EASTERN NILE SUBSIDIARY ACTION PROGRAM (ENSAP)

EASTERN NILE TECHNICAL REGIONAL OFFICE (ENTRO)

WATERSHED MANAGEMENT PROJECT

Project Implementation Plan

Volume 4 – Annexes G-K

Halcrow Group Limited
in association with
Metaferia Consulting Engineers

Eastern Nile Regional Technical Office (ENTRO)

Integrated Watershed Management (Ethiopia)
Watershed Project, Fast-Track Project
Detailed Project Preparation

Project Implementation Plan
Volume 4 – Annexes G-K

December 2007

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in association with

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Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed
01	00	Draft final report submitted to ENTRO	16 Nov 2007	MFW pp JA Gartner
02	01	Final report submitted to ENTRO	24 December 2007	MFW pp JA Gartner
02	02	Minor edits incorporated	27 December 2007	MFW pp JA Gartner

This report is presented in four volumes as listed below:

Volume 1: Project Implementation Plan

Volume 2: Annexes A-E

A. Project area description

B. Unit cost guidelines

C. Project cost estimates

D. Economic and financial analysis tables

E. Guidelines for community action planning and implementation

Volume 3: Annex F

F. Social and environmental assessment

Volume 4: Annexes G-K

G. Training plan

H. Terms of Reference for project staff

I. Monitoring and evaluation indicators

J. Financial management plan

K. Action plan for the first 18 months

Acronyms

ACSI	Amhara Credit and Savings Institute
AfDB	African Development Bank
AIMO	Industrial Association of Mozambique
AMAREW	Amhara Micro Enterprise, Agricultural Research, Extension and Watershed Management Project
ANRS	Amhara National regional state
ARARI	Amhara Regional Agricultural Research Institute
BoARD	Regional State Bureau of Agriculture and Rural Development
BoFED	Bureau of Finance and Economic Development
BoWRD	Bureau of Water Resources Development
BP	Bank Policy (of the World Bank)
CAD	Computer Aided Design
CAP	Community Action Plan
CIT	Catchment Implementation Team
COOPI	Cooperazione Internazionale
CPCO	Catchment Project Coordination Office
CPSC	Catchment Project Steering Committee
DA	Development Agent
DAP	Dia ammonium phosphate (chemical fertilizer)
EA	Environmental assessment
EIA	Environmental impact assessment
EMP	Environmental management plan
ENSAP	Eastern Nile SAP
ENTRO	Eastern Nile Technical Regional Office
EPA	Environmental Protection Authority
EPLAUA	Environmental Protection, Land Administration and Use Authority
ETB	Ethiopian Birr
FAO	Food and Agriculture Organisation
FTC	Farmer training centre
GEF	Global Environment Fund
GIS	Geographic Information System
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HH	Household
IDEN	Integrated Development of the Eastern Nile
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
IWMP	Integrated watershed management project
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
KWC	Kebele watershed committee
LFA	Logical Framework Approach
LFM	Logical Framework Matrix
M&E	Monitoring and Evaluation

MCA	Multi-Criteria Assessment
MERET	Managing Environmental Rehabilitation in Transition to Sustainable Livelihoods
MoARD	(Federal) Ministry of Agriculture and Rural Development (in Ethiopia)
MOV	Means of Verification
MoWR	(Federal) Ministry of Water Resources (in Ethiopia)
MSC	Multi-Selection Criteria
MSF	Medecin sans Frontieres
NBI	Nile Basin Initiative
NELSAP	Nile Equatorial Lakes SAP
NGO	Non-Government Organization
NILE-COM	Nile Council of Ministers
NPV	Net present value
NRM	Natural Resources Management
NTFPs	Non-Timber Forest Products
O&M	Operation and maintenance
O&M	Operations and Maintenance
OARD	Offices of Agriculture and Rural Development
OP	Operational Policy (of the World Bank)
ORDA	Organisation for Rehabilitation and Development in Amhara
OVIs	Objectively Verifiable Indicators
P&IWMD	Participatory and Integrated Watershed Management and Development
PC	Project Coordinator
PCU	Project Coordination Unit
PDO	Project Development Objective
PIPs	Project Implementation Plans
PLUP	Participatory Land Use Plan
PRA	Participatory Rural Appraisal or Participant Response Analysis
PSC	Project Steering Committee
PWS	Public water supply
SAP	Subsidiary Action Plan
SIDA	Swedish International Development Agency
SMS	Subject matter specialist
SWC	Soil and water conservation
SWHISA	Sustainable Water Harvesting and Institutional Strengthening in Amhara
TBIWRDP	Tana Beles Integrated Water Resources Development Project
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WB	World Bank
WBISPP	Woody Biomass Inventory and Strategic Planning Project
WFO	World Football Organisation
WFP	World Food Programme
WSS	Water supply and sanitation

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Annex G: Training Plan

November 2007

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Contents

1 Training Plan

1.1 Overview of capacity building within the project

Institutional strengthening is required at all levels (other than Federal) to support implementation and sustain the project outcomes. This follows the assessments of current capacity and reflects both the need to embrace an integrated development approach in a participatory manner and the lack of facilities at local levels.

The measures taken to build institutional capacity are focussed on the roles each organisation has to take on during and after project implementation (see Annex J). The principal elements of the capacity building are outlined below.

Wereda and Kebele levels

Being at the forefront of the implementation process, the effectiveness of the project's interface with the communities and user groups is of paramount importance. The government agencies lack facilities and capacity to manage this interface. The project therefore will provide additional office space, furniture and equipment, transport and temporary accommodation in the project area to facilitate a project presence close to the communities.

The effectiveness of the interface with the communities depends upon the capacity of Development Agents (DA) supported by SMS from relevant partner organisations at Wereda level. There will be a massive upswing in their workload during the project. This will not persist at the same level after the project. The project will therefore provide additional resources in each catchment through establishment of three Catchment Project Coordination Offices (CPCO). Each CPCO will be supported by a Catchment Implementation Team (CIT), made up of up a finance team, five technical specialists and on average six full time community mobilisers. These will operate in support of the DAs principally at kebele level and be managed by three Catchment Project Coordinators, also provided under the project. Each CIT will work closely with designated *focal points* in each of the five weredas that the project will operate within.

Training will be provided to kebele staff, SMS and DAs in topics including community mobilisation techniques, technical subjects etc. A substantial provision has been made also for user group training as a follow up to the various interventions planned.

Regional level

The Bureau of Agriculture and Rural Development will be supported by a small Project Coordination Unit to assist the Bureau in managing the project. The PCU will be headed by a national project coordinator externally recruited though an open process. The project coordinator will be supported by a full-time Training Manager, M&E expert and technical specialists in agriculture, SWC and GIS and database applications. Further provision is made for national and international short-term specialist staff.

1.2 General approach to training

1.1.1 Introduction

Training of all stakeholders is essential for the successful implementation and sustainability of the entire Project. At the start of the Project, it is crucial that all stakeholders are properly trained in the concepts and all aspects of integrated watershed development and livelihood improvement. Based on training needs assessments, the Project will develop and implement a comprehensive training programme for all stakeholders.

Practical Orientation in Training

Training is the part of institutional capacity building that targets human resource development. In institutional strengthening, the emphasis should not be on general training but instead on praxis-oriented training. Focussing on the specific new skills and disciplines will prepare the ground for effective capacity building. The Project should prepare tailor-made and demand-driven training courses, whereby the content of each training course is based on the assessed training needs of the envisaged trainees. Further, the aim is to develop training curricula and materials for each training course. The preferred training methods are (participatory) adult-learning training techniques, including:

- On-the-job training;
- Formal training courses;
- Workshops, seminars and conferences; and
- Exchange visits.

Training Approach and Methodology

The overall success of the Project will to a large extent depend upon the effectiveness of the provided training and human resources development. The proposed training methodology and techniques as well as the participatory training techniques to be used to ensure the effective transfer of knowledge and expertise are presented below.

Training Methodology and Techniques

The Project should adopt a highly interactive, participatory methodology for the planning, preparation, implementation and evaluation of training. An essential feature of the highly interactive, participatory training methodology is that distinctions between trainees, resource persons and trainers/facilitators are much less as compared with classical training. The participatory training methodology recognises that all participants, regardless of their background and level of education possess knowledge and can make a contribution to solving the joint problem, whereby every trainer or resource person is a participant and each participant is a resource person. Nobody knows everything and everybody knows something.

Participatory and facilitative role of trainer

Traditionally, trainers act as instructors/lecturers by imparting knowledge to farmers, who adopt a passive role of merely receiving information without opportunities to exchange and

discuss information and experiences. To ensure that the training programmes are experience- and participation-oriented, the role of the trainer and his/her relationship with the adult trainees will contrast significantly from that of instructor/lecturer-type of trainer as he/she will be more a facilitator. Distinctions between trainees and trainers-facilitator are much less as compared with classical training. It is important to recognise that all participants in a training course, regardless of their background and level of education, possess knowledge and can make a contribution during discussions. The main features of the attitude and role of the trainer-facilitator are:

- to be knowledgeable about the training subject but accept that there is no monopoly of wisdom or knowledge on the part of the trainer;
- to listen to the adult trainees and respect their knowledge, experiences and perceptions;
- to be observant in order to notice group dynamics and interactions between individual and/or groups of trainees;
- to give the adult trainees the confidence to share their knowledge and experiences, including the use of different methods to ensure that all trainees have the opportunity to participate;
- to be able to communicate in plain language without using fancy words and jargon;
- to ask focused questions to encourage trainees to participate actively as well as to clarify certain issues;
- to be organised by having all necessary materials and logistics prepared and keeping the overall objectives of the training course in mind throughout the entire process;
- to be responsive to trainees' needs for (additional) training and flexible in organising the course and/or adapting training methods and tools; and
- to be assertive without controlling by knowing when to intervene during discussions and provide guidance and when to stay quiet.

Participatory Training and Learning Techniques

To facilitate the exchange of experiences and the active participation of adult trainees during the training courses, different participatory training and learning techniques should be used by the trainer-facilitator in addition to lectures and presentations. Evaluations of training programmes have revealed that people remember only 20% of what they hear, 40% of what they see and 80% of what they have done themselves. Therefore, trainees should be given the opportunity to practice the training subjects as much as possible during the training sessions, so that they will be able to apply the newly acquired knowledge and skills in the real world following the training courses.

Depending on the training topics as well as training venue, the following participatory training and learning techniques could be used during training courses for adult trainees:

- Small group discussions, including brainstorming;
- Role play;

- Case study;
- Exercise;
- Field walk and observation; and
- Demonstration.

Another very effective training methodology is the organisation and implementation of exchange visits in order to facilitate “two-way leaning” (or experience-sharing) through observation, demonstration and exchange information and experiences. During an exchange visit to another Kebele/micro-watershed, for instance, KWC members and the DAs would have the opportunity to learn about relevant issues related to the planning, preparation, execution and management of integrated watershed development interventions, including the development of a PLUP and CAP.

1.1.2 Basic principles and procedures of the participatory training methodology

The state of training technology is such that its implementation has become a matter of applying basic principles and procedures. With respect to training principles, well-developed guidelines apply that have been tested, proven, and re-proven over the past several decades and in a number of different environments. In essence, training is a mechanical process that focuses on skill development among participants. This and other principles are provided below to indicate how the Project should implement training for different stakeholders at different levels.

Adult Orientation

Adult oriented training is based upon the realisation that instruction for adults is very much different than for young people. It stipulates that training exercises are designed to build upon the experience and maturity of adults as a point of departure. In general, the overall level of adult training is higher and much more practical than skill training for young people. To prepare and implement training for adults, it is important to understand that adults differ from children in the way they learn. For any training for adults to be effective, it is important to take the following aspects of adult learning into account during preparation and execution of training programmes for adults:

- **Needs and interest orientation**: Adults learning needs and interests are the appropriate starting points for organising adult learning activities;
- **Life and work orientation**: Adults learn best when it is clear that the context of the training is closely related to their own envisaged tasks and jobs and the subjects should not be too academic or theoretical;
- **Experience orientation**: The experiences of adults are the richest resources for adult learning and sharing and learning from these experiences should be at the core of adult learning; and
- **Participation orientation**: Adults learn best in an atmosphere of active involvement and participation, whereby adults exchange/share, analyse/discuss and evaluate information.

To ensure that each training course is focused on the needs and interests as well as envisaged tasks and jobs of the adult trainees and that sharing and learning from the experiences of the trainees forms the core of the training courses, it is crucial that each training course are as practical as possible that that it is structured as follows:

- Short inventory of existing knowledge and experience about the training topic among the trainees at the start of each training session using white board or flip chart;
- Short presentation by the trainer, during which he refers to recorded knowledge and experience of trainees;
- Plenary discussion about the trainer's presentation; and
- Use of participatory training and learning techniques, such as exercise, case study, demonstration and/or small group discussion, to give the trainees the opportunity to use the newly acquired skills and knowledge.

Demand-Led Training

Demand for training does not arise spontaneously as people need information to be aware of existing opportunities. It is important that demand is "informed demand" otherwise unrealistic demands will arise. Developing demand-led training is not a simple matter of waiting for farmers to make spontaneous suggestions. A process has to be in place to allow and encourage people to review existing performances and to consider options for improvement before they make specific demands for training.

Practical Training Orientation

Practical training orientation is a guideline used to keep instructional systems design away from theory and in the realm of useful, meaningful, rewarding and rapid skill development. Under this guideline, training in practical skills would be conducted largely in the field, whereas development of skills through instructional techniques based on lectures or reading, should be limited, as these are highly ineffective learning media.

Training by Objectives

Training by objectives is alternatively referred to as criterion-referenced training. It involves establishing learning objectives that are skill-oriented, demonstrable and measurable. Such objectives are broken down into tasks and sub-tasks to be achieved in the process of mastering an objective. In this manner, training begins with basic skill development and moves progressively to higher and more complex skills.

Skill Measurement

Skills are easily measured. Given a specific task, observations can quickly be made on the trainee's performance within time and measurement parameters. These parameters need to be specified, understood and practiced before the trainee is considered qualified.

Performance Evaluation

Trainee performance needs to be evaluated or it becomes a less meaningful exercise. Such evaluation is the responsibility of the trainer, who is not only obligated to establish measurable

training objectives, tasks and sub-tasks, but also to witness how well these tasks are performed by the trainee. It may require several attempts before skills are perfected, but each effort should be evaluated and graded as being either successful or unsuccessful. A combination of successful efforts indicates that the trainee is qualified to begin performing more complex tasks.

Trainer Demonstration

The trainer should first demonstrate each task and sub-task that makes up a training objective. After such demonstration, the trainees may begin to practice these tasks. In this manner, the trainees learn first by observing, and then by putting into practice what they have seen. Several attempts over several days or even weeks may be required to master complex tasks.

Managing Skill Training

Inevitably, some trainees master tasks more rapidly than others do. These fast learners should not be held back, but encouraged to complete their training program at their own pace. This means that the instructor has to manage trainees who may be several different levels apart in their assigned programme.

On-the-Job Training

It should be clear that on-the-job training is a much better environment for hands-on training than lectures. This is one reason why on-the-job training is consistently emphasised in skill development. However, the on-the-job training process itself should be structured. It should have a beginning and an end, it should have a syllabus, and it should result in a reward. Moreover, practical on-the-job training exercises should be standardised to the point where learning tasks are highly repetitive and can therefore be evaluated regardless of who is performing them, or when they are performed.

On-the-Job Training Task Checklists

An on-the-job training syllabus consists of a list of tasks and sub-tasks to be achieved by a trainee involved in the on-the-job process. Each task shown on the on-the-job training checklist should contribute to mastering a specific training objective. In the process, task performance may be repeated as often as necessary to meet time, quality, and safety criteria.

Completing an On-the-Job Training Programme

The on-the-job training programme is completed when the trainee is able to successfully perform checklist tasks. After completing assigned tasks, it is desirable to acknowledge the trainee's accomplishments and thereby reward the trainee somehow for efforts made. This may be in the form of a new job assignment, more pay and/or a certificate.

1.1.3 Preparation for participatory training delivery

Application of the above know-how transfer and skill training principles requires preparation. For instance, training curricula need to be written, handouts and other training materials

designed, on-the-job checklists formulated, and training content identified. These preparatory issues are summarised as follows:

Training Needs Assessment

A considerable amount of training has taken place in the world without reference to trainee needs. In reaction to this, training needs assessment techniques were identified and applied some several decades ago. Basically, the argument for training needs assessment is that decisions regarding training needs should not be made by individuals removed from the people to be trained, but rather by trainees themselves. To ensure that any training course matches with the actual training needs and interest of the envisaged trainees and to avoid preconceived ideas about the training needs for different group of farmers, training needs assessments should be conducted prior to the preparation of training programmes.

Training Curricula

Training curricula refer to the detailed instructional guide, or lesson plan, used by trainers. Typically, this includes learning objectives, task and sub-task descriptions, time and quality criteria for task completion, key words, lecture notes, time allowed for each subject. Training curricula may be linear or modular. Linear training curricula consists of a related sequence of instruction that must be completed from beginning to end, whereas modular training curricula is a stand-alone sub-section of curricula that is self-contained. The advantage of modular training curricula is that trainees can be given instruction in areas of weakness without having to follow the full curricula.

Training Materials

To support the implementation of training, appropriate training material shall be developed and prepared for each training course, such as:

- Flip charts/PowerPoint presentation with main aspects of training topic, which shall be used by the trainer to structure the training course;
- Models, drawings, pictures, maps and/or examples of prescribed forms, which shall be used by the trainer to illustrate and/or demonstrate a specific training topic during the training course;
- Exercises, case studies and role play, which shall be used by the trainer to allow the trainees to practise their newly acquired skills and knowledge during the training course;
- Handouts to help trainees to visualise and examine concepts, diagrams, and illustrations and thereby advance their understanding of subject matter; and
- Trainee workbooks are, as the name implies, interactive materials, in which calculations, drawings, self-tests, notes, and illustrations can be entered.

1.1.4 Modalities for effective participatory training

To ensure the effective participation from adult trainees in any training course, the following modalities shall be taken into account during the planning, preparation and execution of any training course:

- Selection of venue accessible for all envisaged participants of training course;
- Timing of training when people have time to participate;
- Duration of training day and training course should not be too long;
- Limited number of topics per training course;
- Limited number of participants per training course.

Location of Training Courses

In principle, training should be brought to the trainees instead of bringing the trainees to the training. However, the execution of some training courses may be restricted to offices and formal training rooms as essential training facilities, such as audio-visual equipment, models and demonstration sites, have to be used during the training course.

Timing of Training Courses

In addition to the selection of the training venue, the effective participation of the envisaged trainees also depends upon the timing of the training courses. For instance, any training course for the KWC must be planned in consultation with the concerned KWC members in order to avoid that training is planned during seasonal and daily periods of peak labour demands. Furthermore, each training course shall be conducted shortly before the trainees have to use the knowledge and skills acquired during the training session. If a training course is planned too early, the trainees may have forgotten most of the trained skills at the time that they have to use them actually.

Duration of Training Course and Number of Topics

In particular for training courses at Kebele level, the learning abilities of the trainees shall be taken into account. Therefore, it is recommended that:

- Training day does not last longer than 4 to 5 hours with sufficient breaks;
- Training course does not last longer than two to three days; and
- Number of training topics is limited during each training course.

Number of Participants per Training Course

To ensure the effective participation of all participants, the maximum number of trainees for each training course shall not be more than 20 to 25 persons.

1.3 Training components

A detailed training needs assessment will be conducted at the outset of the project by the Training specialists in the Project Coordination Unit. Provision has been made at this stage for the following training to be delivered.

Training of Development Agents and kebele staff including kebele watershed committees

Training for Development Agents and kebele staff is expected to focus in three areas. Firstly they need to be briefed on their role in the project, their responsibilities and the procedures that they will be expected to follow. Secondly, Development Agents and kebele staff will need to understand the choices that the different interventions offer to the communities, their merits and the implications they have for the commitments communities will need to make during implementation and thereafter to sustain the outcomes. Thirdly, they should be introduced to the techniques of community mobilisation and how the community action planning should work.

Kebele councils

Training for the kebele council should cover similar topics as above, but at a more general level. The main focus should be on the project process and procedures and ensuring the councils understand their specific roles and responsibilities

Cooperatives

Cooperatives are an important institution within the project area and are able to enhance the availability and quality of input supplies and of marketing opportunities for community produce. Whilst acknowledging that there are opportunities for the private sector to directly promote their services to the communities, nevertheless the existing cooperatives have an important role to play. Thus the focus of training for cooperatives is to help them deliver a better service to their members through greater awareness of community needs in terms of the right mix of quality supplies, the opportunities to diversify products they support and for collective marketing in a manner to increase product value.

Subject matter specialist staff (SMS)

The role of SMS staff drawn from the various agencies at wereda level is extremely important in introducing improved technologies and techniques to the communities. However, firstly they need to understand what the project's aims and objectives are and to appreciate the importance of their own contributions to these aims. Secondly, they need to be introduced to the specific measures that are likely to be taken up by the communities under the CAP process and be able to discuss these with the communities in a meaningful manner that will convince the communities that these are worthwhile activities to engage in and to sustain thereafter. Thus SMS will need to know not only about the technical aspects of their subjects, but also how to communicate the value of these in terms the community members will understand.

Training of local contractors

Local contractors will be employed where the scope of works exceed the community's capacity to implement an intervention and/or where it is expedient to have contractors manage a construction programme. The focus of training for local contractors will be on construction techniques, improvements in planning and implementation efficiency, quality control and understanding the terms of contract offered to them.

Training of user groups

User group training has been given a substantial provision in recognition that it is these groups who primarily will sustain the outcomes of the project. The nature of training will clearly reflect the activity which the user group will be involved in, but will generically cover the following.

- **Organisation**: Most user groups will be informal and do not require legal recognition. However, where it is considered beneficial for the group to have legal status, then the group needs to know how to achieve this. Whether formal or informal, nevertheless there is always a need to establish a sense of organisation within the groups and the training in this area needs to help the groups arrive at solutions that best fit their particular aspirations and requirements.
- **Budgeting**: Groups operate by sharing activities within the membership, who are expected to contribute to the collective good either with cash, kind or their labour. The mix of these contributions depends upon the activity in question. The group needs to have in place arrangements satisfactory to all members that will ensure these contributions are both understood and forthcoming. Where cash is concerned, the need for bank accounts and appropriate accounting procedures has to be considered.
- **Techniques and procedures**: The third area of training needs to address the techniques and procedures adopted by the group in their chosen activity. The focus should be on driving value out of their contributions to the group in both the short and long terms. Thus, the concept of whole life costing needs to be introduced in terms that the group members can understand as well as introducing better ways of operating and maintaining their shared assets.

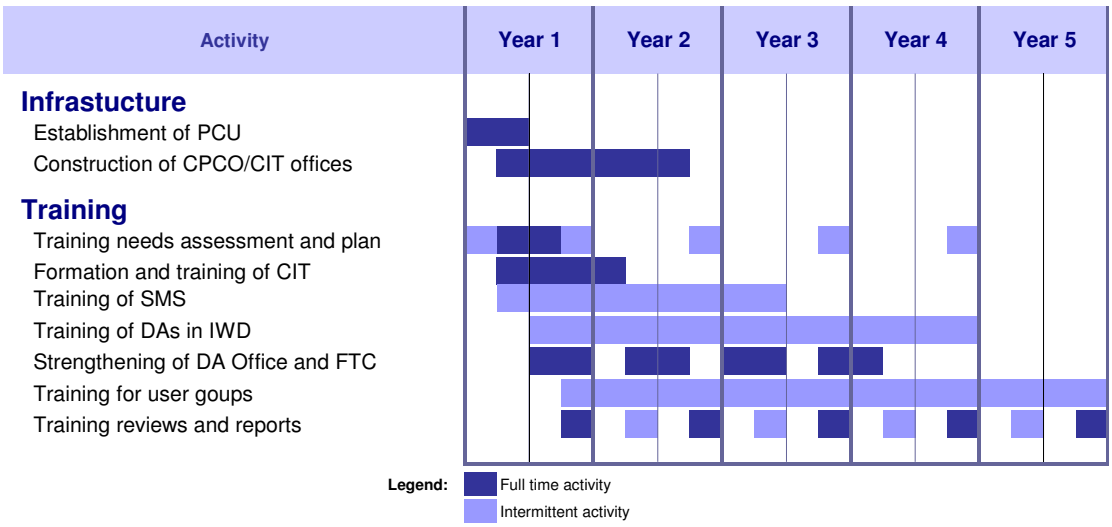
Training of health extension workers

Health extension workers have an important role in the project to promote a healthier and more productive community that is more capable of sustaining the project outcomes. Refresher training will be provided focussing on basic hygiene improvement, the opportunities to and value of improved diets and malaria control.

1.4 Training programme

The proposed programme for training, subject to detailed training needs assessments and planning is shown below.

Training and capacity building programme



1.5 Training costs

The estimated base cost of the training programme under the project is **ETB 4,104,800**. This allows for a total of 3,153 training events at an average cost of ETB 1,302 per event or 81,895 trainee-days at an average cost of ETB 50 per trainee-day.

Further details are given overleaf.

Training costs

Course / item	Unit	No. of trainees	No. of events	Days per event	Trainee days	Per diems/ trainee day Birr	Other charges per event (Birr)	Trainer costs per event Birr	Total cost Birr
Training of kebele staff		*Training of nebele staff and cooperatives in 35 kebeles using DA and someines external traineers*							
DA Office Training Budget	Birr		1,225	-				200	245,000
Kebele watershed committee	Birr	20	350	1	7,000		100		35,000
Cooperative	Birr	15	700	1	10,500		100		70,000
Kebele Council	Birr	10	175	1	1,750		100		17,500
Total		**45**	**1,225**		**19,250**				**367,500**
Training of subject matter specialist staff		*Training of SMS staff at Wereda level using external trainers*							
SMS staff in Wereda	Birr	125	18	2	4,500	50	1,000	10,000	423,000
SMS staff in Baher Dar	Birr	125	18	2	4,500	100	2,000	10,000	666,000
Total		**125**	**36**		**9,000**				**1,089,000**
Training of district agents		*Training of 3no. District Agents per kebele in 35 kebeles using trained SMS staff and sometimes external trainers*							
Batch 1	Birr	33	42	4	5,544	60	180	1,000	382,200
Batch 2	Birr	36	35	5	6,048	60	180	1,000	404,180
Batch 3	Birr	36	28	6	6,048	60	180	1,000	395,920
Total		**105**	**105**		**17,640**				**1,182,300**
Other training		*Training of local contractors, 350 user groups and extension workers in 35 kebeles by DA and external providers*							
Training of local contractors	Birr	20	12		480	100	2,000	10,000	192,000
Training of user groups	Birr	7,000	1,750	1	35,000		200	500	1,225,000
Training of health extension workers	Birr	105	25	2	525	60	200	500	49,000
Total		**7,125**	**1,787**		**36,005**				**1,466,000**
Total		**7,400**	**3,153**		**81,895**				**4,104,800**
			Birr/event		Birr/Trainee-day				
			1,302		50				

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Annex H: Terms of Reference for Project staff

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1 Terms of Reference for PCU staff

1.1 Project Coordination Unit

The overall role of the Project Coordination Unit is to support the Project Steering Committee (PSC) in fulfilling its responsibilities under the Project, viz.:

- Overall project coordination and reporting
- Recruitment and mobilisation of Catchment Implementation Teams
- Establishment of planning, implementation and expenditure guidelines
- Procurement of major items and contracts
- Technical guidance and quality assurance
- Compilation of overall workplans and budgets
- Approval of Wereda annual work plans (incl budgets)
- Monitoring, evaluation and assessment
- Addressing replicability issues
- Allocation, disbursement and accounting of project funds
- Preparation of reports and papers for the Project Steering Committee

1.2 Long-term national staff

Project coordinator

The Project Coordinator (PC) will be responsible overall for the day-to-day management of the PCU and the achievement of its objectives in assisting the PSC as above. S/he will liaise closely with the appointed focal pints in each wereda.

Training Manager

The Training Manager will be responsible for delivery of all elements of the training programme. Supported by the Training Specialist, s/he will conduct the necessary training needs assessments amongst each target trainee group, and will develop appropriate training modules for each, making best use of material available from other projects within Ethiopia. S/he will establish an overall training delivery programme, identify appropriate training deliverers and venues and draw up agreements for these.

The Training Manager will put in place a training monitoring process within which records of all training delivered will be recorded and summarised in progress reports. In addition s/he will establish a training feedback process to monitor whether the training delivered is properly and

Training feedback will be monitored regularly and summarised quarterly. Successive annual work plans will be modified based on this feedback.

M&E expert

The M&E expert will establish a comprehensive monitoring and evaluation programme for the project. S/he will then be responsible for implementation of that programme on annual basis through appropriate agencies/organisations and for the compilation of all reports for submission through the (PC) to BoARD.

Agricultural specialist

The Agricultural specialist will be responsible for ensuring that the livelihoods components under Theme A are established in a rational and appropriate manner and without delay. In this regard, s/he will review and elaborate the scheduling of all Theme A activities and prepare a detailed work plan for the entire project duration in a manner that provides a framework for annual work planning to be undertaken within. S/he will assist with organising the recruitment of relevant staff or the letting of contracts as required under Theme A.

Soil and Water Conservation specialist

The Soil and Water Conservation specialist will be responsible for ensuring that the soil and water conservation, water supply and sanitation and irrigation components under Theme B are established in a rational and appropriate manner and without delay. In this regard, s/he will review and elaborate the scheduling of all relevant activities and prepare a detailed work plan for the entire project duration in a manner that provides a framework for annual work planning to be undertaken within. S/he will assist with organising the recruitment of relevant staff or the letting of contracts as required through under Theme B.

GIS and database applications specialist

The GIS and database applications specialist will be responsible for establishing spatial and other databases required to support the functions of the PCU. Databases required are expected to include, but not be limited to, maps of the project area delineating where project activities are being undertaken or are planned to be undertaken, records of physical and financial progress and data and outputs generated by the monitoring and evaluation activities. S/he will be responsible for maintaining these databases throughout the project, and for undertaking spatial analyses as required from time to time by other team members (eg physical planner).

Senior administrator

The senior administrator will be responsible to the PC for the administration support for the PCU including establishment and maintenance of office facilities, equipment and transport, filing systems, petty cash management and the like.

Administrative support staff

The administrative support staff will assist the senior administrator in fulfilling his/her role.

1.3 Short-term national staff

M&E specialist (natural resources)

The M&E specialist will support the M&E expert by devising that part of the monitoring programme specifically aimed at monitoring impacts on the landscape, erosion and sediment flows in the rivers. The M&E specialist will ensure these aspects of the annual monitoring programmes are conducted in a correct manner and will analyse and report on the results of the baseline and subsequent surveys.

Training specialist

The training specialist, supported by the international training specialist, will conduct a full training needs assessment for the different trainee categories under the project. S/he will then establish a comprehensive training programme including, but not limited to, development of training modules, identification and recruitment (as appropriate) of trainers, training of trainers, scheduling of training events, administrative records and establishment of feedback mechanisms and enrichment of the programme. S/he will prepare 6 monthly reports on training delivery.

Contracts/procurement specialist

The Contracts/procurement specialist will set up pro forma contracts and agreements to be used throughout the project wherever contracts and agreements are required. S/he will ensure that such contracts and agreements conform with Government and funding agent requirements and are in a form which best serves the interests of the project to achieve the desired outcomes.

Financial specialist / auditor

The Financial specialist / auditor will be responsible for establishing the financial management systems required to manage and monitor the flows of project funds throughout the project. To this end s/he will set up project accounting manuals for the PCU, wereda finance officers and kebele cabinets establishing the procedures to be followed in each case. S/he will develop training modules for delivery to those involved at all levels in disbursement and accounting of project funds. In addition s/he will conduct an audit each year of project accounts in a form satisfactory to the funding agents to determine that funds are being used and accounted for appropriately.

Micro-credit specialist

The Micro-credit specialist will work the international micro-credit specialist to review and determine the needs and most appropriate manner for delivery of micro-credit within the project area in support of project activities and objectives. Alternative mechanisms will be considered including, but not limited to, making use of the facilities and resources of ASCI. Establishment of a revolving fund will be considered along with the necessary charging structures and overhead fees to ensure sustainability of the fund beyond the lifetime of the project. S/he will also be responsible for monitoring micro-credit activities on a 6 monthly basis once the fund is established.

Physical planner

The physical planner will undertake an overview study of broad development trends within and surrounding the project area with a view to identifying where growth centres can be expected and should be encouraged and how infrastructure development within the project can be packaged in a manner that contributes to the this growth. As part of this, s/he will review all projects and development activities current and planned and assess how these may influence the implementation of the project in a mutually constructive manner.

Appropriate technology specialist

The appropriate technology specialist will be responsible for establishing a plan for use of the *technology and innovation fund* under the project. The broad intent of the fund is to demonstrate technologies that will contribute to the overall project aims and objectives, and to promote their take up through the micro-credit facility.

The range of technologies may include, but will not be limited to improved farm tools and implements, mini-tractors (prime movers) and attachments (eg carts etc), solar and wind power, ram pumps, micro-hydropower, improved cooking stoves, and processing, preservation and storage equipment and facilities.

S/he will undertake a review of international practice and will identify technologies that may be prove beneficial to introduce. Priority will be given to those technologies that will have a significant impact on energy balance and labour productivity. S/he will develop a business case for proposed innovations that demonstrates the benefits likely to be gained and the affordability for end-users. On approval, s/he will arrange procurement, demonstration and promotion of the agreed technologies and liaise with the micro-credit specialist to ensure that credit facilities are appropriately designed to encourage the uptake of the technologies.

Subject matter specialists

Subject matter specialists will be recruited on a short term basis to advise the PCU on specific technical issues as may arise from time to time during the project. The advisory pool of senior national staff will be expected to cover, inter alia, agronomy, forestry, horticulture, livestock, soil and water management techniques, community mobilisation techniques, issues of gender equity, vulnerable groups, and non-farm income generating activities.

1.4 Short-term international staff

Subject matter specialists

Subject matter specialists will be recruited on a short term basis to advise the PCU on specific technical issues as may arise from time to time during the project. The advisory pool of senior international staff will be expected to cover, inter alia, agronomy, pasture development, livestock, animal health and soil and water management techniques.

2 Terms of Reference for CIT staff

2.1 Role of Catchment Implementation Teams

The overall role of the Catchment Implementation Teams (CIT) is to support the following in fulfilling their responsibilities under the Project, viz.:

Kebele Council

- Review and recommendation of Participatory Land Use Plans (PLUP) and Community Action Plans (CAP)
- Review and recommendation of detailed project investment plans
- Mobilisation of *mengistawi budin* (work teams)

Kebele Watershed Committee

- Preparation of PLUPs and CAPs
- Preparation of detailed investment proposals
- Coordination and reporting on project activities

The Catchment Implementation Teams will have day-to-day responsibility for:

- Review and recommendation of PLUPs and CAPs
- Prepare and recommend of project annual work plans (incl budgets)
- Approval of kebele investment proposals under project (within AWP)
- Technical support to kebele watershed committee and teams (incl. DAs)
- Coordination and reporting on project activities to the Catchment Project Steering Committee and PCU
- Management of project funds
- Assisting with monitoring and evaluation

There will be three CIT, one for each watershed each comprising 18-21 staff depending upon the number of kebele within the project area.

2.2 Catchment Implementation Team staff

Catchment Project Coordinator

Each Catchment Project Coordinator will be responsible for the provision of the CIT support within their designated watershed to the Kebele Councils, the Kebele Cabinets and the Wereda Integrated Watershed Management (Ethiopia) Watershed Project, Administration Offices in order that these institutions are able to efficiently and effectively fulfil their functions under the

project as described above. S/he will draw up detailed work programmes for the team in consultation with the PCU and will monitor performance of their teams. In doing so s/he will establish close working relationships with the key government officials at Kebele and Wereda levels to ensure effective and fruitful coordination of activities. S/he will keep the PCU informed of any impediments to smooth running of the project within their area of responsibility.

Finance Officer

The finance officer will be responsible for the management of project funds in each catchment in compliance with project procedures. S/he will submit monthly accounts to the PCU and maintain records of financial progress with respect to agreed budgets. S/he will assist with the compilation of budgets for annual work plans. S/he will cooperate with annual audits conducted by the PCU.

Accountant

The accountant will support the Finance Officer in the fulfilment of his/her duties. S/he will be responsible, in accordance with agreed procedures, for disbursement of project funds and day-to-day record keeping.

Office Manager

The senior office manager will be responsible to the Catchment Assistant Coordinator for the administration support for the CIT including establishment and maintenance of office facilities, equipment and transport, filing systems, petty cash management and the like.

Office Support Staff

The office support staff will assist the office manager in fulfilling his/her role.

Soil and Water Specialist

The Soil and Water Specialist attached to each CIT will be responsible for facilitating technical discussions with the community representatives to determine appropriate soil and water conservation measures are identified during the participatory land use planning and community action plans. S/he will work with other experts in the CIT to establish an appropriate approach to the water harvesting and irrigation components of the project as well. S/he will assist in establishing a standard approach to facilitation. S/he will assist the community and kebele officials in preparing investment proposals and in setting out and implementing the works in a technically appropriate manner. S/he will maintain records of progress and of community participation in the developments, sufficient to ensure transparency in the disbursement of funds made available to the community.

Water Harvesting and Irrigation Expert

The Water Harvesting and Irrigation Expert will assist the SWC specialist in their duties with respect to the SWC component.

Crop production specialist

The Crop production specialist attached to each CIT will be responsible for facilitating technical discussions with the community representatives to determine appropriate crop production measures are identified during the community action plans. S/he will work with other experts in the CIT to establish an appropriate approach to the livestock component of the project as well. S/he will assist in establishing a standard approach to facilitation. S/he will assist the community and kebele officials in preparing investment proposals and in implementing the works in a technically appropriate manner. S/he will maintain records of progress and of community participation in the developments, sufficient to ensure transparency in the disbursement of funds made available to the community.

Livestock Expert

The Livestock expert will assist the Crop production specialist in their duties with respect to the livestock component.

Socio economics and Gender Specialist

The Socio economics and gender specialist will assist the communities in identifying within their development agenda measures that will proactively support female-headed households and any vulnerable elements within the community and to avoid any measures that would disadvantage these groups. S/he will assist by pooling their experience to identify appropriate facilitation procedures that will contribute to safeguarding interests of vulnerable groups at community level.

Community Mobilisers

One Community mobiliser (CM) will be assigned typically per two kebeles and be responsible for 6-8 communities. S/he will be responsible for effective promotion of the project's aims and available support within the communities, encouraging willingness of the communities to participate in the project in timely and appropriate manner, facilitating the preparation of CAP, formation of work teams and user groups and mobilising community contributions to the project. S/he will work closely with the development agents and will keep the CIT informed on a weekly basis of activities and progress made in achieving project outcomes. S/he will assist in facilitating any disputes that may arise as a result of the project's interventions and will keep the kebele council and CIT coordinator informed in this regard.

3 Estimated project staff inputs

Project Coordination Unit staffing

Staff	No. of staff	Months per staff	Total p-m
Long-term national staff			
Project coordinator	1	60	60
Training Manager	1	60	60
M&E expert	1	60	60
Agricultural specialist	1	60	60
SWC specialist	1	60	60
GIS and database applications	1	60	60
Senior administrator	1	60	60
Administrative support staff	2	60	120
Short-term national staff			
M&E specialist	1	18	18
Forestry specialist	1	24	24
Contracts/procurement specialist	1	10	10
Financial specialist / auditor	1	10	10
Micro-credit specialist	1	10	10
Physical planner	1	6	6
Appropriate technology specialist	1	12	12
Subject matter specialists	5	12	60
Short-term international staff			
Subject matter specialists	2	2	4
Totals	**23**		**694**
Summary			
Long-term national staff	9		540
Short-term national staff	12		150
Short-term international staff	2		4
Grand Total	**23**		**694**

Catchment Implementation Teams

Staff	No. of staff	Months per staff	Total p-m
Project management staff			
Catchment Project Coordinator	3	60	180
Finance officer	3	60	180
Accountant	2	60	120
Office Manager	3	60	180
Office support staff	5	60	300
Key technical staff			
Soil and Water Specialist	6	60	360
Water Harvesting and Irrigation Expert	3	60	180
Crop production specialist	3	60	180
Livestock Expert	3	60	180
Socio economics and Gender Specialist	3	60	180
Community Mobilisers	18	60	1,080
Grand Total	**52**		**3,120**

Eastern Nile Regional Technical Office (ENTRO)

Integrated Watershed Management (Ethiopia)
Watershed Project, Fast-Track Projects
Detailed Project Preparation

Project Implementation Plan

Annex I: Monitoring and Evaluation

December 2007

Halcrow Group Limited
in association with
Metaferia Consulting Engineers

Contents

Appendices

1 Introduction

This Annex presents the proposed approach to monitoring and evaluation of project activities and interventions and this approach is based on the project's Logical Framework as presented in Appendix 1.

Monitoring is a continuous assessment of project performance in relation to planned inputs and activities as well as approved budgets. Effective monitoring is also a pre-requisite to the successful implementation of project interventions within the selected sub-catchments. Evaluation is a periodic assessment of project outcomes and impact in relation to the specific objectives and goal of the project. Pre-determined targets of the key performance indicators will be therefore be assessed at the time of project completion. Overall responsibility of project monitoring, evaluation and reporting will rest with the Project Co-ordination Unit (PCU).

2 Logical Framework Approach

The logical framework approach (LFA) provides a sound basis for the planning, management and evaluation of development projects. Its logic is derived from the principle that the hierarchy of objectives of a project can be determined only after situational analysis, problem definition, clarification of stakeholder wants and needs, and the selection of a preferred implementation strategy. The LFA culminates in a Logical Framework Matrix (log frame) which is dynamic and not fixed. The log frame is an indispensable tool for the monitoring and evaluation (M&E) of project performance and impact.

A development project is seen as a causally-linked, logical sequence of events in time and space. Conventionally, these are set out in a logical framework matrix but there are several variations of this layout. The first column of the matrix describes, in descending order, the project's overall goal, development objectives, outputs and activities/inputs. The development process is therefore seen as a sequence of logical steps, as indicated below:

- If the inputs are available, the activities will take place;
- If the activities take place, the outputs will be produced;
- If the outputs are produced, the objectives will be achieved;
- If the objective is achieved, it will contribute to the fulfilment of the goal.

The certainty of the first step holding true is reasonable because the testing of it, by way of pre-conditions for implementation, such as a budget and staff, is largely under the management of a project team. As time passes, the uncertainty of outcomes increases from the specific to the general. These uncertainties are registered as assumptions and risks in the fourth column of the matrix. For the development process to succeed these risks must be minimised.

To complete the logical framework, objectively verifiable indicators (OVIs), and their means of verification (MoVs) are determined for the project's goal, development objectives and outputs in order to provide a basis for the future monitoring and evaluation of the project.

3 Monitoring and Evaluation Plan

3.1 Baseline Surveys

Physical and socio-economic baseline data have been collected from the five study micro-watershed (i.e. Baskura, Kantai, Zefie, Enkulal and Engule) and this information will provide the basis for the future monitoring and evaluation of project activities within these micro-watersheds. However, when the project extends to other micro-watersheds within the selected sub-catchments, further baseline surveys will have to be undertaken for these additional micro-watersheds.

It is also important to note that baseline data has not been gathered with respect to soil erosion, runoff and downstream sedimentation, so this will be undertaken during project implementation as part of the environmental monitoring programme.

3.2 Participatory Monitoring and MIS

The main objectives of participatory monitoring and the establishment of a management information system (MIS) is to: (i) record the physical and financial progress pf the project, (ii) identify strengths and weakness with respect to project performance, and (ii) facilitate project management and problem solving. It will also enable communities to assess progress in relation to planned activities, learn from successes and failure, and to apply corrective measures when required.

The MIS would be designed to record technical and financial data related to the planning, decision making, approval, implementation and completion of all project activities being undertaken by project staff and participating communities at micro-watershed, kebele and wereda levels within the selected sub-catchments.

The MIS would comprise a custom-programmed database application which would include data input forms, a database (in the form of a number of spreadsheets) and programmes macros and functions to generate the required outputs in tabular form for reporting purposes.

The MIS needs to be user friendly and compatible with MS office software to ensure that M&E outputs are accessible to project staff and decision makers.

During the collection of MIS data, a participatory approach will be adopted to ensure that beneficiary communities are fully involved in the provision of timely and reliable information to project decision makers. A participatory approach provides a more cost effective way of providing reliable MIS information and will ensure that the key monitoring indicators are relevant to all stakeholders. It also utilises local knowledge and enhances the management skills of local communities who will be responsible for future maintenance of the SWC and rural infrastructure. Information to be gathered by the village groups, user groups and KWCs, with respect to the key indicators of project outputs, will include:

- Type, number, scale and quality of soil and water conservation (SWC) measures constructed and/or established (both structural and bio-physical measures);
- Area of land treated with different SWC measures;
- Type, number and quality of water supply and sanitation systems;
- Type, length and quality of rural access roads, footpaths, footbridges and telephone posts;
- Type and number of micro and small scale irrigation schemes constructed;
- Number of farmer training centres (FTCs) furnished and equipped;
- Type and number of crop demonstrations plots established for both staple and high value crops;
- DA offices furnished and equipped (for crops, livestock and natural resources);
- Type and amount of training provided to kebele staff, DAs and other wereda staff;
- Number of animal health and AI posts constructed and equipped;
- Number of forage nurseries established/equipped and number of forage demonstration plots established;
- Number of cattle, sheep, poultry and beekeeping demonstrations established;
- Number of dairy processing demonstration centres established and equipped;
- Number, purpose and amount of loans for various off-farm income generation activities funded though local micro-finance institutions;
- Type and number of appropriate technologies and innovations promoted and disseminated;
- Type and number of tree nurseries established/equipped and number of agro-forestry demonstration plots established.

In addition to this physical data, financial information will also be gathered, e.g. expenditure statements, for each project activity and the compared to budgeted amounts set out in the approved community action plan (CAP). Under the guidance of the Community Watershed Management Teams (CWMTs), the Kebele Watershed Committees (KWC) will be given overall responsible for the data collection and reporting on the various project activities being undertaken within their respective micro-watersheds.

Training in the collection and compilation of MIS data will be provided by M&E Specialists from the PCU. The M&E Specialist will also design standard data collection sheets (both technical and financial) as well as report formats for use by the KWCs. Quarterly and annual monitoring reports will be sent to the CWMTs for review prior to submission to the PCU for inclusion in the project's MIS.

3.3 Process Monitoring and Evaluation

Process monitoring and evaluation assesses how effectively project activities are being implemented. In addition, it enables stakeholders to develop a better understanding of the links

between resource use, project activities and project outputs/outcomes within the context of the purpose and objectives of the project as set out in the logical framework.

As the planning and implementation process will not be captured in the MIS, the project will also undertake independent process monitoring and evaluation. Process monitoring and evaluation will comprise an assessment of:

(i) planning, submission and approval procedures for participatory land use plans (PLUPs), community action plans (CAPs) and project investments;

(ii) financing mechanisms and flow of funds;

(iii) organisation and management structure and institutional capacity at all levels of project management;

(iv) effectiveness of the community participation in the planning, implementation and management of project interventions at kebele level;

(v) linkages and interactions between implementing agencies at regional, wereda and kebele levels; and

(vi) adherence to overall project plans and to safeguard policies as recommended in the social and environmental assessments.

Intensive process monitoring will be undertaken during the initial two years of the project and will be conducted by an independent organisation such as a NGO or local consultant who will be given access to the project's MIS and all project reports. Extensive field visits will also be conducted to obtain information from all stakeholders, and the M&E consultants will submit their findings and recommendations to the PCO for appropriate action.

3.4 Environmental Monitoring

Environmental monitoring will primarily focus on assessing the effectiveness of the different SWC measures with respect to reducing soil erosion, run off and downstream sedimentation.

Monitoring the effects of different SWC measures on soil erosion will be undertaken by designated agencies at the selected sites. The monitoring will start in advance of construction of the SWC measures and will then continue throughout the project. It will be important that monitoring of sediment flows commences before and captures the impact of the first flush of rains. The activity should include measurement of soil erosion (using a sediment trap) and gully control performance (using photographs and surveys). Rainfall gauges should also be placed in the study micro-catchment and daily rainfall measurements should be collected over the affected area. Rainfall intensity should also be measured.

If suitable locations can be found, gauging stations will be established in selected micro-catchments to measure flows and sediment loads. The main purpose of the gauging station would be to determine the long term impact of the proposed interventions on sediment entering downstream watercourses. This will be undertaken in close co-operation with MoWR.

3.5 Project Evaluation

Project evaluation broadly comprises the evaluation of project outcomes and impacts. Outcome evaluation measures the tangible and observable effects of project activities in the short term in order to enable stakeholders to assess whether the immediate project objectives are being achieved. The key indicators of expected project outcomes to be evaluated include:

- Increased adoption of new crop varieties and improved cropping practices, e.g. land preparation/planting, application of organic fertilisers and use of IPM techniques;
- Expansion of irrigated area and increase in the production of vegetable and fruit crops;
- Reduction in animal diseases and improved animal health and reproduction;
- Adoption of improved breeds of cattle, sheep/goats and poultry;
- Expansion of forage crops, adoption of controlled grazing methods and better livestock nutrition;
- Increase production and distribution of milk, eggs and honey;
- Expansion of off-farm income generation activities funded though local micro-finance institutions; and
- Increased number of trees planted around homesteads, number of community woodlots established and adoption of improved forestry management;
- Reduction in soil erosion and run off with the selected sub-catchments;
- Improved availability of potable water and sanitary facilities for beneficiaries; and
- Enhanced access to markets and social services as well as improved tele-communications.

During impact evaluation, the medium and longer term consequences of project interventions will be assessed. The key indicators of expected project impacts to be evaluated include:

- Improved soil fertility and increased in crop productivity;
- Enhanced livestock productivity and expansion of livestock products, e.g. meat and milk;
- Expansion of marketed surpluses and increased cash incomes from crop and livestock production;
- Improved food security, increased household incomes and reduction in the incidence of poverty;
- Expansion of off-farm income and employment opportunities;
- Socio-economic welfare of the community, particularly with respect to poor and disadvantaged groups such as landless, women etc;
- Increase availability of fuel wood and poles for construction;
- Reduced sedimentation downstream of the project area;

- Enhanced health of the beneficiary population, particularly with respect to water borne diseases; and
- Increased transport of goods and greater mobility of beneficiary population;

In the present study, baseline data with respect to agricultural, economic and social features of the five selected micro-watersheds were gathered from a representative sample of beneficiaries. During project evaluation, comparisons will therefore be made between the situation at the beginning of the project and at the time of evaluation. Furthermore, comparisons could also be made between the project area and an area which did not benefit from project activities. Project evaluation will be conducted by an independent organisation, such as a NGO or local consultant, at the end of the project. Extensive field surveys, using both convention and participatory data collection techniques, will be conducted during the evaluation in order to obtain information from representative sample of stakeholders. The M&E consultants will submit their findings and recommendations to the PCU.

Appendices

Appendix 1: Logical Framework for Eastern Nile Integrated Watershed Development Project

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Goal			
Sustainable livelihoods and natural resources management systems in Eastern Nile Watershed through community participation	❑ Per capita income growth of 3% to 4% per annum; ❑ % of population below poverty line continues to fall by about 2.5% of population per annum; ❑ No food insecurity.	❑ Household Income and Consumption Surveys; ❑ Statistics and other data from government institutions, NGOs and other sources.	❑ Communities remain cohesive and maintain SWC measures; ❑ Social infrastructure and services continue to improve; ❑ Agricultural support services are sustained
Project Development Objective			
Improvement of livelihoods of rural households living in upper catchments of Ribb, Gumera and Jema Watersheds through enhanced productivity and promotion of sustainable land use practices	❑ Household income rise by 70% (from ETB 4,000 to ETB 7,000 between 2008 and 2018 ❑ % of population below poverty line is reduced from 65% in 2008 to 40% by 2018; ❑ % of food insecure households in normal year reduced from 33% in 2008 to 10% in 2018.	❑ Project impact evaluation report; ❑ Government statistics; ❑ Project progress and project completion reports; ❑ Mission reports from funding agencies.	❑ Communities willing to maintain SWC and rural infrastructure; ❑ Collaboration between relevant government and non-government stakeholders is sustained ❑ Frequency of serious droughts and floods remains unchanged

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Outputs			
Theme A: Livelihoods			
Component 1: Community Entry Points			
1.1 Improved access to potable water and enhanced sanitation facilities 1.2 Renovation of buildings and provision of furniture, equipment and materials for primary schools and health posts 1.3 Improved access and communications within kebeles	❑ 1,250 roof water harvesting structures, micro-ponds & hand pumps established and 657 springs developed by 2013; ❑ 166 improved sanitation units provided in 35 kebeles. ❑ Primary school and health post facilities improved in 35 kebeles by 2013; ❑ 135 km of access roads constructed or upgraded by end of project in 2013; ❑ 192 km of internal access paths constructed or upgraded by 2013; ❑ 232 of footbridges constructed by 2013; ❑ 35 telephone posts established (one in each kebele) by 2013.	❑ Project progress reports; ❑ Construction completion reports; ❑ Community records; ❑ Project MIS data; ❑ Financial records; ❑ Audit reports	❑ Communities willing to contribute labour or funds for the construction of roads, footpaths and other public infrastructure; ❑ Communities are willing to provide land for road and footpath construction; ❑ Adequate government funds are provided in a timely manner
Component 2: Crop Production			
2.1 Improved facilities and equipment for Farmer Training Centres (FTCs) 2.2 Increased crop production (cereal, oilseed, pulse & horticultural crops) through demonstration and up-scaling of improved cropping systems and adoption of new crops.	❑ 35 FTCs upgraded by 2010; ❑ Average yields for cereal, oilseed, pulse and horticultural crops increased by at least 25% between 2008 and 2013; ❑ Area cultivated under high-value crops has increased from 2,500 ha to over 4,000 ha by the end of the project in 2013;	❑ Project impact evaluation report; ❑ Project progress reports; ❑ Annual monitoring surveys;	❑ Strong institutional linkages between the project staff, BoARD and ARARI; ❑ Leading farmers willing to provide land for crop demos; ❑ Farmers willing to adopt improved cropping practices and

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
2.3 Improved storage and market delivery 2.4 Improved agricultural extension services	❑ Quantity of produce reaching market increased by 30% between 2008 and 2013. ❑ 35 DA Crops Offices provided with furniture, equipment and motorcycles by 2010; ❑ All farmers have access to effective agricultural extension services by 2013.	❑ Project MIS data ❑ BoARD and ARARI reports ❑ Records of co-operatives and private traders ❑ Financial records and audit reports	new crops; ❑ Co-operatives engaged in project activities and provide crop inputs on time; ❑ Credit available to purchase crop inputs and improved equipment/tools; ❑ Timely construction of improved access to markets; ❑ DAs have capacity to co-ordinate project activities
Component 3: Livestock Production			
3.1 Construct and equip animal health posts based on BoARD standards and provide improved veterinary services 3.2 Improved pasture management and supply of livestock feed 3.3 Enhanced production of meat, milk, eggs and honey 3.4 Improved livestock extension services	❑ Improved access to veterinary services for all project farmers by 2013; ❑ Reduce period of feed shortages from 3 month in 2008 to less than 1 month per annum by the end of the project in 2013; ❑ 20% of households have adopted controlled grazing and/or stall feeding by 2013; ❑ 25% of households have adopted improved fodder production by 2013; ❑ 10% of households have adopted improved animal breeds by 2013; ❑ Livestock productivity has increased by 25% between 2008 and 2013; ❑ 35 DA Livestock Offices provided with furniture, equipment and motorcycles by 2010; ❑ All farmers have access to effective livestock extension services by 2013.	❑ Project impact evaluation report; ❑ Project progress reports; ❑ Annual monitoring surveys; ❑ Project MIS data ❑ BoARD reports ❑ Financial records and audit reports	❑ Good co-ordination between veterinary staff of BoARD; ❑ Leading farmers willing to provide land for pasture and livestock demos; ❑ Pasture seeds are available for demos ❑ Farmers willing to adopt better husbandry practices, controlled grazing systems, and new livestock breeds; ❑ Credit available to establish livestock enterprises. ❑ DAs have capacity to co-ordinate project activities

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Component 4: Non-Farm Income Generation and Micro-credit			
4.1 Renovation and Construction of Community Flour Mills 4.2 Technology and Innovation Fund: Promotion of appropriate farm production technologies, renewable energy innovations, and fuel efficient stoves. 4.3 Establishment of micro-credit facilities for farm and non-farm enterprises through micro-finance institutions (MFI)	❑ 35 community flour mills renovated/constructed (one in each kebele) by 2013; ❑ Appropriate farm production, processing and transport equipment adopted by 20% of households by 2013; ❑ Renewable energy innovations adopted by 10% households by 2013; ❑ Fuel efficient stoves adopted by 33% households by 2013; ❑ 50% households have obtained micro-credit for farm and non-farm enterprises by 2013.	❑ Project impact evaluation report; ❑ Project progress reports; ❑ Annual monitoring surveys; ❑ Project MIS data ❑ MFI data and records ❑ Financial records and audit reports	❑ Strong institutional linkages between project staff, BoARD and MFI; ❑ Households willing to adopt appropriate technologies and innovations; ❑ Appropriate technologies and innovations are technically & financially viable and available for uptake by households; ❑ MFI willing to provide micro-credit to households through project credit line.

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Theme B: Natural Resources			
Component 5: Soil/Water Management and Irrigation			
5.1 Participatory Land Use Plans (PLUPs) and Community Action Plans (CAPs) prepared in each micro-watersheds 5.2 Implementation of soil and water conservation measure to mitigate soil erosion, improved water conservation and reduced sediment in each micro-watershed 5.3 Expansion of micro and small scale irrigation	❑ PLUPs and CAPs prepared for 82 micro-catchments by end of project in 2013 ❑ 452 ha of gullies rehabilitated by 2013; ❑ 17,280 km of streams mitigated by stone check dams ❑ SWC measures have been implemented on 53,285 ha of cultivated land and 19,667 ha of grazing land by 2013; ❑ SWC measures have been implemented on 5,669 ha of badlands, 1,220 ha of forestry land and 309 ha of mixed use land by 2013; ❑ Sediment load in rivers reduced by 10%; ❑ Irrigated area expanded by 1,500 ha between 2008 and 2013 for production of vegetables and fruit trees on 400 sites	❑ Project impact evaluation report; ❑ Project progress reports; ❑ Annual monitoring surveys; ❑ Environmental monitoring reports (for reduction in sediment load); ❑ Project MIS data ❑ Financial records and audit reports	❑ Communities willing to form user groups and Water Management Committees to prepare CAPs and PLUPs; ❑ Communities willing to contribute labour or cash for implementation of SWC measures; ❑ Adequate government funds provided on time; ❑ Communities have capacity to implement SWC measures in efficient and timely manner.
Component 6: Forestry and Agro-Forestry			
6.1 Existing natural and planted forests are protected and sustainably managed by communities 6.2 Establishment of forestry and agro-forestry systems to stabilise the landscape and produce fuel wood and timber 6.3 Improved extension services	❑ By 2013, all user groups have adopted management plans to conserve forests; ❑ 20 tree nurseries established by 2013 to supply communities and households; ❑ 3,000 ha of community forests and 2,000 ha household woodlots planted by 2013; ❑ 35 DA NR Offices provided with equipment and motorcycles by 2010.	❑ Project impact evaluation report; ❑ Project progress reports; ❑ Annual monitoring surveys ❑ Project MIS data	❑ Communities willing to protect existing forests; ❑ Communities willing to contribute labour or cash to establish forests; ❑ Adequate government funds provided on time.

Outputs	Activities	Some Key Inputs
Theme A. Livelihoods: Component 1. *Community Entry Points*		
Output 1.1 Improved access to potable water and enhanced sanitation facilities	**Activity 1.1.1:** Development domestic and community water supplies for both human and livestock consumption by: digging wells by hand; developing springs; fitting hand pumps to existing wells, constructing micro-ponds, and promoting water harvesting from roofs.	Rural water engineer; Skilled labour; Materials.
	Activity 1.1.2: Provide sanitary facilities for communities (i.e. health posts and schools) and demonstrate/promote latrines for households.	Rural infrastructure/water engineer; Community and family labour.
Output 1.2 Renovation of buildings and provision of furniture, equipment and materials for primary schools and health posts	**Activity 1.2.1:** Renovate health posts and equip them to provide both curative and preventive health care. Provide clean living quarters if a qualified nurse operates from the health post.	Rural infrastructure engineer; Skilled labour; Medical equipment, medicines.
	Activity 1.2.2: Renovate primary schools and provide essential equipment for teaching and textbooks/material for pupils.	Rural infrastructure engineer Teaching aids, textbooks
Output 1.3 Improved access and communications within kebeles	**Activity 1.3.2:** Repair and reconstruct feeder roads to facilitate access to the main all weather roads, markets, schools and health centres.	Rural infrastructure engineer Skilled labour; Unskilled community labour; Construction materials; Construction equipment and tools
	Activity 1.3.1: Re-construct footpaths and construct safe footbridges over streams which flood in the wet season to facilitate school attendance, transport of inputs to fields, and produce to household storage and/or markets	Rural infrastructure/water engineer Skilled labour; Unskilled community labour. Construction equipment and tools

Outputs	Activities	Some Key Inputs
	Activity 1.3.3: Up-grade existing community telephone posts and install new ones, where necessary.	Rural infrastructure engineer; Construction materials; Negotiate with Ethiopian Tele-communications Corporation for a telephone line.
Theme A. Livelihoods: Component 2. *Crop Production*		
Output 2.1 Improved facilities and equipment for Farmer Training Centres (FTCs)	**Activity 2.1.1:** Undertake assessment, procurement and supply of furniture, equipment and training materials (including audio-visual equipment) for 35 FTC (one in each kebele) such as	Furniture and equipment; Training materials; Audio-visual equipment.
Output 2.2 Increased crop production (cereal, oilseed, pulse & horticultural crops) through demonstration and up-scaling of improved cropping systems and adoption of new crops.	**Activity 2.2.1:** Measure yields of representative crop fields in micro-watersheds in association with the preparation of annual crop and farm budgets. Support regional, wereda and kebele staff logistically.	Agronomist; Farm Management Economist.
	Activity 2.2.2: Undertake assessment, identify and agree appropriate sites, supply necessary inputs/equipment to establish demonstrations of improved cropping practices and systems. Possible techniques to be demonstrated include: appropriate fertiliser and pesticide use; small-scale irrigation; stabilisation of terraces and gullies with trees; improved cultivation techniques; row planting; improved crop varieties; use of organic manure/composting; weed control; integrated pest management; alley cropping; intercropping; cover cropping in tree plantations or orchards; strip cropping; and contour ploughing.	Funds to support technical specialists to establish and maintain crop demonstrations; Seeds and crop inputs; Labour for crop establishment and management.
	Activity 2.2.3: Demonstrations of high value crops. Possible high value crops to be demonstrated include: new varieties of potato; malting barley; vegetables; multi-purpose bamboo; and perennial tree crops such as avocado and citrus according to the agro-climate conditions of the area.	Funds to support technical specialists to establish and maintain crop demonstrations.

Outputs	Activities	Some Key Inputs
Output 2.3 Improved storage and market delivery	**Activity 2.3.1:** Investigate and demonstrate better crop storage, processing and market delivery methods to minimise crop losses and improve the quality of produce reaching the market.	Funds to support technical specialists.
Output 2.4 Improved agricultural extension services	**Activity 2.4.1:** Undertake assessment, procurement and supply of furniture, equipment, materials and transport for 35 DA Crop Offices (one in each kebele) to enhance the level and quality of agricultural extension services. This will include the provision of motorcycles, tools and equipment for conducting field activities and demonstrations, as well as training materials and regular training courses to refresh and enhance skills and knowledge.	Funds to support technical specialists.
Theme A. Livelihoods	**Component 3. *Livestock Production***	
Output 3.1 Construct and equip animal health posts based on BoARD standards and provide improved veterinary services	**Activity 3.1.1**: Construct and equip 11 animal health posts (one for every 3 kebeles or within 3 kilometres walking distance for livestock owners.	Veterinarians and Village Livestock Agents (VLAs); Veterinary equipment and medicines; Training materials.
	Activity 3.1.2: Develop and deliver training courses and demonstrations in animal health through refurbished and new animal health posts.	
Output 3.2 Improved pasture management and supply of livestock feed	**Activity 3.2.1**: Develop a pasture and forage feed year using local, introduced, annual and perennial species. Ethiopia is a centre of origin for top quality perennial pasture species in kikuyu (*Pennisetum clandestinum*) and African *Trifolium* species such as *T. ruepellianum*, *T. quantinianum* and *T. semipilosum.* These can be used as managed pastures or for SWC measures.	Pasture Specialist; Seed and/or vegetative material of improved pastures and forage; Labour for crop establishment and management.
	Activity 3.2.2: Undertake assessment, identify and agree appropriate sites, supply necessary inputs/equipment to establish improved pasture and forage demonstrations. Possible techniques to be demonstrated include: perennial pasture grasses, grass leys and legumes; pasture management, appropriate fertiliser use; rotational grazing, conservation (hay/silage), and stabilisation of terraces and gullies with fodder trees, shrubs and grasses (e.g Vetiver grass).	Pasture Specialist Seeds of improved pastures/forage and other inputs; Labour for crop establishment and management.

Outputs	Activities	Some Key Inputs
	Activity 3.2.3: Work closely with communities to promote and demonstrate the need for animal control (ranging from traditional herding by children to well-constructed physical barriers). Jointly determine the control measures to be used, where to establish them, for which purpose, and how to maintain them.	Pasture Specialist and veterinarian Materials Education and training
Output 3.3 Enhanced production of meat, milk, eggs and honey	**Activity 3.3.1**: With DAs and livestock producers, undertake detailed analyse existing animal production systems and determine which areas need strengthening to improve efficiency and expand output.	Livestock Specialist AI staff and facilities; Improved breeds of cattle, sheep, poultry; Housing and equipment for livestock; Dairy processing equipment; Apiculture equipment; Collaboration with Andessa Livestock Research Centre.
	Activity 3.3.2: Breed improvement through artificial insemination (AI) with cattle improved breeds, introduction of improved sheep and poultry breeds.	
	Activity 3.3.3: Assessment, procurement and supply of the necessary facilities and equipment to establish and manage livestock demonstration centres. These will include the promotion of improved livestock husbandry practices, beef and sheep fattening, poultry/egg production, dairy processing techniques, as well as improved beekeeping systems and honey production.	
Output 3.4 Improved livestock extension services	**Activity 3.4.1**: Undertake assessment, procurement and supply of furniture, equipment, materials and transport for 35 DA Livestock Offices to enhance the level and quality of livestock extension services. This will include the provision of motorcycles, tools and equipment for conducting field activities and demonstration, as well as training materials and regular training courses to refresh and enhance skills and knowledge.	Funds to support DAs and technical specialists.
Theme A. Livelihoods	**Component 4. *Non-farm Income Generation and Micro-credit***	
Output 4.1 Renovation and Construction of Community Flour Mills	**Activity 4.1.1:** Renovate and upgrading of existing flour mills and construct of new community flour mills in each kebele, as well as provision of technical and business management training.	Agro-processing engineer; Equipment; Materials; Training expertise

Outputs	Activities	Some Key Inputs
Output 4.2 Technology and Innovation Fund: Promotion of appropriate farm production technologies, renewable energy innovations, and fuel efficient stoves.	**Activity 4.2.1:** Assess the opportunities to introduce improved and new technologies to the area and, through the project financed Technology and Innovation Fund, procure and demonstrate examples of these technologies and encourage the take up of these as appropriate through access to the micro-credit facility. Examples of potentially valuable technologies may include: improved farm tools and implements for cultivation/planting, mini-tractors (prime movers) and attachments, improved carts, threshers, solar panel, wind turbines, ram pumps, micro-hydropower, fuel efficient cooking stoves, and processing, preservation and storage equipment/facilities.	Appropriate technology specialist; Innovative machinery and equipment; Training equipment and materials Training expertise
Output 4.3 Establishment of micro-credit facilities for farm and non-farm enterprises through micro-finance institutions (MFI)	**Activity 4.3.1**: Detailed assessment and identification of: (i) constraints of existing credit facilities within the project area, (ii) additional borrowing requirements, and (iii) appropriate lending mechanisms. Discuss and agree with a suitable micro-finance institution (MFI) and/or rural bank the terms, conditions and procedures for the establishment of a revolving micro-credit facility to be financed by the project and managed as a separate line of credit. The fund will be administered by the MFI/bank under terms acceptable to the project. Monitor the provision of micro-credit by MFI/bank, uptake by beneficiaries, type of enterprises financed, repayment rates and management of funds.	Micro-finance Specialist; Participating MFI or bank.

Outputs	Activities	Some Key Inputs
Theme B. Natural Resources	**Component 5. *Soil and Water Management***	
Output 5.1 Participatory Land Use Plans (PLUPs) and Community Action Plans (CAPs) prepared for each micro-watershed	**Activity 5.1.1:** Discuss, prepare, agree and finalise with communities the PLUPs and CAPs for each micro-watershed as part of the participatory planning process.	Micro-watershed communities; User groups; Development Agents (DAs); Community Watershed Management Teams (CWMT)
	Activity 5.1.2: Assist communities with the implementation of the PLUPs and CAPs (bearing in mind that it may be adjusted as experience is gained).	
Output 5.2 Implementation of soil and water conservation measure to mitigate soil erosion, improved water conservation and reduced sediment in each micro-watershed	**Activity 5.2.1:** Construction of structural SWC measures such as stone check dams, stone/soil bunds, waterways, cut off drains and bench terraces as well as re-shaping of gullies in accordance with the PLUPs and CAPs.	SWC Specialists, Skilled labour and unskilled community labour; Construction materials; Equipment and tools.
	Activity 5.2.2: Establishment of bio-physical SWC measures such as vegetative fencing, agro-forestry in micro-basins, vetiver/leguminous hedgerows, use of perennial legume-grass pastures, contour ploughing and mulching/crop residue management, as well as permanent and rotational closure of land.	SWC Specialists, Skilled labour; Unskilled community labour; Planting materials; Equipment and tools.
Output 5.3 Expansion of micro and small scale irrigation	**Activity 5.3.1**: Development of micro and small scale irrigation through the construction of masonry weirs across minor perennial streams incorporating a gated off-take to command areas of up to 5 ha.	Irrigation Specialist, Skilled and unskilled labour; Construction materials and tools; Pumping equipment.
	Activity 5.3.2: Where land adjoins a major river, pumped irrigation will be promoted through the provision of small diesel pumps and associated pipework to command areas of up to 2 ha.	

Outputs	Activities	Some Key Inputs
Theme B. Natural Resources	**Component 6. *Forestry and Agro-forestry***	
Output 6.1 Existing natural and planted forests are protected and sustainably managed by communities	**Activity 6.1.1:** Establishment of protection and harvesting R&D units to determine rules and regulations by which the communities protect and manage natural forest for different purposes including bio-diversity, non-timber forest products and selective harvesting.	Forestry and Agro-forestry Specialist Livelihoods Specialists
Output 6.2 Establishment of forestry and agro-forestry systems to stabilise the landscape and produce fuel wood and timber	**Activity 6.2.1**: Undertake assessment, identify and agree appropriate sites, supply necessary inputs/equipment to establish demonstrations of forestry and agro-forestry systems to stabilise the landscape and produce fuel wood and forestry. Demonstrations would include promotion of appropriate tree species, plantation establishment, management and maintenance, as well as sustainable harvesting techniques.	Funds to support technical specialists to establish and maintain forestfy demonstrations; Seedling and other inputs; Labour for plantation establishment and management.
	Activity 6.2.2: Undertake assessment, identify and agree appropriate sites, supply necessary inputs/equipment to establish 20 tree nurseries for supply of seedlings to communities and households.	Funds to support technical specialists to establish and maintain tree nurseries; Seeds, equipment and other materials; Labour for seedling production.
Output 6.3 Improved extension services	**Activity 6.3.1:** Undertake assessment, procurement and supply of furniture, equipment, materials and transport for 35 DA Forestry Offices (one in each kebele) to enhance the level and quality of forestry extension services. This will include the provision of motorcycles, tools and equipment for conducting field activities and demonstrations, as well as training materials and regular training courses to refresh and enhance skills and knowledge.	Funds to support DAs and technical specialists.

Eastern Nile Regional Technical Office (ENTRO)

Integrated Watershed Management (Ethiopia)
Watershed Project, Fast-Track Projects
Detailed Project Preparation

Project Implementation Plan

Annex J: Financial Management Plan

December 2007

Halcrow Group Limited
in association with
Metaferia Consulting Engineers

Contents

1 Financial Management Plan

1.1 Relationship between Government and external donor(s)

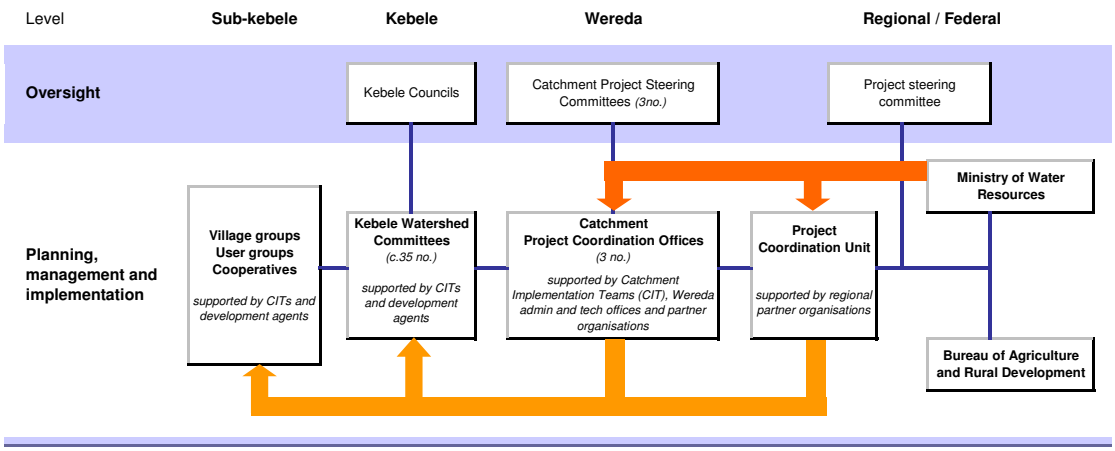
Agreement has yet to be reached between the Federal Government and the donor organisations as to the extent of international assistance (whether loan or grant) that will be provided to support the project. It is understood that from the World Bank's perspective, the funding for this project will be a part of the Tana Beles Integrated Water Resources Development Program, itself still under discussion.

For the purposes of this report, it is assumed for now that an arrangement will be made between the Federal Government and the donors to make available funds for disbursement under the project through the Ministry of Finance and Economic Development for the Ministry of Water Resources to administer.

1.2 Fund flows

Project funds made available to the Ministry of Water Resources will be disbursed at regional, wereda and kebele level as illustrated below.

Funding flows



The amounts disbursed at each institutional level will depend upon the nature of activities being undertaken. All expenditure under the project has been assessed both from the point of view of how much of the overall cost is to be borne by public sector (ie Government plus donor funds), and in terms of which level it is appropriate to disburse from. The latter consideration is based on whether the disbursements will relate to local purchase or hire and to contractors or major suppliers. It is assumed that all technical assistance costs will be disbursed through the PCU, who will take responsibility also for any major procurement.

The assumptions have been categorised as illustrated below:

	Share cat.	Kebele	Wereda	BoARD	
Small works requring DA supervision only	1	100%			
Small works plus design at Wereda	2	80%	20%		Check dams, irrig etc
Substantial contracts for Wereda-wide works	3		100%		Roads, WSS
Demos, local training costs	4		100%		
Furniture & equip	5		50%	50%	
PCO, Accountants, major procurement, all TA etc	6			100%	

These categories have been applied to each intervention costs as illustrated in Appendix 1 to this Annex. Applying these categorisations leads to an estimate of the total funds to be disbursed over the project lifetime as follows:

Summary of GoE & donor disbursements

Expressed in US$ million	**Proposed project investments**				
PROJECT COMPONENTS	**Total GoE / Donor Cost** US$ million		**Kebele** US$ million	**Wereda** US$ million	**BoARD** US$ million
Theme A					
1 Social services	5.248	14%	0.965	4.282	
2 Crop production	0.410	1%		0.323	0.087
3 Livestock production	1.273	3%	0.045	0.825	0.402
4 Non-farm income generation	2.192	6%			2.192
Theme B					
5 SWC, WSS and irrigation	10.462	27%	9.999	0.462	
6 Forestry and agro-forestry	0.929	2%	0.208	0.549	0.173
Theme C					
7 Capacity development and project management	6.059	16%		0.761	5.298
Overall total base costs	**26.572**	**69%**	**11.218**	**7.203**	**8.151**
			Approx split between financiers and heads		
Recurrent costs	1.591	4%	*0.672*	*0.431*	*0.488*
Physical contingencies	2.831	7%	*1.195*	*0.768*	*0.869*
Sub-total *(excl. price contingencies)*	**30.995**	**81%**	***13.085***	***8.402***	***9.508***
Price contingencies	7.256	19%	*3.063*	*1.967*	*2.226*
Total GoE + Donor costs	**38.251**		**16.148**	**10.369**	**11.734**
			42%	27%	31%
Number			35	5	1
Average total before price contingencies, US$ million			0.374	1.680	9.508
Average per year, US$ million			0.075	0.336	1.902

Thus after allowing for recurrent costs and physical contingencies (representing approximately 15% over base costs), the rate of expenditure per kebele at kebele level is forecast approximately at US$75,000 per annum on average and at wereda level US$336,000 per wereda per annum. The balance of public expenditure at regional level is forecast at approximately US$1.9 million per year.

These rates of expenditure at kebele and wereda level clearly will put stress on their institutional capacities but, with the support and technical assistance provided by the

Catchment Implementation Teams, they appear reasonable, and within the US$500,000pa per wereda observed on Finnish-funded projects as being an apparent upper limit on absorptive capacity.

1.3 Fund and budget management

Annual budgets will be established through a process of annual work plans and associated budgets, commencing at kebele level up through wereda level to regional level. The oversight bodies will be responsible for approving these in accordance with the rights as outlined in Appendix 2, which also delineates responsibilities for approving specific investment approvals. It is recommended that any procurement of contract in excess of ETB 1,000,000 is reviewed by the PCU prior to approval by PSC.

1.4 Financial procedures

The PCU will establish a comprehensive set of accounting manuals appropriate to kebele, wereda and regional level operations. The procedures will be consistent with Federal and Regional regulations, project management requirements and donor stipulations. The PSC will review and agree these procedures.

1.5 Procurement and contracting procedures

The PCU will establish a comprehensive set of contracting and procurement manuals appropriate to kebele, wereda and regional level operations. The procedures will be consistent with Federal and Regional regulations, project management requirements and donor stipulations. The PSC will review and agree these procedures.

1.6 Audit

In view of the large number of generally small transactions expected in up to 41 different locations (Weredas and Kebeles), the PCU will conduct its own annual audit of use of project funds to assess compliance with the procedures above. This audit may be supplemented by normal Government and/or donor audits in conformity with their respective policies.

1.7 Technical support

Arrangements for technical support for accounting are described in Annex H.

Appendices

Appendix 1

Derivation of estimated disbursements

PROJECT COMPONENTS	Component Category (1-7)	Community Contribution (%)	GoE + donor contribution (%)	Share basis	Proportion disbursed: Kebele Share	Proportion disbursed: Wereda Share	Proportion disbursed: BoARD Share
SWC, WSS and IRRIGATION							
A. Soil and Water Conservation Works							
Land Class 1 (< 8% slope)							
Cultivated (1c)	1	85%		1	100%		
Grazing (1g)	1	85%		1	100%		
Land Class 2 (8% - 15% slope)							
Cultivated (2c)	1	85%		1	100%		
Grazing (2g)	1	85%		1	100%		
Badlands (2e)	2			1	100%		
Land Class 3 (15% - 30% slope)							
Cultivated (3c)	2			1	100%		
Grazing (3g)	1	85%		1	100%		
Badlands (3e)	2			1	100%		
Land Class 4 (30% - 60% slope)							
Cultivated (4c)	3			1	100%		
Grazing (4g)	1	85%		1	100%		
Badlands (4e)	2			1	100%		
Forestry (4f)	2			1	100%		
Land Class 5 (> 60% slope)							
Cultivated/Grazing/Degraded	3			2	80%	20%	
Other Works							
Gully Reshaping	2			2	80%	20%	
Stone Checkdams	2			2	80%	20%	
B. Water Supply and Sanitation							
Roof Water Harvesting	4	75%		1	100%		
Low cost microponds	4	75%		1	100%		
Hand pumping wells	4	15%		2	80%	20%	
Spring Development	4	15%		1	100%		
Impoved sanitation	4	15%		2	80%	20%	
C. Irrigation							
Small scale irrigation	1	75%		2	80%	20%	
Pumped irrigation	1	75%		2	80%	20%	
COMMUNITY ENTRY POINTS							
A. Access and Communications							
Rural Access Roads	4			3		100%	
Internal access paths	4	15%		1	100%		
Footbridges	4	15%		3		100%	
Telephone Post	4			2	80%	20%	
B. Renovation of public buildings	4	8%		1	100%		
C. Not used							

PROJECT COMPONENTS	Component Category (1-7)	Community Contribution (%)	GoE + donor contribution (%)	Share basis	Proportion disbursed		
					Kebele Share	Wereda Share	BoARD Share
CROP PRODUCTION							
A. Farmer Training Centres							
Classroom Furniture and Equipment	1			5		50%	50%
FTC Audio Visual Equipment	1			5		50%	50%
B. Demonstrations							
Demonstrations Crop Production & Profitability	1	20%		4		100%	
Demonstrations High Value Crops	1	20%		4		100%	
C. DA Crop production							
DA Crops Office Furniture and Equipment	1			5		50%	50%
DA Crops Tools and Field Equipment	1			5		50%	50%
DA Crops Transport	1			5		50%	50%
LIVESTOCK PRODUCTION							
A. Animal Health Posts							
AHP Building and Kraal Construction	1			3		100%	
AHP Office Furniture	1			5		50%	50%
AHP Tools and Equipment	1			5		50%	50%
AHP Demonstration Equipment	1			5		50%	50%
AHP Training Courses for Farmers	1	20%		5		50%	50%
B. Feed supply							
Improvement of communal pasture	1	20%		1	100%		
Forage Nursery Establishment	1	20%		2	80%	20%	
Forage Nursery Equipment	1	20%		5		50%	50%
Pasture and forage demonstrations	1	20%		4		100%	
C. Dairy Production							
AI Delivery System	1			5		50%	50%
Liquid nitrogen, semen and equipment	1			5		50%	50%
Dairy production demonstrations	1	20%		4		100%	
D. Dairy processing							
Dairy processing Centre	1			3		100%	
Dairy processing equipment	1			5		50%	50%
Dairy Processing Demonstrations	1	20%		4		100%	
E. Sheep Demonstrations							
Sheep breeding stock	1			5		50%	50%
Sheep demonstration equipment	1			5		50%	50%
Sheep demonstrations	1	20%		4		100%	
F. Poultry and honey							
Poultry demonstration breeding stock	1			5		50%	50%
Poultry demonstration housing	1			3		100%	
Poultry & honey demonstrations	1	20%		4		100%	
G. Animal Fattening							
Breeding Stock Large ruminants /l	1			5		50%	50%
Breeding stock small ruminants	1			5		50%	50%
Fattening demonstrations	1	20%		4		100%	
H. DA Livestock							
DA Livestock Office Furniture and Equipment /m	1			5		50%	50%
DA Livestock Tools and Field Equipment	1			5		50%	50%
DA Livestock Transport	1			6			100%

PROJECT COMPONENTS	Component Category (1-7)	Community Contribution (%)	GoE + donor contribution (%)	Share basis	Proportion disbursed		
					Kebele Share	Wereda Share	BoARD Share
FORESTRY AND AGRO-FORESTRY							
A. Agroforestry Demonstrations and Nurseries							
Protection and Harvesting R&D Units	1	20%		3		100%	
System and Subsystem demonstrations	1	20%		4		100%	
Tree Nurseries	1	20%		2	80%	20%	
B. DA Natural Resources							
DA NR Office Furniture and Equipment	1			5		50%	50%
DA NR Tools and Field Equipment	1			5		50%	50%
DA NR Transport	1			6			100%
NON-FARM INCOME GENERATION							
A. Community flour mills							
Grinding Mill and housing	5	25%		6			100%
Grinding Mill engine	5	25%		6			100%
B. Technology and innovation fund	5	25%		6			100%
C. Micro-credit facility	5			6			100%

PROJECT COMPONENTS	Component Category (1-7)	Community Contribution (%)	GoE + donor contribution (%)	Share basis	Proportion disbursed: Kebele Share	Proportion disbursed: Wereda Share	Proportion disbursed: BoARD Share
CAPACITY DEVELOPMENT AND PROJECT MANAGEMENT							
A. PCU Office							
PCU Office Furniture	6			6			100%
PCU Office Equipment	6			6			100%
PCU 4WD saloon	6			6			100%
PCU Double cab pick up	6			6			100%
B. PCU staff and consultants							
National long term staff	6			6			100%
National consultancy (short term)	6			6			100%
International consultancy (long term)	6			6			100%
International consultancy (short term)	6			6			100%
C. Government Salaries and Allowances							
Not used	6			6			100%
Not used	6			6			100%
SMS Subsistence	6			4		100%	
DA Subsistance	6			4		100%	
Ministry staff expenses and per diems	6			5		50%	50%
D. Training							
Training of kebele staff	6			4		100%	
Training of CIT and SMS	6			4		100%	
Training of DA	6			4		100%	
Training of local contractors	6			4		100%	
Training of user groups	6			4		100%	
Training of Health Extension Workers	6			4		100%	
E. Monitoring and Evaluation	7			6			100%
F. Wereda Offices							
Wereda Office	6			5		50%	50%
Wereda Office Furniture	6			5		50%	50%
Wereda Office Equipment	6			5		50%	50%
Wereda 4WD Vehicle	6			6			100%
Wereda Motorbikes	6			6			100%
Wereda Guesthouse	6			3		100%	
G. Community Watershed Management Teams							
Wereda Project Coordinator	6			6			100%
Wereda Assistant Coordinator	6			6			100%
Finance officer	6			6			100%
Accountant	6			6			100%
Office Manager	6			6			100%
Office support staff	6			6			100%
Soil and Water Specialist	6			6			100%
Agronomist	6			6			100%
Livestock Expert	6			6			100%
Water Harvesting and Irrigation Expert	6			6			100%
Socio economics and Gender Specialist	6			6			100%
Community Mobilisers	6			6			100%
Total Investment Costs					**42%**	**27%**	**31%**

Appendix 2

Principal roles and responsibilities

Level	Key institution	Summary role and responsibilities
Sub-kebele	Village groups (informal) *comprising social/interest groups*	Participation in CAP preparation (facilitated by Development Agents) Participation in investment planning (facilitated by Development Agents) User group formation (facilitated by Development Agents)
	User groups (informal)	Implement project programmes Management and maintenance of community assets improved under project
	Water management committees	As above for water supply
	Water user associations	As above for community irrigation
	Cooperatives	Input supply, processing and marketing
Kebele	Kebele Council	Review and recommendation of PLUPs and CAPs Review and recommendation of detailed project investment plans Mobilisation of mengistawi budin (work teams)
	Kebele Watershed Committee *supported by CIT and Development Agents*	Preparation of PLUPs and CAPs Preparation of detailed investment proposals Coordination and reporting on project activities
Wereda	Catchment Project Steering Committees (3 no.) *chaired by Chief Zonal Administrator(s)*	Approval of PLUPs and CAPs Review and recommendation of cacthment annual work plans and budgets Monitoring and review of project progress in each catchment
	Catchment Implementation Teams *supported by Wereda adminstration office and technical offices*	Review and recommendation of PLUPs and CAPs Prepare and recommend of project annual work plans (incl budgets) Approval of kebele investment proposals under project (within AWP) Technical support to kebele watershed committee and teams (incl. DAs) Technical support in design and implementation of project investments Design and implementation of demonstration and promotional programmes Coordination and reporting on project activities, including M&E Disbursement of project funds in accordance with agreed plans
Regional	Project Steering Committee *Co-chaired by MoWR and BoARD*	Oversight and compliance with project agreement Approval of mandates and funding criteria Approval of project annual work plans and reports Coordination between Bureaux
	Bureau of Agriculture & Rural Development *through Project Coordination Unit*	Overall project coordination and reporting Establishment of planning, implementation and expenditure guidelines Technical guidance and quality assurance Compilation of overall workplans and budgets Approval of Wereda annual work plans (incl budgets) Monitoring, evaluation and assessment Addressing replicabilty issues Allocation, disbursement and accounting of project funds
Federal	Ministry of Water Resources	Oversight of all activities Coordination with other Ministries, ENTRO etc Overall provision and management of project funds

Eastern Nile Regional Technical Office (ENTRO)

Integrated Watershed Management (Ethiopia)
Watershed Project, Fast-Track Projects
Detailed Project Preparation

Project Implementation Plan

Annex K: Action Plan for the first 18 months

December 2007

Halcrow Group Limited
in association with
Metaferia Consulting Engineers

Contents

1 Action Plan for the first 18 months

The Action Plan for the first 18 months has been set up in a series of matrices in terms of who will do what, where and when, more or less in chronological order. The actions are linked to the Project Implementation Schedule (PIS) by a number in the first column of the matrix. Given below are key messages with regard to the actions required in the start-up period.

1.1 Project Management

The Action Plan pre-supposes that the first Community Action Plans (CAPs) for the development nuclei will be ready for implementation 6 months after approval of finance to start the project. Participatory Land Use Plans (PLUPs), for the micro-watersheds in which the first phase of expansion from these nuclei will take place, are assumed to be prepared in the last quarter of the first 18 months.

1.2 Capacity Building

Training of CITs, KWCs and other participants should go hand-in-hand with the finalization of the first PLUPs and CAPs in the development nuclei.

1.3 Livelihood interventions

a. Community entry points

It will be essential to set up telecommunications centres as soon as possible to expedite project activities in the field. Contact arrangements should be made with village leaders and/or Kebele Council members at the same time

b. Crop production

Once a field site is chosen for a crop demonstration the soil must be sampled to a depth of 10 cm according to the rules of soil science and analysed for at least pH, N, P and K. The methods used to analyse the elements N, P and K must be stated as these affect the interpretation of the results for agronomic purposes.

In the process of establishing demonstrations project staff will become aware of the problems farmers have with input supply, storing their produce for home consumption and delivering produce to market. They will also become aware of farmers' technical needs and

how to satisfy these with improved technical services. This will be important as the project expands in the latter half of Year 2 and in Years 3, 4 and 5.

c. Livestock production

It will be essential to work closely with the Division of Animal Health in BoARD when setting up the animal health posts. The matrix shows this to occur in Months 6-9 in Year 1 but if anything can be done sooner all to the good. An animal saved from morbidity or death is an excellent "community entry point" and will be remembered for a long time with gratitude.

It appears that the concepts amongst pasture development specialists in Ethiopia of an "animal feed year", especially one which incorporates the use of the indigenous kikuyu grass and African *Trifolium* spp, is not well understood. It is suggested that a short-term international consultancy input will be helpful to get things started down this important road.

Livestock people must participate with SWC staff, crop production staff and farmers in the planning an execution of SWC measures.

d. Non-farm income generation

There are numerous opportunities, e.g. the operation of a telephone post, the operation of a guesthouse on a commercial basis, the supply of tree seedlings by schools, for community members to participate in the business that project activities will generate in the development nuclei and kebeles in the expansion phases. These must be explored and encouraged by the provision of advice and targeted training.

1.4 Natural Resources Interventions

The key to the success of interventions in the use of natural resources will be 100% engagement with the micro-watershed communities because the process will interfere with present patterns of land holding and use. For example, it will require the persuasion of people to plough the land on the contour relative to the keyline[1] to aid water percolation. At the same time, they will need to be persuaded of the value of reclaiming the slopes above the keyline for permanent crops of trees and pastures for different purposes.

a. Soil and water management

As the project expands, the initial principal gauging station will only reflect what happens in the development nuclei (Three gauging stations have been budgeted for each development

[1] The keyline is the line in the watershed where the slope changes abruptly. Cut-off drains are constructed along it to lead water slowly across the landscape to small ponds high in the natural waterway or eroded gully from where it will move more slowly down the slope through a series of check dams.

nucleus). Another gauging station has been budgeted for what has been termed the "ultimate" gauging station. Early in Year 2, after activities in the development nuclei are underway, this must be installed at a point immediately below where development activities will cease in each project cluster or area. It must be maintained and .monitored for the rest of the project's life.

It will be essential for SWC people to engage with people in crops, livestock and the community when planning and executing SWC measures.

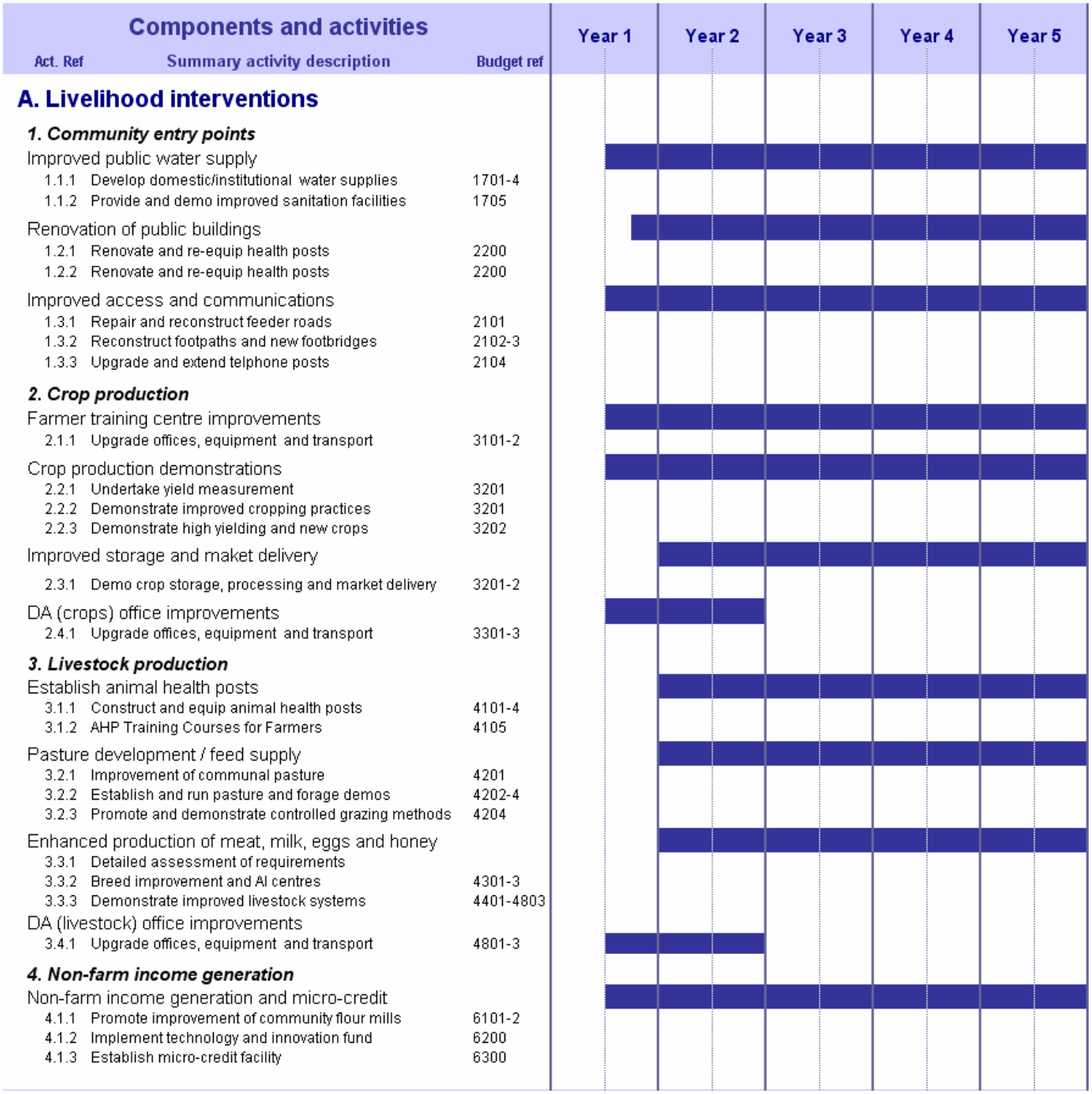
b. Forestry and agro-forestry

Forests, woodlots and permanent pastures take some time to get established and thereafter they need to be managed carefully for sustainability. If they are community owned, it would be wise to establish a paid position to lead in the establishment and maintenance of these important multi-purpose areas, the concept being that "what gets rewarded, gets done". The person holding the position would report to the Kebele Watershed Committee which should enable and support the person in the role on the basis of "what gets done, gets rewarded".

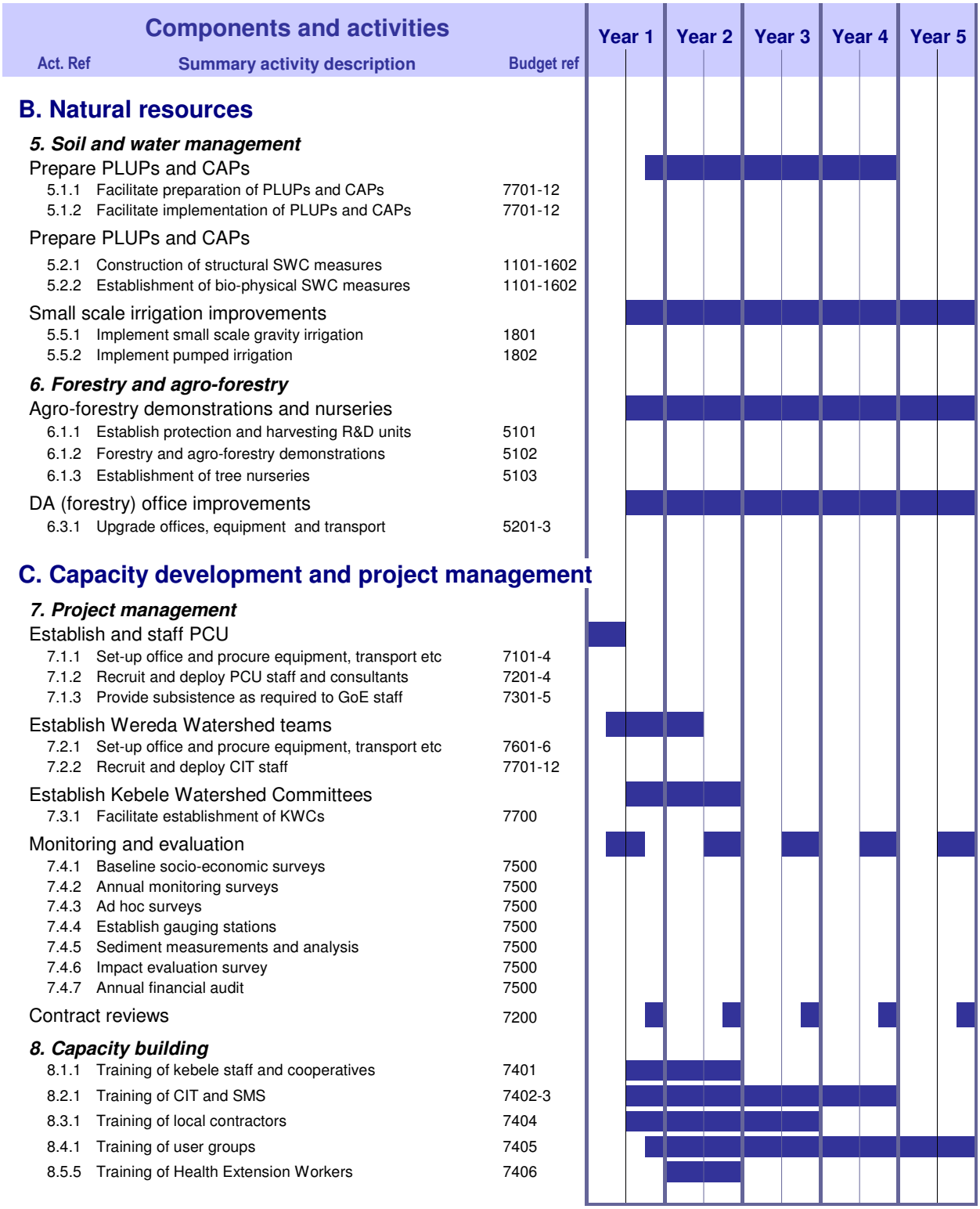
1.5 Action list

In the following pages details are given of what actions will be required over the first 18 months, where these need to be acted upon and by when and by whom. The PIS ref number refers to the activity numbers in the Project Implementation Schedule, which is reproduced overleaf.

Project Implementation Schedule



Act. Ref	Components and activities — Summary activity description	Budget ref
	A. Livelihood interventions	
	1. Community entry points	
	Improved public water supply	
1.1.1	Develop domestic/institutional water supplies	1701-4
1.1.2	Provide and demo improved sanitation facilities	1705
	Renovation of public buildings	
1.2.1	Renovate and re-equip health posts	2200
1.2.2	Renovate and re-equip health posts	2200
	Improved access and communications	
1.3.1	Repair and reconstruct feeder roads	2101
1.3.2	Reconstruct footpaths and new footbridges	2102-3
1.3.3	Upgrade and extend telphone posts	2104
	2. Crop production	
	Farmer training centre improvements	
2.1.1	Upgrade offices, equipment and transport	3101-2
	Crop production demonstrations	
2.2.1	Undertake yield measurement	3201
2.2.2	Demonstrate improved cropping practices	3201
2.2.3	Demonstrate high yielding and new crops	3202
	Improved storage and maket delivery	
2.3.1	Demo crop storage, processing and market delivery	3201-2
	DA (crops) office improvements	
2.4.1	Upgrade offices, equipment and transport	3301-3
	3. Livestock production	
	Establish animal health posts	
3.1.1	Construct and equip animal health posts	4101-4
3.1.2	AHP Training Courses for Farmers	4105
	Pasture development / feed supply	
3.2.1	Improvement of communal pasture	4201
3.2.2	Establish and run pasture and forage demos	4202-4
3.2.3	Promote and demonstrate controlled grazing methods	4204
	Enhanced production of meat, milk, eggs and honey	
3.3.1	Detailed assessment of requirements	
3.3.2	Breed improvement and AI centres	4301-3
3.3.3	Demonstrate improved livestock systems	4401-4803
	DA (livestock) office improvements	
3.4.1	Upgrade offices, equipment and transport	4801-3
	4. Non-farm income generation	
	Non-farm income generation and micro-credit	
4.1.1	Promote improvement of community flour mills	6101-2
4.1.2	Implement technology and innovation fund	6200
4.1.3	Establish micro-credit facility	6300


Components and activities
Act. Ref
Summary activity description
Budget ref
Year 1
Year 2
Year 3
Year 4
Year 5
B. Natural resources
5. Soil and water management
Prepare PLUPs and CAPs
5.1.1 Facilitate preparation of PLUPs and CAPs 7701-12
5.1.2 Facilitate implementation of PLUPs and CAPs 7701-12
Prepare PLUPs and CAPs
5.2.1 Construction of structural SWC measures 1101-1602
5.2.2 Establishment of bio-physical SWC measures 1101-1602
Small scale irrigation improvements
5.5.1 Implement small scale gravity irrigation 1801
5.5.2 Implement pumped irrigation 1802
6. Forestry and agro-forestry
Agro-forestry demonstrations and nurseries
6.1.1 Establish protection and harvesting R&D units 5101
6.1.2 Forestry and agro-forestry demonstrations 5102
6.1.3 Establishment of tree nurseries 5103
DA (forestry) office improvements
6.3.1 Upgrade offices, equipment and transport 5201-3
C. Capacity development and project management
7. Project management
Establish and staff PCU
7.1.1 Set-up office and procure equipment, transport etc 7101-4
7.1.2 Recruit and deploy PCU staff and consultants 7201-4
7.1.3 Provide subsistence as required to GoE staff 7301-5
Establish Wereda Watershed teams
7.2.1 Set-up office and procure equipment, transport etc 7601-6
7.2.2 Recruit and deploy CIT staff 7701-12
Establish Kebele Watershed Committees
7.3.1 Facilitate establishment of KWCs 7700
Monitoring and evaluation
7.4.1 Baseline socio-economic surveys 7500
7.4.2 Annual monitoring surveys 7500
7.4.3 Ad hoc surveys 7500
7.4.4 Establish gauging stations 7500
7.4.5 Sediment measurements and analysis 7500
7.4.6 Impact evaluation survey 7500
7.4.7 Annual financial audit 7500
Contract reviews 7200
8. Capacity building
8.1.1 Training of kebele staff and cooperatives 7401
8.2.1 Training of CIT and SMS 7402-3
8.3.1 Training of local contractors 7404
8.4.1 Training of user groups 7405
8.5.5 Training of Health Extension Workers 7406

1. Project Management

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
	Set up Project Steering Committee (PSC). The PSC includes the BoARD which is responsible for implementation.	Addis Ababa	After project financing is approved.	MoWR
	PSC meets to determine formal date of project commencement and signs agreement with BoARD to implement the project.	Addis Ababa	Within one month after project finance is approved.	PSC
	Prepare terms of reference (TOR) for appointment of Project Coordinator (PC) in time for first meeting of PSC.	Bahir Dar	Within one month after project finance is approved to start	BoARD
	Appoint PC.	Bahir Dar	By one month after project finance is approved.	PSC/BoARD
7.1.1	Determine where the premises of the Project Coordination Unit (PCU) will be located and the space required. Draw up a formal contract if premises are rented or a formal agreement if premises are located within BoARD.	Bahir Dar	During Month 2	BoARD/PC
7.1.1	Furnish project office and arrange telecommunications. Hire temporary project transport	Bahir Dar	During Month 2	PC
7.1.2 7.1.3	Draw up TORs for staff of PCU and start the appointment process. Determine terms and conditions of work. Organize financing arrangements with BoWR and set up bank accounts.	Bahir Dar	During Month 2	PC
7.2.2	Determine composition of the Community Watershed Management Team s (CITs) in each project area.	Bahir Dar,	During Month 2	PC

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
7.2.2	Appoint members of the CIT	Bahir Dar	During Month 2	PC
7.2.1	Determine site for a CIT office in the Ribb, Gumera and Jema watersheds.	Bahir Dar, Weredas	During Month 3	PC, Wereda Council, CIT
7.2.1	Draw up a contract to design and construct each CIT office.	Bahir Dar		
7.4.4	Familiarize the PCU and CIT staff with the project areas by visiting the social communities in the development nuclei who participated in the orientation and trial preparation of CAPs and PLUPs. In the process, determine sites for gauging stations.	Development nuclei	During Month 2	PC, CIT, BoARD and BoWR advisers with DAs and farmers in the development nuclei
7.4.4	After construction of a principal water gauging station (see Soil and Water Management plan) begin monitoring and evaluation of quantity and quality of water flowing from the micro-watersheds in the development nuclei into the main stream of the project areas.	Development nuclei	During Months 4-6	CIT/BoWR
7.3.1	Establish Kebele Watershed Committee (KWC)		During Month 3	CITs
	Renew the dialogue with communities in development nuclei, up-date the PLUPs and prepare the first CAP and PLUP for each of the nuclei	Development nuclei	By the end of Month 6	CITs/KWCs
	Prepare the first Annual Work Plan and Budget	Bahir Dar	During Month 3	PC, CITs, administrative, finance and procurement staff

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
	After transport, communications and other high-value requirements are approved prepare procurement documents according to ICB and NCB rules and regulations. Allow time for contract review by the World Bank for these items. Take no action until No Objection is received from the World Bank Task Officer	Bahir Dar	During Months 4-9	PC, administrative, finance and procurement staff
	Start procedures for procurement items which do not fall under the ICB and NCB rules and regulations	Bahir Dar	During Months 4-9	PC, administrative, finance and procurement staff

2. Capacity building

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
8.2.1	Training of CITs	Bahir Dar and Project Areas	Start in time to begin PLUP and CAP planning in Month 3 and continuing through to the end of Month 6 in Year 1.	BoARD/BoWR and other agencies either directly or contracted, e.g. ORDA
8.2.1	Training of Subject Matter Specialists (SMSs) and DAs	Bahir Dar and Project Areas	Months 4-6 in Year 1	BoARD/BoWR/CIT and other agencies either directly or contracted
8.1.1	T raining of KWC, Kebele Council (KC) and Cooperatives	Project areas	Months 4-6 in Year 1	CIT
8.4.1	Training of Specialist User Groups, e.g. water, livestock, small business entrepreneurs	Farmer Training Centres (FTCs)	Months 6-12 in Year 1 and Moths 1-6 in Year 2 as required	PCU/CIT
2.1.1	Up-grading of the physical facilities for training	FTCs	By the end of Month 4 in Year 1	PC/CIT
2.4.1 3.4.3 6.3.1	Up-grading DA offices for crops, livestock and natural resources	(a) Kebeles associated with Development Nuclei	By the end of Month 4 in Year 1	PC/CIT
		(b) Contiguous micro-watersheds	By the end of Month 6 in Year 2	PC/CIT

3. Livelihood Interventions a. Community entry points

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
1.3.3	Establish telecommunications centres in each development nucleus mostly by installing a solar-powered telephone post if one does not exist already	Kebele villages	By end of Month 3	PCU/CIT
1.1.1 1.1.2	Develop improved water supplies and sanitation facilities according to the priorities, types and methods agreed in the CAPs	Development nuclei	Months 6-12 in Year 1	CIT/KWC/Contractors
1.3.1 1.3.2	Construct improvements to internal access, e.g. feeder roads, foot and cart paths and foot and cart bridges as agreed in the CAPs	Development nuclei	Months 6-12 in Year 1	CIT/KWC/Contractors
1.2.1	Up-grade and/or establish kebele health posts according to the priority needs agreed in the CAPs	Kebele villages and significant social units within development nuclei	Months 6-12 in Year 1	PCU/KWC/Contractors
1.2.2	Up-grade school facilities including classrooms, water supply and sanitation according to the priority needs agreed in the CAPs	Kebele level schools in development nuclei	Months 6-12 in Year 1	PCU/KWC/Contractors
1.2.2	Supply consumables to schools which facilitate student learning according to the needs agreed in the CAPs	Kebele level schools in development nuclei	Months 6-12 in Year 1	PCU/KWC/Contractors

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
	Determine the location of commercial guesthouses in each watershed and draw up a contract to design and construct	Wereda level where it facilitates direct contact with the rural communities	Month 9-12 in Year 1	PCU/contractors
	Construct guesthouses in each watershed	Wereda level	Months 1-3 in Year 2	PCU/Contractors
5.4.1	Work with cooperatives, private sector and credit agencies to facilitate the development of small-scale irrigation by individual or groups of farmers who make contact during the CAP process	Development nuclei	Months 6-12 in Year 1	CIT/specialist water users

3. Livelihood Interventions b. Crop production

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
2.2.1	During the CAP process, determine potential farmer cooperators for crop research and demonstrations and select crop fields for intensive baseline productivity studies.	Development nuclei	Months 4-6 in Year 1	CIT Agronomist, DA, BoARD Agricultural Economist or Farm Management Adviser
2.2.2 2.2.3	Make contact with ARARI and researchers at Adet Crop Research Station and seek advice on improved crop varieties for the project areas. Plan research and demonstrations.	Adet Crop research Station	Month 7 in Year 1	PC/CIT Agronomist
2.2.2	With interested cooperators, establish demonstrations of cultural practices and crop production systems, e.g. contour ploughing relative to the keyline in conjunction with SWC specialists, the correct use of fertilizers according to need and type, and pasture leys to enhance soil fertility. Take soil samples from all sites for chemical analysis.	Development nuclei	Months 9-12 in Year 1 and months 1-3 in Year 2	CIT Agronomist/DA and farmers
2.2.1 2.2.2	Compare and analyse yields with those determined in the baseline studies	Development nuclei, Wereda offices and Bahir Dar	Months 1-6 in Year 2	CIT Agronomist, BoARD Agricultural Economist or Farm Management Adviser
2.2.3	With interested cooperators, establish demonstrations of high-yielding crop varieties and new crops in association with ARARI staff. Analyse soil samples from all sites.	Development nuclei	Months 1-3 in Year 2	CIT Agronomist, DA farmers and ARARI staff
2.2.1 2.2.3	Compare yields with what has been achieved in other areas.	Development nuclei, Wereda offices and Bahir Dar	Months 4-6 in Year 2	CIT Agronomist, BoARD and ARARI staff

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
5.1.1 5.2.1	Provide advice and assistance to soil and water management teams with respect to what species to plant, e.g. vetiver grass, kikuyu grass, and how to plant them to stabilize SWC structures relative to the need for livestock feed and even human food as by-products.	Development nuclei	Months 6-12 in Year 1 and months 1-6 in Year 2	CIT Agronomist, BoWR advisers, BoARD Pasture adviser, BoARD Livestock adviser,

3. Livelihood Interventions c. Livestock production

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
3.1.1 3.3.1	During the CAP process, determine the specific needs of the communities to solve animal health problems and begin a dialogue about treating pasture and fodder plants as crops	At community meetings in development nuclei	Months 4-6	PC/CITs/DAs/KWCs
3.1.1	Make contact with the Division of Animal Health in BoARD and commence the planning to upgrade existing animal health posts or establish new ones in the project areas generally and the development nuclei specifically.	Bahir Dar and development nuclei	Months 6-9 in Year 1	PC/CITs/BoARD veterinarian
3.1.1	Up-grade existing animal health posts or establish new ones in the development nuclei.	Development nuclei	Months 9-12 in Year 1 and 1-3 in Year 2	CIT/BoARD veterinarian
3.1.1	Plan the improvement or establishment of a Basic Animal Health Service in the micro-watersheds immediately contiguous with those in the development nuclei.	Contiguous micro-watersheds	Months 4-6 in Year 2	PC/Division of Animal Health/CITs
3.2.1 3.2.2	Make contact with ILRI and Andessa Livestock Research Centre and determine sources of pasture seed and vegetative material for planting permanent pastures and pasture leys and to stabilize soil and water conservation (SWC) structures. Discuss soil fertility and fertilizer needs	Andessa, Bahir Dar	Months 6-9	BoARD Pasture Adviser, BoARD Livestock Adviser and CIT Agronomist

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
5.1.1 5.2.1	Link with farmers, soil and water management specialists and crop production specialists to determine what is needed where to stabilize landscapes and SWC structures and enhance soil fertility with pasture leys.	Bahir Dar and development nuclei	Months 6-9	BoARD Pasture Adviser, BoWR SWC specialists, CITs
5.2.1	As SWC structures are completed, commence planting seed and vegetative material according to seasonal possibility and animal feed requirements.	Development nuclei	Months 9-12 in Year 1 and 1-6 in Year 2	BoARD Pasture Adviser, BoWR SWC specialists, CITs
	Follow-up the planting of all pastures to ensure the effective growth of the species established for whatever purpose; fill in any gaps and ensure close collaboration with farmers on feed harvesting by grazing or cut-and-carry-methods.	Development nuclei	Months 1-6 in Year 2	BoARD Pasture Adviser, BoARD Livestock Adviser, BoWR SWC specialists, CITs

3. Livelihood Interventions d. Non-farm income generation

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
	During the CAP process, determine potential individual and community interest in opportunities for non-farm income generation.	Development nuclei	Months 4-6 in Year 1	PC/CITs/KWCs/Das
4.1.3	Determine the requirements for credit and whether existing institutions can provide it with acceptable terms & conditions	Development nuclei and Bahir Dar	Month 7 in Year 1	PC and BoARD advisers
4.1.3	Determine specific requirements for a new micro-credit facility if needed, particularly for perennial crop enterprises	Development nuclei and Bahir Dar	Month 8 in Year 1	PC and BoARD advisers
4.1.3	Set up a project revolving fund if that is the best way to satisfy credit requirements outside normal commercial terms and conditions. The fund could be administered by an existing credit agency.	Bahir Dar	Month 9 in Year 1	PC, BoARD advisers and credit agecies
4.1.1	Draw up funding agreements and contracts for the design and construction of grinding mills where requested	Development nuclei	Months 7-12 in Year 1	PC with advice from CITs and other advisers
4.1.2	Identify opportunities for use of the Technology and Innovation Fund, develop business cases as appropriate, and procure and demonstrate new technologies	Development nuclei, kebeles, weredas, and major urban centres	Months 10-12 in Year 1 and Months 1-6 in Year 2	PC with advice from CITs and other advisers

4. Natural Resources Interventions a. Soil and Water Management (SWM)

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
7.4.4	Erect a principal water gauging station on the mainstream flowing from each of the development nuclei.	At a point on the mainstream immediately below where project activities will cease	Months 4-6 of Year 1	CIT and BoWR stream flow advisers
7.4.4	Erect special purpose water gauging stations at strategic sites, e.g. in Enkulal, there needs to be a station on the stream flowing from the original forest which covers a micro-watershed in the headwaters of the Enkulal River and another station on the stream flowing from the cultivated micro-watershed next to it.	At points in a development nucleus which will monitor the impact of a project activity on stream flows.	After the principal gauging stations have been erected and the monitoring system is functioning effectively. Months 7-12 in Year 1 and months 1-6 in Year 2	BoWR stream flow advisers
7.4.4	Ground truth the extent of the development clusters or project areas and determine where project activities will cease after full development.	Micro-watersheds and Kebeles identified in the PIP	Months 7-12 in Year 1 and Months 1-3 in Year 2	CIT and BoWR stream flow advisers
7.4.4	Erect an ultimate water gauging station on the mainstream flowing from each of the development clusters.	At the point on the mainstream immediately below where project activities will cease.	Months 4-6 in Year 2	BoWR stream flow advisers
5.1.1	During the CAP process, finalize PLUPs and determine the priority SWM actions, e.g. SWC measures, small-scale irrigation, to be undertaken in the CAPs	At community meetings in development nuclei	By the end of Month 6 in Year 1	PC, CITs, KWCs and BoWR advisers
5.2.1	Plan and implement priority SWC actions in each CAP	Development nuclei	From Month 7 in Year 1 to Month 6 in Year 2	CITs, KWCs and BoWR advisers and specialists, BoARD specialists

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
5.3.1	Plan and implement priority water harvesting actions in each CAP, e.g. water harvesting from roofs	Development nuclei	From Month 7 in Year 1 to Month 6 in Year 2	CITs, KWCs and BoWR advisers and specialists
5.4.1	Appraise/adjust small-scale irrigation requests and approve and implement those suitable for project support	Development nuclei	From Month 7 in Year 1 to Month 6 in Year 2	CITs, KWCs, DAs, .BoWR advisers, BoARD advisers and specialists

4. Natural Resources Interventions b. Forestry and agro-forestry

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
6	During the review of a PLUP and the CAP process, engage interested participants in a dialogue to establish the rules and regulations by which the community manages its forests and forest remnants for different purposes.	At community meetings in development nuclei	Months 4-6 in Year 1	PC/CITs/DAs/KWCs, BoARD forestry advisers and specialists
6.1.1	Use the dialogue during PLUP and CAP preparation as the entry point for integrating and harmonizing plans to enrich and/or expand existing forests in the PLUP, plant new woodlots, and to plant perennial tree crops and pastures for fuel, feed or food in non-arable areas.	Development nuclei	Months 7-9 in Year 1	CITs/KWCs/DAs, BoARD advisers and specialists in forestry, perennial crops and SWC
6.1.2	Use the plans in the CAP to determine the need for seed and seedlings to implement them and decide whether existing nurseries can satisfy the need or new nurseries must be established according to community or individual capacity.	Development nuclei	Months 7-9 in Year 1	CITs/KWCs/DAs, BoARD advisers and specialists in forestry, perennial crops and SWC
6.1.2	Given nurseries are required, determine if land is available, who will be responsible for establishing them, and how the project will support them	Development nuclei	Months 9-12 in Year 1	Farmers, KWCs, DAs
6.1.2	Establish nurseries as needed	Development nuclei	Months 9-12 in Year 1 and Months 1-3 in Year 2	Farmers, KWCs, DAs, CITs

PIS No.	What action is to be taken?	Where?	When?	Who is responsible?
6.1.1	Commence planting priority areas and ensure closure for their protection	Areas designated in the PLUP and agreed in the CAP	Months 1-6 in Year 2	Farmers, KWCs, DAs, CITs
6.1.1	Mobilize community support for the protection of the new plantings	Villages and social units	Months 1-6 in Year 2	Community facilitators
6.1.1	Ensure someone is responsible for regular monitoring and maintenance of the new plantings	Villages and social units	Months 1-6 in Year 2	KWCs and DAs
6.1.1	Monitor the growth of perennial pastures and fodder crops to ensure timely grazing and/or cutting when required	Planted areas	Months 5-6 in Year 2	Farmers, DAs and BoARD pasture adviser
6.1.1	Review with communities the results of these actions	Development nuclei	Month 6 in Year 2	All concerned

2 Procurement Action Plan

The priority programme of actions to be undertaken over the first 18 months of the project is set out in the schedule overleaf. The details conform with the Action Plan above and the Project Implementation Schedule. However, it should be understood that the project start-up period can be quite difficult and schedules need to be up-dated and adjusted in the light of experience and the circumstances prevailing at the time.

The procurement of a Project Coordinator (PC) to head up the Project Coordination Unit (PCU) will be the first requirement on receiving notice to proceed with the project. The PC will be responsible for organising the engagement of the PCU team over the first three months of the project, starting if possible in Month 2. At the same time the PC will procure and appoint a Catchment Coordinator (CC) in the Farta, Dera and Mecha Weredas to facilitate and support the Community Watershed Management Teams (CIT) which will be staffed by members drawn from partner organisations and the concerned Wereda Offices.

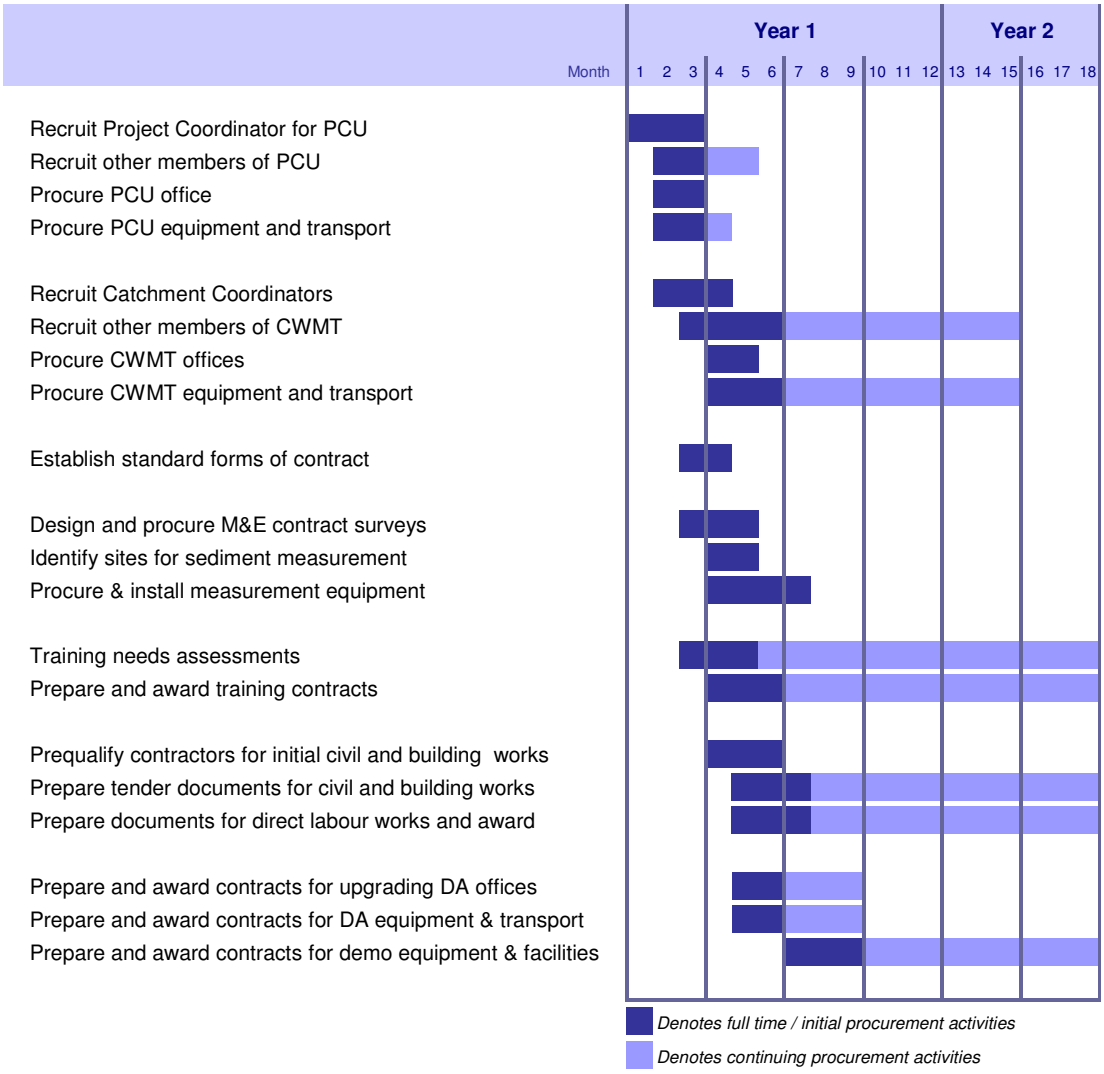
On appointment of the PCU team, programmed to be in place by the end of Month 3 after the project start, the procurement officer in the team will initiate the procurement of the office equipment and transport for the PCU and CITs at the wereda level. At the same time, training needs assessments will commence prior to award of training contracts for the initial phase of the programme.

Other early actions relate to establishing the Monitoring and Evaluation surveys, including extending the socio-economic baseline surveys beyond the development nuclei into the next phase of kebele. It will be particularly important also to take early action on setting up sediment gauging stations, especially having in mind to catch the first floods.

The Farta, Dera and Mecha Wereda CCs will liaise with their respective Wereda Rural Roads Office and development nuclei communities to plan and design the priority feeder roads along existing tracks and footpaths to improve access to the micro-watersheds. The procurement officer will assist in drawing up contracts for the fast-track letting of national contracts to commence on these constructions to improve internal access in the development nuclei.

One of the first actions of the PCU team will be to work with the local Wereda staff to establish Kebele Watershed Committees (KWCs) in those Kebeles which are adjacent to, or within, the development nuclei. These are Koley Dengors, Jura and Minet Kebeles in Farta Wereda, Gelawdewos in Dera Wereda and Lehulum Selam in Mecha Wereda. 11 kebeles are programmed to be targeted in the first batch including the above 5 kebeles. On conclusion of the first batch of CIT training in Month 6, the respective Wereda watershed teams will start to work with the priority KWCs who will be familiar with the project and its

Procurement plan



processes having been engaged in the PLUP and CAP. Kebele level staff training contracts will be procured as well as equipment and infrastructure improvement contracts for the DA offices and FTCs starting from month nine.

After the formation of the KWCs, a start can be made with the help of the PCU team and the CIT to take the final steps in the CAPs which have identified the priority livelihood and soil and water conservation interventions to be undertaken within those development nuclei taken up during the study phase, viz. Baskura, Kantai, Zefie, Enkulal and Engule. Community contract work orders will be established and the first ones are anticipated to be implemented by the end of Month 7 after the project start date.

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