

# Government of Nepal Ministry of Irrigation Department of Irrigation Irrigation and Water Resources Management Project (IWRMP) Jawalakhel, Lalitpur





# FOURTH TRIMESTER PROGRESS REPORT (September 01, 2010 Through May 01, 2011)

# TA CONSULTANT FOR COMPONENT 'B'

Irrigation Management Transfer
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**IDA Grant #** 

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SHELADIA Associates, Inc., USA and MULTI Disciplinary Consultants (P.) Ltd., Nepal





Full Bright Consultancy (P.) Ltd. and ERMC (P.) Ltd.

in association with



Project Office (Central): DOI-Building, Jawalakhel, Lalitpur, Nepal

P.O. Box No: 5720, Kathmandu, Nepal,

Phone: 5541840/5535382 (Ex. 112) Fax No. 977-1-5541840 Email: iwrmptab@multinepal.com, iwrmptab@gmail.com

Site Offices: 1.KIS Premise, Jhapa (9752-602367)

2.SMIP Premise, Biratnagar (021-472753)

3.NIS Premise, Parsa

4.MIS Premise, Mahendranagar (099-520429)

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# **Abbreviations and Acronyms**

AMIS : Agency- Managed Irrigation System AO : Association Organizer (Social Worker)

BOO : Bill of Quantities

BSC : Branch Secondary Canal
CAS : Country Assistance Strategy
CBO : Community Based Organization
CCC : Central Coordination Committee

DADO : District Agriculture Development Office

DCC : District Coordination Committee
DDC : District Development Committee

DDG : Deputy Director General

DG : Director General

DHM : Department of Hydrology and Meteorology

DIO : District Irrigation Office DOA : Department of Agriculture DOI : Department of Irrigation

DWRC : District Water Resources Committee
EIA : Environmental Impact Assessment
EIRR : Economic Internal Rate of Return

EOP : End of Project

ESI : Essential Structure Improvements

ESMF : Environment and Social Management Framework

EU : European Union

FAO : Food and Agriculture Organization

FG : Farmer's Group

FM : Financial Management

FMIS : Farmer Managed Irrigation System FWDR : Far Western Development Region

GDP : Gross Domestic Product GON : Government of Nepal

Ha : Hectare

ICB : International Competitive Bidding ICM : Integrated Crop Management

ICWM : Integrated Crop and Water Management

ICWMP : Integrated Crop and Water Management Program

IDA : International Development Association

IDF : Institutional Development Fund
 IEE : Internal Environmental Examination
 IMD : Irrigation Management Division
 IMT : Irrigation Management Transfer

IP : Indigenous People

IPDP : Indigenous People Development Plan

IPM : Integrated Pest Management

IPNM : Integrated Pest and Nutrient Management IRDP : Integrated Rural Development Program

ISE : Initial Social Examination

ISEA : Integrated Social and Environment Assessment

ISMU : Irrigation System Management Unit

ISF : Irrigation Service Fee ISN : Interim Strategy Note

ITSS : Intermittent Temporary Support Staff IWMI : International Water Management Institute

IWRMP : Irrigation and Water Resources Management Project

IWRP : Integrated Water Resource Policy

M&E : Monitoring and Evaluation

MASSCOT : Mapping System and Services for Canal Operation Technique

MIS : Management Information System

MOAC : Ministry of Agriculture and Cooperatives

MOF : Ministry of Finance

MOWR : Ministry of Water Resources MSC : Main Secondary Canal

MTA : Management Transfer Assistance

MTR : Mid Term Review

NBD : National Bidding DocumentNGO : Non Government OrganizationNIDV : Nepal Irrigation Development Vision

NISP : Nepal Irrigation Sector Project NPC : National Planning Commission NSC : National Steering Committee

NWP : National Water Plan

NWRS : Nepal Water Resource Strategy
OFWM : On-Farm Water Management
O&M : Operation and Maintenance
OPD : Office of the Project Director
PAD : Project Appraisal Document
PDO : Project Development Objective
PIP : Project Implementation Plan

PBME : Project Beneficiary Monitoring & Evaluation

PIC : Project Implementation Committee

PICC : Project Implementation and Coordination Committee

PIM : Project Implementation Manual
PIU : Project Implementation Unit
PJM : Participatory Joint Management
PMC : Project Monitoring Committee

PM : Project Manager

PMU : Project Management Unit
PPT : Project Preparation Team
PSC : Project Steering Committee
RAC : Regional Appraisal Committee

RAAC : Regional Appraisal and Approval Committee RAD : Regional Agriculture Director/Directorate

RAP : Resettlement Action Plan

RCC : Regional Coordination Committee

RDs : Regional Directors

RD : Regional Directorate of Agriculture

RFP : Request for Proposal

RFP : Resettlement Policy Framework

RID : Regional Irrigation Director/Directorate

RPSU : Regional Project Support Unit
RPF : Resettlement Policy Framework
SAC : Sub-project Appraisal Committee
SBD : Standard Bidding Document

SC : Secondary Canal

SCC : Scheme Coordination Committee SEA : Social and Environment Assessment

SEMP : Social and Environmental Management Plan

SIL : Specific Investment Loan SMU : Sub-project Management Unit

SSC : Sub-Secondary Canal STW : Shallow Tube Well TA : Technical Assistance

TA B : Technical Assistance of IWRMP Component B

TV : Television

USAID : United States Agency for International Development

VC : Vice Chairman

VDC : Village Development Committee

VCDF : Vulnerable Communities Development Framework

VG : Vulnerable Groups

WB : World Bank

WRIC : Water Resources Information Centre

WUA : Water Users Association

WUAFWater Users Associations FederationWUCCWater Users Coordination Committee

# **Project Data**

Name of the project	Irrigation and Water Resources Management
	Project
Total cost of the project	\$ 65 million
Donor	The World Bank
Grant assistance of the World Bank (IDA)	\$ 50 million
Investment of GON	\$ 10 million
WUAs' contribution	\$ 5 million
Project commencement date	March 01, 2008
Project completion date	June 30, 2013
Components of the project	Four, namely: A, B, C and D
Components of this Report	Component B
Scope of Component B	Irrigation Management Transfer and essential
	Structural Improvements within selected sub-
	areas <sup>1</sup> of Kankai, Sunsari Morang, Narayani
	and Mahakali Irrigation Systems, located
	within the Western, Mid-Western and Far
	Western Development Regions. These systems
	are presently under DOI Agency Management.
Total cost Component B	\$ 9.53 <sup>2</sup> million
Grant assistance of the World Bank (IDA)	\$ 7.27 million
Investment of GON	\$ 1.82 million
WUAs' contribution	\$ 0.44 million

<sup>&</sup>lt;sup>1</sup> The original scope of the IWRMP Component B included the transfer of 61,000 ha. This has been recently reduced to 33,900 ha. See Table B1.
<sup>2</sup> Recently reduced from \$11.05 million.

# **Executive Summary**

IWRMP Component B aims to transfer selected sub-areas of four irrigation systems to their respective Water Users' Associations (WUAs). These sub-areas are located within the Kankai, Sunsari Morang, Narayani, and Mahakali Irrigation Systems (KIS, SMIS, NIS, MIS respectively). All of them lie in the Terai (southern plains) of Nepal. The project intends to bring about improvements in irrigation service performance and service delivery through Essential Structure Improvement (ESI), and capacity development of the WUAs. A formal agreement is signed between the respective WUAs and the DOI for transfer of management.

The progress achieved since September, 2010 within the sub-project areas is summarized below:

# A. Kankai Irrigation System

All of KIS is included within the IWRMP Component B. In Kankai, the overall progress is relatively advanced compared to other sub-projects. Recent progress includes:

- Four contract packages have been issued in KIS for infrastructure improvements. This includes Project-funded Essential Structural Improvements (ESI works), as well as associated DOI-funded remedial works.
- The WUA is collecting membership fee, maintenance fee and ISF at all branch and tertiary level canals.
- Construction sub-committees have been formed at all 21 branches.
- The WUA has prepared and approved an annual budget for FY 2067/68.
- An Annual Action Plan for a WUA Training Program for FY 067/068 has been prepared and submitted to OPD. Partial funding has been received, and training activities have been initiated, including trainings completed for 100 trainees is basic accounting, and a study tour for thirty WUA executive members and three SMU staff participated in a study tour to irrigation systems in the Pokhara area of Nepal.
- An Action Plan for water management activities for FY 067/068 has been developed and submitted to the OPD for funding.

# **B.** Sunsari Morang Irrigation System

- The IMT Agreement between the DOI and the Sitagunj WUA was signed on November 25, 2010.
- An Action for a WUA Training Program at SMIS Sitagunj for FY 067/068 has been prepared and submitted to OPD. Partial funding has been received, however the funds have been diverted to parcellary mapping activities.
- An Action Plan for water management activities at SMIS Sitagunj for FY 067/068 has been completed and submitted to OPD for funding.
- An Action Plan for Parcellary Mapping of SMIS Sitagunj has been completed and submitted to OPD for funding. Partial funds have been allocated and work is in progress.
- A Draft of ESI Guidelines has been completed for use by the WUA and the SMU staff in the upcoming ESI works.

- Preparation of a Cost Estimate for ESI works and the deferred maintenance to be carried out by DOI has been completed, including review by the Component B
- Post-IMT Agreement WUC meetings have been conducted regarding ISF and membership fee collection, establishment of WUA office, demarcation of irrigated areas of each canal, and operation and maintenance of canal systems at all canal branches, and also WUCC meetings at associated branch levels.
- Collection of membership fees and ISF has been initiated.
- The Ramgunj WUA has initiated preparations in advance of the signing of the IMT Agreement, including WUA elections.

# C. Narayani Irrigation System (Blocks 2 & 8)

- An Action Plan for Pre-Agreement Activities was prepared by the SMU and WUA of NIS Block 8. The Action Plan covers all activities which need to be completed prior to the signing of the IMT Agreement for Block 8.
- All items of the Action Plan, including the WUA elections, are complete. An IMT Agreement Signing Ceremony is scheduled for May 12, 2011 for NIS Block 8.
- Progress at Narayani Block 2 has been delayed by an internal dispute involving the management of the WUA. A WUA election at all levels must be conducted to resolve the dispute. The SMU and Block 2 WUA are currently making arrangements for the elections..

# D. Mahakali Irrigation System (Stage 1)

- An IMT Agreement was signed on September 15, 2010.
- The ESI design work, design review and ESI cost estimate have been completed. Approval by DOI is in process. Tender activities will be initiated in the very near future.
- The SMU and WUA have prepared an annual Action Plan for training and capacity building to cover the remainder of the current fiscal year.

#### E. Other

• The Component B TA has assisted the IMD to prepare two documents: (1) a proposal for assistance to the IWRMP, and (2) a long term vision document. These have been forwarded to the DOI Director General for review and transmittal to the World Bank.

# 1 Project Overview

The Irrigation and Water Resource Management Project (IWRMP) is financed by the World Bank (WB), the Government of Nepal (GON), and Water User Associations (WUAs), and is being executed by Department of Irrigation (DOI). The IWRMP comprises four Components, A through D:

- A Rehabilitation and Modernization of Irrigation Infrastructure
- B Irrigation Management Transfer Reform
- C Institutional and Policy Support for Improved Water Management
- D Integrated Crop Water Management

This progress report confines itself to details relating to Component B, being implemented by the Department of Irrigation (DOI).

The overall objective of Component B is to improve irrigation service performance and service delivery to selected irrigation systems in the Terai through the completion and consolidation of Irrigation Management Transfer (IMT) to the relevant Water Users Association (WUAs). The component is designed to address problems exhibited in large public irrigation schemes (Agency Managed irrigation Systems or AMIS) of below capacity performance, poor O&M, low cost recovery, and inadequate maintenance funds.

Component B is presently working with 6 legally empowered WUAs which are (or are intended to be) responsible for the operation and maintenance of 6 existing sub-systems within 5 AMISs. These systems/sub-systems were selected on the basis of condition of infrastructure, receptive user organizations, and relatively favorable socio-political environment. These six sub-projects are located within the four AMIS systems of Kankai, Sunsari Morang, Narayani, and Mahakali. These cover about 33,900 ha. ESI works will be conducted at KIS, SMIS Sitagunj, NIS Block 8, and MIS Stage 1, covering 23,100 ha.

**Table B1: Component B Irrigation Systems/sub-systems** 

Irrigation System	Schemes/sub-systems	Component B Sub-	No. of
		Project Command	WUA
		Area (Ha)	
Kankai (KIS)	1. Entire System	7,000	1
(total system 7,000 ha)			
Sunsari Morang (SMIS)	2. Sitagunj SC	8,000	1
(total system 62,000 ha)	3. Ramgunj SC <sup>3</sup>	7,800	1
Narayani (NIS)	4. Block 8	3,000	1
(total system 37,000 ha)	5. Block 2 <sup>4</sup>	3,000	1
Mahakali (MIS)	6. Stage I	5,100	1
(total system 10,800 ha)			
Total	1 Schemes	33,900	6

Table B1 indicates the list of the sub-systems and related command areas. Locations of these systems are shown in Figure 1. KIS is in Jhapa district, SMIS is in Sunsari and Morang Districts, NIS is in Parsa and Bara Districts, and MIS is in Kanchanpur District.

<sup>&</sup>lt;sup>3</sup> Preparatory activities are underway and will continue, but ESI construction activities are not anticipated at SMIS Ramgunj under the IWRMP.

<sup>&</sup>lt;sup>4</sup> Preparatory activities are underway and will continue, but ESI construction activities are not anticipated at NIS Block 2 under the IWRMP.

The activities of Component B include<sup>5</sup>:

- (a) Completion/consolidation of Management Transfer Plan including streamlining and strengthening of WUAs;
- (b) Essential structural improvements;
- (c) Repair, upgrading, or procurement of buildings, information systems, transportation, and maintenance and information technology equipment;
- (d) Capacity building of WUAs and Department of Irrigation (DOI).

The expected primary outputs of Component B are<sup>6</sup>:

- 1. Efficient and equitable service delivery by financially and institutionally sustainable WUAs:
- 2. Improved physical performance of the irrigation schemes;
- 3. Reliable bulk water delivery by the DOI, according to the IMT Agreement with the respective WUAs.

# 1.1 Institutional and Implementation Arrangement

The overall responsibilities for implementation management of the IWRMP rests with DOI, with guidance and assistance from several committees and teams. For this purpose the GON, in executing the Financial Agreement<sup>7</sup>, created several committees to support the implementation of IWRMP. The DOI created the OPD, within the DOI central office, which is fully staffed with the needed manpower and professionals. OPD is responsible for the overall coordination of the project with other implementing agencies.

Other institutions and groups directing and/or otherwise involved in the implementation or management of IWRMP are:

- a) **Project Steering Committee** (PSC) represented by, but not limited to, the Ministry of Water Resources, Ministry of Agriculture and Cooperatives, Ministry of Finance, National Planning Commission, Water and Energy Commission Secretariat, and the Federation of Water Users Associations of Nepal (FWUA).
- b) **Project Implementation and Coordination Committee** (PICC) conformed by, but not limited to, representatives of DOI and DOA.
- c) High Level Policy Steering Committee (HLPSC) including without limitation, representatives of NPC MOF, MOWR and WECS and other senior officials of key stakeholder ministries and agencies.
- d) **National Vigilance Centre**: Independent technical audit of the implementation of the project.

<sup>&</sup>lt;sup>5</sup> As per the IDA Mission report (18 – 24 September, 2009).

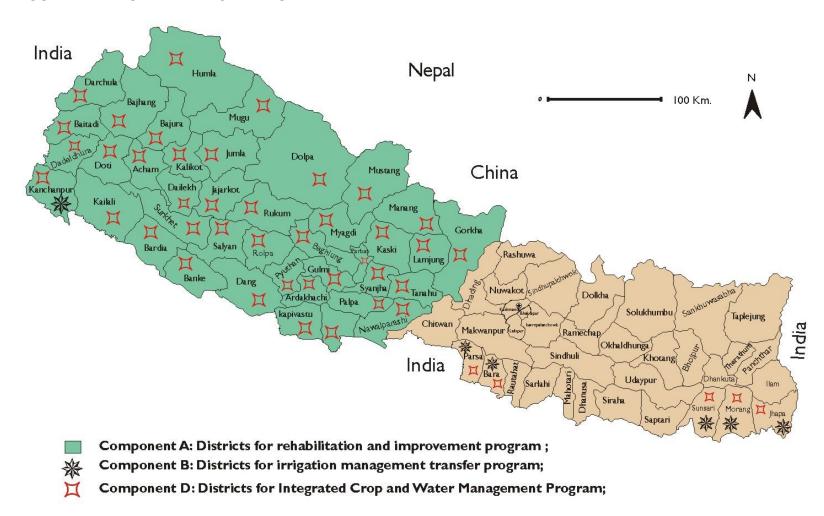
 $<sup>^{6}</sup>$  As per the IDA Mission report (18 - 24 September, 2009).

<sup>&</sup>lt;sup>7</sup> Financial Agreement, (Irrigation and Water Resources Management Project) between NEPAL and International Development Association, January 31, 2008. Grant Number HP338-NEP.

- e) **WECS Project Management Team**: The Project Management Team of WECS to be responsible for planning, implementing, coordinating, supervising, monitoring and evaluating activities to be carried out under component C of the project.
- f) **DOA Project Management Team**: Responsible for, among other activities, planning, implementing, coordinating, supervising monitoring and evaluating activities to be carried out under Component D.
- g) WUA or Water Users Associations: a farmer organization with the aim of irrigation water management selected to support the planning and implementation of subprojects.

The transfer of management to the WUAs means turning over governance, management, and maintenance responsibilities of the relevant portions of the irrigation systems. The DOI will continue to operate and maintain the headworks, desilting basins and, in most cases, main canals and head regulators. The WUAs will operate and maintain the transferred portions of the systems and related assets as per the legal transfer agreement guidelines.

# FIGURE 1: MAP OF IWRMP ACTIVITIES



# **2** Progress Status Narrative:

# 2.1 Progress on ESI Works:

# Kankai Irrigation System:

Four contractor packages have been issued in KIS for structural improvements. This includes Project-funded ESI works, as well as associated DOI-funded remedial works. These are detailed below:

# Contract package I:

- Works included: Secondary canals S0 to S7: Canal reshaping and lining, gabion protection works, village-level bridges (road and foot), pipe outlets, pipe culverts, siphon repairs, retaining walls, gate repairs, cross drainage works.
- o Contractor Progress: Contractor is working in S3 & S4 (canal lining works and gabion protection).
- o WUA Progress: Reshaping of canals S7, S3, S4 is underway.

# Contract Package II:

- Works included: Secondary canals S8 to S12: gabion protection works, canal reshaping and lining, village-level bridges (road), pipe culverts, pipe outlets, road crossings, drain crossings, cross drainage structures, gate repairs and gate relocations.
- Contractor Progress: Contractor is working in Canal S8, Canal S9, Canal S12, (canal lining works and gabion protection).
- WUA Progress: Reshaping of S12 substantially complete; Foundation of lining started and 250 m completed along Canal S12; Foundation works for lining is underway along Canals S8 and S9.

# Contract Package-III:

- Works included: Secondary canals S13 to S16: canal reshaping and lining, pipe outlets, pipe culverts, village-level bridges (road and foot), gate repairs, gabion protection works, road crossings, drain crossings, cross drainage structures.
- Contractor Progress: The contractor has mobilized and has initiated work on S13 and S14.
- o WUA Progress: Have initiated collection of funds for their contribution.

# Contract Package-IV:

- Works included: Secondary canals S17 to S21: Similar to the contract packages I trough III, i.e.: canal reshaping and lining, pipe outlets. pipe culverts, village-level bridges (road and foot), gate repairs, gabion protection works, road crossings, drain crossings, cross drainage structures, etc.
- Contract issued and the contractor is mobilizing to start construction works.
- o WUA Progress: Have initiated collection of funds for their contribution.

The KIS branch canal WUAs also each have small contracts to fulfil. In 2010 branches S8, S10 and S12 completed their work. Thus far in 2011 branch canal S3 has completed its work and S4 is in progress.

# • Sunsari Morang Irrigation System (Sitaguni S9 Secondary Canal):

• ESI design and design review are complete. Minor revisions now being incorporated. Tendering will begin in the very near future.

# Narayani Irrigation System (Blocks 2 and 8):

• ESI estimates have been completed. Design will commence when IMT agreement is signed.

# • Mahakali Irrigation System (Stage I):

• ESI design and design review are complete. The DOI has approved NRs. 62,755,000 for the IDA funded ESI works and NRs. 105,137,000 for the DOI funded part, and tendering has been initiated. An agreement with WUA on payable & contribution part will be completed soon.

# 2.2 Progress on WUA Development:

Trainings and study tours are the primary tools utilized for capacity building of the WUA members and DOI staff. Progress can be measured through activities undertaken by the WUAs. Activities and progress for each sub-system are discussed below:

# Kankai Irrigation System:

An Annual Action Plan for a WUA Training Program for FY 067/068 has been prepared and submitted to OPD. Partial funding has been received (800,000 NRs), and training, workshop, and study tour activities have been initiated. Curtailment of the Training Program was required due to limitations in the budget allocation. Remaining training activities completed or planned during FY 2067/8 are:

- A five day study tour to Pokhara and Lumle of Kaski district has been completed.
   Thirty WUA executive members and three SMU staffs participated in the study tour. The group visited water harvesting and micro irrigation sites in Markichowk VDC of Tanahu District, the Bijayapur Irrigation System at Lekhnath, Kaski District, and the Lumle Agricultural Research Centre, Kaski District.
- Several other trainings have been completed or are planned for the near future. A training in Basic Account and Record Keeping to Tertiary Committees has been completed, with 100 participants (divided in to 4 sessions). A training in ISF Collection and Management to Tertiary Committees will be conducted in mid-May 2011 for 100 participants (divided in to 4 sessions). A Mid-Term Progress Review Workshop with SMU and WUA will be conducted for 30 participants prior to the close of the fiscal year. These trainings will exhaust the current budget allocation.

An Action Plan for water management activities for FY 2067/8 at KIS has been developed and submitted to the OPD for funding. Partial funding for Parcellary Mapping activities has been allocated, and mapping activities are underway. Funding for other water management activities for FY2067/8 has not been provided as of the

date of this report. The Component B TA has requested the OPD to investigate options for funding for planned water management activities sufficient to cover the remainder of the fiscal year.

The WUA is collecting membership fees from all 21 branch canals. Maintenance and ISF fees are being collected from branches 0-15. Collection rates, though still low, have improved measurably.

# Sunsari Morang Irrigation System (Sitaguni S9 and Ramguni Secondary Canals):

An Annual Action Plan and Budget for training activities for the Sitagunj WUA and the SMIS SMU for the fiscal year 2067/8 has been completed and submitted to OPD for funding. Partial funding has been received, however this budget has reportedly been needed to fund parcellary mapping activities. Therefore training, workshop, and study tour activities have not yet been initiated. Trainings planned for the foreseeable future include administration and Office Management Training for WUA Managers, Construction Management and Quality Control, Workshop on Gender Development and Income Generation for Female Members of the WUA, and Water Management and Canal Operation Study tour (to KIS), if funds are provided for these activities.

An Action Plan for water management activities for FY 2067/8 at SMIS has been developed and submitted to the OPD for funding. Partial funding for Parcellary Mapping activities has been allocated, and mapping activities are underway. Funding for other water management activities for FY2067/8 has not been provided as of the date of this report. The Component B TA has requested the OPD to investigate options for funding for planned water management activities sufficient to cover the remainder of the fiscal year.

Post-IMT Agreement WUC meetings have been conducted at all canal branches, and also WUCC meetings at associated branch levels. These meetings are regarding ISF and membership fee collection, establishment of WUA office, demarcation of canal areas, and operation and maintenance of canal systems.

The OPD has mobilized a Kathmandu based consultant firm to conduct an Asset Management and Rapid Appraisal for the Ramgunj Secondary Canal sub-system. The Component B TA IDS has assisted them in the collection of field and secondary data. The WUA of Ramgunj Secondary Canal has been internally active in anticipation of inclusion under the IWRMP. The Ramgunj WUA has completed collecting names for the Water Users Membership List, and elections at the Water Course level are nearly complete. Elections have been conducted at approximately 200 out of 246 water courses. Elections at the remaining Water Courses are progressing and will be completed in the near future.

# Narayani Irrigation System (Blocks 2 and 8):

An Action Plan for Pre-Agreement Activities was prepared by the SMU and WUA of NIS Block 8 with the assistance of the TA. The Action Plan covers all activities needed to be completed prior to the signing of the IMT Agreement for Block 8. All items of the action Plan have been completed, and the signing of the IMT Agreement for Block 8 has been scheduled for May 12, 2011).

Progress at Narayani Block 2 has been impeded by an internal dispute involving the management of the WUA. Until the dispute is resolved the completion of an IMT Agreement at Block 2 is highly unlikely. The time required for resolution, and the outcome, can not be predicted. Resolution will involve all new elections, which will require additional time. Significant delays have already been incurred at Block 2, and additional delays appear probable.

# Mahakali Irrigation System (Stage I):

An Annual Action Plan and Budget for training activities for the Mahakali Stage 1 WUA and the MIS SMU for the fiscal year 2067/8 has been completed and submitted to OPD for funding. Partial funding has been received (500,000 NRs). Curtailment of the Training Program was required due to limitations in the budget allocation. A one day orientation training on ICWMP was conducted for 125 WUA members of each block (A, B, C, D). A study tour to other irrigation systems in Nepal for approximately 30 WUA members has been completed. Other training activities tentatively scheduled for completion before the end of the fiscal year include Basic Accounting, ISF Collection, and Annual Progress Review. The MIS SMU has requested the assistance of the TA to prepare for and conduct the trainings. The TA is ready to respond as soon as permission to travel to MIS for training assistance is granted by the OPD.

An Action Plan for water management activities for FY 2067/8 at MIS has been developed and submitted to the OPD for funding. Partial funding for Parcellary Mapping activities has been allocated, and parcellary mapping activities are underway. Funding for other water management activities for FY2067/8 has not been provided as of the date of this report. Painting of staff gauges on flow measurement structures is being done in anticipation of structural calibration activities, though structural calibration activities will require additional budget. The Component B TA has requested the OPD to investigate options for funding for planned water management activities sufficient to cover the remainder of the fiscal year.

A set of Action Plans and related planning documents developed by the MIS SMU and the Component B TA have been attached as Appendix 3 of this report.

A portion of the Irrigation Service Fee has been collected from water users (NRs. 89,076).

The WUA has cleaned silt from Bhujala branch of Block A and Chunderia and Suda branch of Block D.

# 2.3 Progress Table

Progress to date within the four sub-project sites of Component B are summarized within Tables B2, below. Gantt charts of progress to date and projected progress for the Component B sub-project sites are shown in Appendix 4 of this report.

# **Status of Component B Activities**

Irrigation System		Kankai, Jhapa	Sunsari	Morang	Na	rayani	Mahakali
Schemes and sub-systems		Whole System	Sitagunj SC	Ramgunj SC	Block 2	Block 8	Stage I Kanchanpur
Command Area (ha)	Total 33,900 ha	7,000	8,000	7,800	6	,000	5,100
No of WUA	Total 6 WUA	1	1	1	1	1	1
Introductory Workshop	Status	Completed	Completed	Not Yet	Completed	Completed	Completed
introductory workshop	Responsible Agency	OPD	OPD	OPD	OPD	OPD	OPD
Dissemination of WUA guideline	Status	Completed	Completed	Not Yet	Completed	Completed	Completed
and other information	Responsible Agency	OPD	OPD	SMU / OPD	OPD/SMU	OPD	OPD
Sensitization and orientation	Status	Completed	Completed	Not Yet	Completed	Completed	Completed
activities for WUA and Field Staff	Responsible Agency	SMU	OPD/SMU	OPD / SMU	OPD	OPD/SMU	OPD/SMU
WUA constitution revision in the	Completed	Completed	Completed	Completed	Completed	Completed	Completed
context of IMT	OPD/SMU/Sahara, Nepal	SMU/TA	SMU / TA	SMU/TA	SMU/TA	SMU/TA	OPD/SMU/ Sahara, Nepal
	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Update WUA inventory	OPD/SMU/Sahara, Nepal	OPD/SMU/TA/ Sahara, Nepal	SMU/WUA	SMU/WUA	SMU/WUA	SMU/WUA	OPD/SMU/WUA Sahara, Nepal
System benchmarking	Status	Not yet	Not yet	Not yet	Not yet	Not yet	Not yet
System benchmarking	Responsible Agency	OPD/SMU	OPD/SMU	OPD/SMU	OPD/SMU	OPD/SMU	OPD/SMU
Parcellary mapping	Status	2000 ha completed	Progressing	Not yet	Not yet	Progressing	Progressing
Faiceliary mapping	Responsible Agency	SMU	SMU	SMU	SMU	SMU	SMU
-ndrd -	Status	Completed	Completed	Not yet	Completed	Completed	Completed
2 <sup>nd</sup> & 3 <sup>rd</sup> Consultation on MTA	Responsible Agency	OPD/SMU/ Sahara, Nepal	SMU / TA	SMU / TA	Neighbourhood Society/SMU	Neighbourhood Society/SMU/OPD	SMU/OPD
IMT Agreement Signed	Status	Completed	Completed	Not Yet	Not Yet	Scheduled	Completed
IIVIT Agreement Signed	Responsible Agency	OPD/SMU	OPD/SMU	OPD / SMU	OPD/SMU	OPD/SMU	OPD/SMU
WUA formation on the basis of	Status	Completed	Completed	Progressing	Progressing	Completed	Completed
canal network	Responsible Agency	SMU / WUA	SMU / WUA	SMU / WUA	SMU / WUA	SMU / WUA	SMU / WUA
Updating AMP, IMT docs, FMP, ESI etc.	Status	Completed	Completed	Ongoing	On going	Completed	Completed

Irrigation System		Kankai, Jhapa	Sunsari	Morang	Na	rayani	Mahakali
Schemes and sub-systems		Whole System	Sitagunj SC	Ramgunj SC	Block 2	Block 8	Stage I Kanchanpur
	Status	Completed	Completed	Not Yet	Completed	Completed	Completed
Information Dissemination on IMT	Responsible Agency	OPD / SMU / Sahara, Nepal	SMU/OPD	SMU/OPD	Neighbourhood society/SMU	Neighbourhood society/SMU	SMU/OPD
Monitoring Visit	Status	Two Completed	One Completed	Not Yet	Not Yet	Two Completed	One Completed
Worldoning visit	Responsible Agency	OPD	OPD	SMU / OPD	OPD	OPD	OPD
Orientation to Field Staffe	Status	Completed	Completed	Not Yet	Not Yet	Completed	Completed
Orientation to Field Staffs	Responsible Agency	OPD	OPD	OPD	OPD	OPD	OPD
WUA and Field Staff capacity	Status	In Progress	In Progress	Not Yet	Not Yet	Initiated	In Progress
development	Responsible Agency	SMU/TA	SMU/TA	OPD	OPD	OPD	SMU/TA
WILLA Institutional Devalorment	Status	In Progress	In Progress	Not Yet	Not Yet	Initiated	In Progress
WUA Institutional Development	Responsible Agency	SMU/TA	SMU/TA	OPD	OPD	OPD	OPD
Delasificación a CEOLWarden	Status	Completed	Completed	Not Yet	Not Yet	Completed	Completed
Prioritization of ESI Works	Responsible Agency	SMU	SMU	SMU	SMU	SMU	SMU
CCI Design and Tandaring	Status	Completed	Approved	Not Yet	Not Yet	Not yet	Approved
ESI Design and Tendering	Responsible Agency	SMU / WUA	OPD	SMU / WUA /OPD	SMU / WUA /OPD	SMU / WUA /OPD	OPD
FIC Construction	Status	In Progress	Soon	Not Yet	Not Yet	Not Yet	Soon
EIS Construction	Responsible Agency	OPD / SMU / TA	OPD / SMU / TA	OPD / SMU / TA	OPD / SMU / TA	OPD / SMU / TA	OPD / SMU / TA
Calibration of Flow Measurement	Status	Partially Complete	Partially Complete	Not Yet	Not Yet	Not Yet	Not Yet
Structures	Responsible Agency	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA
Preparation of Canal Operation	Status	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet
Plan	Responsible Agency	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA
Preparation of Canal Maintenance	Status	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet
Plan (CMP)	Responsible Agency	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU / TA
Training WUA on COP and CMP	Responsible Agency	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet
	Status	SMU / TA	SMU / TA	SMU / TA	SMU / TA	SMU/TA	SMU / TA
M&E of IWRMP activities and	Responsible Agency	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet	Not Yet
WUA performance	Status	SMU / OPD	SMU / OPD	SMU / OPD	SMU / OPD	SMU / OPD	SMU / OPD

# 3 Issues and Solutions

# 3.1 Last Aide Memoire

Table B7, below, summarizes issues raised in the document "Review of Component B – Irrigation Management Transfer, IDA Mission (September 18 to 24, 2009)", and current status thereof.

Table B7: Status of Issues and Actions from IDA support mission of September, 2010

Issue	Respon-	Action/Solution
	sible	
	Agency	
Do quick assessment of	TA	The TL, DTL, IDS, IE, and HE of the Component B TA
community awareness and		have all visited KIS since the WB mission of October
engagement in		2010, and all have met with WUA representatives. The
consultations and trainings		WUA is very actively engaged in the process. A
and gauge the awareness		training plan has been developed, and is now being
and sense of ownership		implemented. Lessons learned from the process to date
among the WUA		at KIS are being incorporated in interactions at the other
members.		IWRMP sites.
Monitor collection rates of	SMU and	As of April 1, 2011 the WUA have collected ISF= NRS
ISF at KIS	TA	447,517; Membership fee = NRS 53,320; Maintenance
		fee=NRS 1,194,552. See Appendix 1 of this report.
The Mission views	SMU,	After delays due to national budget issues the training
targeted training as very	TA	programs at KIS, SMIS, and MIS have commenced.
important.		
At MIS Stage 1, ESI	SMU,	At MIS Stage 1, the design of ESI works is complete
estimates needed. Also	TA	and is passing through the GON approval process. A
training of WUA.		training program has been prepared in close
		consultation with the SMU and WUA, and has been
7.67	G) 577	initiated.
IMT Agreement expected	SMU,	The IMT Agreement at SMIS Sitagunj was signed on
to be signed at SMIS	DOI, TA	25 November, 2010. A training plan has been
Sitagunj before end of		developed and is being implemented. The design of
2010.		ESI works is complete, and is in the process of GON
		approval. Tender of the ESI works for SMIS Sitagunj
NIS Block 2 and 8 WUAs	SMU,	is expected very soon.  All preparatory activities have been completed for NIS
need support in advance of	TA	Block 8. Signing of the IMT Agreement is scheduled
IMT Agreement.	I A	for May 12, 2011. Internal disputes have delayed Block
IVIT Agreement.		2. New WUA elections will resolve the dispute.
Component B area is	SMU,	Progress is ongoing on approximately 23,100 ha.
reduced to 26,000 ha. Per	TA	Activities have also been initiated on an additional
hectare ceiling for ESI	171	10,800 ha (SMIS Ramgunj = 7,800 ha + NIS Block 2 =
works is increased to about		3,000 ha).
\$150/ha.		5,000 nu).
Progress on ESI works	DOI,	Good progress is being made on ESI works at KIS. At
essential at KIS, SMIS,	SMU,	SMIS Sitagunj and MIS Stage 1 ESI design work is
MIS.	TA	complete and tendering is in process, or very nearly so.
IMD to prepare a long	IMD,	The TA assisted the IMD to prepare a long term vision
term vision paper	TA, DOI	paper. This has been forwarded to the World Bank.
IMD to prepare a proposal	IMD,	The TA assisted the IMD to prepare proposal. This has
for assisting the IWRMP	TA, DOI	been forwarded to the World Bank.

#### 3.2 Other Current Issues and Solutions

#### A. Financial and Disbursement Issues

ISSUE: Delays in the approval of the national budget resulted in follow-on delays to budget availability for Component B activities. This has partially resolved only recently. Partial funds reached the SMUs in early March, 2011. Training and other field activities have since commenced, though the funds received are insufficient for the full roster of planned activities.

SOLUTION: The primary issue has been resolved at the national level for fiscal year 2067/8. DOI internal issues still need to be addressed.

# B. Implementation Issues

The following issues were noted as having an effect on the implementation progress of IWRMP Component B.

ISSUE 1: The late arrival of funds at the field level (due to national budget issues), and the inadequate funding of field activities has negatively impacted the timeline for task achievement the IWRMP.

SOLUTION 1: The primary issue has been resolved at the national level for fiscal year 2067/8. However the unstable political environment of Nepal requires that the possibility of a repeat of this situation be acknowledged as a project risk. DOI budget request and funding allocation procedures continue to impede progress at the field level. These issues must be resolved internally.

ISSUE 2: DOI staff involved in the IWRMP are not exclusively assigned to the IWRMP. They have other duties and task assignments. Their ability to perform on the IWRMP is often compromised as a result. A related issue is that Agency irrigation staff coming from technical backgrounds sometimes display a low preference to IWRMP activities, as it is a process oriented project. Also related, Some SMU staff have not been adequately trained or oriented to the IWRMP program, and/or do not have the ability or motivation to actively pursue program implementation in the face of the difficulties presented by field conditions (inadequate and/or unreliable transportation and/or poor road conditions, and communication difficulties, poor office conditions, unreliable electrical power, low salary, low incentives, etc.). In addition, Agency field staff have low incentives and they work under the demanding conditions. Field staff are aware that the IWRMP PIM and PAD include the provision for incentives to field staff, however as none has been forthcoming, morale and motivation among the institutional development staff is diminishing.

SOLUTION 2: Various incentives could be created by the DOI to train and encourage existing field staff to place higher priority on IWRMP activities, and also to recruit additional high quality personnel.

ISSUE 3: For reasons related to ISSUE 2, planning, budget preparation, and follow-through is weak at the field level.

SOLUTION 3: Annual progress review meetings should be conducted to review issues and develop budgets responsive to the progression and evolution of the Project. The meetings should incorporate participatory planning and budgeting processes with input from project staff at all levels. OPD is planning to organize such a meeting in

Kathmandu, with all SMU representatives in attendance. Budgetary planning should be realistic, and provision must be timely. During budget preparation for the project sites, the IMT preparatory works and WUA capacity development activities must be critically and realistically assessed, and given adequate priority.

ISSUE 4: Due to a number of reasons, awareness and information related to the IWRMP has not been adequately disseminated to the level of the individual farmer. The main reason is perhaps the large numbers of farmers involved. Within the project area at NIS, for example, there are tens of thousands of farmers involved, with several times that number of persons within affected households. This fact, combined with poor communication and transportation infrastructure, and limited staff and funding available for awareness and information campaigning, provides some understanding of the scope of the issue. Never the less, a WUA can not function without the participation and compliance of the members, which requires awareness and acceptance of the concepts and knowledge of the rules and processes, etc.

SOLUTION 4: The importance of awareness and involvement of the farmer-stakeholder must be recognized by the DOI, OPD, SMU and WUA, and program activities must actively address this issue.

ISSUE 5: Logistical resources such as vehicles that are provided under the Project are limited and often appropriated according to rank rather than by need.

SOLUTION 5: Only a strong leadership with an grasp of the bigger picture will address this problem.

ISSUE 6: Due to limited information dissemination, budgetary delays, etc., government field staff, WUA representatives and farmers and other stakeholders at some sub-project sites are uncertain as to the status and future of the project, and question its credibility.

SOLUTION 6: This relates to Issue 4, and the solution is the same.

ISSUE 7: Adequate numbers of qualified technical staff are not available at all subproject sites.

SOLUTION 7: This relates to Issue 2, and part of the solution is the same. In addition, the DOI must allocate its personnel resources under a different set of priorities.

ISSUE 8: The need for parallel interaction at four widely separated sub-project sites presents logistical issues which exceed the resources of the TA. Limited technical resources, structure of the TA (with central and field office locations), and inadequate transportation budget are constraining the TA's ability to perform. In addition, the TA's personnel balance was designed with excessive emphasis in the engineering aspects and comparatively few resources allocated toward the social and institutional development aspects of IMT.

SOLUTION 8: The TA has proposed to the OPD a number of changes to its staffing schedule and budget allocations to address these issues. Changes include the increase of Institutional Development and Water Management input, and a reduction in engineering input. The OPD has recently approved one portion of the proposal (the hire of a second Institutional Development Specialist). Other items have yet to be resolved.

# 4 Proposed Activity Plans

# 4.1 Activity Plans for 2011

Gantt timeline charts reflecting present and projected progress have been prepared for the sub-project sites where work is currently underway. These are included in Component B Appendix 4, and include Kankai, Sunsari Morang (Sitagunj), Narayani Block 2, Narayani Block 8, and Mahakali Stage 1.

These Gantt charts include major activities from 2010 and as anticipated through June 30, 3013.

# 5 Procurement Plan/Status

# 5.1 Procurement of Goods

No change during present reporting period.

### 5.2 Procurement of Services

No change during present reporting period.

### 5.3 Issues of Procurement of Goods and Services

No issues were identified by DOI procurement staff.

# 5.4 Revised Procurement Plan

No revised Procurement Plan was available from the DOI procurement staff.

# 6 Monitoring and Evaluation of the Project

# 6.1 Revised M&E Indicators Matrix

No change during present reporting period.

#### 6.2 M&E Indicators Data Collection

Benchmarking data collection exercises have been completed at KIS. Benchmarking data will be collected at the other sites at a later date. This information, when processed, is intended to serve as baseline data for the M&E indicators.

# 6.3 Measurement of the Impacts Against Baseline Data

Measureable impacts of Component B are not anticipated until ESI structural improvements have been completed and WUA institutional strengthening activities are well advanced. These tasks are scheduled for completion in mid-2012 at some subproject locations, and monitoring for impacts can begin at that time.

# 7 Social and Environmental Safeguards (SEMP Status)

### 7.1 Environmental and Social Screening

The IWRMP subprojects are required to be screened against the set of environmental and social criteria derived from GON regulations and the World Bank's safeguard policies. The screening of a subproject results in one of the following:

- Subproject is exempted from formal environmental and social investigations (IIEE/ISE and EIA/SIA). Subproject will have simple subproject-specific SSEMP;
- Subproject requires IIEE/ ISE;
- Subproject requires detailed EIA / SIA;
- subproject is ineligible for funding under IWRMP as it fall under negative items list.

The SEMP identifies and assesses the social and environmental impacts resulting from the proposed development activities and prepares a management plan with mitigation measures including the cost of mitigation, monitoring, auditing and capacity building. The SEMP must be prepared for each sub-project, even if no EIA/IEE is required (as per the Environmental Protection Rules 1997, 1999 of GON) and it should be site specific. The objective of SEMP is not only to mitigate the adverse (or negative) social and environmental impacts but at the same to enhance the positive impacts. It should contain a detail description of the potential social and environmental impacts (both during construction and operation and maintenance), mitigation measures and mechanisms for both implementation and monitoring for each sub-project activity. The SEMP should be properly and adequately integrated in over all planning, designing, budgeting and implementing of a sub-project. In fact, SEMP will be integral part of the sub-project plan.

#### 7.2 SEMP Status

A SEMP Guideline Orientation Training has been conducted for SMU staff at all current sub-project locations. The SEMP guideline completed by KIS has been used as a model for other locations. SEMP plans are in process at SMIS and MIS. NIS will begin working on a SMEP plan after the IMT Agreement is signed.

# 8 Financial Management Status

### 8.1 Project Report Based Disbursement

Details of disbursement for Components A and B combined are shown in Table B12, below.

Table B12: Annual Disbursement Table, IWRMP Components A and B

**VIII- Implementation Progress Report** 

Government of Nepal

Ministry of Irrigation

2nd Trimester FMR Note 2 B

# **Department of Irrigation**

# **Irrigation and Water Resources Management Project**

# Summary of Statement of Expenditure Component B as of 2nd Trimester

FY: 2067/2068 (2010/2011)

Reporting Period : July17, 2010 to Nov.16, 2010 (2067/4/1 to 2067/7/30)

Amount in NPR

Line	IDA			Cumulative Expendi-			Reporting FY 2067/68 (2010/11)						Cumulative Expenditure to Date
Item	Cat.	Description	Total Project	ture up to Last FY			Expendi-				Balance	%	
No.	No.	-	Cost	2066/67 (2009/10)	Approved Annual Budget	1st Trimester	2nd Trimester	3rd Tri mes ter	Year-to- Date	%	Budget Amount		
1	2	3	4	5	6	7	8	9	10 = (7+8+9)	11= (10/6* 100)	12= (6-10)	13 = (12/6* 100)	14= (5+10)
1		CONSUMPTION EXPENSES	0	0	0	0			0	·	0	-	
1.01		Salary	0	0	0	0			0		0		0
1.02		Allowance	0	0	0	0			0		0		0
1.03	3	Traveling Expenses on Transfer and Daily Allowance	0	0	0	0			0		0		0
1.04		Clothing and Uniforms	0	0	0						0		0
1.08		Training Program Expenses	0	0	0	0			0		0		0
2		OFFICE OPERATING EXPENSES	29,859,000	3,338,341	3,280,000	26,788			26,788		3,253,213	99%	3,365,128
2.01		Water and Electricity Charges	2,600,000	835,808	40,000	0			0	0.00%	40,000	100%	835,808
2.02		Communication Charges	2,600,000	0	60,000	0			0	0.00%	60,000	100%	0
2.03	3	Office related Expenses	19,400,000	2,307,973	60,000	0			0	0.00%	60,000	100%	2,307,973
2.04		Rent	0	0					0		0		0
2.05		Repairs and Maintenance	4,080,000	194,560	3,000,000	26,788			26,788	0.89%	2,973,213		221,347

2.06		Fuel: Vehicles and Others										
			1,179,000	0	120,000	0		0		120,000		0
2.07		Consulting and Other Service	, ,		,							
		Charges	0	0	0	0		0		0		0
2.08		Miscellaneous Expenses	0	0	0	0		0		0		0
3	2	Grant (Current Transfer)										
			7,200,000	800,000	2,940,000	0		0		2,940,000		800,000
3.05		Social Services Non										
		conditional Grant	7,200,000	800,000	2,940,000	0		0		2,940,000		800,000
4		SERVICE EXPENSES	35,000,000	7,463,654	14,950,000	332,569	1,772,175	2,104,744		12,845,256	86%	9,568,398
4.01		Production Materials/Service	0	0		0		0		0		0
4.02	3	Medicines	0	0		0		0		0		0
4.03		Books and Materials	0	0		0		0		0		0
4.04	2	Program Expenses	35,000,000	7,463,654	14,950,000	332,569	1,772,175	2,104,744	14.08%	12,845,256	86%	9,568,398
4.05	3	Program Traveling Expenses	0	0	0	0		0		0		0
5		CAPITAL TRANSFER EXPENDITURE		0	0	0				0		0
6		CAPITAL FORMATION		-	Ť	· ·						*
		EXPENDITURE	679,288,000	69,927,586	158,172,000	12,688,244	22,008,742	34,696,987		123,475,013	78%	104,624,573
6.01		Furniture	0	0	0	0	, ,	0		0		0
6.02	2	Vehicles	36,000,000	13,992,690	2,800,000	0		0		2,800,000		13,992,690
6.03	2	Machinery and Other Equipment	56,500,000	20,219,813	1,100,000	0		0		1,100,000		20,219,813
6.04		Building Construction	0	20,213,012	1,100,000		27,000	27,000		-27,000		27,000
6.05		Civil Works Construction					_,,,,,,					
	1		361,035,000	17,183,280	110,750,000	0	12,642,639	12,642,639	11.42%	98,107,361		29,825,919
6.06		Capital Improvement	,	, ,	,		,			, ,		,
		Expenditure	12,600,000	778,300	522,000	0		0		522,000		778,300
6.07	2	Expenditure on Study and Capital Consulting Service	213,153,000	17,753,503	43,000,000	12,688,244	9,339,104	22,027,348	51.23%	20,972,652	49%	39,780,851
8	5	Capital Grant	0	0	0	0	7,557,104	0	31.23/0	0	4270	0
8.05		Social Services conditional Grant	0	0	0	0		0		0		0
		Grand Total	751,347,000	81,529,581	179,342,000	13,047,601	23,780,917	36,828,518		142,513,482		118,358,100
		5a 10tai	, 500	,,	,,,_,	,,	,,.	20,020,010		,,		

# 8.2 Disbursements Issues and Solutions

None are reported.

# 8.3 Disbursement up to Present

Total disbursement (GON + IDA) under Component B as of the end of the last fiscal reporting period is 118,358,100 NRs (approximately \$1.6 Million USD). The GON portion is 7,039,269 NRs, and the IDA portion is 111,318,831 NRs (94%). During the current GON fiscal year the total expenditure for Component B (GON + IDA) through the end of the 2<sup>nd</sup> trimester is 36,828,518 NRs. The GON portion is 258,285 NRs, and the IDA portion is 36,570,233 NRs (99%).

# 9 Governance and Accountability Action Plan (GAAP)

No change since previous reporting period

# 10 Staffing Situations and Issues (For Technical Assistance and DOI)

# 10.1 IMT/DOI Staff: Present Status

Field Staff

No change during this reporting period

Central Staff

No change during this reporting period

# 10.2 Technical Assistance (TA) Staff

No change in staff during this reporting period, except that the original Water Management Expert has resigned. A replacement will be placed as soon as formal approval for the TA's nominated candidate is given by the OPD.

# 10.3 Staffing Issues

There are important TA staffing issues to be considered. The TA and the OPD have recognized for some time that the geographical distribution of the work sites presents logistical challenges that strain the TA's resources, especially with respect to the national professional staff. Through a series of meetings with the OPD the TA has refined a proposal for adjusting the national professional staff to rebalance the TA's available expertise according to the needs of the IWRMP to the extent possible within the existing man-month allocation. This revised staffing schedule is included in Appendix 2 of this report. The concept of the proposed changes is to form two teams of national specialists, each with a set of 3 national specialists that comprise the core skill set of engineer, water management expert, and institutional development specialist. One team will be stationed at Biratnagar (the current TA B field office location) and will focus on the KIS and SMIS. The other team will be stationed in Mahendranagar and will focus on MIS and NIS. This will necessitate the hiring of one additional Water Management Expert (WME2) and 1 additional Institutional Development Specialist (IDS2). This will be accomplished within the existing man month budget by trimming the inputs of the existing national professional staff and the utilization of the remaining unallocated man months provided under the TA. The OPD has expressed conceptual agreement with this proposal. The TA has recently completed an extensive recruitment effort and has proposed a roster of qualified

candidates for the positions of WME2 and IDS2 to the OPD. The OPD verbally, though not yet formally, approved a candidate for the position of IDS2, and has declined to approve any proposed candidate to the position of WME2 at this time. The TA considers the immediate fulfillment of the WME2 position as essential for the completion of the Canal Operation Plan and Canal Maintenance Plan as required under the TA's TOR. The OPD has indicated that this subject will be discussed further during the World Bank mission of May, 2011.

• As previously mentioned in this report, GOI staff involved in the IWRMP are not exclusively assigned to the IWRMP. They have other duties and task assignments. Their ability to perform on the IWRMP is often compromised as a result. The situation is compounded in instances where the staff are not well trained, equipped, or otherwise well prepared to undertake the possibly unfamiliar process-oriented activities of the IWRMP. In these cases staff may procrastinate or sideline IWRMP activities. Staff assigned to the IWRMP must be well supervised and/or otherwise incentivized to make IWRMP activities a priority in their work scheduling.

# 11 Major Challenges and Recommendations

• The transitional and uncertain political and budgetary situation in Nepal will likely continue to impact the ability of the IWRMP to complete Component B within the anticipated time frame. This applies to all aspects of Component B activities. An example was witnessed this past year when the long delay in the approval of a national budget prevented the flow of funds to Component B activities for over 6 months. The lack of Project funds delayed implementation of all activities.

# This must be acknowledged as a risk.

• The training and institutional development needs of the WUAs are considerable, and beyond the capacity of the existing TA and DOI resources to implement within the given time frame. However, without adequate support, the WUAs will not be able to function as necessary by the end of the implementation period. Many field-level government staff also need additional training in various technical and non-technical areas.

The Component B TA has assisted the DOI IMD to prepare a proposal for IMD assistance to the IWRMP. It is recommended that the proposal be refined to the point of agreement among the various parties as quickly as possible. The involvement of the IMD in Component B is potentially of significant benefit. Alternatively, or in addition to the above, there is an extensive existing base of capable local NGOs, Association Organizers (AOs) and training specialists. It is recommended to utilize these resources to assist in WUA training and institutional development as needed. Existing budgets may need to be reviewed for sufficiency in this regard.

• Related to the above point, the availability of WUA representatives and farmer-members is limited. They do not have time for training activities during crop sowing and harvesting periods, and during the monsoon period their time availability is also very limited. This constraint, in addition to other factors, limits their training absorption capacity. The absorption capacity of DOI field staff is also similarly limited, as they also have multiple demands on their time.

These considerations must be kept in mind when developing and implementing any training and/or institutional strengthening planning or activities. Training and institutional strengthening needs must be accurately assessed, and training programs and activities and institutional strengthening inputs must be targeted, efficient, and effective. Planning decisions such as content and scheduling must be made in consultation with the participants.

# **Component B Appendix 1: ISF Collection at KIS**

At KIS the WUA membership fees have been set at 20 NRS per member. There are approximately 4000 farmers eligible for membership, which will potentially result in 80,000 NRs from the membership fee. The ISF fees for the current fiscal year have been set as indicated in the table below. Actual collection rates are not available at this time, but are approximately 60% for the membership fee and 40% for the ISF fee. The ISF rate of 600 NRs per ha at Branch no. 5 has been implemented on a trial basis, and this rate is expected to be applicable to all other branches beginning FY 2068/069.

ISF Collection Plan for the Fiscal Year 2067/068

S.N.	Branch No.	Irrigated	Rate	Tentative collection
		Area [Ha]	[NRs/Ha]	amount [NRs]
1	0	250	104	26,000
2	1	300	104	31,200
3	2	325	104	33,800
4	3	200	104	20,800
5	4	300	104	31,200
6	5	500	600	300,000
7	6	125	104	50,000
8	7	150	104	15,600
9	8	175	104	18,200
10	9	150	104	15,600
11	10	190	104	19,760
12	11	110	104	11,440
13	12	88	104	91,52
14	13	560	104	58,240
15	14	150	104	15,600
16	15	150	104	15,600
17	16	400	104	41,600
Grand	Total	4,123		713,792

As of April 1, 2011 actual collections by the WUA are: ISF = NRS 447,517;, Membership fee = NRS 53,320; Repair and Maintenance fee = NRS 1,194,552. Labor contribution = NRS 904,355.

# **Component B Appendix 2: Proposed Revised TA Staffing Schedule**

IWRMP TA B						2010	)									2	2011										20	)12							2013	,				Rev.	Orig.	
Proposed Revised	1	2	:	4	5	6	7	8	9 1	0 11	12	13	14	15							23 2	24 2	5 2	26 2	27 2	8 29	30	31	32	33 3	35	36	37	38 3	9 4	0 41	42	Home	Field	Total	Total	Change
Staffing Schedule	J	F	N.	1 A	M	J.	JL	A	S	) N	D	J	F	M	A N	1 J	J JI	L A	S	0	N I	D J	<b>i</b> 1	F I	M A	A M	IJ	JL	A	S	O N	D	J	F N	M A	M	J			41		
Consultant Inputs																																										
International Professional	Input	-mm																																								
Irrigation Management Specialist/Team Leader																																							20	20	20	0
Water Management Expert																																							10	10	10	0
Unallocated International											_			<u></u>		_			_			<del>-</del> -	_					_											2	2	2	0
																																					Sub	o-tot>		32	32	0
National Professional Irrigation Management Eng/Dept		2					7	8		0 11	12	13	14						a		20	21 2		22	24 24	5 05		27.5		20.5	9.5 30.5	31.5	32.5	22.5	36		27	17	20	27	41	-4
Team Leader (DTL)	1	2	. 3	4	3	ь	1	8	9 1	0 11	12	15	14	15	1	5 1	/ 18				20	21 2	2	23	24 24	25.	5 26.5	27.5		28.5 2	9.5 30.5	31.3	32.3	33.3	4.5	36	3/	17	20	37	41	-4
Irrig>Irrig/Hydr Engineer 1 (I/HI	- 1	2	3	4	5	6	7	8	9	10	-11	12	13	14	15 1	5 1	7 18	3				19 2	0 :	21	22 2	3 24	25				26	27	28	29				5	24	29	40	-11
Hydr>Irrig/Hydr Engineer 2 (I/H	- 1	2	3	4	5	6	7	8	9			10	-11		1:	2 1	3 14	15		1	15 1	6.5 17	.5 1	18.5	19.5 20	0.5 21.	5 22.5	23.5	24.5		25	26	27	28	29 30	0		6	24	30	30	0
Water Management Expert 1 (WME1)	1	2	3	4	5	6	7	8						9	10 1	1 1	2 13	3 14	15			16 1	7	18	19 2	0 21	22	23	24	25		26	27	28 2	29			4	25	29	20	9
Water Management Expert 2 (WME2)															1	. 2	2 3	4	5			6 7	7	8	9 1	0 11	12	13	14	15		16	17	18 1	19			4	15	19		19
Institutional Development Specialist/Sociologist 1 (IDS1)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 10	6 1	7			1	1	8.5 19	0.5 2	20.5 2	21.5 22	2.5 23.	5 24.5				2	26	27	28	29 30	0		5	25	30	40	-10
Institutional Development Specialist/Sociologist 2 (IDS2)														1	2 3	. 4	4				4 :	5.5 6.	.5 1	7.5	8.5 9.	.5 10.	5 11.5				1	13	14	15	16 1	7		5	12	17		17
Used Unallocated National Prof. (now allocated to FMS)								1	2	3 4	5	6	7	8	9 10	o					T	Ī	T													T		2	8	10	10	0
																	1						İ		1								Sub-	Total	l of A	Alloc	ated	National P	rofessional>	201	181	20
								$\Box$		Ι													Ι														C	overed fror	n Unallocate			20
														Ш		Ļ													Ш				Ш							Total C	hange>	0
Remainder of Original Unallocated Professional	NOT	E: 20	0 p-n	no. 10	00%	alloca	ated t	o W.	ME2	and I	DS2	>> <del>&gt;</del>	上	-		$\pm$			ļ.	$\blacksquare$		_	土	$\exists$	$\pm$			Ш		<u>.</u>	土		<u> </u>	士	土	<u>†</u>		4	16	20		

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# Component B Appendix 3: Action Plans for KIS, SMIS, MIS

KIS Annual Action Plan for Training Program for 2011

# (For November 2010- July 15, 2011

**Objectives :** To develop Self-Governing, self-Financing, Self-Regulating and Sustainable WUA Capacity Building of WUA and DOI Staffs of Kankai Irrigation System.

		Training	Target	Target	Time So	chedule	Responsible	Assistant	Monitoring	Budget	Status/
S.N.	Activities	Packages	Group	Numbers	Beginning	Ending	Person	Person	Person		Completion
	1. Basic account and record keeping to Tertiary		TS	100	10th Nov	30th Nov	AO	AAO, FA,	Engineer	180000	
	President and Tertiary Secretaries, 2 days training, 25							OA			
	Participants in each Package.										
	2. Preparation of Action Plan training Branch		BC	75	20th Dec	30th Dec	AO	AAO, FA,	Engineer	180000	
	Committee Selected Members, 3 days training, 25							OA			
	Participants in each Package.										
	3. ISF collection and management to Tertiary	-	TCM	100	1st Jan	30th Jan	AO	AAO, FA,	Engineer	240000	
	Member-1 from each Tertiary, 3 days training, 25							OA			
	Participants in each Package.										
	4. Training of Trainers to KIS Staffs and WUA, 3	1	KIS-	25	1st Dec	4th Dec	Engineer	AO, AAO,	SMU-Chief	60000	
	days training, 25 Participants in each Package.		WUA					FA, OA			
	F. Davidia at an arranita sina and analystica tasining to	5	BP+TP	100	1st Feb	10th Feb	AO	AAO, FA,	Engineer	225000	
	5. Participatory monitoring and evaluation training to							OA			
	branch president and tertiary president, 2 days training, 25 Participants in each Package.										
	, ,	~	XX/X #	100	15.1.35	204.34	4.0	4.40 E4	Б .	200000	
	6. Gender awareness and women's participation in		WM	100	15th Mar	30th Mar	AO	AAO, FA,	Engineer	300000	
	irrigation, Training to all women members of main		main					OA			
	branch and tertiary Committee, 3 days training, 25		Branch								
	Participants in each Package. 7. Consultation Workshop with WUA as and when	3	Tertiary WUA	90			Eng/AO	AAO, FA,	SMU-Chief	75000	
	needed.	,	"OA	70			Liig/AO	OA	Sivio-cinci	75000	
	9. Consultation Meeting with WUA as and when	3	WUA	90			AO	AAO, FA,	Engineer	75000	
	needed.							OA		, 2 000	
	10. Annual Progress Review workshop with WUA.	1	WUA	30	July 1s	tWeek	Engineer	AAO, FA,	SMU-Chief	30000	
								OA			

2 Capacity Building Development of KIS staffs & WUA										
a. Proposal and Report Writing training to KIS Staffs, 3 days training, 10 Participants in each Package.	1	KIS- staffs	20	11th Dec	15th Dec	Engineer	AAO, FA, OA	SMU-Chief	25000	
b. Irrigation Water Management training to KIS Staffs and WUA, 3 days training, 25 Participants in each Package.	1	KIS- WUA	25	5th Dec	10th Dec	Engineer	AAO, FA, OA	SMU-Chief	50000	
c. Leadership skill development training to WUA, 2 days training, 25 Participants in each Package.	4	MC, BC, TC members	100	16th Apr	25th May	AO	AAO, FA, OA	Engineer	200000	
d. Study Tour For WUA and KIS Staffs)							1			
Water Management, Canal Operation and Maintenance Study tour to Selected Member of Each Branch Committee, 5 days tour, 25 Participants.	1	ВС	25	1st June	5th June	AO	AAO, FA, OA	Engineer	200000	
2. Financial and Office Management, Study tour to Selected Member of Each Branch Committee, 5 days tour, 25 Participants.	1	ВС	25	10th June	15th Jun	AO	AAO, FA, OA	Engineer	200000	
3. Gender Development and Income Generation Observation Tour to All Female Member of WUA of Branch, 5 days tour, 25 Participants.	1	WUA	25	20th Jun	25th Jun	AO	AAO, FA, OA	Engineer	200000	
4. Agriculture Program Observation Tour to Selected Member from Each Tertiary Canal, 3 days tour, 25 Participants	2	TCM	50	28th Jun	10th Jul	AO	AAO, FA, OA	Engineer	250000	
		<u> </u>		•		•	-	Total	2490000	

### Note:

TP = Tertiary President P = President TS = Tertiary Secretary VP = Vice President

MC = Main Committee S = Secretary

BC = Branch Committee TCM = Tertiary Committee TC = Tertiary Committee WM = Women Member

# KIS Action Plan and Budget for Development of Canal Operation Plan

**Objectives:** To deliver reliable bulk water service equitably at each branch canal head as per Irrigation Schedule

agreed upon by WUA and KIS in the agreement

		Time Schedu	le	Responsible Person	Assistant Person	Monitoring	Budget	Status/
N	Activities	Begining	Ending	1		Person		Completion
	1. Water Availability							
	1.1 Compilation of existing flow data of main							
	canal	15th Kartik	20th Kartik	Mr. Pradip Bantawa	Mr. Budhilal	SMU Chief	not applicable	completed
	1.2 Analysis	15th Kartik	20th Kartik				not applicable	
	1.2.1 Monthly availability							
		25th kartik	30th Kartik	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	not applicable	
	1.2.12 Seasonal availability							
		25th kartik	30th Kartik	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	not applicable	
	2. Existing Practices							
	2.1 Documentation of previous practices adopted							
		10th Kartik	15th Kartik	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	not applicable	
	2.2 Gate adjustment practices opt by chaukidars							
		10th Kartik	15th Kartik	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	not applicable	
	3. Inventory of branchwise command area based							
	on parcelliary map						not applicable	
	3.1 Parciallery map preparation	5th Poush	30th Chaitra	Mr. Pradip Bantawa	Mr. Punit & Durbha	SMU Chief	not applicable	
	3.2 Preparation of inventory chart with							
	branchwise including command area	5th Poush	30th Chaitra	Mr. Pradip Bantawa	Mr. Punit & Durbha	SMU Chief	not applicable	
	4. Consultation with WUA for water allocation							
	chart							
	4.1 Demand assessment							
		1st Margh	15th Margh	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	45000	
	4.2 Loss assessment training to division staff	15th Mangsir	20th Mangsir	Mr. Pradip Bantawa	Mr Gopal Poudel/TA	SMU Chief	30000	
	4.3 Equipment for loss assessment purchased							
		1st Mangsir	10th Mangsir	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	80000	
	4.4 Loss assessment implementation	1st Poush	30th Poush	Mr. Pradip Bantawa	Engineers-2/TA	SMU Chief	200000	
	4.5 Crop water requirement (CWR) assesment							
		20th Poush	30th Poush	Mr. Pradip Bantawa	Engineers-2/TA	SMU Chief	25000	

5. Calibration of key structures							
5.1 Group formation with WUA	1st Mangsir	7th Mangsir	Mr. Pradip Bantawa	Mr. Gopal Poudel	SMU Chief		
5.2 Calibration & Development of chart						250000	
5.3 Gauge fixatation	20th Kartik	30th Kartik	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	SMU Chief	150000	
5.4 Demonstration training of gate setting and							
flow regulation- target WUA of 21 branches (21x4							
= 84 participants)	1st chaitra	7th chaitra	Mr. Pradip Bantawa	Mr. Budhilal Bisuwalkarma	/TA	160000	
6. WUA consultation workshop	Falgun 20	Falgun 26	Mr. Pradip Bantawa	Mr Gopal Poudel/TA	SMU Chief	100000	
6.1 Irrigation schedule development							
6.2 Policies of operation							
6.3 Communication system							
6.4 Organization system							
7. Demonstration of Irrigation schedule apllication							
	5th Chaitra	8th Chaitra				60000	
7.1 Wheat schedule	1st Mangsir	15th Falgun					
7.2 Early paddy schedule	1st chaitra	30th Jestha				100000	
7.3 Late paddy schedule						960000	
8. Water management training to tertiary							
member selected by tertiary committee (3 days &							
25 participants in each packagefor 16 nos,							
altogether 400 participants)							
8 Manual Development	15th Mangsir	15th Jestha				100000	
8. Canal operation plan (COP) training							next year
8.1 Dalpa							
8.2 Chairman and secretary of branch & tertiary							
level							
Equipments:					Total Budget	2260000	
Cutthroat flume		4 nos					
Ringinfiltrometer		1 nos					
2 kg hammer	2 kg hammer						
Spirit level		4 nos					
Steel scale		10 nos					

4 nos

Hook gauge

# SMIS Sitagunj Annual Action Plan and Budget for WUA and SMU Staff Training for FY 2067/68

Objectives: Institutional development, WUA strengthening and capacity building of DOI staff.

		Training	Target Group &	Target	Time S	chedule	Responsible	Assistant Person	<b>Monitoring Person</b>	Amount (NRs)
S.N.	Activities	Packages	Branch	Numbers	Beginning	Ending	Person			
1	Administration and office management training for chairperson, vicechairperson and secretary of WUCC, WUC and WUG, 2 days training, 25 participants at each package)	3	BC & TC	75	Falgun, 2067	Chaitra, 2067	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	200000.00
2	Construction management and quality control training (for Chairperson, secretary and one member of WUCC and WUC, 3 days training, 25 participants at each)	2	ВС	50	Baisakh, 2068	Baisakh, 2068	Engineer	SMU staffs , TA & Resource person	SMU-Chief, Engineer	150000.00
3	Basic account and record keeping training (for branch & tertiary chairperson, secretary and treasurer, 2 days training, 30 Participants in each Package).	1	BC & TC	30	Baisakh, 2068	Baisakh, 2068	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	100000.00
4	Preparation of Action Plan training (for branch & tertiary chairperson, secretary and treasurer, 3 days training, 30 Participants in each Package).	1	BC & TC	30	Chaitra, 2067	Chaitra, 2067	Socio/Eng	SMU staffs , TA & Resource person	SMU-Chief, Engineer	100000.00
5	ISF collection and management training ( for WUCC, WUC and WUG members, 2 days training, 30 Participants in each Package).	6	BC & TC	180	Chaitra, 2067	Baisakh, 2068	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	425000.00
6	Training of Trainers (for SMIP Staffs and WUA, 3 days training, 25 Participants in each Package).	1	SMU & WUA	25	Magh, 2067	Magh, 2067	SMU Chief	SMU staffs , TA & Resource person	SMU-Chief, Engineer	100000.00
7	Consultation Workshop with WUA as and when needed.	1	WUA	50	Falgun, 2067	Falgun, 2067	Eng/AO	SMU staffs , TA & Resource person	SMU-Chief, Engineer	75000.00
8	Workshop on gender development and income generation to all female members of WUA	1	WUA	25	Jestha, 2068	Jestha, 2068	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	75000.00
9	Consultation Meeting with WUA as and when needed.	1	WUA	50	Chaitra, 2067	Chaitra, 2067	AO	SMU staffs , TA & Resource person	SMU-Chief, Engineer	75000.00
10	Annual Progress Review workshop with WUA.	1	WUA	25	Jestha	n, 2068	Engineer	SMU staffs , TA & Resource person	SMU-Chief, Engineer	50000.00
	Study Tour For WUA and SIS Staffs									
1	Water Management, Canal Operation and Maintenance Study tour to Selected Member of Each Branch Committee, 5 days tour, 30 Participants.	1	ВС	30	Magh, 2067	Magh, 2067	Socio/AO	SMU staffs , TA & Resource person	SMU-Chief, Engineer	300000.00
		In Words:	Rupees fit	fteen lakh	s seventy-five	thousands on	ly		Total	1575000.00

MC-Main Committee BC-Branch Committee TC-Tertiary Committee

Note:

	Tentative Required Budget	for Con	ductio	n of Program at Ra	amgunj Irrigation Sy	stem, SMIP
S.N.	Activities	Time S	chedule	Cost (NRs)		
		Beginning	Ending			
	Updating of name list of the users, WUA reformation (WUC, WUG & WUCC of RIS and report preparation.	Mansir, 2067	Paush, 2067	600000.00		
	Conduction of first, second, third consultation and workshops.	Magh, 2067	Baisakh, 2068	500000.00		
		To	tal	1100000.0		
		In	words: Ele	ven lakhs only		
	Note: WUC = Water Users Committee	WUCC = V	Vater Users	Coordination Committee	WUG = Water Users Group	
	Prepared By	Re	commended	Ву	Approved By	

# SMIS Sitagunj Action Plan and Budget for Development of Canal Operation Plan

Subject::-Action Plan for Development of Canal Operation Plan for Sitagunj Secondary Canal

Objectives:- To deliver reliable bulk water service equitably at each branch canal head as per Irrigation Schedule agreed upon by WUA and

SMIP in the agreement

S.N.	Activities	Time Sc	hedule	Responsible Person	Assistant	Monitoring	Budget	Status/
		Beginning	Ending	•	Person	Person	(NRs.)	Completi
1	Water Availability							OII
1.1	Compilation of existing flow data of main canal	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha		
1.2	Analysis	-		Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
1.2.1	Monthly availability	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
1.2.2	Seasonal availability	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
2	Existing practices							
2.1	Documentation of previous practices adopted	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
2.2	Gate adjustment practices opt. by Chaukidars	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
3	Inventory of branch-wise command area based on	parcellary map						
3.1	Parcellary map preparation	6 <sup>th</sup> March 2011	14 <sup>th</sup> Jan2012	Er. Revakant Yadav	Mr.M.N.Das	S.D.E.K.K.Jha	800000	
3.2	Preparation of inventory chart with branch-wise including command area	-	-	Er. Revakant Yadav	Mr.M.N.Das	S.D.E.K.K.Jha	Not needed	
4	Consultation with WUA for water allocation chart							
4.1	Demand Assessment	15 <sup>th</sup> March,2011	13 <sup>th</sup> April,2011	Er. Revakant Yadav	Er. P.C.Jha	S.D.E.K.K.Jha	72000	
4.2	Loss assessment training to division staff	17 <sup>th</sup> April,2011	28 <sup>th</sup> April,2011	Er. Revakant Yadav	Er. P.C.Jha	S.D.E.K.K.Jha	48000	
4.3	Equipments for loss assessment to be purchased	15 <sup>th</sup> March,2011	13 <sup>th</sup> April,2011	Er. Revakant Yadav	Er. P.C.Jha	S.D.E.K.K.Jha	100000	
4.4	Loss assessment implementation	6 <sup>th</sup> March,2011	14 <sup>th</sup> Jan,2011	Er. Revakant Yadav	Er. P.C.Jha	S.D.E.K.K.Jha	300000	
4.5	Crop-water requirement (CWR) assessment	29 <sup>th</sup> April,2011	13 <sup>th</sup> May,2011	Er. Revakant Yadav	Er. P.C.Jha	S.D.E.K.K.Jha	40000	
5	Calibration of key structure							
5.1	Group formation with WUA	-	-	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	Not needed	
5.2	Calibration & development Chart	29 <sup>th</sup> March,2011	13 <sup>th</sup> May,2011	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	400000	
5.3	Gauge fixation	29 <sup>th</sup> May,2011	13 <sup>th</sup> June,2011	Er. Revakant Yadav	Er. R.L.Karna	S.D.E.K.K.Jha	65000	
						Total NRs.	18,25,000	

# SMIS Sitagunj Action Plan and Budget for preparation of Parcellary Mapping

Subject:- Parcellary Map Development

Objectives:- To prepare inventory of irrigated land and land owners through parcellary map development

O SJOODE TO P	p		01 11 11 800		***************************************	- 0 11 - 1 - 2	, <u>, , , , , , , , , , , , , , , , , , </u>	- Petr cerr	02 J 22200 P	22 ( 22 o p				
Branches	SS9A-T2	SS9B	SS9C	SS9D	S9-T1	S9-T2	SS9E	SS9F	SS9G	S9-T3	S9-T4	SS9H	SS9I	SS9J
Completion duration 6 <sup>th</sup> March,2011 to 15 <sup>th</sup> June,2011					16 <sup>th</sup> June,2011 to 30 <sup>th</sup> September,2011					1 <sup>st</sup> October,2011 to 10 <sup>th</sup> January,2012				
Area (Ha.)	128	987	458	566	319	191	722	541	882	66	325	364	1278	1094
Total area(Ha.)		2458				2727						2736		

# 2. Cost Estimates

. Cost I	Estimates										
S.	Activities	Type of	Number of	Total man	Time s	chedule	Responsible	Assistant	Monitor	Budget	Status
N.		manpower	manpower	days	Beginning	Ending	person	Person	ing	(NRs)	/compl
									Person		etion
1	Fixation of VDC's and their ward (surveyor)	surveyor	3	7 days	6March,	14 March,	Er.R.K.Yadav	M.N.Das		7350	i
		-		-	2011	2011					i I
2	Acquisition of map from Napi office and	surveyor	3	45 days	15 March,	29 March,	Er.R.K.Yadav	M.N.Das		47250	
	delineation of C.A. on the Acquired map	-		-	2011	2011					1
	(surveyor)										1
3	Copying the profile record of canal water users										
a)	Surveyor	surveyor	3	30	29 April,	29 May,	Er.R.K.Yadav	M.N.Das		31500	
					2011	2011					i I
b)	Survey helper (semi- skilled labour)	Chain-man		360 days	29 April,	29 May,	Er.R.K.Yadav	M.N.Das		90000	
				-	2011	2011					1
4	Field verification										
a)	surveyor	surveyor		250 days	30 May,	15 Sep,	Er.R.K.Yadav	M.N.Das		87500	
					2011	2011					1
b)	Labour	Chain man		500 days	30 May,	15 Sep,	Er.R.K.Yadav	M.N.Das		125000	
				-	2011	2011					1
c)	WUA members			375 days	30 May,	15 Sep,	Er.R.K.Yadav	Mr. Benu		112500	
				-	2011	2011		Poudel			l
5	Tracer / skilled			360 days	17 Sep,2011	30 Dec,2011	Er.R.K.Yadav	M.N.Das		122400	
6	Report preparation			•	1 Jan,2012	15 Jan,2012	Er.R.K.Yadav	Er.R.L.Karna		50000	
7	Blue print, map purchasing charge etc.						Er.R.K.Yadav	M.N.Das		25000	
8	Stationary, Permatrace paper etc.						Er.R.K.Yadav	M.N.Das		40000	
9	Survey accessories						Er.R.K.Yadav	M.N.Das		27000	i
10.	fuel						Er.R.K.Yadav			34500	
		•	Tota	1 Amount NRs.				•	·	800000	

# NIS Block 8 Action Plan for Pre-Agreement Activities

	the same of the sa	कमको का		क नं. ८, ना	सहयोग गर्ने	अनुगमन गर्ने	प्रगति / प्रगति
मती	कार्य%म विवरण	सुरु गर्ने मिती	समाप्त गर्नुपर्ने मिती	जिम्मेवार व्यक्ति	व्यक्ति	व्यक्ति	न्हुनाको कारण
१ स	स्भौता पत्र पुनराबलोकन	पुष-६,०६७	पुष-९,०६७	अजित श्रीवास्तवः/ ज.इ.स सन्दिव	पियुष शर्मा ∕ कूषि न्यीपाने	आयेजना प्रमुख/ज.उ.स. अध्यक्ष	;dfK
2 3	म्पूर्ण अनुसुचीहरूको पुनरावलोकन	पप-९	पुष १४				/dfKt
	धान पुनसवनोकन	gn-90	दुब-१०	ज.उ.स. अध्यक्षः/भविव	पियुर शर्मा		;dfK_
Y	ग्य भेक्षाजीसा सुधार	gn 99	ूष-१४	बिरेन्द्र कुर्मी	पिश्रूष शर्मा ∕ ऋषि न्यीपाने		;dfK
1 3	ार्थिक योजना नयारी	99-90	44-40	" "	"-"	" "	;dfKt
	स्परिक लगत सुधार	पूब-११	पुष-१०	ङ.उ.स. पदाधिकारीहरू	विरेन्द्र कुमी.	2	;dfK
	रंधन सुधार अधित नरावलोकन	पुष १२	पुष-१३	बिरेन्द्र कुर्मी	विकास भग		1000
द छ,स	ल उपभोत्ता संस्थाको नर्गठन/चुनाव हो टोली समिटी चुनाव हो सदस्यत/पानी सेथा शुल्क	युग-२८ युग-२०	भाष-१० ५४	चुनाव शीमती	ज.उ.स.	1 2	s file
3	भाउने	4	¥		आयोजना / राजेन्द्र	WX,	Was West
ग	। शाखा समिती	पुष-१६	भाध–२२		राधेश्याम	1 , 7	P. XX
12	<ol> <li>समन्द्रय समिती</li> </ol>	महध-२९	माध-२९			N	4
18	) चुनाव ममिती + समन्वय तिमतीको, वैठक	पुष-द	पुष-=	ज.उ.स. अध्यक्ष	सचिव		
	हार्यालय संचालन	ूप ६	पुष-€	ज. उ.स. अध्यक्ष	নবিব		dekt
	तनी उपलब्धता बैठक	पुष-९.	पूप-९.	आयोजना प्र.	ज.छ.स.	<u> </u>	dekt a
99 15	र्यनाड संबा शुल्क संकलन विजना	पुष-द	पुष ८	अध्यक्ष ज. उ. स.	सन्पिव	NITT.	: de
9= 3	१.३.स. नियमाञ्ची बैठक	्राप प्र	पृष१४	उपाध्यक्ष / अध्यक्ष	गिल्€ सजैन्द्र	1	;dfKt

# MIS Water Management Action Plan

Subject:-Mahakali Canal Operation Plan Development

Objectives:- To deliver reliable bulk water service equitably at each branch canal head as per Irrigation Schedule agreed upon by WUA and MIS in the agreement

S.N.	Activities	Time Sc		Responsible	Assistant	Monitoring	Budget	Status/
		Beginning	Ending	Person	Person	Person	(NRs.)	Completion
1	Water Availability							
1.1	Compilation of existing flow data of main canal	-	-	Er. Tara Prasad Bhatta	TA Team	Division chief		completed
1.2	Analysis	-		II	"	"		
1.2.1	Monthly availability	-	-	"	11	"		
1.2.2	Seasonal availability	-	-	II .	"	"		
2	Existing practices							
2.1	Documentation of previous practices adopted	-	-	Er. Vishnu Prd. Chaudhary	TA Team	Division chief	Not needed	
2.2	Gate adjustment practices opt. by Chaukidars	-	-	11	"	"	"	
3	Inventory of block-wise command area based (2 Block 2275 ha only)	d on parcellary map						
3.1	Parcellary map preparation	April 2011	June 2011	Surveyor Bijal Prd. Yadav	TA Team	Er. T.P. Bhatta Er. V.P. Chaudhry	227,000	
3.2	Preparation of inventory chart with blockwise including command area	-	-	"	"	"	Not needed	
4	Consultation with WUA for water allocation chart							
4.1	Demand Assessment	15 <sup>th</sup> April,2011	30 <sup>th</sup> April,2011	Er. T.P. Bhatta	TA Team	Division chief	40,000	
4.2	Loss assessment training to division staff	2011, 1 <sup>st</sup> May	5 <sup>th</sup> May,2011	=	"	II .	40,000	
4.3	Equipments for loss assessment to be purchased	10 <sup>th</sup> April,2011	13 <sup>th</sup> April,2011	"	"	"	50,000	
4.4	Loss assessment implementation	2 <sup>nd</sup> May,2011	15 <sup>th</sup> May,2011	"	"	"	100,000	
4.5	Crop-water requirement (CWR) assessment	20 <sup>th</sup> May,2011	30 <sup>th</sup> May,2011	11	"	"	40,000	
5	Calibration of key structure			"	"	"		
5.1	Group formation with WUA	-	-				Not needed	
5.2	Calibration & development Chart	30 <sup>th</sup> May,2011	15 <sup>th</sup> May,2011	Er. T.P. Bhatta	TA Team	Division chief	3,00,000.00	
5.3	Gauge fixation	20 <sup>th</sup> May,2011	15 <sup>th</sup> June,2011	Er. T.P. Bhatta	TA Team	Division chief Total NRs.	75,000.00 <b>8,72,000.00</b>	

Equipments:-

1	Cut-throat flume	4 nos
2	Ring infiltrometer	1 nos
3	2kg hammer	2 nos
4	Spirit level	4 nos
5	Steel Scale	10 nos
6	Hook gauge	4 nos

### MIS Action Plan for Parcellary Map

Objectives: - To prepare inventory of irrigated land and land owners through parcellary map development

### 1.0 Plan Chart

Stage I			Block A				Block B		Total area (Ha.)
	Gadda Minor	Main 2/1	Bhujela		Basantapur	Majhgaon	Mahendranagar	Tertiary from main	
			Distributary		Minor	Minor	Distributary	canal	
Completion duration	1 <sup>st</sup> May ,2011 to 30 <sup>th</sup> May, 2011				1 <sup>st</sup> June	2011 to 30 <sup>th</sup> June			
Area (Ha.)	120.00	35.80	925.70		182.10	293.60	581.80	108.00	1109.50+1165.5=2275.00

#### 2.0 Cost Estimates

S.N.	Activities	Type of	Number of	Tot	Time s	chedule	Responsible	Assistant	Monitoring	Budget	Status/
		manpower	manpower	man days	Beginning	Ending	person	Person	Person	(NRs)	complet- ion
1	Fixation of VDC's and their ward (surveyor)	surveyor	5	3	20 <sup>th</sup> March, 2011	22 <sup>nd</sup> March, 2011	Er. V.P. Chaudhary	TA Team	SMU chief	3,500	
2	Acquisition of map from Napi office and delineation of C.A. on the Acquired map (surveyor)	surveyor	5	5	23 <sup>rd</sup> March, 2011	27 <sup>th</sup> March, 2011	п	н	"	8,000	
3	Copying the profile record of canal water users								"		
a)	Surveyor	surveyor	5	10	29 <sup>th</sup> March,	08 <sup>th</sup> April,	"	"	"	20,000	
b)	Survey helper (semi- skilled labor)	Chain-man	5	10	09 <sup>th</sup> April, 2011	19 <sup>th</sup> April, 2011	"	"	"	32,000	
4	Field verification								"		
a)	surveyor	surveyor		50	20 <sup>th</sup> April, 2011	30 <sup>th</sup> April, 2011	"	"	"	20,000	
b)	Labor	Chain man		100	20 <sup>th</sup> April, 2011	20 <sup>th</sup> May, 2011	"	"	"	35,000	
c)	WUA members			50	20 <sup>th</sup> May, 2011	30 <sup>th</sup> May, 2011	"	"	II .	30,000	
5	Tracer / skilled			100	1 <sup>st</sup> June,2011	20 <sup>th</sup> June,2011	"	"	II .	35,000	
6	Report preparation				20 <sup>th</sup> June,2011	25 <sup>th</sup> Jun,2011	"	"	II .	15,000	
7	Blue print, map purchasing charge Stationary, etc.				, -	, -	II .	"	II .	8,000	
9	Survey accessories						"	"	"	16,000	
10.	fuel						"	"	"	7,500	
								Tota	I Amount NRs.	227,000	

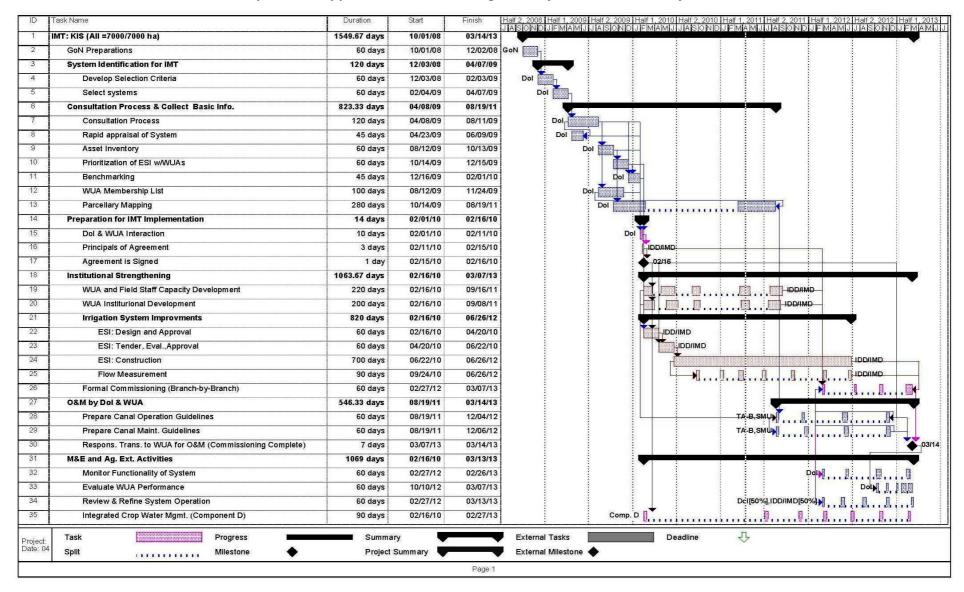
MIS Revised Annual Action Plan for Training Program for 2011 (F/Y B.S. Chaitra 2067- Asadh 15, 2068)

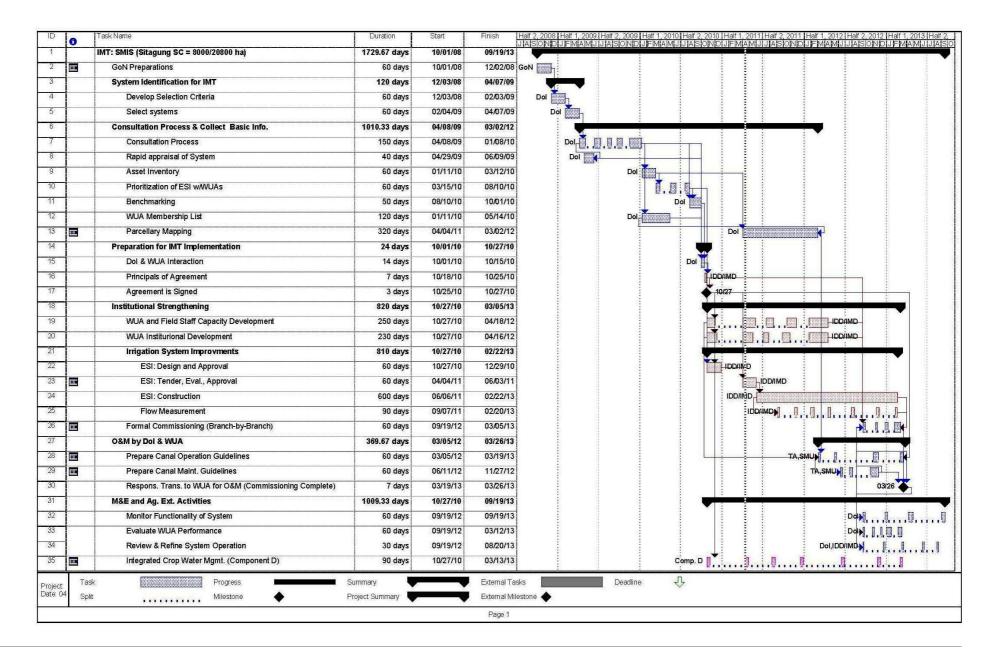
**Objectives:** Institutional development, Strengthening of WUA and capacity building of MIS staffs.

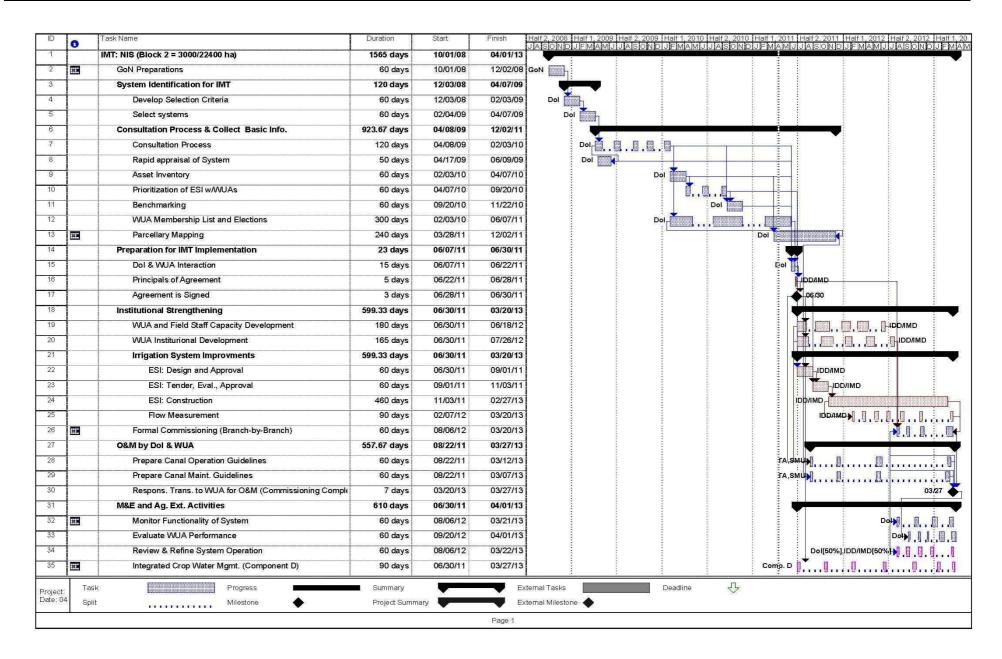
	Training Packages	Target Group &	Target Numbers	Time Schedule		Responsible Person	Assistant Person	Monitoring Person	Amount (NRs)
S.N. Activities	1 ackages	Branch		Beginning	Ending			1 (150)	(1417.5)
Administration and office management training (for chairperson, vicechairperson and secretary of WUC and WUG, 2 days training, 25 participants at each package)	3	BC & TC	75	Chaitra,2067	Chaitra, 2067	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	200,000
Basic account and record keeping training (for block & tertiary chairperson, secretary and treasurer, 2 days training, 30 Participants in each Package).	1	BC & TC	30	Baisakh, 2068	Baisakh, 2068	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	75,000
ISF collection and management training (for WUC and WUG members, 2 days training, 30 Participants in each Package).	7	BC & TC	210	Chaitra, 2067	Baisakh, 2068	Sociologist	SMU staffs , TA & Resource person	SMU-Chief, Engineer	400,000
Training of Trainers (for MIS Staffs and WUA, 3 days training, 25 Participants in each Package).	1	SMU & WUA	25	Falgun, 2067	Falgun, 2067	Div Chief	SMU staffs , TA & Resource person	SMU-Chief, Engineer	80,000
Consultation Workshop with WUA as an when needed.	1	WUA	40	Falgun, 2067	Falgun, 2067	Eng/AO	SMU staffs , TA & Resource person	SMU-Chief, Engineer	75,000
Annual Progress Review workshop with WUA.	1	WUA	25	Jestha, 2068		Engineer	SMU staffs , TA & Resource person	SMU-Chief, Engineer	50,000
Study Tour For WUA and MIS Staffs									
Water Management, Canal Operation and Maintenance Study tour to Selected Member of Each Block Committee, 5 days tour, 30 Participants.	1	ВС	30	Chaitra ,2067	Baishak, 2068	Socio/AO	SMU staffs , TA & Resource person	SMU-Chief, Engineer	300,000
	_1	<u>I</u>				1	<u> </u>	Total	1,180,000

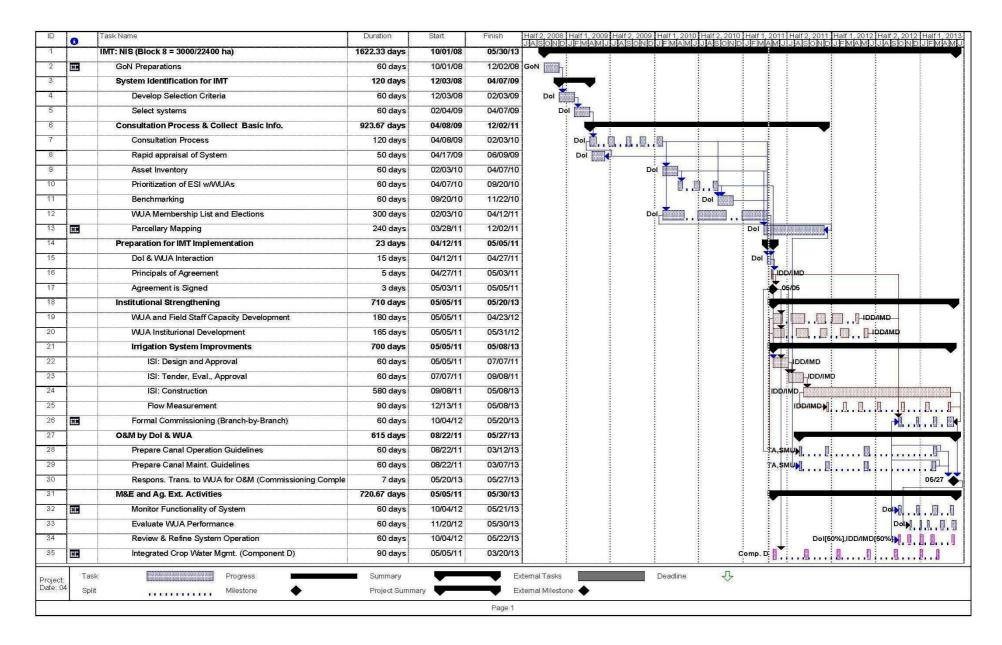
In Words: One Million One Hundred Eighty Thousand

# **Component B Appendix 4: Timeline Progress Projections for Sub-Projects**









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