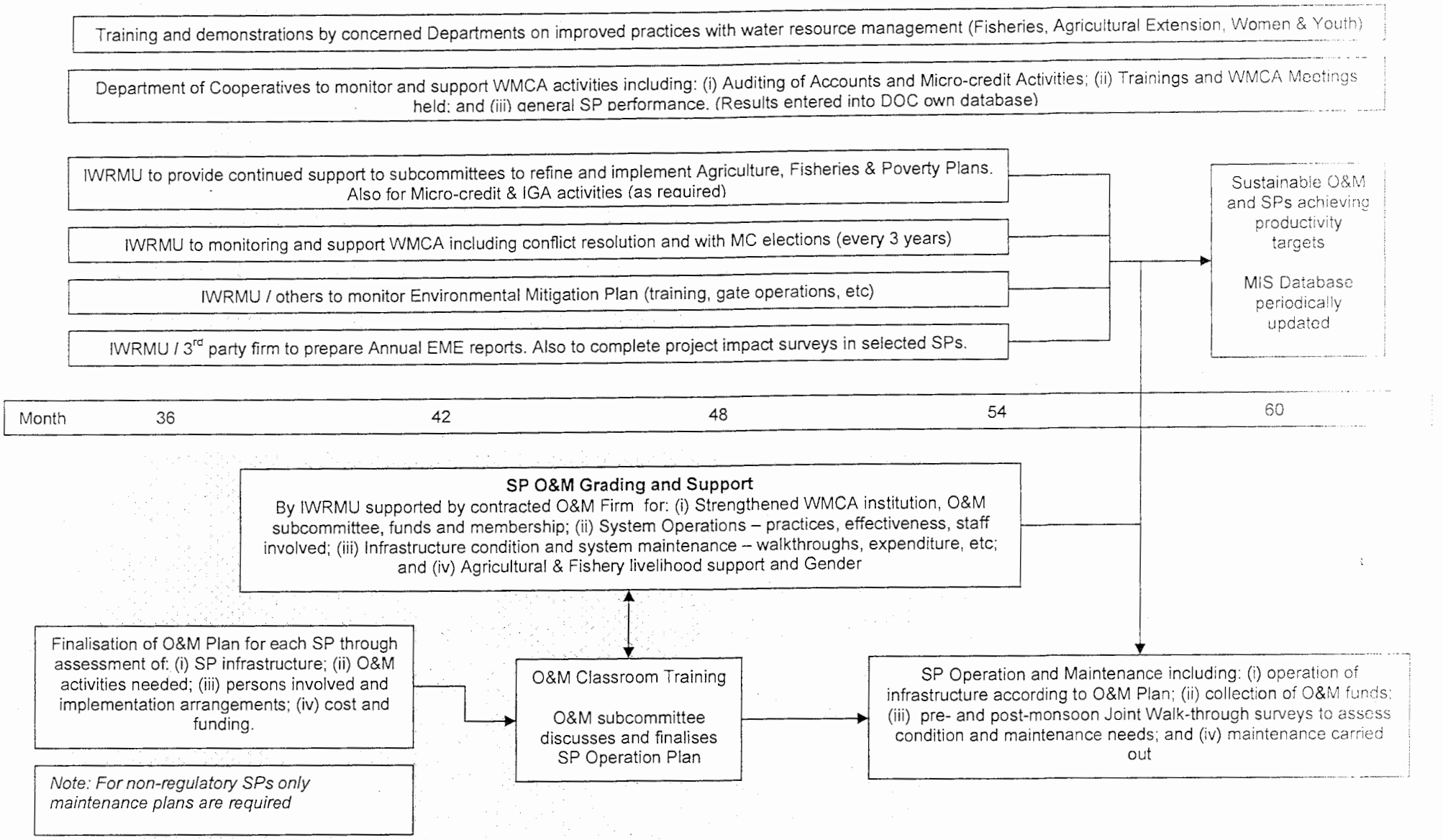
* Note: the SP may be rejected or require modification at these stages


Institutional Process
Regular Management Committee Meetings
Discussions leading to Formation of Organizing Committee
Membership Enrolment
Open bank account
Set up office
Maintain books & records
Carry out information campaign & household inventory
Prepare draft By-Laws
Conduct election of FMC
Elected First Management Committee, FMC
Membership Enrolment
Form Sub-committees
DCO registers WMCA
Accountant engaged
Training
Regular Meetings
Fulfilment of all preconditions
Beneficiary upfront O&M Contribution deposited to Bank
Promoters
LGED, elected FMC and Union Parashad sign Implementation Agreement (IA)
Month 6 7 8 9 10 11 12 13 14
FSDD Stage 2 – Feasibility
By: FSDD Firm
Field surveys, investigations and outline designs.
Environmental & Social safeguards assessment (if not done by independent firm)
Draft & Final FS Reports (*)
FSDD Stage 3 – Detailed Design
Detailed Design Meeting (DDM) with FMC and local stakeholders including UDCCM members.
Finalisation of design and preparation of engineering drawings, cost estimate and tender documents.
Also land Acquisition / Resettlement Plan (as required)
Safeguards Study (as required)
By: Independent Firm / NGO
Environmental impact, identification of any Project Affected Persons and necessary land acquisition
Land Acquisition and PAP compensation plan finalised
Technical Process

Stage 3 - Construction and First Year Operation (12-30 months)

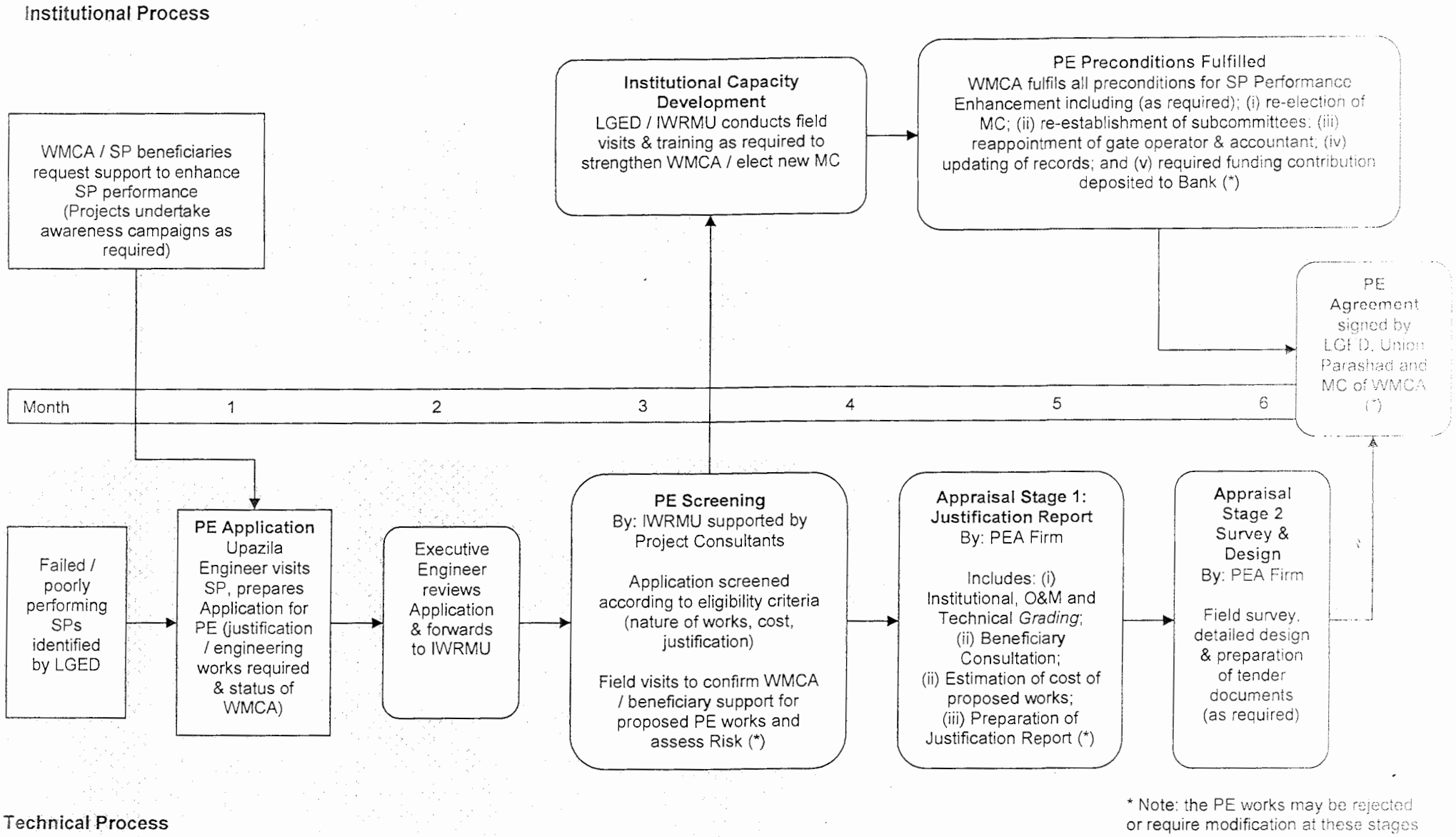


Stage 4 - Sustained Operation & Maintenance



Stage 1 – Identification, Screening and Appraisal (4-8 months)

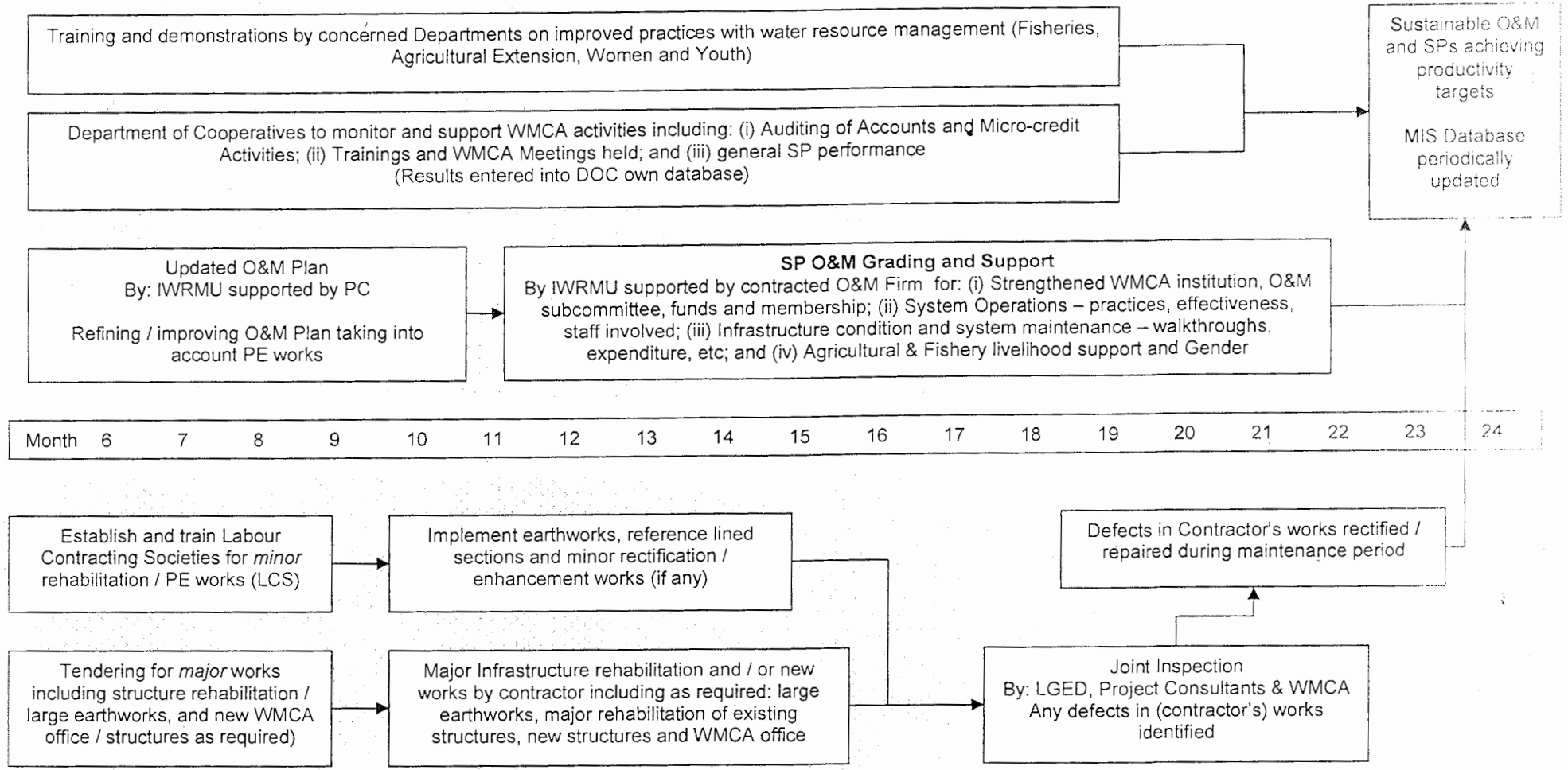
PERFORMANCE ENHANCEMENT FOR EXISTING SUBPROJECTS



Stage 2 – Implementation and Sustainable O&M (12-24 months)

PERFORMANCE ENHANCEMENT FOR EXISTING SUBPROJECTS

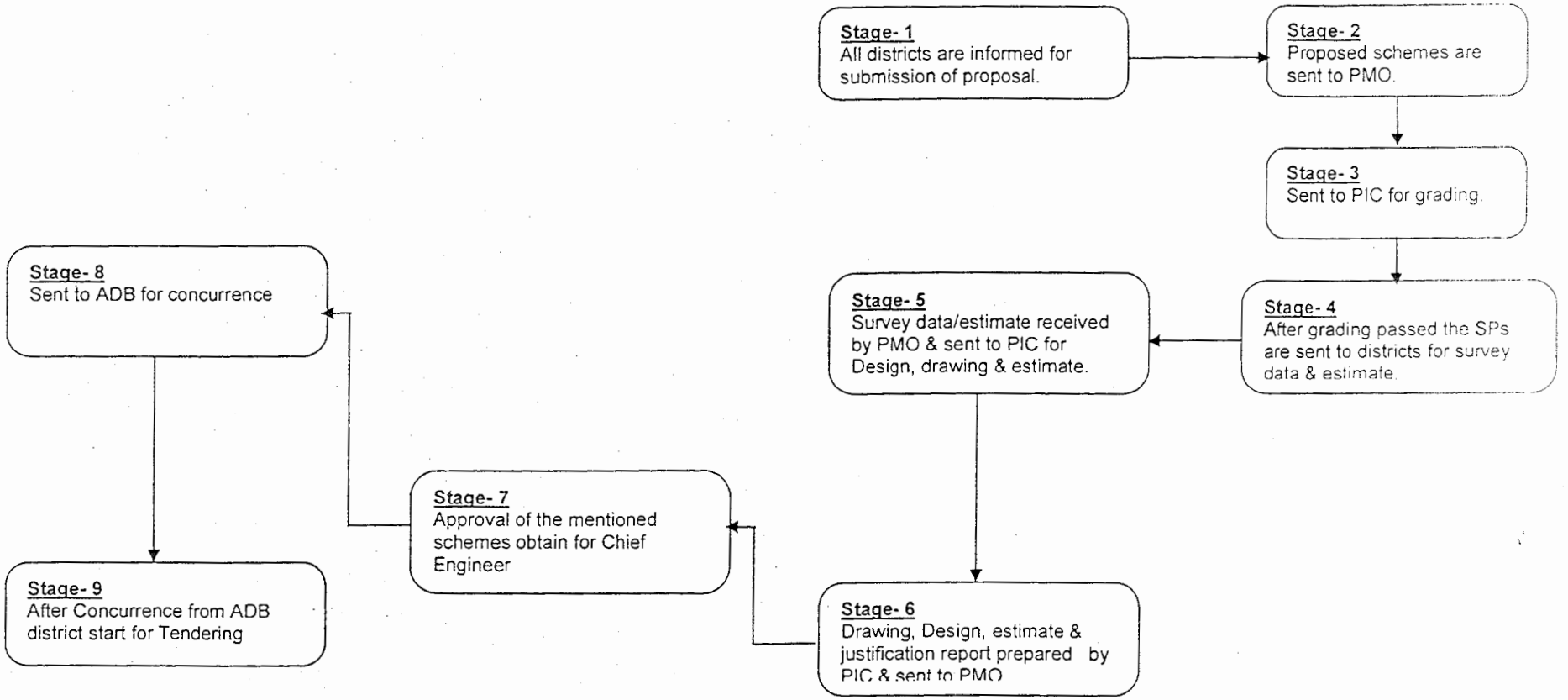
Institutional Process



Technical Process

Scheme Implementation for Performance Enhancement sub-project

PSSWRSP-ADB



Note: The above Process takes 4-5 months.

6.6 Results of Discussion on SSW Subproject Development Process Improvement

1. Subproject categories and Development Process-Summary of Stages

2. Development Stages for Category 1&2 Subprojects

3. Detail Subproject Development Process-Category 1&2 Subprojects

Stage-1	Identification, Reconnaissance, Feasibility and Clearance
Stage-2	Feasibility, Design and Institutional Establishment
Stage-3	Construction and First Year Operation
Stage-4	Sustained Operation & Maintenance

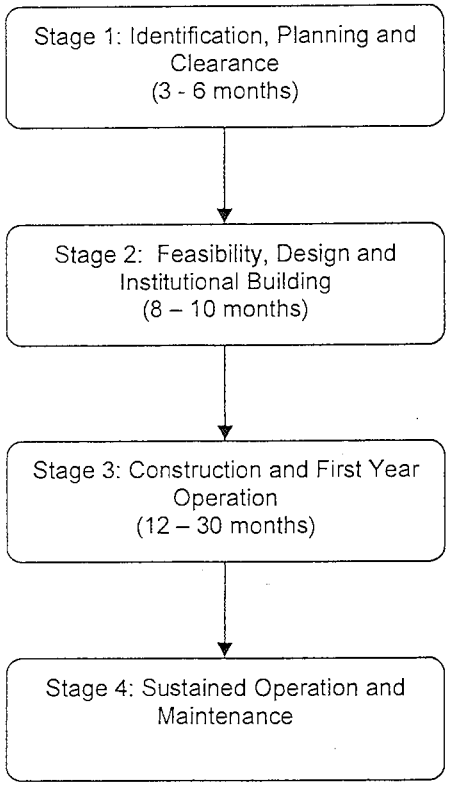
4. Detail Subproject Development Process-Category 3-Performance Enhancement Subprojects

Stage-1	Identification, Screening and Appraisal
Stage-2	Implementation and Sustainable O&M

Above results are sent to the IUCC (Inter Unit Coordination Committee) Meeting for Finalization, then will be reflected to Amended Guidelines for new SSW Projects.

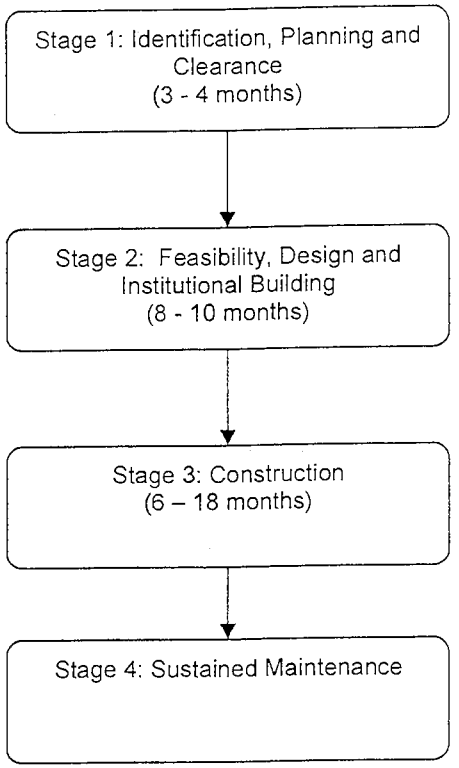
SUBPROJECT CATEGORIES AND DEVELOPMENT PROCESS – SUMMARY OF STAGES

CATEGORY 1: NEW SUBPROJECTS WITH STRUCTURES & EARTHWORKS



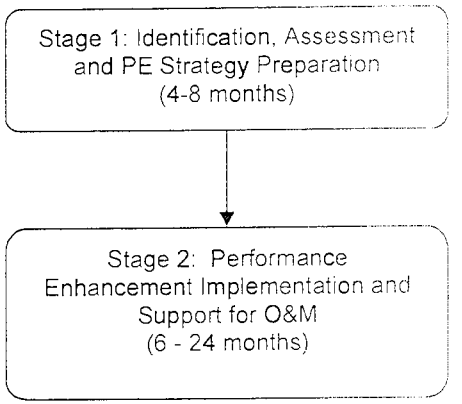
Note: Minor changes proposed to development process adopted under SSWR-2 (ADB) and SSWR-3 (JICA) including enhanced reconnaissance including mapping exercise, and PRA includes as part of feasibility

CATEGORY 2: NEW SUBPROJECTS WITH EARTHWORKS



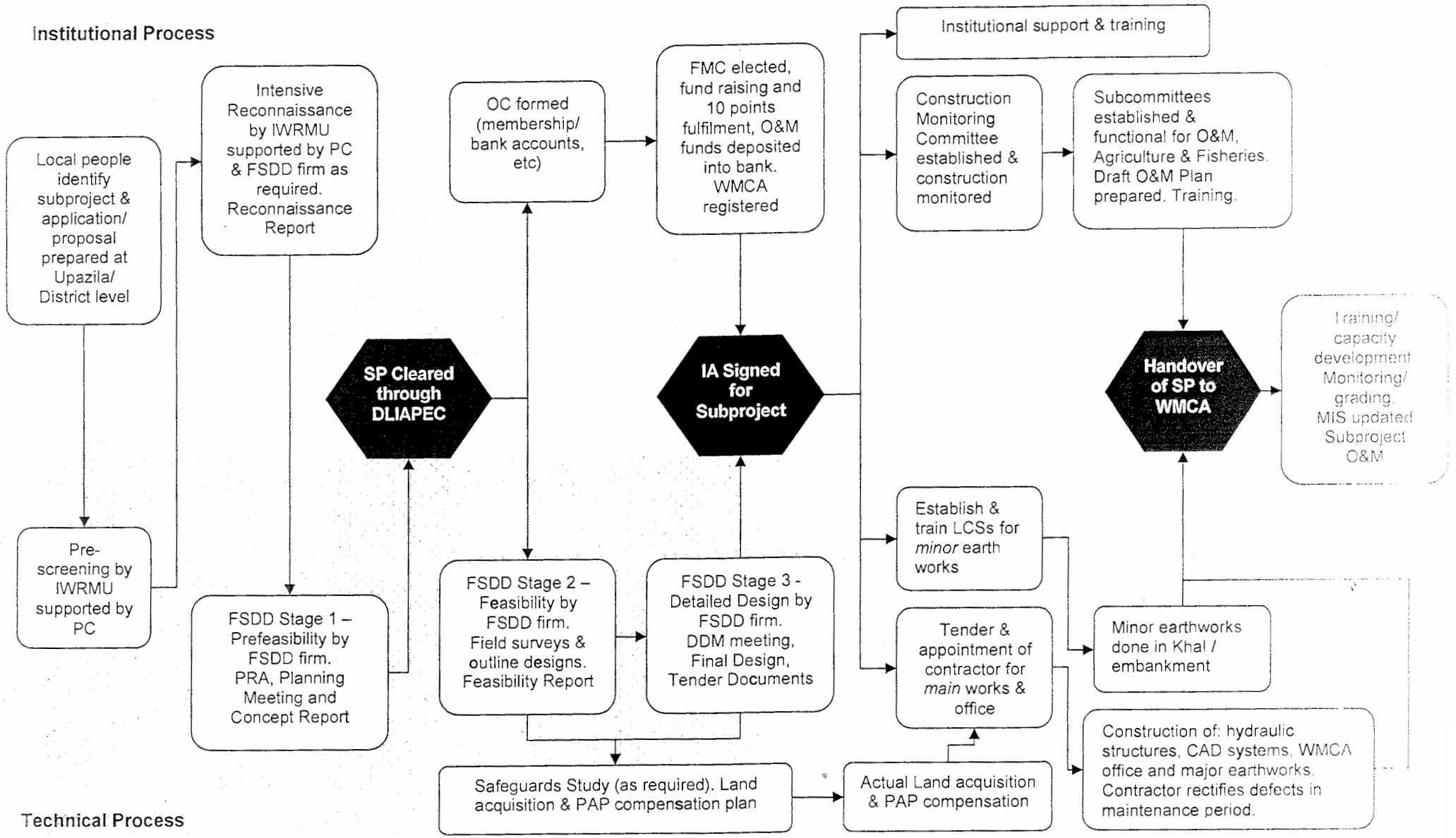
Note: Under this development process: (i) shorter feasibility study proposed; (ii) no resettlement / land acquisition anticipated; (iii) no operation of structures required; and (iv) less WMCA training required particularly following construction

CATEGORY 3: EXISTING SUBPROJECTS FOR PERFORMANCE ENHANCEMENT



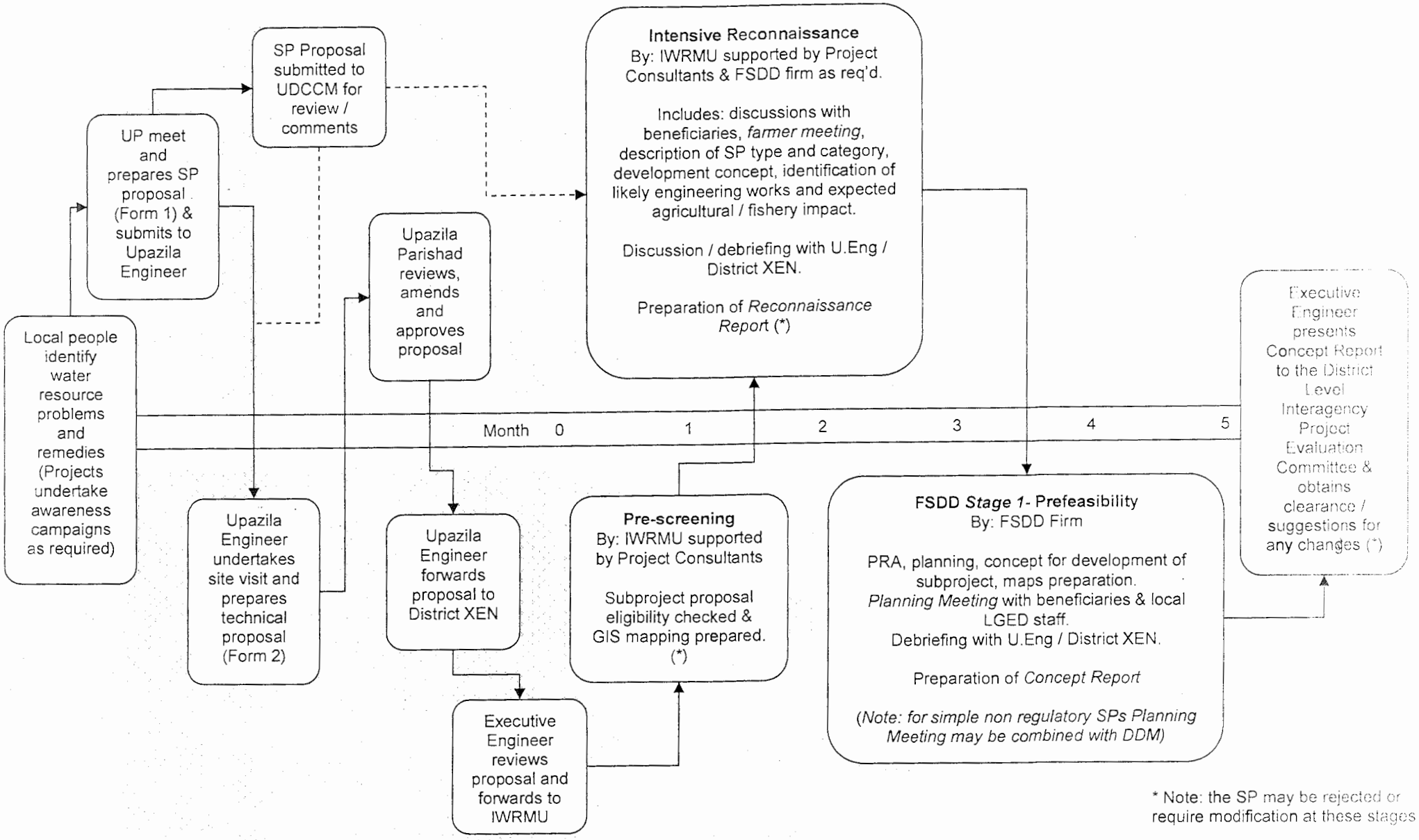
Note: this development process applies to existing WMCAs where additional support is justified to enhance performance. Field assessments and institutional and technical grading will enable preparation of a PE strategy for rehabilitation and/or additional construction works and institutional strengthening. In time adoption by LGED of a funding strategy for PE works is needed.

DEVELOPMENT STAGES FOR CATEGORY 1 & 2 SUBPROJECTS



DETAILED SUBPROJECT DEVELOPMENT PROCESS
CATEGORY 1 & 2 SUBPROJECTS

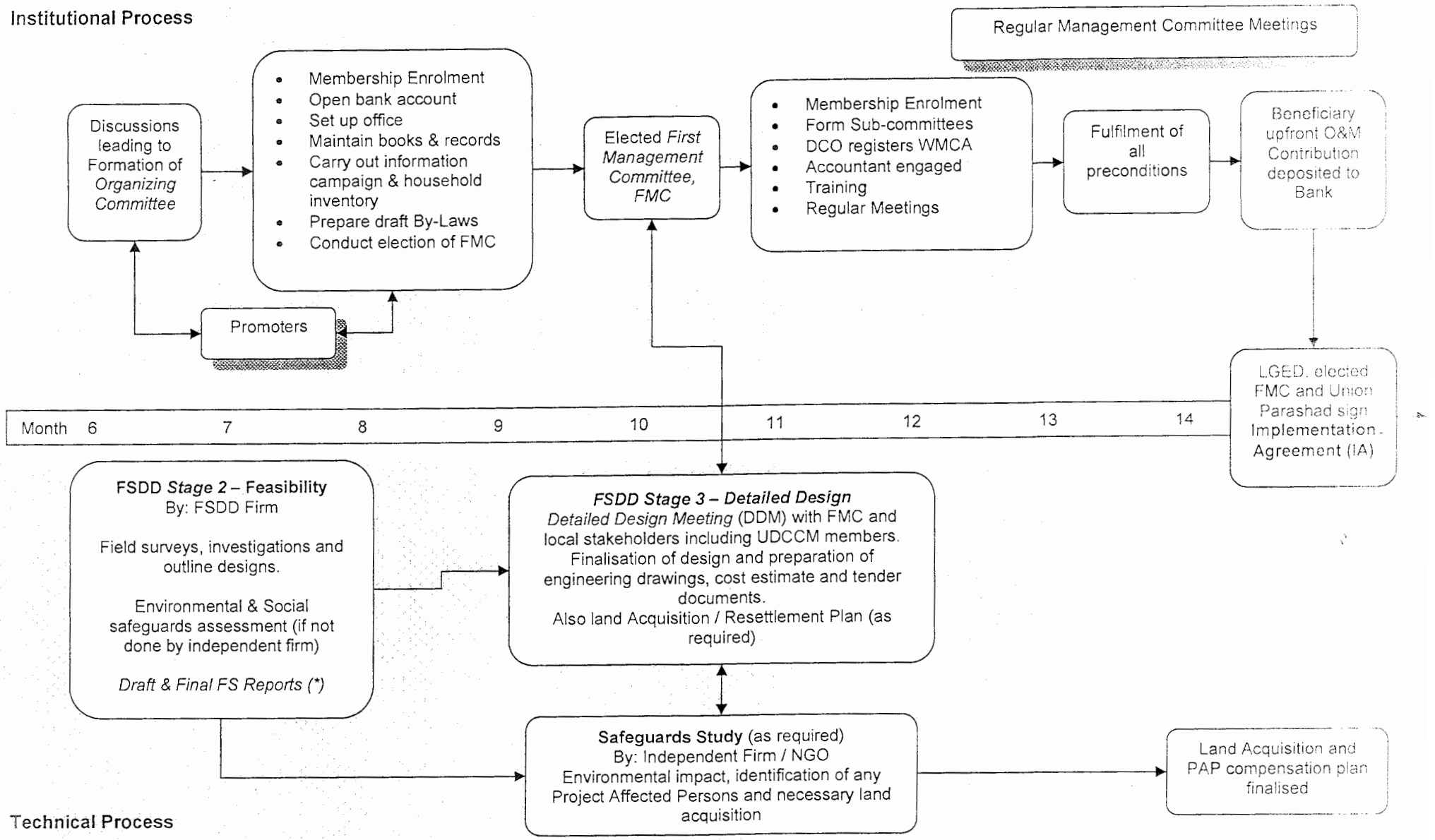
Stage 1 - Identification, Reconnaissance, Prefeasibility and Clearance (3-6 months)



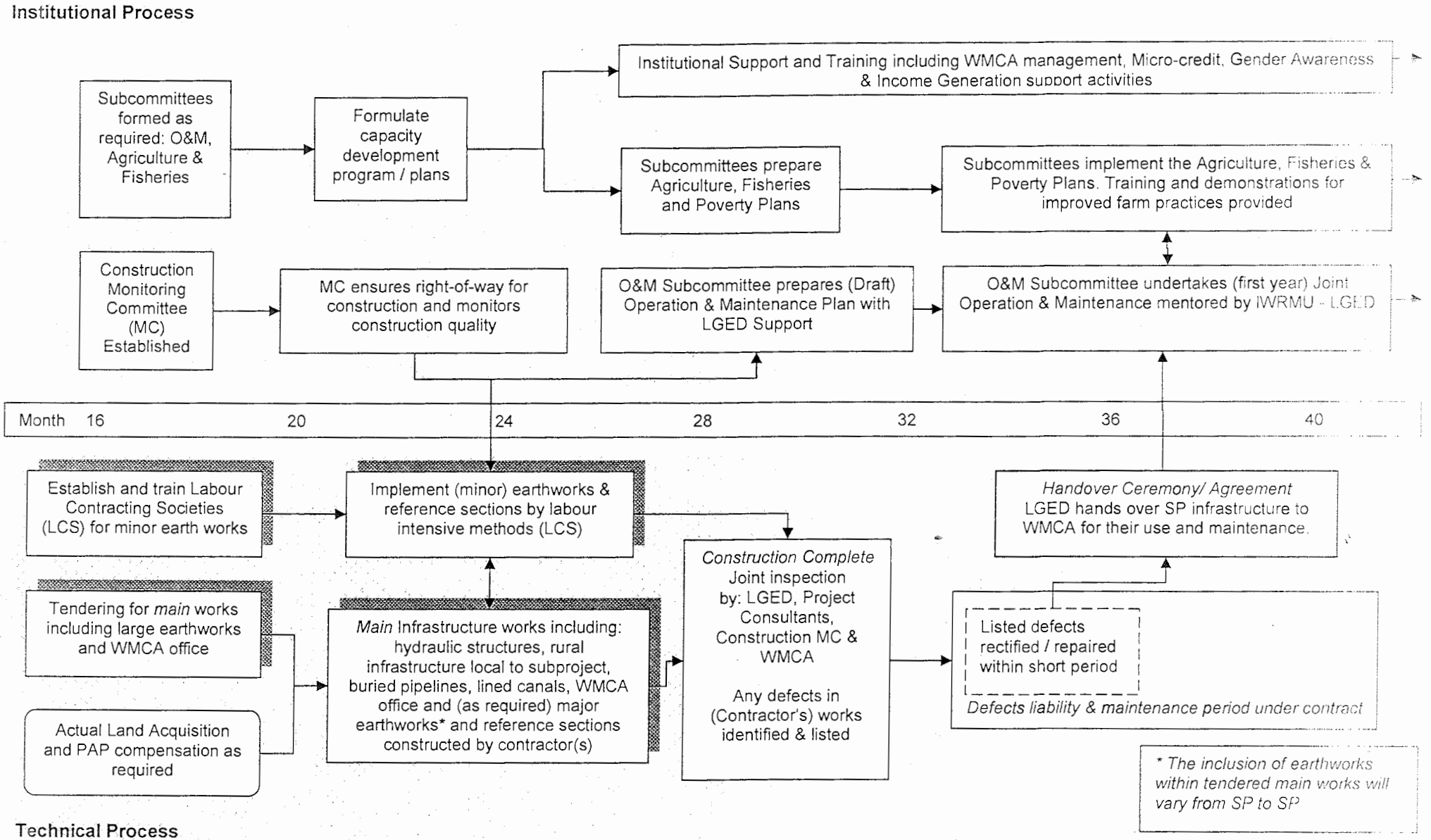
* Note: the SP may be rejected or require modification at these stages

DETAILED SUBPROJECT DEVELOPMENT PROCESS
CATEGORY 1 & 2 SUBPROJECTS

Stage 2 – Feasibility, Design & Institutional Establishment (8-10 months)

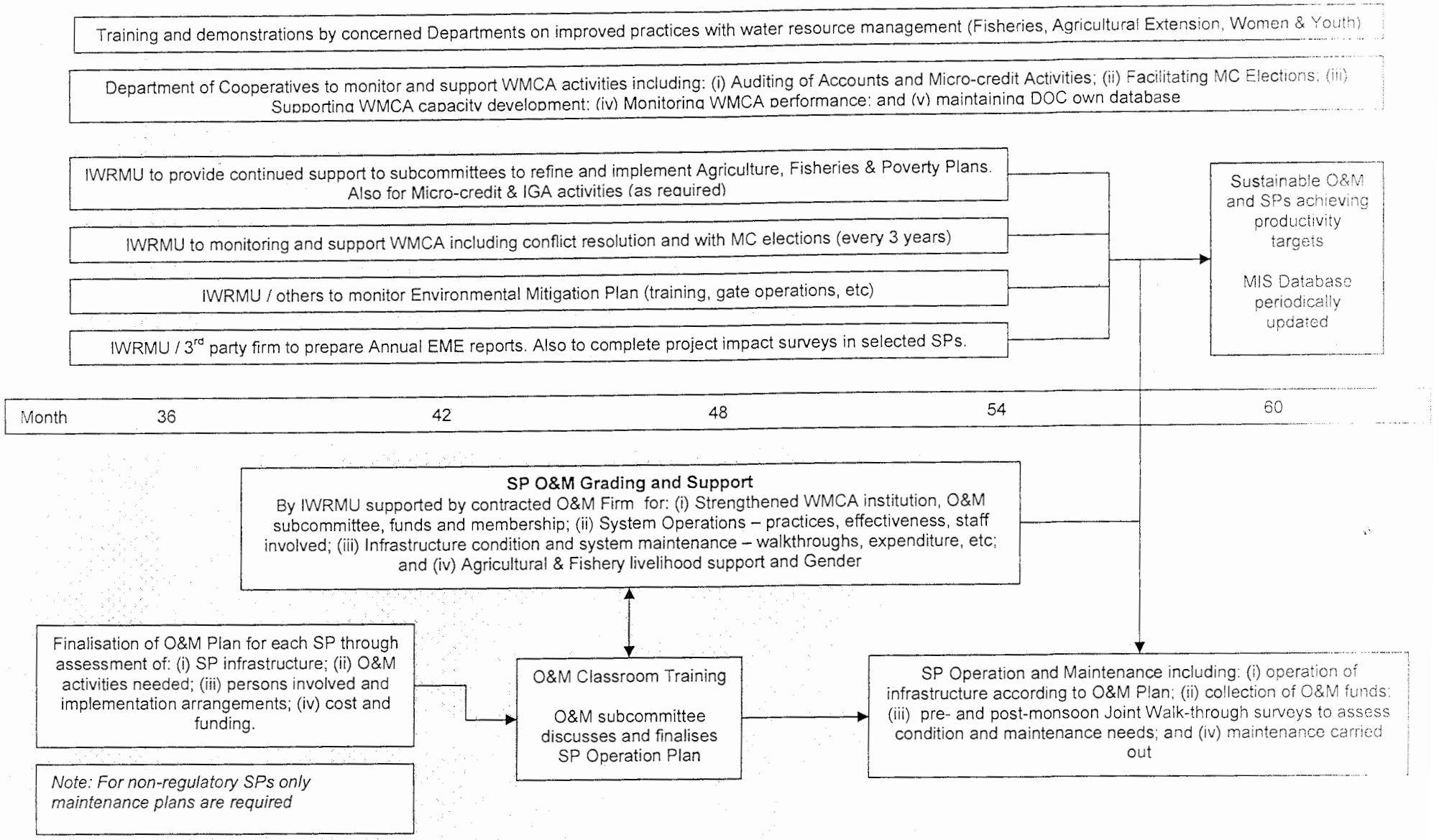


Stage 3 - Construction and First Year Operation (12-30 months)



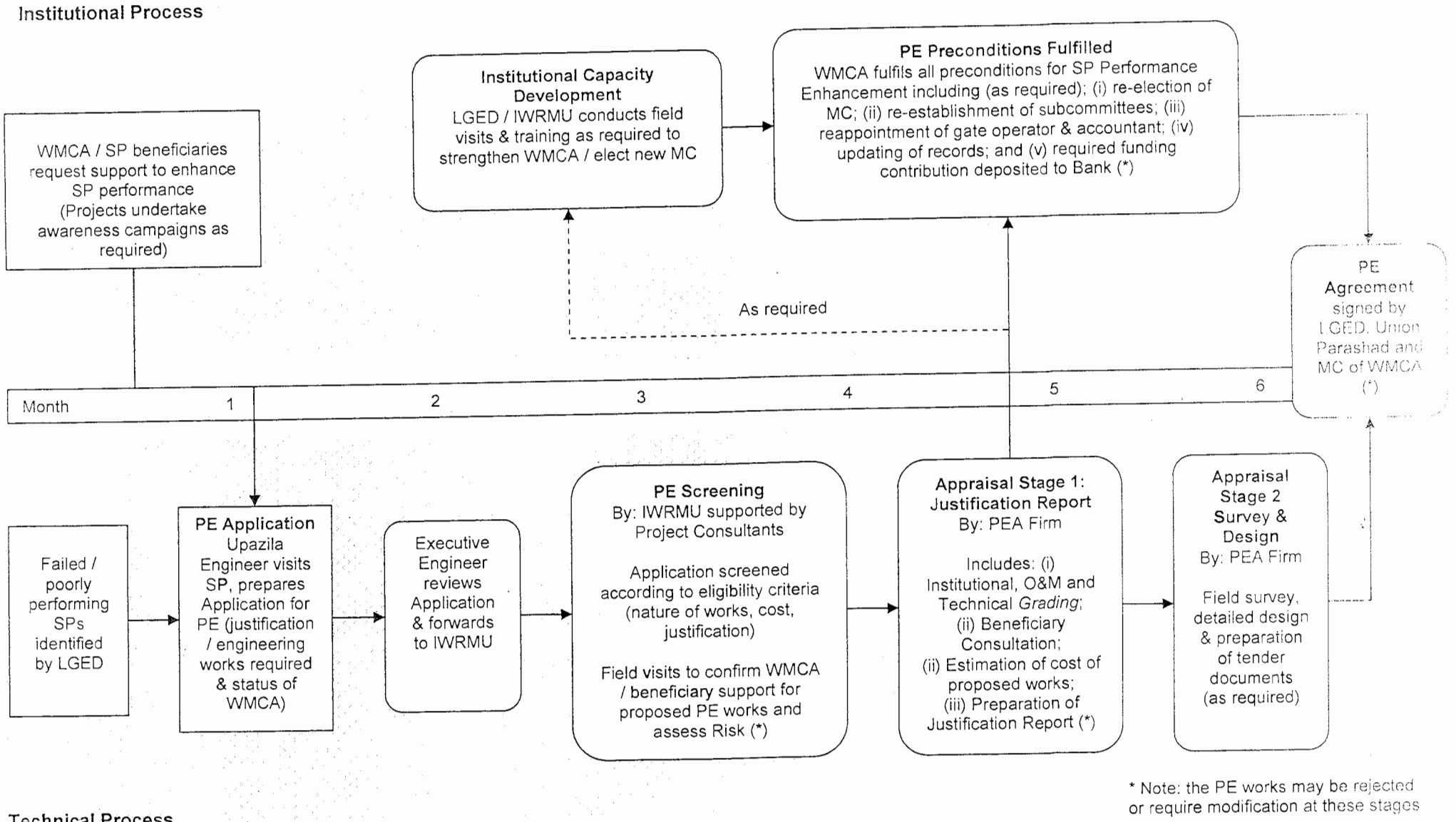
DETAILED SUBPROJECT DEVELOPMENT PROCESS
CATEGORY 1 & 2 SUBPROJECTS

Stage 4 - Sustained Operation & Maintenance



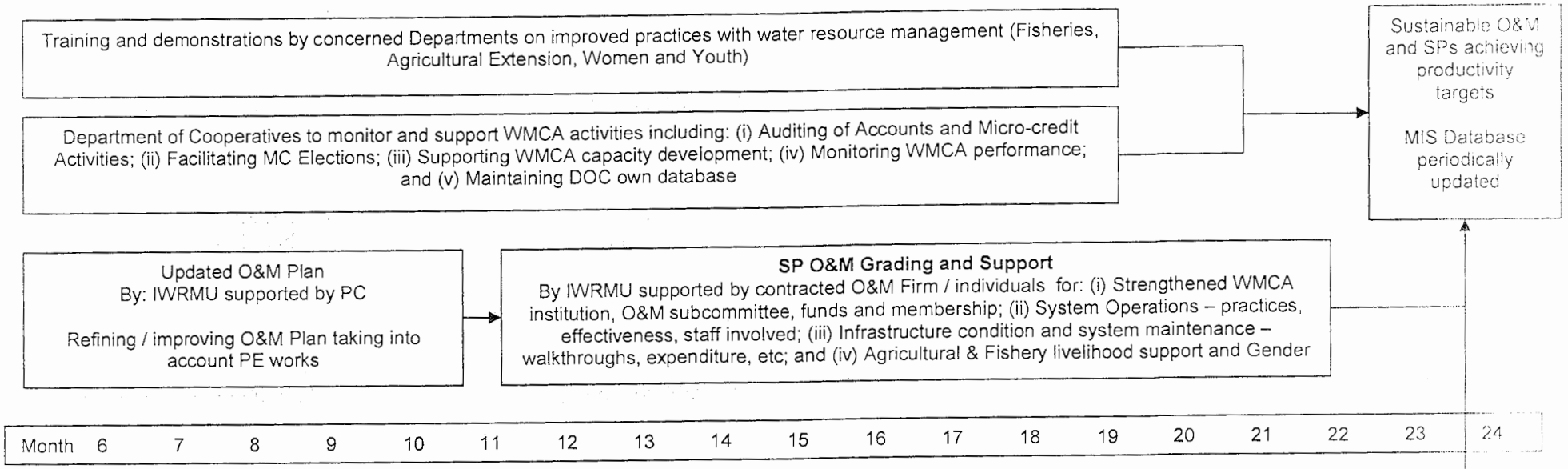
DETAILED SUBPROJECT DEVELOPMENT PROCESS
CATEGORY 3 – PERFORMANCE ENHANCEMENT SUBPROJECTS

Stage 1 – Identification, Screening and Appraisal (4-8 months)



Stage 2 – Implementation and Sustainable O&M (12-24 months)

Institutional Process



Technical Process

APPENDICES

APPENDIX-A
List of field level Participants

Participant List of District Level Workshop
on
Improvement of SSW Subproject Development Process

Position with Office	Jhalakathi (13-07-2014)	Tangail (09-07-2014)	Natore (07-07-2014)
A. LGED District Level:			
1. Executive Engineer	Md. Selim Sarker	M. Mizanur Rahman	Md. Abdur Rahim Shaikh
2. Sr. Assistant Engineer	Md. Fulkam Badhsah		Md. Safiqul Islam
3. Socio-Economist	Sk. Md. Saidur Rahman	Md. Abul Kasem (SOE)	Md. Asaduzzaman
4. CPO(Com. Parti. Officer)		ATM Monzur Haque	
5. Agriculture Facilitator	Gazi Salaah Uddin (P.khali)	Kazi Abdur Rahim	
6. Fisheries Facilitator	Md. Dulal Mredha (Barisal)	A.S.M. Jubayer	
8. Others	S.M. Jahangir Alam (Facil.)	Kohinoor (Sub-Asst. Engineer)	
B. Line Departments			
1. DAE (Agriculture)	Abdur Razzak	Ajit Kumar Sarker	Md. Rahmatullah Sarker
2. DOF (Fishery)	Md. Shahid Miah	Md. Nizam Uddin	Md. Abdud Dayan
3. BWDB (Water Board)			Md. Babul Akhter
4. DOC (Cooperative)	Md. Golam Kabir Sharif	Md. Rezaul Karim	Md. Atowar Rahman
5. DLO (Livestock)	Dr. Md. Abdullah (Sadar)		
C. LGED: Upazila Level			
1. Upazila Engineer/ Upazila Asst. Engineer (UAE)	Md. Arifuddoula (Sadar)	Manas Mandal (Shakhipur)	Md. Zahurul Islam (Sadar)
	M.M.Lutfor Rahman(Rajapur)	Md. Humayun Kabir (Dhanbari)	A.K.M. Nazrul Islam (Singra)
		Md. Shamsul Alam (Mirzapur)	Md. Shahidul Islam (Boraigram)
		Jahanar Parvin (UAE-Kalihati)	
		Md. Jalal Uddin (Gopalpur)	
		K.M. Fozlul Kabir (Ghatail)	
2. Sub-Asst. Engineer/ Const. Superviser (CS)	Monzur Rahman (Sadar)	S. M. Abdus Samad (Basail)	Md. Samser Ali(Gurudaspur)
	Md. Asadul Haque (Kathalia)	Md. Aktaruzzaman (CS-Dhanbari)	Kazi Md. Abdul Baten (Singra)
	Abdul Kader(Surveyor-Sadar)	Md. Mahfuz Hasan (CS-Kalihati)	Md. Iqbal Hossain (Sadar)
	Md. Sohanur Rahman (Surveyor-Kathalia)	Md. Harun-or-Rashid (CS-Gopalpur)	
		Md. Abdul Mannaf (CS-Ghatail)	
		Md. Kamrul Hasan (CS-Shakhipur)	
4. Community Organizer (CO)	Md. Akkas Ali Khan (Sadar)	Abdur Razzak (Dhanbari)	Md. Abdul Matin (Sadar)
		Md. Ashraful Islam (Gopalpur)	Md. Abdur Rafin (Boraigram)
		Kh. Ruhul Amin (Mirzapur)	Md. Razaul Karim (Gurudaspur)
		Md. Yeashin Ali (Kalihati)	Md. Abdul Monayem(Singra)
		Md. Shahjahan Miah (Shakhipur)	
		Md. Yusuf Ali (Ghatail)	
D. UZP Chairman	Md. Leyakat Ali Khan(Sadar)	Shawkat Sikder (Shakhipur)	Md. Ekramul Alam (Boraigram)
E. UP Chairman	Mobarek Hossain Mallick (Basanda, Sadar)	Md. Nabin Hossain (Hatibandha, Shakhipur)	M.M. Shamsuzzoha (Nagor, Boraigram)
F. JICA TA Project			
1. Chief Adviser	Toru KUMAGAI		
2. HRG	Hasan Ahmed Sharif		
G. Consultants (SETS)			
1. Coordinator (& Chief)	Md. Shafiqul Islam		
2. Sociologist (& TL)	Monoranjan Mojumder		
3. Agronomist	Md. Jahangir Murshed		
4. WRE	Md. Anwarul Hoque		
No of Participants	**25**	**35**	**25**

Local Government Engineering Department

Capacity Development Project for Participatory Water Resources Management
through Integrated Rural Development
(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 13-07-2014, Sunday
10:00AM

Venue: LGED, Distrcit: Jhalokathi

No	Name	Designation & Office	Mobile/Contact No.	Signature
1	MD SELIM SARKER	XEN, LGED	017 31751494	
2	Toru Kumagai	Chief Adviser LGED-JICA TA Project	01714-168961	
3	MD. Ayakat Ali Khan	U.P.J.A.L.A. Chairman	01712994560	
4	Md. Fulkam Badshah	Sr. AE LGED Jhalokathi	01712050717	
5	Md Golam Kabir Sharif	Dep. Co-operative DepH. Jhalokathi	01712908889	
6	Md. Arifuddoula	Upazila Engineer Sadar Jhalokathi	01717894548	
7	SK. MD. Sajidur Rahman	Socio-Economist LGED, Jhalokathi	01711-077431 01749-538004	
8.	MD. DULALMREDHA	Fisheries Facilitator LGED, Barisal	01718557901 01813010789	
9.	GAZI SALAAH UDDIN	Agri. Facilitator LGED. Patuakhali	01720518479	
10.	Abdur Razzak	District Training Officer, DAE, Jhalokhati	01718050904	
11	Abdul Kader	surveyor, LGED Jhalokathi sadar	01724189795	
12.	Md. Akkas Ali Khan	CO, LGED, Jhalokathi Sadar	01719764594	
13	Monzur Rahman	SAE, Sadar Upzila LGED Jhalokati	01728 311302	

Local Government Engineering Department

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through Integrated Rural Development
(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 13-07-2014, Sunday 10:00AM	**Venue:** LGED, Distrcit: Jhalokathi

No	Name	Designation & Office	Mobile/Contact No.	Signature
14	S.M. Jahangir Alam	G. Facilitator (PSSWRSP) LGED, XEN office	01716-014323 Jhalokathi	
15	MD. Samim Azed	Member of UP. Bashanda	01757-977124	
16.	MD. Asadul Haque	SAE, Kathalia Jhalokathi.	01718833031	
17.	Md. Sohanur Rahman	Surveyor, Kathalia Jhalakati	01718851428	
18	Md. Habibur Rahman	Union Basonda Jhalakati	01712763320	
19	Torun Karmokar,	Union Basonda Jhalakati.	01714478281	
20	M.M. Lutfor Rahman.	UE, Rajapur, Jhalakati	01711667779	
21	Md. Shahid [illegible]	S. [illegible] FO, Jhalokati [illegible] DFO, Jhalokati	01716 355052	
22	Dr. Md. Abdullah	ULO Sadar [illegible] DLO	01718743944	
23	Mr. MOBAREK HOSSAIN MALLICK	CHAIRMAN 6 NO BASANDA	01716461637	
24.	MD. Anwarul Hoque	WRE, ~~[illegible]~~ Of SCL & SETs cons.	01711-969478	
25	Manoranjan Mojumder	Team Leader, SCL & SETS Consult.	01714-308535	
26.	Md. Jahangir Murshed	JV of SCL-SETS	01712150820	

Local Government Engineering Department
Capacity Development Project for Participatory Water Resources Management
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Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 13-07-2014, Sunday 10:00AM | **Venue:** LGED, Distrcit: Jhalokathi

No	Name	Designation & Office	Mobile/Contact No.	Signature
27.	md. Shafiqul Islam	Co-ordinator JV of SCL - SETS	01199095559	[signature]
28	M.d. IQBAL	Contomis Jhalokati	0172477220	[signature] 13-7
29	MONIR	MLSS	01736725901	[signature]
30.	Hasan Ahmed Sharif	HR Generalist JICA-LGED TA Proj	01713047110	[signature]

Local Government Engineering Department

Capacity Development Project for Participatory Water Resources Management
through Integrated Rural Development
(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 09-07-2014, Wednesday 10:00AM	**Venue:** LGED, Distrcit: Tangail

No	Name	Designation & Office	Mobile/Contact No.	Signature
1.	Toru Kumagai	Chief Adviser LGED-JICA TA Project	01714 -168961	
2.	Mizanur Rahman	XEN, LGED Tangail	01715011457	১৭/৭/২০১৪
3.	Shawkat Sikder	Upazilla Chairman Shakhipur	01819445446	
4.	Manas Mondal	Upazila Engineer, Shakhipur	01711.557.000	
5.	Md. Humayun Kabir	Upazila Engineer Dhanbari, Tangail	01711956104	
6.	Md. Shamsul Alam	Upazila Engineer Mirzapur,	01711044622	
7	Jehanara Parvin	Upazila Asstt. Engr, Kalihati.	01725-913633	
8.	MD. Jalaluddin	Upazilla Engg. Gopalpur Tangail	01725155776	
9.	Kohinoor	Sub-Assistant Eng XEN Office SSW	01724-128044	
10.	Abdur Razzak	C.O. Dhan Bari Tangail	01716-650621	
11.	MD. AKTARUZZAMAN	C.S Dhanbari, Tangail.	01736-741375	
12.	MD. Mahfuz Hasan	C.S Kalihati, Tangail.	01718-167847	
13	MD. Ashraful Islam	C.O. Gopalpur Tangail	01714-582400	

Local Government Engineering Department

Capacity Development Project for Participatory Water Resources Management
through Integrated Rural Development
(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 09-07-2014, Wednesday
10:00AM

Venue: LGED, Distrcit: Tangail

No	Name	Designation & Office	Mobile/Contact No.	Signature
14.	Md. Rezaul Karim	Dy. Asstt. Registrar Dist. co.op. office Tangail.	01711-242692	9/7/14
15.	KH. Ruhul Amin	C.O. LGED, Mirzapur, Tangail	01716-208757.	9/7/14
16.	S.M. Abdus Samad	SAE LGED BAGAIL Tangail	01714-605097	09/7/14
17	Md. yeashin Ali	C.O. LGED Kalihati Tangail	0193-2206632	9/7/14
18	Md. Shahjahan Miah	C.O L.G.E.D Shakhipur, Tangal.	01712-627942	9/7/14
19	A.S.M. Jubayer	Fisheries Facilitator SSWRDP (JICA) LGED, Tangail.	01725-913247	09-7-14
20.	Kazi Abdur Rahim	Agriculture Facilitator SSWRDP JICA LGED, Tangail	01724-370983	09.7.14
21	Md. Harun-ore-Rashid	C.S. LGEG Gopalpur.	01716205275	09.07.14
22	Md. Abdul Manaf	C.S. LGED Ghatail, Tangail	01718096276	A.Manaf 09.07.14
23.	Md. YUSUF Ali	CO. LGED. Ghatail, Tangail	01919-584489	9.7.14
24	Md Kamrul Hasan	C.S LGED Shakhipur Tangail	01710 656520	09.7.14
25.	Md. Nizam uddin	District Fisheries office Tangail	019 41206208	Nizam uddin 09.7.14
26.	AJIT KUMAR SAR - KER.	Ad. DD (Crops) DAE, Tangail	01717-052612	09.7.14

Local Government Engineering Department

Capacity Development Project for Participatory Water Resources Management
through Integrated Rural Development
(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 09-07-2014, Wednesday 10:00AM | **Venue:** LGED, Distrcit: Tangail

No	Name	Designation & Office	Mobile/Contact No.	Signature
27	Md. Nobin Hossain	Chairman Sakhipur	01711034358	[signature]
28.	Md. Anwarul Hoque	Consultant from SEL and SETs Consultant Ltd.	01711-969478	[signature]
29.	Manoranjan Mojumder	Team Leader, SCL & SETS Consultant	01714-308535	[signature]
30.	K.M. Fozlul Kabir	Upazila Engineer Ghatail, Tangail	01711-907668	[signature]
31.	Md. Jahangir Munshi	Agronomist JV of SCL-SETS	01712-150820	[signature]
32.	ATM MOZNUL-HAQUE	CPO, Tangail	01712-481109	[signature]
33.	Md. Abul Kasem	Socio-Economist Tangail	01712117842	[signature]
34	Md. Shafiqul Islam	Co-ordinator, Imp. SP Dev. Process, Socioconsult	01199095559	[signature]
35.	Md. Kudrat-e-Azam	Electrician LGED Tangail	01716-521347	[signature]
36	MD: Lotif	M.L.S.S LGED Tangail	0173641829	[signature]
37.	Hasan Ahmed Sharif	HR Generalist JICA-LGED TA	01713-047110	[signature]

Local Government Engineering Department

Capacity Development Project for Participatory Water Resources Management through Integrated Rural Development (JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 07-07-2014, Monday 10:00AM | **Venue:** LGED, Distrcit: Natore

No	Name	Designation & Office	Mobile/Contact No.	Signature
1	Md Abdur Rahim Shaikh	Xen, LGED, Natore	01716-029417	[signature] 09.9.18
2	Toru Kumagai	Chief Adviser LGED-JICA TA Project	01714-168961	熊谷徹
3.	Md. Babul Akhter	E.E. BWDB, Natore	01711452916	[signature] 9/9/18
4.	Md. Rahmatullah Sarker	Deputy Director. Dept. of Ag. Ext.	01716958682	[signature] 9-9-18
5.	Md. Zahurul Islam	Upazila engr. Sadar. Natore.	01713-739447	[signature]
6.	A.K.M. Nurul Islam	Upazila Engineer Singra, Natore	01711-484269	[signature] 07.07.2014
7.	M.M. Shamsuzzoha	Chairman Nagor, U.P. Boraigram	01734397711	[signature]
8.	Md. Samser Ali	Sub-Assistant Eng. Gurudaspur, Natore	01748981964	[signature]
9.	Kazi Md. Abdul Baten	Sub Asst. Engineer Singra, Natore	01713-714314	[signature]
10.	Md. Iqbal hossain	D (S.A.E) Natore, sadar	01716-077818	[signature] 7.7.14
11	MD. Asaduzzaman	SocioEconomist PSSWRSP LGED. Natore	01748-965931	[signature] 07.07.14
12	MD. Ataur Rahman	District co-operative officer. Natore.	01716-697799	[signature] 07.07.14
13.	Md. Abdul Dayan	Senior Upazila fisheries officer Sadar, Natore	01712-201601	[signature] 07.7.14

Local Government Engineering Department
Capacity Development Project for Participatory Water Resources Management
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(JICA-LGED TA Project)
Level-6, RDEC Building, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Attendance Sheet

MEETING ON: Discussion Meeting on Improvement of SSW Subproject Development Process

Date: 07-07-2014, Monday 10:00AM	**Venue:** LGED, Distrcit: Natore

No	Name	Designation & Office	Mobile/Contact No.	Signature
14	Md. Shahidul Islam	UE/Baraigram	01713-869773	[signature] 7/7/14
15	MD. SAFIQUL ISLAM	Sr. AE, Natore	01711949438	[signature] 7/7/14
16.	MD. SHAFIQUL ISLAM	Co-ordinator, Socioconsult. SETs	01199095559	[signature]
17.	md. Jahangir murshed.	Agronomist JV of SCL-SETS	01712150820	[signature]
18	Manoranjan Mojumder	Team Leader	01714-308535	[signature]
19.	MD. Anwarul Hoque	WRE of SCL-Sets	01711-969478	[signature]
20,	MD. Abdul Malin	CO, engineer office Sadar, Natore	01716-508906	[signature] 7.7.14
21,	md. Abdur Rafin	CO Boraigram Natore	01715-637497	[signature] 7.7.14
22.	MD. RAZAUL KARIM	CO GURUDASPUR NATORE	01715-122797	[signature] 7.7.14
23	MD. Abdul Monayem	CO, Singra, Natore	01710-146977	[signature] 7.7.14
24	MD. Ekramul Alam	Chairman Boraigram Upzila	01716-799544	[signature] 7.7.14
25	[illegible]	MLSS		[signature]
26	[illegible]	MLSS		[signature]
27.	Hasan Ahmed Quraish	HR Generalist JICA-LGED TA Project	01713049740	[signature]

APPENDIX -B
Checklist for KII

Checklist for Subproject Preparation Process

The FSDD process after preliminary assessment (Prescreening -Stage-5 of SSWRDP: Detailed Subproject Development Process, May 2009) is subjected to field activities, analysis and subsequently design. The activities during reconnaissance are conducted by Planning and Design Section of IWRMU. PRA is conducted by NGOs or Engineering firms. Feasibility study and Detail design is done by consulting firms. Project concept development and feasibility study includes repetitive, overlapping activities, requiring time, efforts and money. Time for too much participatory activities is hardly available.

Typical Costs of SP preparatory work and baseline surveys carried out by 3rd Parties:

- PRA contracts: Tk 150,000 / SP
- FSDD contracts: Tk 500,000 / SP
- Baseline survey contracts for subsequent impact assessment: Tk 600,000 / SP (Note: under on-going JICA and ADB projects baseline is carried out for 5-10% of projects. This is to keep costs to a minimum and avoid delays in feasibility report completion.

Check-1: In the light of these time and costs, discuss advantages / disadvantages of the following:

- Option A: Retain separate contracts for PRA and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants)
- Option B: Cancel PRA but with some important PRA activities included in either Reconnaissance or FSDD activity. For this option identify important PRA activities and if they should be included in: (i) Reconnaissance; or (ii) FSDD
- Option C: Other (specify)

Check-2: Concerning baseline surveys discuss advantages / disadvantages of the following:

- Option A: Retain separate contracts for baseline and FSDD
- Option B: Carrying out baseline for all SPs and merging with FSDD contract
- Option C: Other (specify)

Check-3: Subproject (SP) Categories and Types

Category	SP Type	Proportions of SPs
Simple (Non-regulatory)	Dr, Dr and Irr	30% of SPs are in this category
Complex (Regulatory – gated)	WC, FM, FMD etc.	67% of SPs are in this category
Very Complex	CAD	3% of SPs are in this category

Would there be any advantage in increasing the number of categories (i.e. divide up regulatory SPs in some way e.g. According to number of gates)? Discuss.

Check-4: Engineering Data Collection and Mapping

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1.The Upazila map showing location is reviewed along with sketch by the project initiator. 2.Subproject location (mouza, union), accessibility, area, hydrological boundary, topography, water level gauge station location, location of outfall river and morphology, inventory of infrastructure are collected by brief discussion but not verified in most cases. 3. Technical viability of the SP is guessed. 4. Maximum half to one day is used by a multidisciplinary team. It is too short for awareness development	1. Conceptual map is prepared showing boundary, structures (existing and proposed). Time line is shown The following data are collected using PRA method: i). Subproject location (village, mouza, union), accessibility, area, hydrological boundary, population, history of water resources development activity ii). subproject development plan/concept iii). Interaction with project of BWDB and other organizations. iii). Water related problem and mitigation measures iv). Expected impact of the interventions 2. Three (3) days of intensive field activities (total time 7 days). It also build awareness among beneficiaries by WRE	1. Location on 1:50000 Upazila map. 2. Index map on 1:15840 contour map is prepared. This map prepared 50 years back does not have many existing infrastructures. 3. Regional Hydrological Map (1:750000) 4. The following data are collected from inspection and discussion with local people. a. Subproject location (village, mouza, union), accessibility, area, hydrological boundary, water level gauge station location, location of outfall river and morphology. b. Subproject development plan/concept c. Interaction with project of BWDB and other organizations (informative).	1. What is your suggestion to avoid duplication and effective use of the WRE? State: 2. How Google earth Imagery be used for improvement of reconnaissance, PRA and FS? 3. How base, index and hydrological maps are to be prepared and at what stage?

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
		4. One day of field activities by multidisciplinary team including one WRE.	4. How many days are to be used by the FS team to have effective conceptualization? TL: ---days Planning Engr: --- days Agriculturist:--- days Environmentalist:--- days Sociologist:--- days 5. Should awareness building be part of FS. Yes / No. If yes how? 6. Should the district XEN, LGED is mainly responsible for communication with agencies like BWDB, BMDA, BADC etc. to avoid overlapping activity in the SPs. Consulting firms may talk but do not have the authority. Should it be dropped from consultant's task? State: 7. Do you think that existing planned development concept is acceptable? If not please opine.

PRA=Participatory Rural Appraisal, PCR=Project Concept Report, FS=Feasibility Study

Check-5: Agricultural Data Collection and Mapping.

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1. Present cropping patterns/crops presently grown in each season are Obtained by discussion and bird's eye view. 2. Present water resources related problems in the proposed area are identified. 3. Opinion of local stakeholders to mitigate the problems is obtained. 4. Half day action	1. Land under flooding, drainage congestion and drought are listed in a table by discussion at different places using a format. 2. ***Agricultural map*** showing above information is prepared. 3. Mitigation measures are discussed. 4. Expected impact of the proposed interventions on crop production are obtained. 5. Three(3) days of intensive field activities in total seven days field work	1.Agricutural data on flood phase & cropping pattern , crop cultivation process & input use, damaged area (% total cropped area) and crop yield , farmers views and opinions are obtained by using a set of formats 2.Variation inside the SP is hardly identified 3. One day activity	1. What is your suggestion to avoid duplication and effective use of Agronomist? State: 2. Should the table under PRA for land under flooding drought etc. be included in FS? 3. How much time is to be used by the Agronomist during PCR/FS? What should be his activities? 4. If the existing interventions under the SP are harmful for some area inside or outside the SP, are the remedial measures be identified by discussion with the local people?

Check-6: Assessment of Fishery Situation

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
Existing fishery situation and anticipated possible impact.	1. Fisheries resources base is identified. 2. Fish production under different water bodies (seasonal & perennial) is discussed. 3. Fish bio-diversity is discussed. 4. ***Fish migration routes*** are identified on map. 5. Different fishing community within the SP is identified. 6. Involvement of women in fishery is discussed. 7. Likely impact stated. 8. Seven (7) days of intensive field activities	1. Fishery resource area information is collected using format. 2.Fish biodiversity is discussed. 3.Fish production under open culture fishery is collected. 4. One day of activity.	1. What is your suggestion to avoid duplication and effective use of Fisheries Expert? State: 2. Do you think that reconnaissance team should take more initiative for collecting information during field visit? How? 3. Do you think collection of data on involvement of women in fishery is necessary? 4. Should the locations of probable fish sanctuaries be identified? 5. How much time to be used by the Fishery Expert during PCR/FS?

Check-7: Environment Data Collection and Analysis

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1. Indicate on map if is there any historical/ archaeological site, which may be threatened or may have demolished. 1. Is there any land acquisition required 2. Identify anticipated adverse impact in the SP area 3. Is there any resettlement need. 4. Environmental soundness of the SP is guessed. 5. One to half day activity.	Following data are collected: 1. Historical site, conserved wet land and forest that may be threatened. 2. Water beneficiaries that may be affected. 3. Land acquisition issue. 4. Description of navigation. 3. Villages/areas vulnerable to flooding. 4. Use of chemical & fertilizers. 5. Impact of the subproject. 6. Project affected people (PAP) and mitigation measures 7. List of PAPs. 8. Seven (7) days of intensive field activities	1. General topography of the SP area 2. Present condition of navigation 3.Land acquisition issue 4. Resettlement issue 5. Project affected people(PAP) In addition to the above, the following data are collected during FS: a. Description of environment (physical & ecological resources) b. Human & economic development c. Quality of life value d. ***Mouza Map*** 6 One day of activity	1. What is your suggestion to avoid duplication and effective use of Environmentalist? State: 2. Do you think the checklist for environmental data collection is appropriate? If not • What aspects are to be addressed? • How and when LA and resettlement issues are to be addressed? 3. What should be the duration of the environmentalist in the field?

Check-8: Social (Men and Women response)-Social aspects

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
1.Opinion of Union Parisads chairman, members (including female members) 2. Availability of local labors. 3. Total beneficiary HH. 4. How many HH support? 5. How many oppose? 6. Are beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures)? 7. Anticipated adverse impact 8. Foreseeable social conflict. 9. Percentage of benefited landless sharecroppers, marginal and small farmers. 10. Social acceptability of the SP is guessed	1. Number and percentage of stakeholder groups in the SP area. 2. Collection of data on % of landless to small farmers to meet project requirement. Inventory of landless and destitute adult male and female in SP area. 3.General problem ranking and proposed solution 4. History of cooperation 5. Social conflict 6. Description of existing organization and groups 7. Indigenous people and groups 8.Beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures 8. Seven (7) days of intensive field activities **Note:** Data collected is not suitable for future evaluation	1. Broad popular support for the SP 2. Is there any opposition 3. Any negative environmental impact 4. Beneficiaries are willing to pay 1st year O&M cost (3% of earth work, 1.5% Structures 5. One day of activity In addition to the above, the following data are collected during FS: a. Farm size distribution b. Occupation c. Immigration and Emigration d. Agricultural Labour Wage rate e. Poverty situation f. Existing organization/ Institution g. Opinion about SP h. Scenario of outside village 6. Three (3) days of intensive field activity **Note:** Data collected through group discussion is not suitable for future evaluation	1. What is your suggestion to avoid duplication and effective use of Sociologist? State: 3. Do you think present system of data collection is appropriate or a quantitative socioeconomic baseline survey should be carried out? Are any issues not covered in the Socio-economic Survey (SE) survey should be included? 4. What should be the confidence level and error margin in SE baseline survey? 5. If baseline survey is to be carried out should data on social environment be collected by the Environmentalist during concept report preparation?

Check-9: Women aspects

During Reconnaissance (1)	During PRA (2)	During PCR of FS (3)	Your Opinion for making it more effective (4)
No activity	1.Demographic data 2.Non-water related problem 3. Water related problem 4.Mobility status 5. Seven (7) days of intensive field activities	No activity	1. Should the socio-economic data collection format be modified to collect gender related data during base line survey or socio economic survey? 2. Are the following data collected during FS is superfluous e.g. water and non water use related information?

Check-10: Post construction Support Needs

The O&M requirements of the different categories of SP are summarized below:

Category	*SP Type*	*Maintenance Requirements*	*Operation Requirements*
Simple (Non-regulatory)	DR, DR & IRR	Earthworks (de-silting of khal etc) Collection of funds from beneficiaries	None (no gate)
Complex (Regulatory – gated)	WC, FM, FMD, etc	Earthworks + gate greasing, etc. Collection of funds from beneficiaries	Gate operations according to operations calendar Collection of funds from beneficiaries for gate operator
Very Complex	CAD	Maintenance of pumps, control values / gates, etc Collection of funds from beneficiaries	Pump start up / shut off Water distribution Collection of funds from beneficiaries for pump operator, linesmen, diesel / electricity costs, etc

So far no Project has spent significant money of O&M after scheme completion though O&M class room training and support to development O&M plans is done.

Consider and discuss the following:

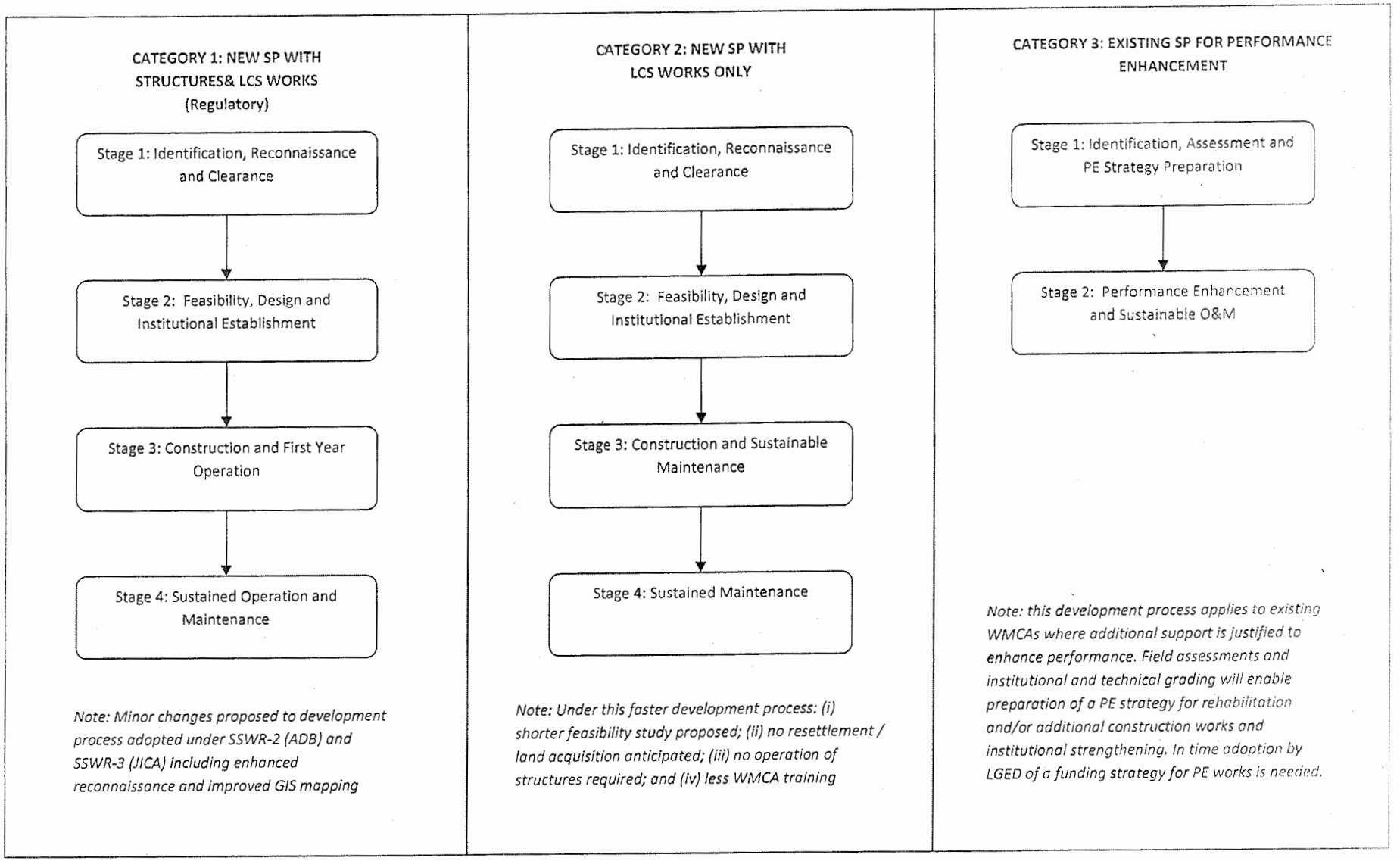
Option A: Continue with no change to current situation

Option B: Engage a 3rd party firm for O&M support after construction is complete. For this option should O&M support be given to all categories of SP or targeted?

Check-11: Subproject Development Process for different types

1. Engineering and other surveys are undertaken 2. Analyses are carried out to determiner feasibility 3. Planning meeting is conducted with stakeholders. 4. Design meeting is carried out with stake holders irrespective of type (Dr, FMD, WC and CAD) subproject. 5. Same time is allowed for all types of SPs	1. Do you think same time should be allowed for data collection of all types of subproject? 2. Do you think analyses for different types of project be given same time? 3. Give your suggestions on the following: a) One combine planning and design meeting should be for simple drainage improvement subprojects b) One combine planning and design meeting for subprojects having one small structure. c) Separate planning and design meeting for complex structural subproject having more than one structure and CAD SPs. 4. Give your suggestions on the following: a) Design time for simple drainage subprojects should be --- days b) Design time for simple structural subprojects should be --- days c) Design time for CAD subprojects should be --- days

Do you think the sp development process is depicted as given in the figure below?



APPENDIX -C
Findings from KII Group Discussion

Check-1: In the light of these time and costs, discuss advantages / disadvantages

Response	alakati	Natore	Tangail	All	%
Retain separate contracts for PRA and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants)	8	4	0	12	17.14
Cancel PRA but with some important PRA activities included in either Reconnaissance or FSDD activity.	11	15	27	53	75.71
Not Answered	3	0	2	5	7.14
Total	**22**	**19**	**29**	**70**	**100**

Check-2: Concerning baseline surveys discuss advantages / disadvantages of the following:

Response	alakati	Natore	Tangail	All	%
Retain separate contracts for baseline and FSD	7	5	5	17	24.29
Carrying out baseline for all SPs and merging with FSDD contract	13	14	20	47	67.14
Not Answered	2	0	4	6	8.57
Total	**22**	**19**	**29**	**70**	**100**

Check-3: Subproject (SP) Categories and Types

Response	alakati	Natore	Tangail	All	%
Simple (Dr, Dr and Irr) SPs should be increase	8	0	3	11	15.71
Complex (WC, FM, FMD etc.) SPs should be ir	7	16	16	39	55.71
Very Complex (CAD) SPs should be increased	0	3	0	3	4.29
No Response	7	0	10	17	24.29
Total	**22**	**19**	**29**	**70**	**100**

Check-4: Engineering Data Collection and Mapping

1. What is your suggestion to avoid duplication and effective use of the WRE?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA with FS	13	4	11	28	40.00
2	Answer not relevant	5	13	9	27	38.57
3	Not Answered	4	2	9	15	21.43
	Total	**22**	**19**	**29**	70	100.00

2. How Google earth Imagery be used for improvement of reconnaissance, PRA and FS?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	No need of using Google Imagery	1	0	0	1	1.43
2	Answer not relevant	19	18	20	57	81.43
3	Not Answered	2	1	9	12	17.14
	Total	**22**	**19**	**29**	70	**100**

3. How base, index and hydrological maps are to be prepared and at what stage?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	At PCR Stage	16	7	3	26	37.14
2	Maps should be prepaqred with Mou	0	1	1	2	2.86
3	Answer not relevant	3	9	17	29	41.43
4	Not Answered	3	2	8	13	18.57
	Total	**22**	**19**	**29**	**70**	**100.00**

4. How many days are to be used by the FS team to have effective conceptualization?

Response	Jhalakati	Natore	Tangail	All	%
Team Leader					
1-2 days	13	12	17	42	60.00
3-5 days	4	5	9	18	25.71
>5 days	0	2	0	2	2.86
Not Answered	5	0	3	8	11.43
Total	**22**	**19**	**29**	**70**	**100**
Planning Engineer					
1-2 day	6	11	11	28	40.00
3-5 days	11	7	12	30	42.86
> 5days	0	1	3	4	5.71
Not Answered	5	0	3	8	11.43
Total	**22**	**19**	**29**	**70**	**100**
Agriculturist					
1-2 day	8	13	11	32	45.71
3-5 days	8	5	9	22	31.43
>5 days	1	1	5	7	10.00
Not Answered	5	0	4	9	12.86
Total	**22**	**19**	**29**	**70**	**100**
Environmentalist					
1-2 days	9	14	12	35	49.30
3-5 days	8	5	12	26	36.62
>5 days	0	0	1	1	1.41
Not Answered	5	0	4	9	12.68
Total	**22**	**19**	**29**	**71**	**100**
4 e) Sociologist					
1-2 days	5	14	8	27	36.49
3-5 days	10	3	15	32	43.24
>5 days	0	2	2	4	5.41
Not Answered	7	0	4	11	14.86
Total	**22**	**19**	**29**	**74**	**100.0**

5. Should awareness building be part of FS. Yes / No. If Yes how?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes (throuh meeting)	6	4	16	26	37.14
2	No	1	4	10	15	21.43
3	Answer not relevant	14	11	0	25	35.71
4	Not Answered	1	0	3	4	5.71
	Total	**22**	19	**29**	**70**	100

Check-4: Engineering Data Collection and Mapping (contd.)

6. Should the district XEN, LGED is mainly responsible for communication with agencies like BWDB, BMDA, BADC etc. to avoid overlapping activity in the SPs. Consulting firms may talk but do not have the authority. Should it be dropped from consultant's task? State

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	XEN, LGED	11	6	22	39	55.71
2	XEN, LGED -Consultant Combined	0	1	0	1	1.43
3	Answer not relevant	3	1	0	4	5.71
4	Not Answered	8	11	7	26	37.14
	Total	**22**	**19**	**29**	**70**	**100**

7. Do you think that existing planned development concept is acceptable? If not please opine.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Acceptable	17	17	20	54	77.14
2	Not Answered	4	2	9	15	21.43
3	Answer not relevant	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

Check-5: Agricultural Data Coillection and Mapping

1. What is your suggestion to avoid duplication and effective use of Agronomist?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA with PCR	12	7	8	27	38.57
2	Answer not relevant	7	9	12	28	40.00
3	Not Answered	3	3	9	15	21.43
	Total	**22**	**19**	**29**	**70**	**100**

2. Should the table under PRA for land under flooding drought etc. be included in FS?

Sl	Response	Jhalakati	Natore	Tangail	All	%
4	Yes	16	17	25	58	82.86
3	No	2	0	0	2	2.86
1	Answer not relevant	2	2	0	4	5.71
2	Not Answered	2	0	4	6	8.57
	Total	**22**	**19**	**29**	**70**	**100**

3. How much time is to be used by the Agronomist during PCR/FS? What should be his activities?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2days	8	14	22	44	62.86
2	3-5 days	11	4	7	22	31.43
3	Not Answered	3	1	0	4	5.71
	Total	**22**	**19**	**29**	**70**	**100**

4. If the existing interventions under the SP are harmful for some area inside or outside the SP, are the remedial measures be identified by discussion with the local people?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	11	22	53	75.71
2	Not relevant	0	1	0	1	1.43
3	Not Answered	2	7	7	16	22.86
	Total	**22**	**19**	**29**	**70**	**100**

Check-6: Aseessment of Fishery Situatuion

1. What is your suggestion to avoid duplication and effective use of Fisheries Expert?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA with FS	10	9	18	37	52.86
2	Answer not relevant	9	10	6	25	35.71
3	Not Answered	3	0	5	8	11.43
	Total	**22**	**19**	**29**	**70**	**100**

2. Do you think that reconnaissance team should take more initiative for collecting information during field visit? How?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Need more initiative	15	19	16	50	71.43
1	Answer not relevant	4	0	4	8	11.43
1	Not Answered	3	0	9	12	17.14
	Total	**22**	**19**	**29**	**70**	**100**

3. Do you think collection of data on involvement of women in fishery is necessary?

Sl	Response	Jhalakati	Natore	Tangail	All	%
2	Yes	19	17	11	47	67.14
3	No	0	2	13	15	21.43
1	Not relevant	2	0	0	2	2.86
4	Not Answered	1	0	5	6	8.57
	Total	**22**	**19**	**29**	**70**	**100**

4. Should the locations of probable fish sanctuaries be identified?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	18	18	25	61	87.14
2	No	2	0	1	3	4.29
3	Answer not relevant	1	1	0	2	2.86
4	Not Answered	1	0	3	4	5.71
	Total	**22**	**19**	**29**	**70**	**100**

5. How much time to be used by the Fishery Expert during PCR/FS?

	Response	Jhalakati	Natore	Tangail	All	%
1	1-2days	13	2	22	37	52.86
2	3-5 days	5	17	7	33	47.14
3	>5 days	4	0	0	0	0.00
	Total	**22**	**19**	**29**	**70**	**100**

Check-7: Environment Data Collection and Analysis

1. What is your suggestion to avoid duplication and effective use of Environmentalist?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA with FSD	5	8	9	22	31.43
2	Answer not relevant	16	8	12	36	51.43
3	Not Answered	1	3	8	12	17.14
	Total	**22**	**19**	**29**	**70**	**100**

2. Do you think the checklist for environmental data collection is appropriate?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	13	6	19	38	54.29
2	No, give more emphasis on adverse impact	0	0	5	5	7.14
3	No, give more emphasis on social environment	2	0	0	2	2.86
4	No, address LA issue more at FS stage	4	6	0	10	14.29
5	Not Answered	3	7	5	15	21.43
	Total	**22**	**19**	**29**	**70**	**100**

3. What should be the duration of the environmentalist in the field?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2 days	10	9	13	32	45.71
2	3-5 day	8	1	11	20	28.57
3	>5 day	4	9	5	18	25.71
	Total	**22**	**19**	**29**	**70**	**100**

Check-8: Social Aspects (Men)

1. What is your suggestion to avoid duplication and effective use of Sociologist?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Merge PRA & FS	19	8	11	38	54.29
2	Answer not relevant	2	8	8	18	25.71
3	Not Answered	1	3	10	14	20.00
	Total	**22**	**19**	**29**	**70**	**100**

2. Do you think present system of data collection is appropriate or a quantitative socioeconomic baseline survey should be carried out? Are any issues not covered in the Socio-economic Survey (SE) survey should be included?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes , present system is appropriate	5	0	20	25	35.71
2	Include necessary issue in SE survey	7	18	2	27	38.57
3	Answer not relevant	8	1	3	12	17.14
4	Not Answered	2	0	4	6	8.57
	Total	**22**	**19**	**29**	**70**	**100**

3. What should be the confidence level and error margin in SE baseline survey?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Answer not relevant	14	18	17	49	70.00
2	Not Answered	8	1	12	21	30.00
	Total	**8**	**1**	**12**	**21**	**100**

4. If baseline survey is to be carried out should data on social environment be collected by the Environmentalist during concept report preparation?

Sl	Response	Jhalakati	Natore	Tangail	All	%
2	Yes	0	3	2	5	7.14
3	No	1	0	12	13	18.57
1	Answer not relevant	11	7	7	25	35.71
4	Not Answered	10	9	8	27	38.57
	Total	**22**	**19**	**29**	**70**	**100**

Check-9: Women Aspects

1. Should the socio-economic data collection format be modified to collect gender related data during base line survey or socio economic survey?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	10	16	1	27	38.57
2	No	5	0	21	26	37.14
3	Answer not relevant	5	3	2	10	14.29
4	Not Answered	2	0	5	7	10.00
	Total	**22**	**19**	**29**	**70**	**100**

2. Are the following data collected during FS is superfluous e.g. water and non water use related information?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	10	6	4	20	28.57
2	No	3	2	18	23	32.86
3	Answer not relevant	4	3	0	7	10.00
4	Not Answered	5	8	7	20	28.57
	Total	**22**	**19**	**29**	**70**	**100**

Check-10: Post Construction Support and Needs

The O&M requirements of the different categories of SP

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Continue with no change to curren	4	17	1	22	31.43
2	Engage a 3rd party firm for O&M su	9	1	19	29	41.43
3	Answer not relevant	1	0	0	1	1.43
4	Not Answered	8	1	9	18	25.71
	Total	**22**	**19**	**29**	**70**	**100**

Check-11: Subproject Development Process for Different Types

1. Do you think same time should be allowed for data collection of all types of subproject?

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	15	16	20	51	72.86
2	No	0	2	4	6	8.57
3	Answer not relevant	6	1	1	8	11.43
4	Not Answered	1	0	4	5	7.14
	Total	**22**	**19**	**29**	**70**	**100**

2. Do you think analyses for different types of project be given same time?

Sl	Response	Jhalakati	Natore	Tangail	All	%
4	Yes	1	1	1	3	4.29
1	No	16	18	20	54	77.14
2	Answer not relevant	4	0	2	6	8.57
3	Not Answered	1	0	6	7	10.00
	Total	**22**	**19**	**29**	**67**	**96**

3 a) One combine planning and design meeting should be for simple drainage improvement subprojects

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	15	23	58	82.86
2	No	0	0	2	2	2.86
3	Not Answered	2	4	4	10	14.29
	Total	**22**	**19**	**29**	**70**	**100**

3 b) One combine planning and design meeting for subprojects having one small structure.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	14	24	58	82.86
3	No	0	1	0	1	1.43
2	Not Answered	2	4	5	11	15.71
	Total	**22**	**19**	**29**	**70**	**100**

3 c) Separate planning and design meeting for complex structural subproject having more than one structure and CAD SPs.

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	Yes	20	9	24	53	75.71
2	No	0	1	0	1	1.43
3	Answered nott relevant	0	2	0	2	2.86
4	Not Answered	2	7	5	14	20.00
	Total	**22**	**19**	**29**	**70**	**100**

Check-11: Subproject Development Process for Different Types

4a) Design time for simple drainage subprojects should be --- days

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1- 2days	1	17	25	43	61.43
2	3-5days	8	2	4	14	20.00
4	>5 day	12	0	0	12	17.14
5	Not Answered	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

4b) Design time for simple structural subprojects should be --- days

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2 days	1	17	25	43	61.43
2	3-5 days	8	2	4	14	20.00
3	4 day	0	0	0	0	0.00
4	>5 days	12	0	0	12	17.14
5	Not Answered	1	0	0	1	1.43
	Total	**22**	**19**	**29**	**70**	**100**

4c) Design time for CAD subprojects should be --- days

Sl	Response	Jhalakati	Natore	Tangail	All	%
1	1-2 days	0	17	24	41	58.57
2	3-5 days	2	2	5	9	12.86
3	>5 days	18	0	0	18	25.71
4	Not Answered	2	0	0	2	2.86
	Total	**22**	**19**	**29**	**70**	**100**

APPENDIX -D
Findings from KII at LGED Head Quarters

Findings from KII with the Specialist at LGED Head Quarters

Respondents		
Respondent-1: Md Shahidul Haque, Project Director, PSSWRSP	**Respondent-2:** AT Chowdhury Deputy Team Leader, PSSWRSP	**Respondent-3:** Alen C. Clerk Team Leader, SSWRDP-MFSA
Check-1: In the light of these time and costs for PRA, FSDD & Baseline Survey discuss advantages / disadvantages of different options		
Drop PRA and include important PORA activities in reconnaissance /FSDD so far PRA experience tells.	Increasing the cost of survey may not give quality report. It depends on qualified involved in survey	Drop PRA and include important PRA activities in reconnaissance /FSDD
Check-2: Concerning baseline surveys discuss advantages / disadvantages of different options		
Option A i.e. retain separate contracts for PRA and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants) is acceptable	Reconnaissance by IWRM supported by PIC, PRA for regulatory & complex SPs (avoid PRA for simple SPs) Separate contract may be retained with cautions, simplification etc.	Option A i.e. retain separate contracts for Baseline and FSDD (reconnaissance will remain responsibility of IWRMU supported by project consultants) is best
Check-3: Would there be any advantage in increasing the number of categories (i.e. divide up regulatory SPs in some way e.g. According to number of gates)? Discuss.		
SP category is based on O&M. So no need to increase no of categories. SP types what we have know is ok	SPs with Rubber Dam for conservation can be a sub-category. For number of gates, it is not necessary to sub-divide.	No expect perhaps SP type for Rubber Dam
Check-4: Engineering Data Collection and Mapping		
Question-1: What is your suggestion to avoid duplication and effective use of the WRE? State:		
PRA is not as mentioned in Check-1. During PCR of FS no need to use or collect irrigation planning map, which is in 1: 15840 scale. Only Upazila base map will suffice.	Conceptual map by beneficiaries is the main map for proposed SP.	Cancel PRA as separate activity. Increase time for reconnaissance.
Question-2: How Google earth Imagery be used for improvement of reconnaissance, PRA and FS?		
During reconnaissance google earth imagery should be used.	Its too much for a NGO. But in FS study google map is very much useful	Include GIS person on team Use imagery to prepare maps, determine areas.
Question-3: How base, index and hydrological maps are to be prepared and at what stage?		
Not answered	At FS stage	Base map at reconnaissance Conceptual map Index map at FS
Question-4: How many days are to be used by the FS team to have effective conceptualization?		
It depends on the size of the SP. So a threshold value could be useful	TL=2 days, Planning Engr =4 days, Agriculturist =4 days, Environmentalist=3 days, Sociologist=3 days.	TL=3-4 days, Planning Engr=4-6 days, Agriculturist =3 days, Environmentalist=2 days, Sociologist=4 days.

Respondents		
Respondent-1: Md Shahidul Haque, Project Director, PSSWRSP	**Respondent-2:** AT Chowdhury Deputy Team Leader, PSSWRSP	**Respondent-3:** Alen C. Clerk Team Leader, SSWRDP-MFSA
Question-5: Should awareness building be part of FS. Yes/No. If yes how?		
No	Yes	SP level meeting (N.B Planning meeting and design discussion meeting-OK)
Question-6: Should the district XEN, LGED is mainly responsible for communication with agencies like BWDB, BMDA, BADC etc. to avoid overlapping activity in the SPs. Consulting firms may talk but do not have the authority. Should it be dropped from consultant's task? State:		
DLIPC is to see the overlapping/duplication. So that is the right approach and should be followed in future	Mainly by XEN, LGED. But the consultants can play a role of information	Yes. Leave to LGED
Question-7: Do you think that existing planned development concept is acceptable? If not please opine.		
Acceptable	Yes	Ok. But we need to reduce time/costs
Check-5: Agricultural Data Collection and Mapping.		
Question-1: What is your suggestion to avoid duplication and effective use of Agronomist?		
PRA should be omitted and in that case the issue of duplication will be avoided	Agronomist for FS stage will verify the PRA report and work on data from Upazila agricultural statistics.	Delete PRA.
Question-2: Should the table under PRA for land under flooding drought etc. be included in FS?		
Not answered	Just as an indicative but final table in FS	Yes
Question-3: How much time is to be used by the Agronomist during PCR/FS? What should be his activities?		
Not answered	Agronomist's activity will be to correctly reflect the field situation by collecting data from statistical department and as well as by field verification.	Agronomist will use 1-3 days during reconnaissance and 2-4 days during PCR/FS. His activities will be merged with PCR. He should use more imagery and base map.
Question-4: If the existing interventions under the SP are harmful for some area inside or outside the SP, are the remedial measures be identified by discussion with the local people?		
Yes, indeed	Remedial measures can be discussed. But if discussion results in harmful for area, the SP can be dropped at that stage.	Yes.

Respondents		
Respondent-1: Md Shahidul Haque, Project Director, PSSWRSP	**Respondent-2:** AT Chowdhury Deputy Team Leader, PSSWRSP	**Respondent-3:** Alen C. Clerk Team Leader, SSWRDP-MFSA
Check-6: Assessment of Fishery Situation		
Question-1: What is your suggestion to avoid duplication and effective use of Fisheries Expert? State:		
PRA should be avoided	Fisheries expert should identify where there are duplication	Cancel PRA
Question-2: Do you think that reconnaissance team should take more initiative for collecting information during field visit? How?		
It could remain the same	The present format for reconnaissance team is sufficient to collect initial information	Yes
Question-3: Do you think collection of data on involvement of women in fishery is necessary?		
May be collected	Yes	Not Sure
Question-4: Should the locations of probable fish sanctuaries be identified?		
May be useful	Yes	Yes
Question-5: How much time to be used by the Fishery Expert during PCR/FS?		
It should not wise to fix time	In FS 3 days	1-4 days
Check-7: Environment Data Collection and Analysis		
Question-1: What is your suggestion to avoid duplication and effective use of Environmentalist? State:		
If there any duplication, that should be corrected	During reconnaissance & PRA stages, the environmental issues can be delt as a preliminary matter. But at FS stage, it should be as per guideline.	Cancel PRA
Question-2: Do you think the checklist for environmental data collection is appropriate? If not • What aspects are to be addressed? • How and when LA and resettlement issues are to be addressed?		
Safeguard policy should be followed. PSSWRSP procedure could be consulted.	Present checklist is OK.	Not answered
Question-3: What should be the duration of the environmentalist in the field?		
Not answered	At FS stage 3 days	1-3 days
Check-8: Social (Men and Women response)-Social aspects		
Question-1: What is your suggestion to avoid duplication and effective use of Sociologist? State:		
Not answered	Sociologist's activities start from PRA to FS. At FS stage the findings of PRA are utilized	Cancel PRA

Respondents		
Respondent-1: Md Shahidul Haque, Project Director, PSSWRSP	**Respondent-2:** AT Chowdhury Deputy Team Leader, PSSWRSP	**Respondent-3:** Alen C. Clerk Team Leader, SSWRDP-MFSA
Question-2: Do you think present system of data collection is appropriate or a quantitative socioeconomic baseline survey should be carried out? Are any issues not covered in the Socio-economic Survey (SE) survey should be included?		
Existing Socio-economic survey is OK	Baseline survey will not be required for each SP	Present checklist is OK
Question-3: What should be the confidence level and error margin in SE baseline survey?		
Not Nnown	Not Answered	±30%
Question-4: If baseline survey is to be carried out should data on social environment be collected by the Environmentalist during concept report preparation?		
Baseline survey for BME should be separated from FS as it is done now. For BME baseline survey, social environmental data should be collected	Not Answered	Avoid baseline survey here-It will lead to delay
Check-9: Women aspects		
Question-1: Should the socio-economic data collection format be modified to collect gender related data during base line survey or socio economic survey?		
Should be collected	Gender related data should be included in socio-economic study as FS stage	Some gender information should be included
Question-2: Are the following data collected during FS is superfluous e.g. water and non water use related information?		
Not Known	No	Yes: avoid unnecessary data collection
Check-10: Post construction Support Needs		
Continue with no change to current situation	O & M through WMCA	Not recommended: we should support better O&M Should be targeted with more complex Changing of SP (CAD etc)
Check-11: Subproject Development Process for different types		
Question-1: Do you think same time should be allowed for data collection of all types of subproject?		
Different time and method should be used	Time for data collection should depend on type of SP such as	No. More for complex types

Respondents		
Respondent-1: Md Shahidul Haque, Project Director, PSSWRSP	**Respondent-2:** AT Chowdhury Deputy Team Leader, PSSWRSP	**Respondent-3:** Alen C. Clerk Team Leader, SSWRDP-MFSA
	simple, complex & Very complex	
Question-2: Do you think analyses for different types of project be given same time?		
Yes, same time may be given	Time for analysis should depend on type of SP such as simple, complex & Very complex	No.
Question-3(a): One combine planning and design meeting should be for simple drainage improvement subprojects		
It is Ok for drainage SP	Yes	Good idea
Question-3(b): One combine planning and design meeting for subprojects having one small structure.		
Separate meeting is preferable	Yes	No :two meetings
Question-3(c): Separate planning and design meeting for complex structural subproject having more than one structure and CAD SPs.		
OK	Yes	At least two meetings
Question-4(a): Design time for simple drainage subprojects should be		
Not mentioned	7-days	7-10 days
Question-4(b): Design time for simple structural subprojects should be		
Not mentioned	12-days	14-21 days
Question-4(c): Design time for CAD subprojects should be		
Not mentioned	20-days	21-28 days
Do you think the sp development process is depicted as given in the figure		
Category-1 is acceptable for new SPs and Category-3 is Ok	Not answered	A good start

APPENDIX -E
Findings from Open Discussion

Findings of Open Discussion

District: Natore

Executive Engineer (XEN)

Most of the participants may not aware of small scale subproject development process. Those who are aware are LGED staff, did not read either PRA or FS report. Therefore, they are not well conversant with the contents of report and time required for preparing reports and design. Giving opinion will be more difficult for those participants, who are not aware at all.

Socio-economist, LGED

Supporting the statement of the XEN, stated that a half day session for such type of study is insufficient. It may become more effective if the session continues for at least three days. He argued that the participants are needed to be award well before seeking opinion from them.

Chairman, Nagar UP

Since, the study is for improving the subproject development process. It is wise to take opinion of the experts rather than field level officials. It seems very difficult to most of the participants for opine the checklists. Because, they are not acquaint of many issues.

District: Tangail

Executive Engineer (XEN)

- Selection of SP needs highly experience consultants, who are skill in data collection with proper knowledge. It should require detailed engineering consideration for section process. Sources of water should be given due emphasis.
- Proper design should be maintained during khal re-excavation (at required depth) so that water can be conserved during winter for irrigation.
- Beel should be re-excavated for making fish sanctuary.
- Control structure from should be increased from 67% to 80%
- Consultant should not take the responsibility of seeking overlapping BWDB, BADC, BMDA projects.
- Some fund should be allocated for consultants for O&M

Sociologist-LGED

- Overlapping of the activities by the consultant team
- Reviewing the beneficiaries list is needed
- Visiting by different teams creates feeling of botheration among the beneficiaries and person concerned.
- All team members need not to stay in the field for same time. (WRE and Sociologist may require staying more than others)
- WMCA is enough for DR project maintenance
- FMD & WC project are more effective

Community Organizer, Shakhipur

- Visiting by different teams increase implementation time and thereby loses confidence of the beneficiaries.

Upazila Chairma, Shakhipur.

- Implementation of a SP takes times, which loses interest and confidence of the beneficiaries
- A structure is necessary in drainage SP to prevent seepage loses from the surrounding plots. BADC re-excavates khal with no structure. This adversely affecting surrounding plots by depleting moisture.

District Fisheries Officer

- Khals should be re-excavated deeply so that it can be used as fish sanctuary.

District: Jhalakati

Executive Engineer (XEN)

- Third party should be engaged for O&M. If the third party is UZ or Union Parishad, it will be more effective than engaging consultants.

Upazila Engineer (UE), Jhalakati Sadar

The checklist is quite difficult for outside personnel. It should be in Bengali. Besides, the contents are unknown to many of the participants.

District Co-Operative Officer (DCO)

- Most of the WMCA are ineffective for drainage project. Because, after earth work the WMCA members feel that they have no responsibility for maintenance.

Socio-economist, LGED

- WMCA is necessary for O & M
- If micro-credit fund programme funded by Japan fund poverty reduction program continues than the inactive WMCA may activate.

Upazila Chairman, Jhalakati

- In this region drainage subprojects are important for restoring the heritage of Barishal –" Dhan-Nadi-Khal ai tine Barishal".

Chairman, Basunda UP

- Tough to fill up the checklist

JICA-LGED-TA Project

FINAL REPORT

on

Study on Improvement of Subproject Development Processes – Preparatory and Support Services

Submitted by

Joint Venture of

Socioconsult Ltd. (SCL)

and

SETS Consultant Ltd. (SETS)

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December 2014

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December 28, 2014

To
Toru Kumagai
Chief Adviser
JICA-LGED-TA Project
Local Government Engineering Department (LGED)
RDED Bhaban (Level-6),
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Subject: Submission of the Final Report.

Dear Sir,

We submit herewith the Final Report on Study on Improvement of Subproject Development Processes – Preparatory and Support Services in five hard copies along with the soft copy for your kind approval.

Thanking you

Sincerely yours

28/12/2014
(Md. Shafiqul Islam)
Coordinator,
Study on Improvement of Subproject Development Processes –
Preparatory and Support Services

Encl. Five hard copies of final report with one soft copy