CGIAR Challenge Program on
WATER & FOOD
Nile

Promoting improved rainwater and land management in the Blue Nile (Abay) basin of Ethiopia: Annexes

Nile BDC Technical Report –1

Promoting improved rainwater and land management in the Blue Nile (Abay) basin of Ethiopia

Annexes

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ILRI works with partners worldwide to help poor people keep their farm animals alive and productive, increase and sustain their livestock and farm productivity, and find profitable markets for their animal products. ILRI's headquarters are in Nairobi, Kenya; we have a second principal campus in Addis Ababa, Ethiopia, and 14 offices in other regions of Africa and Asia. ILRI is part of the Consultative Group on International Agricultural Research (www.cgiar.org), which works to reduce hunger, poverty and environmental degradation in developing countries by generating and sharing relevant agricultural knowledge, technologies and policies.

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Acronyms

ADA	Amhara Development Association
ADLI	Agricultural Development-Led Industrialization
AE	Area Enclosure
AFfDB	African Development Bank
AHI	African Highlands Initiative
AMAREW	Amhara Micro-Enterprise Development, Agricultural Research, Extension and Watershed Management Project (USAID)
ANRS	Amhara National Regional State
ARARI	Amhara Regional Agricultural Research Institute
ARBO	Abay River Basin Organization
ARDO	Agriculture and Rural Development Offices
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ASSP	Agricultural Sector Support Project
ATVET	Agriculture Technical and Vocational Education and Training
AWM	Agricultural Water Management
BDC	Basin Development Challenge
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (German Federal Ministry for Economic Cooperation and Development)
BoA	Bureau of Agriculture
BoARD	Bureau of Agriculture and Rural Development
BoWRD	Bureau of Water Resources Development
CAADP	Comprehensive Africa Agricultural Development Program
CBI	Community Based Institution
CBINReMP	Community-Based Integrated Natural Resources Management Project
CBPWD	Community Based Participatory Watershed Development
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture (Spanish acronym)
CIDA	Canadian International Development Agency
CIMMYT	International Maize and Wheat Improvement Center
CPWF	Challenge Program on Water and Food
CRS/E	Catholic Relief Services-Ethiopia
CWMO	Community Watershed Management Organization
CWP Crop	Water Productivity
CRDA	Christian Relief and Development Association
DA	Development Agent
DfID	Department for International Development (UK)
EARO	Ethiopian Agricultural Research Organization
EDRI	Ethiopian Development Research Institute
EEPFE	Environmental Economics Policy Forum for Ethiopia
EFAP	Ethiopian Forestry Action Program

EHRS	Ethiopian Highland Reclamation Study
EIA	Environmental Impact Assessment
EIAR	Ethiopian Institute of Agricultural Research
ENSAP	Eastern Nile Subsidiary Action Program
ENTRO	Eastern Nile Technical Regional Office
EPA	Environmental Protection Agency
EPLAUA	Environment Protection and Land Administration and Use Authority
ESIF	Ethiopia Strategic Investment Framework
ESSP	Ethiopia Strategy Support Program
ETB	Ethiopian Birr
EWNRA	Ethiopia Wetlands and Natural Resources Association
EWUAP	Efficient Water Use for Agricultural Production
FAO	Food and Agriculture Organization of the United Nations
FDRE	Federal Democratic Republic of Ethiopia
FfW	Food for Work
FSS	Forum for Social Studies
FTC	Farmers Training Center
GEF	Global Environmental Fund
GIS	Geographical Information Systems
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HDI	Human Development Index
IASC	Inter-Agency Standing Committee
ICRAF	International Center for Research in Agro-forestry
ICARDA	International Center for Agricultural Research in Dry Areas
ICRISAT	International Crop Research Institute for Semi-Arid Tropics
IDE	International Development Enterprises
IDR	Institute of Development Research
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
ILRI	International Livestock Research Institute
INRM	Integrated Natural Resources Management
IPMS	Improving Productivity and Market Success of Ethiopian farmers
IWM	Integrated Watershed Management
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
JICA	Japanese International Cooperation Agency
LLPPA	Local Level Participatory Planning Approach
LSI	Large scale irrigation
LWP	Livestock Water Productivity
masl	Metres above sea level
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MERET	Managing Environmental Resources to Enable Transitions
MoA	Ministry of Agriculture

MoARD	Ministry of Agriculture and Rural Development
MoFED	Ministry of Finance and Economic Development
MoWR	Ministry of Water Resources
MUS	Multiple Water Use Services
NAP	National Action Plans
NAPA	National Adaptation Program of Action
NBI	Nile Basin Initiative
NCCR	National Center of Competence in Research
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NGO	Non Government Organization
NMA	National Meteorological Agency
NRM	Natural Resources Management
ODI	Overseas Development Institute
ORDA	Organization for Rehabilitation and Development of Amhara
OSSREA	Organization for Social Science Research in Eastern and Southern Africa
PADETES	Participatory Demonstration and Training Extension System
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PES	Payment for Environmental Services
PROFIEET	Promoting Farmer Innovation and Experiences in Ethiopia
PSNP	Productive Safety Net Program
PWDP	Participatory Watershed Development Planning
R&D	Research and Development
RELMA	Regional Land Management Unit (at ICRAF)
REST	Relief Society of Tigray
RWH	Rainwater Harvesting
RWM	Rainwater Management
RWS	Rainwater System
SAP	Subsidiary Action Program
SARDP	SIDA-Amhara Rural Development Program
SCRP	Soil Conservation Research Program
SDPRP	Sustainable Development and Poverty Reduction Program
SIDA	Swedish International Development Agency
SIP	Strategic Investment Program for Sustainable Land Management in sub-Saharan Africa
SLM	Sustainable Land Management
SLWM	Sustainable Land and Water Management
SLUF	Sustainable Land Use Forum (Ethiopia)
SNNPR	Southern Nations Nationalities and Peoples Region
SNV	Stichting Nederlandse Vrijwilligers (Foundation of Netherlands Volunteers)
SSA	Sub-Saharan Africa
SSI	Small scale irrigation
SUN	Sustainable Use of Natural Resources for Food Security Project
SVP	Shared Vision program
SWC	Soil and Water Conservation

SWCD	Soil and Water Conservation Department
TBIWRDP	Tana Beles Integrated Water Resources Development Project
TDA	Tigray Development Association
TLU	Tropical Livestock Unit
TOR	Terms of Reference
TTT	Team Today and Tomorrow
UN	United Nations
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VAM	Vulnerability Analysis and Mapping
WFP	World Food program
WH	Water harvesting
WHIST	Water Harvesting and Institutional Strengthening in Tigray
WOCAT	World Overview of Conservation Approaches and Technologies
WP	Water Productivity
WSDP	Water Sector Development Program
WUA	Water User Association

Annex 1 Nile BDC research questions

CPWF Phase 2 Nile Basin Project N1-Refinement of Research Questions

The questions posed in the TOR are as follows:

- What is known from past experience about designing and implementing successful rainwater management programs in the Ethiopian Highlands (both developmental and research and development programs)?
- What is known from past experience about spatial targeting of different RMS to different environments?
- Who else is working on rainwater management and how can we most effectively link up with them?

An additional question suggested by Seleshi Bekele is:

- What are consequences of RWM locally and in upstream downstream linkages based on the evidence of the region and other places of the world?
- The Tor notes these questions are subject to further modification, and refining them is listed as an early activity. This note has been influenced by a note on suggestions for Project N1 received from the leaders of the subsequent Nile Projects. As suggested in that note and in other materials, 'rainwater management' (RWM) is defined broadly to include soil and water conservation (SWC), conservation farming, and small-scale irrigation; and focuses on crops, livestock and trees. This note provides a refined set of questions which the Nile Project 1 will seek to answer as far as possible given data limitations.

1. **Policies:** What are the main government policies related to RWM and how have they evolved over the past two decades? Which government policies are most supportive of adoption of RWM interventions and need to be reinforced or strengthened? Which government policies need to be revised or reformed to provide more support to uptake of RWM practices? What kind of support (data, information, analysis) do policymakers need, how is that channelled and who is involved in providing such support?
2. **Institutional framework for policy implementation:** What are the main features and strengths and weaknesses of the institutional framework in place to implement government policies towards RWM? How has it evolved over the past two decades? This refers to federal, regional and local levels of government. How are the various stakeholders at community and household level involved in the process?
3. **Main RWM development programs:** What have been the major past and current RWM development projects and projects promoting improved RWM in the Ethiopian Highlands (specifically, the Blue Nile Basin)? What were their main objectives, target regions, target social groups? What was the scale of the project (budget, number of beneficiaries, geographical spread)? What technologies did they promote and what strategies were used

to promote them? What were the outcomes of these programs, during and after the end of the project? What were the broader impacts, if any? What was the level of sustainability of these interventions? What were the factors affecting the outcomes, impacts and sustainability? What data, reports, scientific studies are available as documentation of these programs (to be collected and analysed if available)? To what extent have subsequent projects and programs benefited from lessons of previous projects or from research? What are the positive and negative lessons that can inform CPWF projects?

4. **Main RWM research programs:** What have been the major RWM research programs and projects in the Blue Nile/Ethiopian Highlands? Who were/are the implementing agencies? What were their main objectives and target regions? How did they relate to or partner with implementation agencies? What was the scale of the project (budget, number of beneficiaries, geographical spread)? What were the main findings and results of the programs in terms of a) scientific output; b) capacity building; and c) impact on policy and implementation or investments? What data, reports, scientific studies are available as documentation of these programs (to be collected and analysed if available)? What are the positive and negative lessons that can inform CPWF projects?

5. **Promising RWM interventions:** Based on past experience and 'expert knowledge' what are the most promising interventions (technologies, practices)? (Can we use the list developed for the Gates Project Inception?) Were these promising technology promotion activities of RWM driven based on supply or demand of stakeholders? What are their main advantages and drawbacks? What have been the experiences/results in the Ethiopian Highlands with each to date? What are the main reasons explaining these results? Are single interventions effective? Or are packages or combinations of technologies needed (for example bunds plus fertilizer)? What are the upstream–downstream linkages of these interventions: i.e. are there positive and negative outcomes of upstream interventions for downstream stakeholders, and if so, how can the positive benefits be optimized and negative minimized?

6. **RWM implementation strategies and institutional innovations:** Based on past experiences, what implementation strategies have been used to promote RWM interventions and what has been the experience and results of each? Who were/are the implementing agencies? What has been the experience with new institutional innovations, if any, associated with promoting RWM (including here livestock and tree management)? What has been the experience with promoting collective action with regard to natural resources management broadly and RWM interventions specifically? What works well and what does not, and why? What is the potential to build on indigenous collective action systems, adapting them to new circumstances, as opposed to introducing new institutional forms? Does Ethiopia have experience with offering a range of choices to farmers and providing sufficient knowledge and support to enable them to choose ('mix and match')? Or have most programs promoted a single intervention or package? What have been the results? Were there any follow up mechanisms in terms of providing necessary support needed by households and communities to sustain the system (example: Development Agents help farmers construct water harvesting structures and disappear then after).

7. **Main types of RWM implementing agencies and their effectiveness:** Based on past experiences, what types of actors are most effective in promoting or supporting the promotion of RWM interventions? Examples are government, development banks, NGOs, private firms, applied research institutions etc. (All actors generally use the government extension system to implement their activities at the field level; therefore the roles of most NGOs, private sector and Development Banks are usually limited to bringing resources and providing logistical support; this question is to identify any exceptions). It may be that some actors are better at certain kinds of technologies while others show better results on other kinds; for example government may be better at promoting individual farmer interventions while NGOs may be better at promoting those requiring collective action. Does it make a difference whether programs are largely funded and driven by a) development banks; b) bilateral donors; c) NGOs with own funding; d) NGOs with bilateral funds; e) government with other funding? (or others?)

8. **Experience with targeting:** What has been the experience, and what are the lessons learned, with regard to targeting of RWM interventions? This applies in terms of agro-ecological zones; access to markets; 'development domains' (these include AEZs but sometimes goes beyond them to include nearness to markets etc.); and targeting based on socio-economic criteria (gender; level of poverty; capacity to adopt by building on own capital assets; etc.)? Are there specific opportunities to target poor women and men with RWM interventions that have real benefits and are sustainable? How were the target areas identified and what were the criteria used for the identification and selection of target *woredas* or AEZs?

9. **Tools and models:** What types of tools, methods and models are used to understand the impacts and consequences of RWMS in the past? Which ones can be used and adopted in phase II work? Has there been any formal and/or informal monitoring and evaluation of the RWM interventions?

10. **Innovations not yet tested:** Are there potential innovations that have yet to be tested in the context of the Ethiopian Blue Nile basin? Have institutional innovations tried elsewhere also been tested in Ethiopia? These may be technologies; implementation strategies; policies; institutional innovations, or combinations of these. Examples include solar pumps, smart subsidies, linking indexed crop insurance to construction and maintenance of water and land management infrastructure, promoting local small-scale private contractors, offering menus of choices to farmers etc.

Based on these broad questions, tables will be designed to try to capture the key points that respond to these questions.

CPWF Phase 2 Nile Basin Project: Research Questions Driving N2–N5

Research questions for N2

- What RMS work best for which and in which parts of the Ethiopian highlands, given soil, topography and rainfall levels? (with Nile Project 3)

- In terms of rainwater productivity, what are the most suitable land use systems for the basin in terms of sustainability and income generation?
- What additional soil and water conservation systems are needed in the study sites to maximize water productivity?
- What are the economic, livelihood and agricultural productivity potential of integrated water, nutrient, fertility and seed technology management?
- What sort of RMS would work best for the Ethiopian Highlands, and what kinds of institutions are needed to support them?
- What social, institutional and political factors contribute to the development, implementation and maintenance of rainwater management systems?
- What kind of administrative and policy support do rainwater harvesting agricultural systems need in order to improve adoption potential?
- How can the positive benefits of improved RMS be successfully scaled up? (with Nile Project 3)

Research questions for N3

- If land were used for these purposes, and recommended rainwater harvesting technologies were adopted, what impact would it have on the basin's water flows?
- What RMS work best for which crops and in which parts of the Ethiopia highlands, given soil, topography and rainfall levels?
- How can livestock water productivity be mapped across the basin, and what practical measures can be taken to improve its productivity?

Research questions for N4

- How can the consequences of improved RMS be anticipated (*ex ante*) and measured (*ex post*)? What methods are appropriate under different circumstances?
- How can the contribution of improved RMS be assessed relative to the contributions of other factors?
- How can research on RMS performance be used to further improve RMS design? (Adaptive management)

Research questions for N5

N5 is a coordination project; its proposal does not include specific research questions, but proposes the following 4 outcomes:

Outcome 1. Project staff implementing Nile Basin Development Challenge (NBDC) projects align and adjust their activities, work plans and research approaches with the wider BDC agenda;

Outcome 2. Major development actors involved in RWMS in the Ethiopian Nile, namely NARES, NGOs, Federal ministries and Regional Bureaus of Agriculture, Water resources and Cooperatives employ evidence-based, responsive and demand-led quality planning and action; and promote and use sustainable and effective rainwater management interventions and approaches;

Outcome 3. Policymakers (Parliamentary standing committees, Government ministries (federal and regional), policy advisors (Regional Bureaus of Water, agriculture, environmental authority), Regional bodies (e.g. NBI) and major investors in RWMS develop and institutionalize responsive and appropriate policy and institutional frameworks; and

Outcome 4. Major players in the Nile, namely BDC projects, BDC partners, basins and the wider CPWF community live up to the principles of CPWF and ensure effective internal commitment to NBDC.

Annex Table 1. Published and Unpublished Reports, Papers, Documents Consulted on Ethiopian Rainwater Management (RWM)

NOTE: This is a record of references consulted during the study, though not all have been used in the main report. It is annotated.

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
1. GENERAL, CONCEPTUAL, METHODOLOGICAL, INTERNATIONAL OVERVIEW OF FIELD, EDITED BOOKS, CASES FROM ELSEWHERE etc.			
1. Challenge Program on Water and Food (CPWF), Medium Term Plan 2010–2012. Colombo, 2009	Three year rolling work plan of the CPWF, including the planned work on the Nile Basin	Important background for this study	DM has it from CPWF website
2. J. Rockström, N Hatibu, TY Oweis, and S Wani, Managing water in rainfed agriculture, ch. 5 IN Molden, ed. 2007	Advocates investment in green water management	Useful overview by proponents	IWMI web site; DM has it
3. S Wani, J Rockström, and T Oweis, eds. Rainfed agriculture: Unlocking the potential, CABI in association with ICRISAT and IWMI. 2009	Articles on impacts, benefits, lessons from experiences etc.	Chapters 1, 3, 13, 14 especially useful—listed below in this section	IWMI website; DM has it
4. Wani, SP, TK Sreedevi, J Rockström, and YS Ramakrishna, Rainfed Agriculture—Past Trends and Future Prospects, Chap 1 IN Wani et al. 2009	Introduction to book emphasizing potential benefits of improved rainfed agriculture; advocates IWM approach; explains 'farmer' participatory consortium model for integrated watershed management' developed by ICRISAT and partners	Consortium model is well worth considering for this project	In Wani et al. eds 2009 book
5. Karlberg, L, J Rockström, and M Falkenmark, Water Resource Implications of Upgrading Rainfed Agriculture—Focus on Green and Blue Water Trade-offs, Chap 3 IN Wanin et al. 2009	Sets out various rainwater management strategies, their different purposes, and management options, seeking to enhance returns to green water	Moderately useful	In Wani et al. eds 2009 book
6. Shiferaw, B, J Okello, and V Ratna Reddy, Challenges of Adoption and Adaptation of Land and Water Management Options in Smallholder Agriculture: Synthesis of Lessons and Experiences, Chapter 13 IN: Wani et al. 2009	Discusses complex challenges involved in encouraging-supporting farmers to adopt SWC; reviews evolution of approaches (command and control participatory->IWM). Offers useful analytical framework for understanding factors conditioning smallholder households' livelihood and investment strategies	Very useful model and conceptual framework with practical advice, e.g. projects as 'toolboxes' supporting users to devise solutions	In Wani et al. eds 2009 book

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
7. Joshi, PK, AK Jha, SP Wani, and TK Sreedevi, Scaling-out Community Watershed Management for Multiple Benefits in Rainfed Areas, Chapter 14 IN: Wani et al. 2009	Discusses evolution and lessons learned from watershed management programs in India; draws out key characteristics of successful programs based on these experiences	Moderately useful points	In Wani et al. eds 2009 book
8. D Bossio, W Critchley, K Geheb, G van Lynden, and B Mati, Conserving land, protecting water, ch. 15 IN Molden, ed, 2007	Integrated land-water management	Very useful overview	IWMI website, DM has it
9. D Bossio, K Geheb, and W Critchley, Managing Water by Managing Land: Addressing Land Degradation to Improve Water Productivity and Rural Livelihoods, Agricultural Water Management 97: 536–542, 2010	Update of Bossio et al. 2007: Key to effective water resources management is understanding the water cycle and land management are inextricably linked	Very useful perspective	DM has it from IWMI library
10. D Bossio and K Geheb, eds, Conserving land, protecting water, 2008	Articles start from land management and integrate water—impacts, benefits, lessons etc. Introduction notes there are success stories of reversing degradation ('bright spots'); understanding water cycle and land management are integrated is essential; and all resource use is contextualized; Introduction also provides overview of the book	Introduction, chapters 3, 10, 12–14 especially useful and are listed below in this section and one in section on RWH interventions.	DM has it from IWMI website
11. Gordon, LJ, and EI Enfors, Land Degradation, Ecosystem Services and Resilience of Smallholder Farmers in Makayna Catchment, Tanzania, Chapter 3 IN: Bossio and Geheb, eds, 2008	Framework for analysing changes in resilience is the contribution of this article	Useful framework	In Bossio and Geheb, eds, 2008 book
12. Gichuki, F, and D Molden, Bright Basins—Do Many Bright Spots Make a Basin Shine? Chap 10 IN: Bossio and Geheb, eds, 2008	Examines the question of consequences and outcomes of looking at local bright spots from a basin perspective; externalities may result at this level and unit benefit of scaling up is not always one-to-one	Useful perspective	In Bossio and Geheb, eds, 2008 book
13. Pretty, J, Investments in Collective Capacity and Social Capital, Chapter 12 IN Bossio and Geheb, eds, 2008	Argues that new forms of collection action organization are emerging and need to be encouraged and supported	Useful insights into collective action issues	In Bossio and Geheb, eds, 2008 book

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
14. Bossio, D, A Noble, N Aloysius, J Pretty, and F Penning de Vries, Ecosystem Benefits of 'Bright' Spots, Chap 14 IN: Bossio and Geheb, eds, 2008	Discusses several cases including one from northern Ethiopia—benefits from RWH and microdams with positive outcomes	Maybe not sufficiently detailed for use in this project	In Bossio and Geheb, eds, 2008 book
15. D Knowler and B Bradshaw, Farmers' adoption of conservation agriculture: A review and synthesis of recent research, Food Policy 32(1), 2007	Concludes no generic factors affect adoption—context specific	Important general point	DM has it, from IWMI library
16. E Humphries and R Bayot, eds, Increasing the productivity and sustainability of rainfed cropping systems of poor smallholder farmers. Proceedings of the CPWF workshop on rainfed cropping systems, 22–25 September 2008, Tamale, Ghana. Colombo: CPWF 2009	A set of papers from a workshop held in Ghana; includes several important ones on Ethiopia;	Very useful papers, esp. Humphries et al. Twomlow et al. Awulachew and Tenaw, Awulachew et al. Tabo et al. separately listed in appropriate sections	CPWF website, DM has it
17. Humphreys, E, TP Tuong, H Gomez-MacPherson, R Tabo, SB Awulachew, and J Bediako, Increasing the Productivity and Sustainability of Rainfed Cropping Systems of Poor Smallholder Farmers: Overview of Recent Findings from the Challenge Program on Water and Food, IN: Humphries and Bayot, eds, 2009	This is editors' overview of book; it has 5 key recommendations for way forward: 1) systematic evaluations of technologies integrated with crop and nutrient management; 2) use of crop simulation modelling to inform recomm 1; 3) development and application of models etc. to assess impacts of wide adoption of improved technologies; 4) longer term trials with warrantage system; 5) invest in understanding farmers' conditions, perceptions; and develop supportive policies and institutions	These recommendations have clearly influenced BDCs	In Humphries and Bayot, eds, 2009 book
18. Twomlow, S, L Hove, W Mupangwa, P Masikati, and N Mashingaidze, Precision Conservation Agriculture for Vulnerable Farmers in Low Potential Zones, IN: Humphries and Bayot, eds, 2009	Reports results of 4 years of work in Zimbabwe developing and testing 'precision conservation agriculture' (PCA): 4 major principles—minimum tillage e.g. using planting basins with hoes; precise micro-dosing fertilizer; combine improved fertility and improved seed; use available residues for mulch cover. Reports dramatic yield improvements and high returns to labour	Potentially useful interventions that could be adapted to Ethiopia context.	In Humphries and Bayot, eds, 2009 book CROSS REFERENCE RWM INTERVENTIONS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
19. S Ngigi, Rainwater harvesting for improved food security: promising technologies for improved food security, Greater Horn of Africa Rainwater Partnership (GHARP), 2003	Set of case studies reporting a regional project promoting participatory RWH; one Ethiopia case	Somewhat useful	DM has hard copy
20. Molden, D., R Sakthivadivel, and J Keller, Hydronomic Zones for developing basin water conservation strategies, IWMI RR 56, 2001	Methodology to define zones based on hydrology, geology and topography which allow definition of management strategies	Possibly useful framework	IWMI website, DM has it
21. Humphreys, E., Bayot, R.S., van Brakel, M., Gichuki, F., Svendsen, M., White, D., Wester, P., Huber-Lee, A., Cook, S., Douthwaite, B., Hoanh, C.T., Johnson, N., Nguyen-Khoa, S., Vidal, A., MacIntyre, I., and MacIntyre, R. (Eds). Fighting Poverty Through Sustainable Water Use: Volumes I, II, III and IV. Proceedings of the CGIAR Challenge Program on Water and Food 2nd International Forum on Water and Food, Addis Ababa, Ethiopia, November 10—14, 2008. The CGIAR Challenge Program on Water and Food, Colombo, 2008a–d	Papers reporting on results of CPWF projects, includes many for Ethiopia	Some specific papers are useful	www.ifwf2.org or via CPWF website; DM has the 4 volumes
22. Pender, J, F Place and S Ehui, eds, Strategies for Sustainable Land Management in the East African Highlands, IFPRI in collaboration with ILRI, World Agroforestry Center, World Bank, 2006	Chapters are based on empirical research, many carried out under a single project. Demonstrates importance of adapting strategies to different contexts or development domains	Chapters 4, 5, 9, 10, 12, 16 are specifically on Ethiopia and included under appropriate headings below	DM has it from IFPRI website.
23. Pender, J, F Place and S Ehui, eds, Strategies for Sustainable Land Management in the East African Highlands: Conclusions and Implications, Chapter 16 IN: Pender et al. eds, 2006b	Attempts to synthesise findings of the book	Moderately useful	Contained in Pender et al. eds, 2006
24. G Tress, B Tress and G Fry, Analysis of the barriers to integration in landscape research projects, Land Use Policy 24(2): 374–385, 2007	Useful for understanding pitfalls of interdisciplinary landscape research	Possibly useful	DM has it, from IWMI library
25. Humphries, E, D Peden, J Rockström, T Oweis, A Huber-Lee, and L Harrington, Improving Rainwater Productivity: Topic 1 Synthesis Paper. CGIAR CPWF, 2008.	Useful synthesis of main findings from CPWF phase 1 on water productivity, and issues to be address in phase 2	Useful	DM has it from CPWF website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
26. Nguyen-Khoa, S., A Hubert-Lee, B Van Koppen, D Peden, M Andreini, and S Smits, Multi-Use Water Systems: Topic 2 Synthesis Paper. CGIAR CPWF, 2008	Useful synthesis of MUS issues and planned future research in phase 2	Would be more useful if it considered RWM more broadly	DM has it from CPWF website
27. Ekbom, A, GM Brown and T Sterner, Muddy Waters: Soil Erosion and Downstream Externalities. University of Gothenburg Working Papers in Economics 31, January 2009	Based on modelling, argues public policy should be to partly subsidize upstream conservation	Useful for downstream impact stuff	DM has it from GU website CROSS REFERENCE UPSTREAM–DOWNSTREAM
28. Nyangena, W and G Köhlin, Estimating Returns to Soil and Water Conservation Investments—An Application to Crop Yields in Kenya, University of Gothenburg School of Business Economics and Law Working Papers in Economics 402, November 2009	Using plot-level survey data, finds mixed picture: SWC plots have lower returns than non-SWC except in steep and eroded areas where it is beneficial	May be useful for methodology	DM has it from GU website CROSS REFERENCE IMPACT ASSESSMENTS OF RWM INTERVENTIONS
29. Collier, P and S Dercon, African Agriculture in 50 Years: Smallholders in a Rapidly Changing World?, Paper presented at Expert Meeting on How to Feed the World in 2050, FAO Economic and Social Development Department, 24–26 June 2009	Inspired by Brazil example, argues that larger-scale, not smallholder agriculture is the best way to promote rapid agricultural growth in Africa	Interesting idea, relates to Mellor and Dorosh on Ethiopia, below	DM has it CROSS REFERENCE POLICY STUDIES
30. Faurès, J-M, and G Santini, eds., Water and the Rural Poor: Interventions for Improving Livelihoods in sub-Saharan Africa. Rome: FAO and IFAD, 2008	Useful book, mapping poverty, water and agricultural zones in SSA, and identifying potential areas for investment in AWM	Useful approach	DM has hard and soft copy; available from FAO and IFAD websites
31. Rauch, T, The New Rurality: Its Implications for a New, Pro-Poor Agricultural Water Strategy. IFAD, 2009	Argues in broad terms for a pro-poor AWM strategy that is very close to that of CPWF	Moderately useful	DM has it (soft and hard copy) from IFAD website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
32. Huppert, W, Coping with Complexity: Innovative Approaches to an Emerging Issue in Agricultural Water Management. IFAD, 2009	AWM is embedded in nested complex systems. This analysis highlights the need to choose interventions that fit reality, boiled down to a 4X4 matrix of high to low level of supportive macro-institutional framework, and high to low local institutional capacity	Very useful framework	DM has it (soft and hard copy) from IFAD website
33. FAO, The New Generation of Watershed Management Programmes and Projects. FAO Forestry Paper 150, Rome: 2006	Very useful discussion of lessons learned and best practice for integrated watershed management programs	Useful overview	DM has it from FAO website
34. Namara, RE, MA Hanjra, GE Castillo, HM Ravnborg, L Smith, and B van Koppen, Agricultural Water Management and Poverty Linkages, Agricultural Water Management 97:520–527, 2010	Analytical overview of the multiple linkages of AWM and poverty and pathways for AWM investments to contribute to sustained poverty reduction. Based on CA chapter on water and poverty	Useful overview of AWM-poverty linkages	DM has it from IWMI library
35. Van den Bosch, R, and G Sterk, eds, Tools for Catchment Level Soil and Water Conservation Planning in the East African Highlands, EROAHI Report 4 [Tropical Resource Management Papers 62], Wageningen University, 2005	Based on work in a Kenyan and Tanzanian watershed, describes tools developed and tested for participatory SWC mapping and for financial analysis of soil and water conservation measures that can be done with farmers	Very useful tools that can be adapted to Ethiopia	DM has it from Wageningen Website
36. Malesu, MM, JK Sang, AR Oduor, OJ Odhiambo, and M Nyabenge, Hydrological Impacts of Ponds on Land Cover Change: Runoff Water Harvesting in Lare, Kenya. RELMA-in-ICRAF Technical Report 32, Nairobi, 2006b	Case study combining ground truthing and use of satellite imagery to analyse extent, impacts, outcomes of ponds and other RWH in Lare (Rift Valley). Very positive analysis	Interesting case study, combining use of easy and cheap satellite imagery with ground truthing	DM has it from RELMA–ICRAF website
37. Stocking, G and N Murnaghan, Land Degradation — Guidelines for Field Assessment, Overseas Development Group, University of East Anglia, Norwich UK, 2000	Provides detailed practical guidelines and discussion for assessing land degradation processes from a farmer's perspective; a kind of RRA for soil scientists	Methodologies explained seem useful and pragmatic	DM has it
38. Stroosnijder, L, Modifying Land Management in order to Improve Efficiency of Rainwater Use in the African Highlands, Soil and Tillage Research 103:247–256, 2009	Reports research findings on land management practices that can improve 'Green Water Use Efficiency' (GWUE); and argues these are recognized by farmers and need more attention from policymakers etc.	Useful technical paper on performance of various practices	DM has it from IWMI library CROSS REFERENCE INTERVENTIONS and FARMER PERSPECTIVES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
39. Mati, B, Overview of Water and Soil Nutrient Management under Smallholder Rainfed Agriculture in East Africa. Colombo: IWMI WP 105, 2005	Presents over 100 proven RWM and SWC technologies shown to be effective, often with illustrations	Useful overview of range of possible technologies and experiences with them in the region	DM has it from IWMI website
40. Pretty, JN, AD Noble, D Bossio, J Dixon, RE Hine, FWT Penning de Vries, and JIL Morison, Resource-Conserving Agriculture Increases Yields in Development Countries, Environment Science and Technology,40 (4): 1114–1119, 2006	Shows how 286 recent interventions in 57 countries covering 37 m ha have increased productivity on 12.6 farms while conserving resources	Useful study on potential benefits of RWM	DM has it from website http://pubs.acs.org / doi/pdf/10.1021/es051670d
41. Molden, D, TY Oweis, P Steduto, JW Kijne, MA Hanjra, and PS Bindraban, Pathways for Increasing Agricultural Water Productivity, Chapter 7 IN Molden, ed 2007	Explains basic concepts and shows how increasing WP can be done.	Useful overview on measuring WP	DM has it from IWMI website
42. Molden, D, TY Oweis, P Steduto, PS Bindraban, MA Hanjra, and J Kijne, Improving Water Productivity: Between Optimism and Caution. Agricultural Water Management 97: 528–535, 2010	Updates Molden et al. 2007, emphasizing caution while noting specific opportunities for increasing WP—including Blue Nile-Ethiopia conditions	Useful discussion of opportunities for increasing WP (and limits)	DM has it from IWMI library
43. Rockstöm, J, L Karlbert, SP Wani, J Barron, N Hatibu, T Oweis, A Bruggeman, J Farahani, and Z Qiang, Managing Water in Rainfed Agriculture—The Need for a Paradigm Shift, Agricultural Water Management 97: 543–550, 2010	Updates article in Molden ed 2007; argues for paradigm shift in IWRM thinking, to focusing on rainfall as the entry point for governance of water; and re-thinking divide between rainfed and irrigated agriculture	Very useful source	DM has it from IWMI library
44. Van Koppen, B A Gender Performance Indicator for Irrigation: Concepts, Tools, and Applications, IWMI RR 59, 2002	Proposes a classification of farming systems based on the roles of women, and the implications for interventions	Useful framework	DM has it from IWMI website
45. WOCAT (World Overview of Conservation Approaches and Technologies), Case studies and analysis of soil and water conservation initiatives worldwide, H Liniger and W Critchley, eds. CTA, FAO, UNEP, CDE, 2007, 4 volumes.	Overview of policies, approaches, and detailed cases	Very useful sourcebook	DM has it from WOCAT website
46. World Bank, Sustainable Land Management: Challenges, Opportunities and Trade-offs. Washington: World Bank, 2006b	Source book on sustainable land management (SLM); seeks to give strategic focus to SLM policies and investments	Very useful sourcebook	DM has it
47. FAO, TerrAfrica Country Support Tool for Sustainable Land Management in sub-Saharan Africa: Field Application. Version 1.0, July 2009.	Provides detailed guidelines for preparing long-term SLM investment plans, which have been used by Ethiopia to design its current SLM program	Very useful guideline on SLM	DM has it, from http://knowledge base Terrafrica.org

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
48. Hanjra, MA, T Ferede, and DG Tutta, Reducing Poverty in sub-Saharan Africa through Investments in Water and Other Priorities, Agricultural Water Management 96: 1062–1070, 2009a	Argues that linking AWM [irrigation], education, market interventions generates more effective poverty reduction [i.e. an argument for IRD projects, based on review of published studies]. See also Hanjra et al. 2009b	Very interesting argument	DM has it from IWMI library CROSS REFERENCE IRRIGATION STUDIES
1B. INNOVATION SYSTEMS APPROACHES			
49. I Matuschke, Evaluating the impact of social networks in rural innovation systems, An overview, IFPRI DP 00816, 2008	Conceptual paper outlines a research approach that combines social network analysis with econometric estimation techniques in one coherent framework to strengthen the study of technology adoption by smallholders. If applied, such a framework could help establish which network characteristics have the greatest impact on technology uptake, thereby lending support to and improving the design of new extension approaches	May be useful in designing our study	IFPRI website, DM has it
50. D Spielman, KE Davis, M Negash, and G Ayele, Rural innovation systems and networks: Findings from a study of Ethiopian Smallholders, IFPRI DP 00759, 2008	Uses social networking analysis to show the sources of innovation, and the relative weakness of Ethiopian systems to promote innovation	Very useful study, an approach to be considered in action research phase	IFPRI website, DM has it
51. Waters-Bayer, A, and W Bayer, Enhancing Local Innovation to Improve Water Productivity in Crop–Livestock Systems, The Rangeland Journal 31: 231–235, 2009	Highlights taking an innovation systems approach and building on local innovation processes	Useful as approach to CPWF study. This article is in a special issue of The Rangeland Journal	DM has it from IWMI library
52. German, L, Innovative Research Approaches for Mountain Regions, AHI Working Paper 21, 2006a	Provides a conceptual framework for operationalizing integrated NRM research, illustrated by several case studies (including Ethiopia); offers distinction between component goals ('maximization') and 'system' goals ('optimization') and discusses implications of this alternative research paradigm	Very useful approach for CPWF study	DM has it, not sure of source

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
53. Anandajayssekeram, P and B Gebremedhin, Integrating Innovation Systems Perspective and Value Chain Analysis in Agricultural Research for development: Implications and Challenges, ILRI: IPMS WP 16, 2009	Offers detailed comparative discussion of 4 current research concepts: innovation systems, value chain approach, impact orientation and R4D [in which impact orientation is implicit] and offers an operational model to integrate them	Useful in developing an innovation systems perspective for CPWF	DM has it from ILRI website
54. White, D, P Wester, A Hubert-Lee, CT Hoanh, and F Gichuki, Water Benefits Sharing for Poverty Alleviation and Conflict Management: Topic 3 Synthesis Paper. CGIAR–CPWF. 2008	Useful in defining future research on the topic of benefits sharing at multiple levels during phase 2	Quite useful	DM has it from CPWF website
55. Merrey, DJ, and S Cook, Progressing from Research to Improved Livelihoods in Developing Country River Basins: Fostering Institutional Creativity, Draft of Chapter 15 for CPWF–BFP edited book	The CPWF could consider using this conceptual approach to fostering RWM innovation in Ethiopia		DM has it, it is currently being revised for publication in a book and a special issue of Water International.
56. Hall, A, and N Clark, What do Complex Adaptive Systems Look Like and What are the Implications for Policy? Journal of International Development 22:308–324, 2010	Explores policy implications of using complex adaptive systems theory illustrated by an example; strengthening adaptation capacity emerges as key development priority	I hope to build on this in the report	DM has it
57. Amede, T, H Assefa, A Stroud, and J Hagman, Experiences of Participatory Research in Ethiopia: Challenges, Opportunities and Implications: Synthesis of Case Studies, IN: Amede, T, H Assefa, and A Stroud, eds, Participatory Research in Action. Ethiopian Experiences. Ethiopian Agricultural Research Organization and the African Highlands Initiative, Addis Ababa, 2004	Based on analysis of case studies of participatory research experiences presented at the workshop, synthesises lessons learned and offers recommendations for more effective participatory research	Useful synthesis of lessons learned from case studies and the way forward	DM has it from Tilahun
58. Sangina, PC, A Waters-Bayer, S Kaaria, J Njuki, and C Wettasinha, eds, Innovation in Africa: Enriching Farmers' Livelihoods, London UK and Sterling, VA, USA: Earthscan, 2009	Conceptual and methodological developments in agricultural innovation systems, using recent on-the-ground experiences in different contexts in Africa. 25 chapters on cutting-edge thinking and practice supporting innovation processes in agriculture and management of natural resources	Very useful book	Excerpts can be previewed on Google books

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
59. Spielman, DJ, Innovation Systems Perspectives on Developing-Country Agriculture: A Critical Review, ISNAR Discussion Paper 2, IFPRI, September 2005	Argues for extending the innovation systems approach developed in industrial contexts to developing country agricultural research	Very useful conceptual framework	DM has it from IFPRI website
60. Abay, F, and G Gebregiorgis, Process Documentation of Experiences in Facilitating Farmer-Led Documentation in Tigray, Ethiopia, Prolinnova, 2009	Cases of training innovative farmers to document own innovations—'farmer-led documentation'	Interesting approach to working with innovative farmers	DM has it from Prolinnova website CROSS REFERENCE FARMERS' PERSPECTIVES
61. Prolinnova-Ethiopia—A Fund to Support Local Innovations: Experience of a Farmer in Tigray, Ethiopia, 2009	ProLinnova is a national platform to promote 'participatory innovation development' (PID) for NRM. This report explains PID and a specific experience with a farmer-managed fund to promote innovation, using a farmer-water management innovator as an example	PID is a potentially important approach for our studies.	See the website www.prolinnova.net/Ethiopia CROSS REFERENCE FARMERS' PERSPECTIVES

2. OVERVIEW—ETHIOPIA, NILE etc.

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
62. CSA, EDRI, and IFPRI, Atlas of the Ethiopian Rural Economy, Washington: IFPRI and Addis Ababa: CSA, 2006	About 100 maps showing distribution of various agro-ecological, climate, social, economic etc. features of the rural economy; in both English and Amhara	Very useful maps	DM has it, from IFPRI website
63. Molden, D, SB Awalachew, K Coniff, L-M Rebelo, Y Mohamed, D Peden, J Kinyangi, P van Breugel, A Mukherji, A Cascão, A Notenbaert, SS Demise, MA Neguid, and G el Naggar, Nile Basin Focal Project. CPWF Project Report. Project 59, December, 2009 [edited April 2010]	Overview of entire Nile Basin—water, agriculture, poverty etc., with some useful maps etc. too.	Moderately useful but not very specific to Ethiopia	DM has it. CROSS REFERENCE RWM IMPLEMENTATION and RESEARCH PROGRAM EXPERIENCES
64. CPWF, Basin development challenges, stakeholder Consultation Workshop report, Nile River Basin, 2009	Reports on consultations with regard to the chosen BDC	Background to CPWF phase 2 work	On CPWF website; DM has it.
65. CPWF, Nile Basin Development Challenge: A Landscape Approach to Rainwater Management in Ethiopia. Inception Workshop Materials and Report, Jan 26-28, 2010, ILRI Campus, Addis Ababa. 2010	Provides overview of phase 2 plan, outcome logic, and stakeholder inputs	Useful	CPWF website, DM has it
66. McCornick, PG, AB Kamara, and G Tadesse, eds, Integrated water and land management research and capacity building priorities for Ethiopia, Proceedings of a MoWR-EARO-IWMI-ILRI workshop, 2002 [published 2003]	Set of papers from workshop that was inaugural IWMI event	Some useful papers	CD from IWMI; DM has it
67. S Awulachew et al. compilers, Improved water and land management in the Ethiopian highlands: Its impact on downstream stakeholders dependent on the Blue Nile, Intermediate results dissemination workshop, 2009 [CP 19]	Set of papers, covering modelling, institutional issues etc.	Erkossa et al. Listed below under 'impacts' is especially useful	IWMI website has summary, DM has hard copy of summary and CD with full proceedings, posters, and atlas of the Blue Nile; in data base. CROSS REFERENCE RWM IMPLEM and RESEARCH PROGRAM EXPERIENCES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
68. Awulachew, SB and M Tenaw, Micro Watershed to Basin Scale Impacts of Widespread Adoption of Watershed Management Interventions in the Blue Nile Basin, IN: Humphries and Bayot, eds, 2009	Studied rainfall-runoff and sedimentation-runoff relationships in Gumera watershed using SWAT model; demonstrates these are highly variable, sediment highest in rainy season; demonstrates high sediment risk watersheds can be identified with SWAT model; and use of vegetative filters can substantially reduce erosion risk	Useful background	Contained in Humphries and Bayot, eds, 2009
69. Awulachew, Seleshi Bekele; Menker, M.; Abesha, D.; Atnafe, T.; Wondimkun, Y. (Eds.) 2006. Best practices and technologies for small scale agricultural water management in Ethiopia. Proceedings of a MoARD / MoWR / USAID / IWMI Symposium and Exhibition held at Ghion Hotel, Addis Ababa, Ethiopia, 7-9 March, 2006. Colombo, Sri Lanka: IWMI	Collection of papers by both practitioners and researchers on RWH and SSI experiences	Some papers very useful and listed separately under appropriate headings	IWMI in Addis; DM has it CROSS REFERENCE PROJECTS and PROGRAMS STUDIES
70. Amede, Tilahun, ed., Proceedings of a Conference on 'Natural Resources Degradation and Environmental Concerns in the Amhara National Regional State: Impact on Food Security. July 24-26, 2002, Bahir Dar, Ethiopia. Addis Ababa: Ethiopian Society of Soil Science, 2003	Diverse collection of papers, focused largely on experiences in Amhara Region	Some useful papers: Nedassa on MERET; Simane on SARDP; Yitaferu on SWC in Amhara; Amede on regional experience; Benin et al. on policies [listed separately]	DM has photocopy of most but not all sections of hard copy from TA
71. Block, PJ, K Strzepek, and B Rajagopalan, Integrated Management of the Blue Nile Basin in Ethiopia, IFPRI DP 700, May 2007	Uses 'IMPEND', a hydrological optimization model with dynamic climate capabilities, to assess likely benefits-costs of irrigation and hydropower investments and potential impacts of climate change	Not that useful	DM has it, from IFPRI website CROSS REFERENCE CLIMATE CHANGE
72. Block, PJ, K Strzepek, and B Rajagopalan, Integrated Management of the Blue Nile Basin in Ethiopia under Climate Variability and Climate Change, IFPRI Research Brief 15-14, 2008a	Based on Block et al. 2007. Increased frequency of El Niño (drier conditions) increases risk of lower benefits	Not that useful	DM has it, from IFPRI website CROSS REFERENCE CLIMATE CHANGE

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
73. Block, P J, Mitigating the Effects of Hydrologic Variability in Ethiopia: A Assessment of Investments in Agricultural and Transportation Infrastructure, Energy, and Hydroclimatic Forecasting. CPWF Working Paper 1. Colombo: CGIAR-CPWF. 2008b	Uses climate agro-economic model to assess alternative investments in Blue Nile as adaptations to climate change: irrigation roads, hydropower; and forecasting in support of rainfed agriculture	Useful background	DM has it, from CPWF website. CROSS REFERENCE CLIMATE CHANGE
74. Devereux, S, Food Insecurity in Ethiopia. A Discussion Paper for DFID. Institute of Development Studies, October 2000.	Critical assessment of causes of food insecurity but weak on recommendations	Somewhat useful background	DM has it
75. FAO and WFP, FAO/WFP Crop and Food Security Assessment Mission to Ethiopia. 26 February 2010. Special Report.	Provides up-to-date overview of food security situation as of early 2010	Somewhat useful.	Available on FAO website; DM has it
76. Haan, N, N Majid, and J Darcy, A Review of Emergency Food Security Assessment Practice in Ethiopia, HPG Research Report, ODI commissioned by WFP, May 2006	Critical assessment of the system for assessing emergency food needs in Ethiopia with recommendations	Useful background	DM has it
77. Lautze, S, Y Aklilu, A Raven-Roberts, H Young, G Kebede, and J Leaning, Risk and Vulnerability in Ethiopia: Learning from the Past, Responding to the Present, Preparing for the Future, A Report for USAID. Feinstein International Famine Center, June 2003	Detailed study of responses to famine, with detailed recommendations for future response and measures to reduce incidence of famine	Useful study on the topic	DM has it
78. P Bevan and A Pankhurst, A Sociological Perspective on the Causes of Economic Poverty and Inequality in Ethiopia, Paper presented at the Inter-Africa Group Symposium on Poverty, Addis Ababa, May 2008	Analysis of the roots of poverty based on a theoretical framework drawn from critical realism and complexity theory. Tries to deconstruct the 50 causes of poverty mentioned in PASDEP and WB documents	Very interesting	DM has it CROSS REFERENCE POLICY STUDIES
79. Mengistu, E, N Regassa, and A Yusufe, The Levels, Determinants and Coping Mechanisms of Food Insecure Households in Southern Ethiopia: A Case Study of Sidama, Wolaita, and Guraghe Zones. DCG Report 55, February 2009	Sample study of food insecurity and coping mechanisms in SNNP	Useful as background on levels of household poverty and coping mechanisms	DM has it, from DCG website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
80. Awulachew, SB, M McCartney, TS Steenhuis, and AA Ahmed, A Review of Hydrology, Sediment and Water Resource Use in the Blue Nile Basin. IWMI WP 131, 2008a	Detailed review of Blue Nile hydrology, sediment, water resource use, and summary of research methods and models to be used in a CPWF project; reference materials listed are an important resource	Useful synthesis as background	DM has it from IWMI website
81. Awulachew, SB, M McCartney, Y Ibrahim, and YS Shiferaw, Evaluation of Water Availability and Allocation in the Blue Nile Basin, IN: Humphries et al. eds, IFWF2, vol 3, Pp. 6ff, 2008b	Overview of hydrology of basin showing considerable potential for water resource development (limited by land, not water in Ethiopia)	Not useful for this study	DM has it. Contained in Humphries et al. eds, IFWF2, vol 3
82. White, ED, ZM Easton, DR Fuka, AS Collick, E Adgo, M McCartney, SB Awulachew, YG Selessie, and T Steenhuis, Adapting the Soil and Water Assessment Tool (SWAT) for the Nile Basin, IN: Humphries et al. eds, IFWF2, vol 3, Pp. 22ff, 2008b	Proposes a change in an algorithm to make model more useful as a tool for predicting run-off and sedimentation relationships; tested in Gumera Basin and found to significantly improve its predictive power in monsoonal climates	Useful tool	DM has it. Contained in Humphries et al. eds, IFWF2, vol 3
83. Awulachew, SB, DJ Merrey, AB Kamara, B van Koppen, F Penning de Vries, E Boelee, and G Makombe, Experiences and Opportunities for Promoting Small-Scale/Micro Irrigation and Rainwater Harvesting for Food Security in Ethiopia, WP 98, 2005	Overview of experiences to date in Ethiopia with SSI, micro-irrigation, with proposals for how to improve their implementation and outcomes	Useful early synthesis by IWMI	DM has it from IWMI website CROSS REFERENCE IRRIGATION and RWH PROGRAMS
84. Mohamed, YA and M Loulseged, The Nile Basin Water Resources: Overview of Key Research Questions Pertinent to the Nile Basin Initiative, IWMI WP 127, 2008	Identifies a set of research questions relevant to the NBI	Not very useful for this study	DM has it from IWMI website
85. Webb, P, and J von Braun, Famine and Food Security in Ethiopia: Lessons for Africa. NY: John Wile and Sons for IFPRI, 1994	Based on survey data, an in-depth analysis of the causes of famine, responses, and effectiveness of different programs (including SWC through FfW)	Very useful background	DM has it from IFPRI website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
86. Hurni, H, K Tato, and G Zeleke, The Implications of Changes in Population, Land Use, and Land Management for Surface Runoff in the Upper Nile Basin Area of Ethiopia, Mountain Research and Development 25 (2): 147-154, May 2005	Based on long-term data and surface run-off studies on small plots, finds no significant rainfall trends over past 30-50 years; but 5-30 times as much surface run-off from cultivated or degraded land compared to forested. Suggests SWC in humid and semi-humid highlands will barely affect run-off to downstream areas but will reduce sedimentation, while in semi-arid areas there may be some impact	Useful insights from research	DM has it from website
87. Nyssen, J, K Descheemaeker, A Zenebe, J Poesen, and M Haile, Transhumance in the Tigray Highlands (Ethiopia), Mountain Research and Development 29 (3): 255-264, August 2009	Characterizes transhumance practices and how it is adapting to changing landscape; most transhumance is induced by lack of space for livestock near villages during the crop growing season	Interesting but not that useful for this project.	DM has it from website
88. Nyssen, J, H Vandenreyken, J Poesen, J Moeyersons, J Deckers, M Haile, C Salles, and G Govers, Rainfall Erosivity and Variability in the Northern Ethiopian Highlands, Journal of Hydrology 311: 172-187, 2005	Based on detailed study of erosivity and rainfall intensity, finds rain intensity is smaller than expected but median volume rain drop diameters significantly larger than reported elsewhere; based on this offers an alternative formula for relationship of rainfall intensity and volume specific kinetic energy	Useful to those doing technical studies, not useful here	DM has it from IWMI library
89. T Sulser, C Ringler, T Zhu, S Msangi, E Bryan, and MW Rosegrant, Green and blue water accounting in the Limpopo and Nile Basins, IFPRI Discussion Paper 00907, 2009	Uses IMPACT to make projections	Not useful for us except it does provide a rationale for the RWM focus of CPWF	IFRPI website, DM has it
90. Awulachew, SB, M Tenaw, T Steenhuis, Z Easton, A Ahmed, KE Bashar, and A Hailesellassie, Impact of Watershed Interventions on Runoff and Sedimentation in Gumera Watershed, IN: Humphries et al. eds, IFW2, vol 1, Pp 109ff, 2008c	Similar paper to Awulachew and Tenaw 2009, above, on modelling of runoff and sedimentation	Not very useful to us	DM has it, contained in Humphries et al. eds, 2008b book

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
91. Mitiku, H, K Herweg, and B Stillhardt, Sustainable Land Management—A New Approach to Soil and Water Conservation in Ethiopia, Mekelle, Ethiopia: Land Resources Management and Environmental Protection Department, Mekelle University; with Centre for Development and Environment, University of Berne and Swiss National Centre of Competence in Research (NCCR) North-South, 2006	Detailed book based largely on research results from SCRP complemented by other sources. Textbook on erosion issues, SWC technologies, approaches to working with farmers etc.	Very comprehensive reference or text book	DM has it from www.nccr-north-south.unibe.ch CROSS REFERENCE NEARLY EVERY CATEGORY
92. Alvarez, S, Basin Development Challenges, Stakeholder Consultation Workshop Report: Nile River Basin, May 11-13 2009, Addis Ababa. CPWF, 2009	Proceedings of a workshop to discuss BDC	Not that useful for us	DM has it from CPWF website
93. McCartney, M, T Alemayehu, A Shiferaw, SB Awulachew, Evaluation of Current and Future Water Resources Development in the Lake Tana Basin, Ethiopia, IWMI RR 134, 2010	Planned developments will benefit some and harm others, but will have significant impacts on the level and area of the Lake	Moderately useful re: downstream impacts	DM has it from IWMI website
94. Johnston, R and M McCartney, Inventory of Water Storage Types in the Blue Nile and Volta River Basins. IWMI WP 140, 2010.	Inventory includes a wide range of types of water storage, not only reservoirs	Interesting and useful perspective	DM has it from IWMI website
95. GFDRR (Global Facility for Disaster Reduction and Recovery), Disaster Risk Management Programs for Priority Countries: Ethiopia. No date	A note on preparations for responding to disasters	Not very useful except as background	DM has it, from www.gfrdrr.org
96. Kimenyi, M, Turbulence in the Nile: Toward a Consensual and Sustainable Allocation of the Nile River Waters, Africa Growth Initiative, Brookings Institute, 2010	Proposes a negotiated new agreement on sharing the Nile river water	Not useful to us	DM has it from www.brookings.edu
97. Future Agricultures. Pathways for Ethiopian Agriculture: Options and Scenarios. Future Agricultures Consortium, no date	Brief discussion of possible agricultural development pathways	A little useful	DM has it from www.future-agricultures.org

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
2A BLUE NILE ATLAS			
98. AD Yilma and SB Awulachew, Characterization and Atlas of the Blue Nile and its Sub Basins. IWMI, January 2009 [on CD of proceedings of CP 19 workshop].	Consolidated report on physical, climate, hydrological, social etc. characteristics of the basin	Moderately useful	Contained on CD of CP 19 workshop proceedings; in data base CROSS REFERENCE ENTRO REPORTS ON BLUE NILE BASIN

3. RWM POLICY FRAMEWORK IN ETHIOPIA

3A. GOVERNMENT POLICY DOCUMENTS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
99. MoWR–Ethiopian Water Sector Policy, 2001a	Broad statements of principles, ideas, focused largely on 'blue' water. P. 9 does refer to watershed management (apparently to protect water yields)	Somewhat useful	DM has it
100. MoWR–Ethiopian Water Sector Strategy, 2001b	Main objective is to translate national water sector policy into action. Focuses on institutional development, feasibility and planning studies, infrastructure investment etc. pp. 4, 26 discuss RWH, SSI and wetland conservation. Includes hydropower, WSS, irrigation	Somewhat useful	DM has it
101. MoWR–Water Sector Development Program, 2002–2016. Main Report Volume II, 2002	Detailed plan of action with 15 year time horizon including inventory of prioritized projects. SSI is included in irrigation chapter. Provides comprehensive financial and institutional framework, addresses social and environmental impacts	Useful	DM has 2 soft versions, Word and PDF of separate sections; do not have volume 1 (summary)
102. MoFED, Ethiopia: Sustainable Development and Poverty Reduction Program (SDPRP), FDRE–MoFED. Addis Ababa, July 2002. [PRSP]	Detailed program for poverty reduction, based on 4 'pillars': ADLI, justice and civil service reform, decentralization and empowerment, and capacity building (private and public sector)	Moderately useful	DM has it
103. MoFED, Rural Development Policies and Strategies, Addis Ababa, April 2003	Provides a discussion and arguments for the rural and agricultural development policy; covers broad range of topics, including water resources, soil conservation, targeting different strategies in different regions	Minimally useful	DM has it
104. Food Security Coordination Bureau (FSCB), Food Security Program, The New Coalition for Food Security in Ethiopia. Monitoring and Evaluation Plan, October 2004—September 2009. FSCB M&E Task Force, November 2004	Detailed M&E plan, for resettlement; FSNP; and other food security programs. Combines quantitative targets with process monitoring of various kinds	Interesting insights. If there are reports based on this plan they would be very interesting especially for FSNP	DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
105. MoFED, Ethiopia: Building on Progress. A plan for accelerated and sustained development to end poverty (PASDEP), 2005/06–2009/10. Volume 1: Main text; Volume 2: Policy Matrix. Addis Ababa: September 2006a, 2006b	Builds on SPDRP but sharpens focus, adjusts strategies based on lessons learned, new data etc. Sets out specific goals and targets for each sector. Agriculture and rural development remain at centre. SWC, RWH, SSI, water resources development all feature prominently (SWC has higher profile than in SDPRP). Volume 2 (policy matrix) sets out specific targets as part of M&E system	Very useful	DM has both volumes
106. MoFED, PASDEP Annual Progress Report, 2006–2007. Addis Ababa: December 2007	Reports on progress in implementing PASDEP, but does not report in terms of policy matrix in volume 2 of PASDEP	Not useful	DM has it
107. MOFED (DRPD), Dynamics of Growth and Poverty in Ethiopia (1995/96–2004/05), Addis Ababa, April 2008a	Comprehensive report on findings of national survey	Not very useful for this study except as source of broad statistics	DM has it from Tadele
108. MOFED–Ethiopia: Progress Towards Achieving the Millennium Development Goals: Successes, Challenges and Prospects. Addis Ababa, September 2008b	Reports on progress towards achieving each of the MDGs; overall claims major progress being made	Not very useful for this study except as broad background	DM has it from Tadele
109. MoARD–SLM Secretariat, Ethiopian Strategic Investment Framework for Sustainable Land Management, Addis Ababa, August 2008	Presents SLM investment framework for 15 years	Very useful document	DM has hard copy
110. Environmental Protection Authority (EPA) of FDRE, The 3rd National Report on the Implementation of the UNCCD/NAP in Ethiopia. Addis: February, 2004.	Overview of government policies and actions with regard to combating desertification.	Moderately useful	DM has it CROSS REFERENCE CLIMATE CHANGE
111. National Meteorological Services Agency (NMSA) [MoWR], Initial Communication of Ethiopia to the United Nations Framework Convention on Climate Change (UNFCCC), Addis, June 2001	Broad overview of Ethiopia situation, plans for responding to UNFCCC, and needs	Not useful for us	DM has it, from Tadele CROSS REFERENCE CLIMATE CHANGE

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
112. National Meteorological Agency (NMA) [MoWR], Climate change national adaptation program of action of Ethiopia. [NAPA] Ed A Tadage. Addis Ababa, 6/2007	Provides analysis of anticipated climate change impacts on Ethiopia; offers prioritized list of 11 adaptation projects—many related to RWM	Useful	DM has it CROSS REFERENCE CLIMATE CHANGE
3B. POLICY STUDIES AND ANALYSES			
Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc	Location
113. P Dorosh and J Thurlow, Implications of accelerated growth on household incomes and poverty in Ethiopia: A general equilibrium analysis, Discussion Paper ESSP2, IFPRI, 2009	Uses a new CGE model to assess agricultural growth options in view of goals of PASDEP and CAADP. Shows if it can meet its targets for crop yields and livestock productivity, Ethiopia will achieve 6% growth which would reduce national poverty level to 18.4%. Most households, rural and urban will benefit but not equally. Growth driven by cereals has larger poverty impact than export-oriented crops or livestock	Moderately useful background	IFPRI website, DM has it
114. Mellor, JW and P Dorosh, Agriculture and the Economic Transformation of Ethiopia, ESSP2 Working Paper 10, April 2010. IFPRI	Argues must target 'middle farmers' to promote high agricultural growth which is key to overall economic growth	Very useful and interesting, has implications for CPWF targeting	IFPRI website, DM has it. CROSS REFERENCE TARGETING
115. Devereux, S, R Sabates-Wheeler, M Tefera, and H Taye, Ethiopia's Productive Safety Net programme (PSNP): Trends in PSNP Transfers within Targeted Households, IDS and Indak International Pvt Ltd, Final Report, 10 August 2006	Reports on results of survey of impact of PSNP on households—mostly very positive	Useful background	DM has it CROSS REFERENCE RWM IMPLEMENTATION
116. Devereux, S and B Guenthe, Agriculture and Social Protection in Ethiopia, Future Agricultures WP 8, January 2009	Assesses tradeoffs of social protection vs. promoting agricultural development, and impacts of PSNP on households' asset creation	Useful study	DM has it from www.future-agricultures.org
117. Sabates-Wheeler, R and S Devereux, Cash Transfers and High Food Prices: Explaining Outcomes on Ethiopia's Productive Safety Net Programme, Future Agricultures WP 4, 2010	Susceptibility of transfer payments, especially cash-for-work to inflation; makes suggestions on alternative approaches, e.g. linking cash to a basket of goods, using vouchers for specific amounts of food etc.	Useful study	DM has it from www.future-agricultures.org

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
118. B Gebremedhin, J Pender, S Ehui, and M Haile, eds., Policies for sustainable land management in the highlands of Tigray, Northern Ethiopia, IFPRI EPTD workshop summary paper 14, 2003	Summaries of papers presented at a workshop based on a joint research program. Summary by Pender is listed under 'policy studies'	Some papers may be useful to get but best ones may be published elsewhere	IFPRI website, DM has it CROSS REFERENCE RESEARCH PROGRAM STUDIES
119. S Holden, B Shiferaw, and J Pender, Policy analysis for sustainable land management and food security in Ethiopia: A bioeconomic model with market imperfections, IFPRI RR 140, 2005	Data from Andit Tid (N Shewa, SCRP). Models various interventions (credit, fertilizer, off-farm employment, FFW) impacts on use of land conservation. Provision of credit for fertilizer, better access to off-farm income both have negative impact on conservation; planting eucalyptus on marginal land may increase income, as does combining FFW and tree planting. In long term even combining conservation and fertilizer use cannot sustain yields as erosion continues	Useful findings overall	IFPRI website, DM has it CROSS REFERENCE INTERVENTIONS
120. Pender, J, [summary of workshop papers] IN: Gebremedhin, et al. eds., 2003	Summary of workshop findings, from research project, 'Policies for Sustainable Land Management in the Highlands of Tigray, Northern Ethiopia,' began 1998 [ended 2003?]	Useful summary of findings; many reported in more detail in later publications, especially Pender et al. eds, 2006	DM has it, contained in Gebremedhin et al. eds, 2003 CROSS REFERENCE RESEARCH PROGRAM STUDIES
121. Pender, J, and B Gebremedhin, Land Management, Crop Production, and Household Income in the Highlands of Tigray, Northern Ethiopia: An Econometric Analysis, Chap 5 IN: Pender et al. eds, 2006	Based on econometric analysis of household and plot level data from surveys in 100 villages and 50 *tabias*, identifies factors associated with agricultural production and per capita incomes. Among others, some land management practices (e.g. stone terraces, reduced tillage) associated with substantially increased crop production as is cattle ownership other than oxen; women-headed households have significantly lower productivity even holding other factors constant; there is considerable private as well as public investment in land management. Tigray comparative advantage is in low-external-input technologies and other livelihood activities including livestock raising	Useful findings overall	DM has it. Contained in Pender et al. eds 2006 CROSS REFERENCE RWM INTERVENTIONS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
122. Benin, S, Policies and Programs Affecting Land Management Practices, Input Use, and Productivity in the Highlands of Amhara Region, Ethiopia, Chap 9 IN: Pender et al. 2006	Based on survey data from 434 households and 1434 plots in Amhara highlands, identifies factors influencing adoption of various land management practices and value of crop yields. Significant differences high-and low-potential areas. Crop yields higher in villages affected by land re-distribution since 1991; tenure security associated with higher yields esp in high-potential areas; extension, use of improved seeds and fertilizersŕpositive effect on yields in high-potential areas only; but SWC structures like stone terraces ŕ42% higher value crop yields only on low-potential areas. More densely populated villages—lower farm intensity and lower value crop yield in both areas	Useful for developing hypotheses for this study	DM has it. Contained in Pender et al. eds, 2006 CROSS REFERENCE RWM INTERVENTIONS
123. Mogues, T, G Ayele, and Z Paulos, The Bang for the Birr: Public Expenditures and Rural Welfare in Ethiopia, IFPRI Research Report 160, 2008. IFPRI	Analyses welfare impacts of different types of investment broken down by region; finds road investment has highest return, education as well	Useful perspective overall	IFPRI website, DM has it
124. Hoben, A, Paradigms and Politics: The Cultural Construction of Environmental Policy in Ethiopia, World Development 23 (6):1007–1021, 1995	How a neo-Malthusian environmental policy narrative led to ill-conceived and counterproductive SWC investments using food for work after 1985 famine	Very useful perspective on history, and issue of how 'development narratives' not necessarily based on facts drive bad policies and investments	DM has it, from IWMI library
125. Spielman, DJ, D Byerlee, D Alemu, and D Kelemework, Policies to Promote Cereal Intensification in Ethiopia: The Search for Appropriate Public and Private Roles, Food Policy 35 (3): 185–194, 2010	Tries to explain why, except for occasional spurts, growth in cereal production has been so low. Basically argues that state-led policies have outlived their usefulness and market reforms are needed	Useful if conventional neo-conservative assessment	DM has it from IWMI website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
126. Little, PD, Food Aid Dependency in Northeastern Ethiopia: Myth or Reality? World Development 36 (5): 860–874, 2008	Based on detailed study in South Wollo, Amhara, finds little evidence of dependency in the sense of people significantly altering their behaviour because of it; food aid is too uncertain and ill-timed for this	Interesting article; does not distinguish FfW from other means of receiving food aid	DM has it from IWMI library
127. W Crewett, A Bogale, and B Korf, Land Tenure in Ethiopia: Continuity and Change, Shifting Rulers, and the Quest for State Control, CAPRi WP 91, 2008	Analysis of land tenure in Ethiopia from an historical perspective using a 'bundle of rights' conceptual approach	Moderately useful background on land tenure	IFPRI website, DM has it
128. Deininger, K, DA Ali, S Holden and J Zevenbergen, Rural Land Certification in Ethiopia: Process, Initial Impact, and Implications for Other African Countries, World Development 36 (10): 1786–1812, 2008b	Based on 2300 household national survey, assesses process, outcomes of land certification program. Initial results very positive showing it can be done; make suggestions on need to include house plot and common property land, and make provision for updating	Moderately useful background	DM has it from IWMI library
129. Deininger, K, DA Ali, and T Alemu, Impacts of Land Certification on Tenure Security, Investment and Land Markets: Evidence from Ethiopia, World Bank Policy Research Working Paper 4764. World Bank: October, 2008a	Assesses economic impacts of a low-cost registration program in Ethiopia that, over 5 years, covered some 20 million parcels. Despite policy constraints, the program increased tenure security, land-related investment, and rental market participation and yielded benefits significantly above the cost of implementation	Similar to World Development paper	DM has it, from WB
130. Haile, M, W Witten, K Abraha, S Fisseha, A Kebede, G Kassa, and G Reda, Land Registration in Tigray, Northern Ethiopia. IIED Research Report 2. Mekelle University. Mekelle, November 2005	Study shows that land registration process can be pro-poor, and identifies some needed improvements, for example a system for continuous up-dating	Moderately useful background on institutional context	DM has it, from Tadele

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
131. Jabbar, MA, J Pender, and SK Ehui, eds, Policies for Sustainable Land Management in the Highlands of Ethiopia. Summary of papers and proceedings of a seminar held at the International Livestock Research Institute, Addis Ababa, Ethiopia, 22–23 May 2000, ILRI Socio-economics and Policy Research Working Paper 30. Nairobi: ILRI, 2000	Provides summarized preliminary findings of a project covering Tigray, Amhara, and Oromia examining impacts of various policies on soil erosion, fertility depletion, overgrazing, and deforestation	Moderately useful—summaries of early versions of papers that are developed and published later	ILRI website, DM has it CROSS REFERENCE RESEARCH PROJECTS
132. Nega, F, Poverty, Asset Accumulation, Household Livelihood and Interaction with Local Institutions in Northern Ethiopia, (PhD) Dissertationes de Agricultura, Katholieke Universiteit Leuven, Faculteit Bio-ingenieur-swetenschappen, September 2008	Based on panel survey (385 households in 2004–2006) in Tigray, assesses intensity and dynamics of poverty, effectiveness of programs (FSP is effective, FfW mostly benefited rich), determinants of livestock portfolios, and how social capital affects household welfare. >65% poverty is chronic, i.e. from low rather than fluctuating income. Livestock highly unequally distributed; social capital positively affects household welfare esp with high levels participation and trust; but is higher for men than women	Useful indepth study of poverty, impacts FSP and FFW, and livestock, social capital impacts	DM has it from Catholic University, Leuven website CROSS REFERENCE IMPLEMENTATION PROJECTS
133. Dercon, S, DO Gilligan, J Hoddinott, and T Woldehanna, The Impact of Agricultural Extension and Roads on Poverty and Consumption Growth in Fifteen Ethiopian Villages, IFPRI DP 840, December 2008	Based on Ethiopian Rural Household Survey (ERHS)–1477 households in 17 PAs, finds public investments to improve road quality and increased access to agricultural extension services led to faster consumption growth and lower rates of poverty in rural Ethiopia	Useful conclusions but a bit simple	DM has it from IFPRI website

4. INSTITUTIONAL FRAMEWORK FOR RWM POLICY IMPLEMENTATION

4A. GOVERNMENTALL LEVELS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
134. Haileslassie, A, F Hagos, E Mapedza, C Sadoff, SB Awulachew, S Gebreseleassie, and D Peden, Institutional settings and livelihood strategies in the Blue Nile Basin: Implications for upstream–downstream linkages, IWMI WP132, 2008	Overview of policies, institutions and some experiences affecting land and water management in Blue Nile, both Sudan and Ethiopia but mostly latter; discussion in terms of main farming systems	Very useful study, including some comments on and references for previous RWM projects	IWMI website, DM has it. CROSS REFERENCE LOCAL INSTITUTIONS and TARGETING
135. Mogues, T, Mj Cohen, R Birner, M Lemma, J Randriamamonljy, F Tadesse, and Z Paulos, Agricultural Extension in Ethiopia through a Gender and Governance Lens. ESSP 2 Discussion Paper 007, October 2009. IFPRI.	Detailed study of how the extension system works, farmers' perspectives etc. from a gender perspective: shows little impact in terms of innovation, minimal actual inclusion of women	Very useful study with insights into how the system works, and with some good recommendations	IFPRI website, DM has it CROSS REFERENCE TARGETING GENDER
136. IFPRI Team with assistance from McKinsey and Company Team on behalf of BMGF, Review of Agricultural Extension in Ethiopia, 2009	Detailed study by IFPRI and McKinsey team with specific recommendations for strengthening system	Quite useful study on current strengths and weaknesses of system with recommendations	IFPRI website (?), DM has it
137. Amede, T, L Desta, E Habte, and A Yimer, Policies and Institutional Arrangements Affecting Livestock–Water Productivity in the Nile Basin: Case Studies from Ethiopia, Sudan, and Uganda, A synthesis report, IWMI's contribution to the ILRI-led CP 37 project, Addis Ababa, June, 2009a	Good overview of main policies and institutional arrangements from transboundary to local levels with special reference to the place of livestock in these	Very useful overview	DM has it, from Tilahun CROSS REFERENCE POLICIES
4B. LOCAL LEVEL			
138. F Hagos, A Haileslassie, and SB Awulachew, Assessment of local land and water institutions in the Blue Nile and their impact on environmental management, 2009; IN S Awulachew et al. compilers, Improved water and land management in the Ethiopian highlands: Its impact on downstream stakeholders dependent on the Blue Nile, Intermediate results dissemination workshop, 2009	Seems to give more detailed analysis for Ethiopia than WP132, above	Very useful	IWMI website, DM has it CROSS REFERENCE GOVT INSTITUTIONS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
139. Bernard, T, and DJ Spielman, Reaching the Rural Poor through Rural Producer Organizations? A Study of Agricultural Marketing Cooperatives in Ethiopia, Food Policy 34:60–69, 2009	Based on national representative household and cooperative level survey, finds poor farmers tend not to participate in RPOs though may get some indirect benefit; and there is a significant trade-off of market performance and inclusiveness	Useful study; see Bernard 'brief' in institutional innovation section	DM has it from IWMI library CROSS REFERENCE INSTITUTIONAL INNOVATION
140. S Holden, B Shiferaw, and J Pender, Market imperfections and land productivity in the Ethiopian Highlands, IFPRI EPTD Disc Pap 76, 2001	Based on sample 102 households in North Shewa (Andit Tid) and 598 plots in 1998, assesses impacts of labour and land market imperfections on productivity; these were found to have significant impact. Land productivity positively affected by household labour/unit land. Age of household head and women-headed households had lower productivity. In this context SWC measures do not improve productivity	Somewhat useful	IFPRI website, DM has it
141. Gebremedhin, B, J Pender, and G Tesfay, Community Natural Resource Management in the Highlands of Ethiopia, Chap 10 IN: Pender et al. eds, 2006	Based on study of 50 tabias and 100 villages in highlands of Tigray, finds collective management of woodlots and grazing lands generally functions well; those managed by (smaller) villages are better managed, and in better condition, than those managed at higher municipality level; found inverted U-shape relationships of population density and collective action—higher at intermediate density	Useful insights into collective management of resources	DM has it. Contained in Pender et al. eds, 2006
142. Pankhurst, A, Conflict Management over Contested Natural Resources: A Case Study of Pasture, Forest and Irrigation in South Wello, Ethiopia, no date	Takes historical perspective on roles of local leaders and institutions, and external agencies, in conflict resolution. Local informal forums still operate, but state historically attempts to take over this role	Very useful source on local informal institutions	DM has it, from http://treesforlife.info/fao/Docs/P/y4503e/y4503e03.pdf
143. Ashenafi, ZT and N Leader-Williams, Indigenous Common Property Resource Management in the Central Highlands of Ethiopia, Human Ecology 33 (4): 539–563, 2005	Examines in detail a CPRM system in Ethiopian Highlands (Menz, North Showa, Amhara), the impact of the 1975 reforms, and current manifestations	Very interesting, helps fill a gap in indigenous CPR institutions	DM has it from IWMI library

5. RWM IMPLEMENTATION and RESEARCH PROGRAM EXPERIENCES

5A. OFFICIAL DOCUMENTS and IMPLEMENTATION PROJECTS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
144. World Bank, Ethiopia: Agricultural and Rural Development Expenditure Review 1997/98 – 2005/06, Report No 41902-ET. Washington, DC, February 2008b	Reviews performance of investments.	Not useful to us	DM has it from WB website
145. Independent Evaluation Group, World Bank, Ethiopia: Country Assistance Evaluation, 1998–2006, Report No 43524, June 2008	Assess extent to which Bank program achieved the planned outcomes; mixed overall.	Not useful to us	DM has it from WB website
146. World Bank, Ethiopia: Managing Water Resources to Maximize Sustainable Growth: Country Water Resources Assistance Strategy, Report No 36000-ET. Washington, DC: World Bank, 2006c	Analyses implications of 'difficult hydrologic legacy' for achieving water security and identifies institutional, infrastructure etc. investments including supportive investments such as roads to get maximum benefits from e.g. irrigation investments. Emphasizes among others importance of watershed management improvement	Useful and insightful analysis	DM has it from WB website CROSS REFERENCE POLICY STUDIES
147. WB-Ethiopia –Summary of water resources assistance strategy, 2008c	Summarizes bank assistance	Background only	WB website, DM has it
148. EDRI and World Bank, Proceedings of Operational Workshop on Sustainable Land Management, Environmental Economics Policy Forum for Ethiopia/ Ethiopian Development Research Institute sponsored by preparation budget for WB/GEF Sustainable land Management Program, World Bank, May 2006	Summarizes proceedings of a workshop where several ongoing project experiences were presented and WB presented its initial plans for SLM program	Somewhat useful	DM has it
149. World Bank-Sustainable Land Management Project. PAD, Report No 42927-ET, March 2008a	USD 37.79 m grant from WB and GEF over 5 years for work in 35 watersheds, linked to a German grant under consideration for up to USD 25 m in financing and technical assistance. Supports MoARD SLM program; intends to scale up best SLM management practices in vulnerable 'high potential/food secure' areas, on farm, homestead and community lands; and support rural land certification	Useful document—would be useful to obtain more recent implementation information	DM has it from WB website, http://go.worldbank.org/6Y4UW192R0

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
150. WB-Agricultural growth Program-PID, 2009	Should be starting in first half 2010; includes small scale irrigation and land and water management	Summary not useful	WB website; DM has it
151. WB-Irrigation and Drainage Project-PID, 2007	Began in 2007? 20k ha smallholder irrigation and 80k ha to be planned	Summary not useful	WB website, DM has it
152. MoWR ABBAY Basin Team, Tana Beles Integrated Water Resources Development Project, Ethiopia: Growth Corridor for Tana and Beles Sub-basins: Endowments, Potential and Constraints. Draft Final Report, 3 volumes, May 2009	Detailed assessment, as background for TBIWRDP	Very detailed source of data on the 2 sub-basins	DM has it from Tadele (?)
153. WB-Tana and Beles Integrated Water Resources Development Project [TBIWRDP]. PAD, 2008d	USD 69.85 m project as pilot to test 2 new GoE thrusts: development of a growth zone through integrated planning, institutional development and investments, and setting up basin management organizations (on Abay, and the 2 sub-basins). Major component (>USD 40 m) for NRM investments, i.e. watershed development and flood management, linked to SLM Project	Very useful, this CPWF project will be implemented partly in these sub-basins of the Abay	WB website, DM has it
154. WB-Tana and Beles Integrated Water Resources Development Project-PID, 2008e	Summary of project	Not that useful	WB website, DM has it
155. Debela, S, K Goshu, and D Chanyalew, Millennium Development Goals Need Assessment: The Rural Development and Food Security Sector in Ethiopia. [Report for MOFED and MoARD] Addis Ababa, December 2004. 2 volumes [vol 2 are annexes]	Detailed report attempting to quantify interventions and investment costs to achieve MDG 1 and 7 [poverty, hunger]. Interventions packages are NRM and rural infrastructure; agricultural production, and agricultural marketing and access to food. Keyed to New Coalition for Food Security	Useful report, especially for quantification of SWC, SSI and other interventions, and costs	DM has it from Tadele. CROSS REFERENCE POLICY
156. AFDB-Review of Bank group assistance to the agriculture and rural development sector, by OPEV, 2008a	Broad assessment of relevance, impact, efficiency etc. of bank's program	Too general to be useful	AFDB website, DM has it
157. AFDB-Agricultural Sector Support Project (ASSP) Appraisal Report, AfDB, 2003	UA55.5m project includes SSI, RWH, ecosystem management etc.	Very useful, important— we should follow up and obtain any info we can on lessons learned, manuals developed etc.	AFDB website, DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
158. AfDB, Agricultural Sector Support Project (ASSP) Mid Term Review Report, OSAN, AfDB, July 2008b	Detailed review of progress and issues; overall project is behind schedule and gets a low average score, but ERR, and progress on some sectors is good	Very useful	DM has it, from AfDB in Addis
159. AFDB-Koga Irrigation and Watershed Management Project Appraisal Report, 2001	UA37.9m project to construct reservoir, 6k ha irrigation; has significant SWC/RWH component in watershed; Nile Basin	Useful; need to follow up on experiences, lessons from watershed management part; PHASE II is under preparation	AFDB website, DM has it
160. AFDB-Pilot project on water harvesting in the IGAD region, 2002	TA grant to do studies and planning in Karamojong region, includes SW Ethiopia	The final report may be useful, this document is not	AFDB website, DM has it
161. IFAD, Country Programme Evaluation, Federal Republic of Ethiopia. Rome. IFAD Office of Evaluation, May 2009	Assesses previous country program and lessons learned	Not very useful to us	DM has soft and hard copies from IFAD HQ
162. IFAD, Federal Republic of Ethiopia, Country Strategic Opportunities Programme (COSOP). Rome. IGAD 2008	Sets out priorities and approach for next 7 years with rationale. 3 priorities: NRM, improved agricultural technologies and production services, and financial services	Moderately useful to us	DM has it from IFAD website
163. IFAD, Community Based Integrated Natural Resources Management Project (CBINReMP), President's Report. Rome. IFAD, 2009a	USD 25.3m project with GEF to support community based SLM and water management around Tana Lake	This is a summary, see IFAD 2009b, ANRS, GEF and IFAD 2008	IFAD website, DM has it
164. IFAD, Community Based Integrated Natural Resources Management Project (CBINReMP), Project Design Report, IFAD, 2009b	Goal: poverty sustainably reduced for 312k households in 21 *woredas* of LTW through 2 main components: community-based IWM practices adopted; institutional and legal reforms enacted and implemented. Project is to be implemented in context of SLP Platform	New project, implementation just began; maybe mutual learning possible	DM has it, from IFAD (hard and soft copy)

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
165. ANRS, GEF and IFAD, Community-based Integrated Natural Resources Management in the Lake Tana Watershed, Ethiopia. Full-Sized Project Document. October 2008	Same project as IFAD's CBINReMP, but in GEF format. It proposes to focus GEF resources on 2 of the 4 sub-watersheds, leaving others as 'business-as-usual'. Some differences from IFAD 2009b, but IFAD is implementing agency	See IFAD 2009b	DM has soft and hard copies
166. Amhara National Regional State of FDRE, with GEF and IFAD, Community-Based Integrated Natural Resources Management in the Lake Tana Watershed, Ethiopia: A) Full-sized proposal and annexes; B) Request for CEO endorsement/approval. 2008. [LTW–CB–INRM Project]	Detailed project proposal for integrated watershed management and institutional, legal and policy analysis and reform; supposed to begin Jan 2010	Useful as a detailed plan and for background information on the problem and region	DM has these, from Tadele
167. ENTRO-Halcrow Group Ltd in association with Metaferia Consulting Engineers for ENTRO, Integrated Watershed Management (Ethiopia): Watershed project, Fast Track Project Detailed Project Description, prepared by. Project Implementation Plan, volume 1, Main Report. December 2007 (plus volumes 2–4, annexes)	Detailed project proposal for integrated watershed management project in 2 Lake Tana sub-basins (complements GEF project); explicitly linked to Tana-Beles Project	Useful as detailed plan and for background information	DM has these, from Tadele
168. SIDA–Amhara Regional Development Program (SARDP)–SARDP Phase III Program Document, 2004–2008 (revised 2005): *Woreda* Development Support in East Gojjam and South Wollo Zones, 2005a	SEK 300m project, basically irdp-type, includes SSI, land tenure, watershed management	Potentially useful if we can get documents on lessons learned Mentions impact assessment of phase II—can we get it?	SIDA website, DM has it
169. SARDP—Socio-economic survey of 9 *woredas* in East Gojjam and South Wollo Zones, (Appendix 9), 2004	Basic socio-economic data as baseline	Not very useful	SIDA website, DM has it
170. SIDA-Aggregate physical accomplishments of SIDA Amhara rural development program, 1997–June 2007 [it is a table]	Table with physical accomplishments	Not very useful	SIDA website, DM has it
171. SIDA–SARDP, Community Empowerment Action Discussion Paper, Bahir Dar, no date	Detailed guidelines for community empowerment-roles of different actors, community development fund management etc.	Not useful for us	DM has it from Tadele

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
172. SIDA–SARDP III, Program Management Modality of SARDP III. Bahir Dar, November 2005b	Detailed description of various committees and actors and their roles and responsibilities	Not useful to us	DM has it from Tadele
173. SIDA–SARDP III, Economic Diversification Component: Detail *Woreda* Operational Plans, Bahir Dar, September 2005c	Detailed discussion of roles of many different economic and business developing organizations in Amhara and plans for strengthening them	Not useful to us except as source of information on local business development organizations	DM has it from Tadele
174. SIDA–SARDP, East Gojjam Zone Sub Programme Coordination Unit, Success Stories, September 2006a	15 one-page testimonials	Not useful except to personalize outcomes	DM has it from Tadele
175. SIDA–SARDP, South Wollo and East Gojjam Zones of Amhara Region, Empirical Assessment of the Impact of SARDP Initiatives 1997–2002 (using BoFED Rural Households Socio-Economic Survey of the 106 *woredas* of Amhara Region). Draft for internal review, updated on 15 December 2006b	Detailed comparison of SARDP and non-SARDP households on many parameters; gives percentages but no statistical analysis. Overall shows modest impacts of SARDP	Not useful to this study	DM has it from Tadele
176. SIDA–SARDP III, Budget Reallocation Guidelines. Bahir Dar, October 2006c	Guidelines for re-allocation among line items	Not useful	DM has it from Tadele
177. Tengnäs, B, E Poluha, S Demissie, and YF Mandefro, Sida–Amhara Rural Development Programme 1997–2008: Sida evaluation. Draft, April 2009. Addis Ababa: Embassy of Sweden	Comprehensive external evaluation of SARDP. Overall quite positive, but critical of lack of proper M&E, lack of basis to effectively target assistance; notes lack of spontaneous adoption of SWC; concern—sustainability of both SSI, SWC	Only small portion examines SSI and SWC	DM has from Tadele; available on Sida publications website according to document but I could not find it
178. Farnworth, CR and TH Gutema, Gender Aware Approaches in Agricultural Programmes—Ethiopia Country Report. A special study of the SIDA–Amhara Rural Development Programme (SARDP III) and the work of selected agencies in Ethiopia. Sida, UTV Working Paper 2010:4, 2010	Critical analysis of the weaknesses in implementation of SARDP with reference to gender	Useful assessment	DM has it from Sida publications website. CROSS REFERENCE TARGETING-GENDER
179. Simane, B. Integrated Watershed Management as an Approach to Sustainable Land Management (Experience of SARDP in East Gojam and South Wollo), IN T Amede, ed. 2002. pp 127–135.	Short discussion of interventions on watersheds under SARDP, with some results. Successful conservation technologies must meet 2 conditions: ecological, and economic, effectiveness	Moderately useful.	DM has photocopy from TA's hard copy

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
180. CIDA—Water Harvesting and Institutional Strengthening in Amhara, project profile, 2005–2011	Only a summary, no detailed docs on website	Not very useful—we need to see if we can get more details	CIDA website, DM has profile
181. CIDA–Water Harvesting in Tigray, 2001–2010 (closed), project profile	Only a summary, no detailed docs on website	Not very useful—we need to see if we can get more details, including lessons learned from phase 1, any evaluations etc.	CIDA website, DM has profile
182. Ferguson, A, and F Kassa, End of Project Review of the Water Harvesting and Institutional Strengthening in Tigray (WHIST) Project, Prepared for CIDA, Project No. ET-021168, August 2007a b [2 documents: main report and annexes]	Evaluation of project results	Not very useful for us	DM has it, received from CIDA (hard and soft copy)
183. MoARD, Community Based Rehabilitation of Degraded Lands: An Effective Response to Climate Change in Ethiopia, Addis Ababa, January, 2010, Government of Ethiopia [MERET BROCHURE]	Short brochure on achievements especially through MERET, with nice photos	Not enough details to be useful	DM has it
184. WFP [website], MERET Land Regeneration in Ethiopia, cases copied and pasted from website, no date, http://www.wfp.org/disaster-risk-reduction/meret	Stories of a couple beneficiaries in Amhara State	Not useful	DM has it
185. WFP–Office of Evaluation, Full Report of the Mid-Term Evaluation of the ETHIOPIA Country Programme (1998–2003), carried out 4–30 June 2001. Ref: OEDE/2002/07, Rome, April 2002	Since MERET predecessor is largest WFP project, much attention on this; focus is more on overall WFP implementation issues	Moderately useful	DM has it (available from WFP website)
186. WFP, Country Programme—Ethiopia 10430.9 (2007–2011), submitted to Executive Board for approval on non-objection basis, 17 August 2006	CP includes school feeding and cooperation with MoARD to implement MERET–PLUS	Moderately useful document	DM has it (available on WFP website)
187.Nedassa, B. Soil and Water Conservation Program in the Amhara National Regional State, IN: T Amede, ed. 2002. pp. 109–125	Reviews approaches to reducing land degradation in Amhara, lessons learned and their application in MERET	Useful study by coordinator of MERET Project	DM has photocopy from TA's hard copy

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
188. Yirga, A, MERET–PLUS Contribution to Human Capacity Development, Briefing Note, Addis Ababa, January 2010	Brief description of approach of MERET–PLUS	A little useful	DM has it
189. Zeleke, G, Experiences on Integrated Watershed Management in Ethiopia: The Case of MERET Project, ENTRO Watershed Management Project (EN/WS/No 004), 2005	History, lessons, outcomes, impacts of MERET Project	Very useful	DM has it from Tadele CROSS REFERENCE IMPACTS AND LESSONS
190. Cohen, MJ, M Rocchgiani, and JL Garrett, Empowering Communities through Food-Based Programmes: Ethiopia Case Study. WFP Discussion paper, September 2008	Assessment of the extent to which MERET is empowering communities, building capacities etc.	Very useful	DM has it CROSS REFERENCE IMPACTS AND LESSONS
191. Inter-Agency Standing Committee (IASC), Addressing the Humanitarian Challenges of Climate Change: Regional and National Perspectives. Case Studies on Climate Change Adaptation, IASC Regional and National Consultations, May–June 2009. Chapter 2.2: Ethiopia	Short summary of MERET and its achievements, lessons learned	Nice box on lessons learned; not much detail in document	DM has it
192. Bewket, W. Community-based Rehabilitation of Degraded Lands: An Effective Response to Climate Change in Ethiopia. Research Report, Addis Ababa, November 2009 [publisher?]	Based on rapid assessments, focus groups etc. an assessment of the impacts and outcomes of MERET project on selected watersheds in selected *woredas*	Useful study, but seems to be written as a sales job; not very critical	DM and TS have hard copies
193. Amede, T, H Kassa, G Zeleke, A Shiferaw, S Kismu, and M Teshome, Working with Communities and Building Local Institutions for Sustainable Land Management in the Ethiopian Highlands, Mountain Research and Development 27 (1):15–19, February 2007	Short positive case study from MERET Project in Alaba District, Southern Ethiopia (Rift Valley)	Moderately useful	DM has it from journal website
194. Fanzo, J, and P Pronyk, An Evaluation of Progress Toward the Millennium Development Goal One Hunger Target: A Country-level, Food and Nutrition Security Perspective, Commissioned by WFP, no date	Reviews a set of programs in different countries including MERET in Ethiopia	Does not add value to other reports	DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
195. Bureau ofAgriculture Amhara [BoA] and GTZ, Integrated Food Security Program, South Gondor-Region 3 Information Pack, 2003	Describes overall project which includes integrated watershed management, introduction multi-purpose trees, new sub-cultivator (plough) etc. lessons learned (project is 1996–2004)	Useful on some of the interventions being implemented	DM has it from Tadele CROSS REFERENCE SPECIFIC INTERVENTIONS
196. GTZ (excerpt from website), Sustainable Land Management Program http://www.gtz.de/en/weltweit/ afrika/aethiopien/14260.htm	Brief description of the project	Not enough detail to be useful.	DM pasted content into word document.
5B. STUDIES and RWM RESEARCH PROJECTS			
Reference and Document Number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
197. Gezahegn, LK, Rapid Baseline Assessment on Agricultural Water Use-Ethiopia, NBI–EWUAP, October 2006	Overview of experiences and issues, including technologies, institutional and policy arrangements	Moderately useful	DM has it from Tadele
198. Gezahegn, LK, Best Practices for Water Harvesting and Irrigation: Ethiopia. Final Report NBI–EWUAP, May 2008	Assessment of RWH, SSI ['CBI'], larger scale irrigation approaches, technologies, mostly through literature search	Very useful synthesis; contains useful tables etc. pp. 14 ff assesses strengths, weaknesses of various technologies	DM has it from Tadele CROSS REFERENCE INTERVENTIONS, TARGETING
199. Hydrosult Inc and others for ENTRO, Eastern Nile Watershed Management project, Cooperative Regional Assessment (CEA) for Watershed Management: Transboundary Analysis, Final Country Report— Ethiopia. September, 2006	Based largely on review of literature, comprehensive overview of watershed management issues, experiences, lessons learned in Ethiopia; a source for Hydrosult Inc et al. 2007a–c	Very useful and detailed, covers 3 Nile sub-basins separately. This is the source for much of what is in items 105–107. Has useful maps	DM has it from Tadele CROSS REFERENCE DEVELOPMENT DOMAINS, BLUE NILE, IMPLEMENTATION PROJECTS, POLICIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
200. Hydrosult Inc and others for ENTRO, Eastern Nile Watershed Management project, Cooperative Regional Assessment (CEA) for Watershed Management: Transboundary Analysis Abay–Blue Nile Sub-Basin. Final, January 2007a.	Based largely on review of literature, comprehensive overview of Abay Sub-Basin characteristics, up–down stream dependencies and interactions, experiences with programs especially watershed management, potential benefits and costs of cooperation for improved watershed management.	Very useful study	DM has it from Tadele CROSS REFERENCE ETHIOPIA, NILE
201. Hydrosult Inc and others for ENTRO, Eastern Nile Watershed Management project, Cooperative Regional Assessment (CEA) for Watershed Management: Transboundary Analysis Baro–Sobat–White Nile Sub-Basin. Final, January 2007b.	Similar to study for Abay–Blue Nile	Very useful for this sub-basin	DM has it from Tadele CROSS REFERENCE ETHIOPIA, NILE
202. Hydrosult Inc and others for ENTRO, Eastern Nile Watershed Management project, Cooperative Regional Assessment (CEA) for Watershed Management: Transboundary Analysis Tekezi–Atbara Sub-Basin. Final, January 2007c.	Similar to study for Abay–Blue Nile	Very useful for this sub-basin	DM has it from Tadele CROSS REFERENCE ETHIOPIA, NILE
203. Anderson, IM, Agricultural Water in the Nile Basin—An Overview. Final Report. Nile Basin Initiative: EWUAP, and Annexes with country reports. April 2008	Detailed analytical overview of AWM status I issues in Nile Basin	Useful background	DM has it from Tadele
204. Anderson, IM and M Burton, Best Practices and Guidelines for Water Harvesting and Community Based (Small Scale) Irrigation in the Nile Basin. Community Based (Small Scale) Irrigation Report, Part I—Best Practices in Community Based (Small Scale) Irrigation. Final Report, January 2009a [EWUAP]	Detailed overview of best practices and lessons for SSI in Nile Basin; Ethiopia section is based on more detailed and useful report, Gezahegn 2008	Fairly useful	DM has it from Tadele CROSS REFERENCE IRRIGATION
205. Anderson, IM and M Burton, Best Practices and Guidelines for Water Harvesting and Community Based (Small Scale) Irrigation in the Nile Basin. Community Based (Small Scale) Irrigation Report, Part II—Guidelines for the Implementation of Best Practices in Community Based (Small Scale) Irrigation. Final Report, January 2009b [EWUAP]	Detailed set of guidelines for implementing SSI	Quite useful for those implementing SSI; reference is made to CDs with additional information	DM has it from Tadele CROSS REFERENCE IRRIGATION

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
206. Anderson, IM and M Burton, Best Practices and Guidelines for Water Harvesting and Community Based (Small Scale) Irrigation in the Nile Basin. Community Based (Small Scale) Irrigation Report, Part III—Action Plans for Possible Investments to be Considered by the SAPs. Final Report, January 2009c [EWUAP]	Outputs of a workshop	Not useful	DM has it from Tadele CROSS REFERENCE IRRIGATION
207. Anderson, IM and M Burton, Best Practices and Guidelines for Water Harvesting and Community Based (Small Scale) Irrigation in the Nile Basin. Water Harvesting Report, Part I—Best Practices for Water Harvesting. Final Report (2 volumes), January 2009d [EWUAP]	Detailed overview of best practices and lessons for SSI in Nile Basin; Ethiopia section is based on more detailed and useful report, Gezahegn 2008; this is supplemented by Appendix in vol. 2 of the report	Very useful overview	DM has it from Tadele
208. Anderson, IM and M Burton, Best Practices and Guidelines for Water Harvesting and Community Based (Small Scale) Irrigation in the Nile Basin. Water Harvesting Report, Part II—Guidelines for the Implementation of Best Practices in Water Harvesting. Final Report, January 2009e [EWUAP] 2 volumes	Detailed set of guidelines for actual implementation of a range of WH best practices; includes detailed list of sources of further information, other handbooks, guidelines, training modules etc.	Very useful for practitioners	DM has it from Tadele
209. Gebrekidan, B, N Alemayehu, Y Ashine, G Bayafers, S Kassahum, and ANRS Partners of AMAREW, AMAREW Project Terminal Report July 2002–December 2007 [AMAREW Final Report]. Amhara Micro-enterprise Development, Agricultural Research, Extension and Watershed Management (AMAREW) Project. Virginia Tech, ANRS and USAID. December 2007	Detailed report on outputs, achievements and lessons learned of the project with many specific examples and photos	Moderately useful	DM has it from Tadele
210. USAID Collaborative Research Support Programs Team, Amhara National Regional State Food Security Research Assessment Report, May 2000	Assessment of AARI research needs and capacity with recommendations for support	Not very useful except as background to USAID project	DM has it
211. Gebrekidan, B, Y Abebe, F Yohannes, E Zerfu, and H Kassa, Integrated Agricultural Development Strategies in the ANRS: Lessons from the AMAREW Project, paper prepared for an international symposium, 2005. [USAID}	Provides a good overview of the AMAREW Project, issues emerging, and early (qualitative) results	Useful summary of the project	DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
212. USAID, excerpt from AMAREW project—research component for 2005	Brief description of research	By itself not useful	DM has it
213. Benin, S, J Pender, S Ehui, Policies for Sustainable Development in the Highlands of Amhara Region: Overview of Research Findings, In: T. Amede, ed., 2002. pp. 185–207.	Descriptive overview of main findings of research project on 'Policies for Sustainable Land Management in the Highlands of Amhara Region'. Based on community and PA surveys: 434 households, 1422 plots, 49 Pas and 98 villages. Positive impacts extension and producing high-value crops; but population pressure lowering production and incomes and worsening resource and welfare conditions	Useful findings overall	DM has copy from TA's original CROSS REFERENCE POLICY STUDIES
214. DN-Consult, Midterm Evaluation of the Project 'Capacity Building and Food Security in Tehuledere and Habru *woreda*' for ORDA and German Agro Action. AF 1216/ETH 1052–04 [funded by EU]. On request of DWHH/GAA, January 2007	Short summary evaluation of integrated watershed management project	Too short to be useful	DM has it
215. Robinson, I, A Beyene, and Y Likke, Development Fund, Norway-ETHIOPIA: Evaluation of DF-Funded Development Programmes Implemented by the Relief Society of Tigray (REST), April–May 2001. CAZS, Bangor	Detailed evaluation-multiple projects implemented through REST including Integrated Agricultural Development Programme (IADP); detailed observations on various interventions, including SWC, livestock ponds, enclosures, SSI	Quite useful; has good insights into gender issues emerging. Critical of sftb	DM has it CROSS REFERENCE TARGETING and RWM INTERVENTIONS
216. Zeleke, G, M Kassie, J Pender, and M Yesuf, Stakeholder Analysis for Sustainable Land Management (SLM) in Ethiopia: Assessment of Opportunities, Strategic Constraints, Information Needs, and Knowledge Gaps. January 2006. 2nd draft, unpublished. EEPFE and IFPRI	Detailed assessment of multiple issues that need to be addressed to scale up SLM; based on discussions with many stakeholders, review of documents, field visits	Very useful	DM has it CROSS REFERENCE MOST TOPICS ADDRESSED INCLUDING WB'S SLM PROGRAM
217. Development Researchers' Network (DRN) and others, Joint Evaluation of Effectiveness and Impact of the Enabling Policy of the WFP: Ethiopia Country Study, volume 2. Italy: DRN, December 2004	Evaluation includes MERET; carried out on behalf of several bilateral donors	Volume 2 not very useful	DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
218. MA Consulting Group (Kenya) and Prospect Development Consult (Ethiopia), Impact Assessment of the PSNP Public Works Program. Vol II: Main Report. Submitted to World Bank and Government of Ethiopia. May, 2009	Detailed impact assessment of PSNP in 12 *woredas*; looks at positive and negative impacts, on several dimensions. Findings are very positive, with many good recommendations	Very useful assessment of impacts and lessons learned especially for SWC, RWM	DM has it
219. AH Consulting, Rapid Assessment and Diagnostic Work Stream on Selected Water Led Projects in Ethiopia: Volume III. Kilte Awlalo and Atsbi Womberta (Tigray) Integrated Watershed Management, Final Report, March 2010	Rapid assessment of integrated watershed interventions in 2 *woredas* in Tigray supported by MERET, PSNP, (and possibly GTZ and USAID); overall very positive, gives specific numbers and estimated financial outcomes	Useful assessment Emphasizes effectiveness of CBPWD guidelines	DM has it (from Seleshi; it is a product under the MBGF project)
220. Landell Mills, Evaluation of the Water Harvesting Schemes Component of the EC Funded Programmes IFSP 1998 and IFSP 2000 in Tigray Regional State, EU SCR Framework Contract, Ethiopia. Final Evaluation Report (updated version), 11 May 2004. Main Evaluation Report and Appendices. (5 volumes)	Detailed evaluation of Tigray's program to build household water storage ponds, giving lessons learned and making recommendations for improving effectiveness in future. Basic conclusion is these are very significant in improving household incomes and food security but improvements in implementation and support systems are needed	Useful assessment	DM has main report and appendices from Tadele; do not have the supporting 'working papers'. Main report shows last minute track changes. CROSS REFERENCE SPECIFIC RWM INTERVENTIONS (FARM-LEVEL RWH PONDS)
221. Abebe, WB, M McCartney, WJAM Douven, and J Leentvaar, Environmental Impact Follow-up in the Koga Irrigation Project, Ethiopia, IN: Humphries et al. eds, IFWF2, vol 2, pp. 52ff, 2008b	Although EIA was done reasonably well except a poor estimate of flow requirements downstream of the dam, follow-up and implementation has been unsatisfactory as was public participation.	Not very useful for this study	DM has it. Contained in Humphries et al. eds, IFWF2, vol 2
222. Improving Productivity and Market Success (IPMS) Project, IPMS Year 3 Monitoring and Evaluation Report for the IPMS Project (2007/2008), June 28, 2009	Narrative description of project achievements	Not useful	From IPMS website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
223. Awulachew, SB, Improved Water and Land Management in the Ethiopian Highlands and its Impact on Downstream Stakeholders Dependent on the Blue Nile, CPWF Project 19 report (draft), April 2010	Overview of issues, including review of many past studies and results of modelling at multiple scales, showing importance of treating Blue Nile as a system in designing development interventions	Very useful study	DM has it, from Seleshi CROSS REFERENCE BLUE NILE OVERVIEW
224. FAO, Ethiopia Highlands Reclamation Study, Final Report Vol 1 [Ag:UTF/ETH/037/ETH], Rome, 1986a	Comprehensive assessment of land degradation problems, including discussions of history, government structure and policies, agriculture, economy, various programs and projects related to land conservation etc.	Very useful study and baseline of situation before change of government in 1991. Shows considerable continuity; shows many lessons, e.g. need for getting farmers' commitment, linking conservation to development ('Conservation-Based Development Strategy')	DM has it from Tadele
225. FAO, Ethiopia Highlands Reclamation Study, Final Report Vol 2 [Ag:UTF/ETH/037/ETH], Rome, 1986b	Comprehensive proposed rural development program addressing many sub-sectors but build around 'conservation-based development strategy'	Very useful study, many recommendations that still resonate	DM has it from Tadele, including working papers—in database
NOTE: Not listed here are the Working Papers prepared as part of this study; many are quite detailed and potentially useful. Most of them are included in the electronic data base.			

6. SPECIFIC RWM INTERVENTIONS—IMPACTS AND LESSONS LEARNED

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
226. Erkossa et al. impacts of improving water management of smallholder agriculture in the upper Blue Nile Basin, in Awalachew et al. CP 19 project workshop proceedings,2009	Potential innovations by agro-ecological zone; Useful small maps	Very useful in characterizing different agrofarming systems and potential innovations	IWMI website, DM has it. CROSS REFERENCE GEOGRAPHICAL TARGETING
227. M Kassie, J Pe nder, M Yesuf, G Kohlin, and E Mulugeta, Impact of soil conservation on crop production in the Northern Ethiopian Highlands, IFPRI DP 00733, 2007	Shows positive returns stone bunds in low-rainfall area (Tigray) but not high-rainfall area (Amhara); uses large sample and sophisticated statistical techniques. Good review of related literature	Useful finding – importance of geographical targeting	IFPRI website, DM has it CROSS REFERENCE GEOGRAPHICAL TARGETING
228. Kassie, M, S Holden, G Köhlin, and R Bluffstone, Economics of Soil Conservation Adoption in High-Rainfall Areas of the Ethiopian Highlands, Environment for Development Discussion Paper 08–09, March 2008. EFD and Resources for the Future	Measures impact of *fanya juu* bunds on value of crop production in a high-rainfall area; found value lower on conserved than unconserved plots; uses various methods to ensure comparability of plots; attributes to wet area, too much land lost and ploughing problems	Very useful in understanding low levels of adoption	DM has it CROSS REFERENCE GEOGRAPHICAL TARGETING
229. A Rutherford, Broad bed maker technology package innovations in Ethiopian farming systems: A ex post facto assessment, ILRI RR 20, Nairobi, 2008	Detailed impact assessment 20 years after introduction; based on surveys (121 households) in Amhara and Oromia. BBM developed under 'Joint Vertisol Project' for Vertisol soils. About 100k adopters on 63k ha to date. Recent innovations in the BBM plough, improved seed varieties and water harvesting strategies have enhanced adoption and outcomes in recent years. Main lesson is key factors impeding adoption must be addressed	Useful	ILRI website, DM has it
230. O McHugh, TS Steenhuis, B Abebe, and ECM Fernandes, Performance of *in situ* rainwater conservation tillage techniques on dry spell mitigation and erosion control in the drought-prone North Well zone of the Ethiopian highlands, Soil and Tillage Research 97, 2007	Impacts of tied ridges, subsoiling, no till, and conventional SWC techniques assessed in terms of mitigating dry spells, stabilizing soil and improving grain yields. Results varied with seasonal rainfall distribution and intensity and gradient	Moderately useful	Science direct; DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
231. Awulachew, SB, F Hagos, and M Loulseged, Agricultural water management and poverty in Ethiopia, IN Humphreys and Bayot, ed, 2009	Based on sample of 1517 households in 4 regions, found about 40 types of AWM technologies in use, 6 categories successful and widely used. AWM technology users have significantly lower poverty than non-users; *ex situ* technology (esp deep wells, river diversion, micro-dams)-lower poverty (higher food security); but use of *in situ* technologies (erosion control) has not reduced poverty-food insecurity	Very useful; but one could argue the direction of causality is not clear (better off households have better access to *ex situ* technologies)	Contained in Humphries and Bayot, eds, book
232. M Temesgen, WB Hoogmoed, J Rockström and HHG Savenije, Conservation tillage implements and systems for smallholder farmers in semi-arid Ethiopia, Soil and Tillage Research 104(1):185–191, 2009	Assesses light low-cost implements developed for Ethiopia as modifications to maresha plough: sub-soiler, tie-ridger, and sweep. Concludes they are appropriate for CF in semi-arid areas. 'Rip-plant' CF was not appropriate for maize-high loss of soil moisture, but reduced tillage tested on tef resulted in higher grain yields compared to conventional tillage	Useful assessment of CF technologies	DM has it (from IWMI library)
233. R Amha, Impact assessment of rainwater harvesting ponds: The case of Alaba *woreda*, Ethiopia, MSC thesis, Addis Ababa University, 2006	Detailed study of use of RWH household ponds in SNNP, sample of 152 households with half as users. Households with more assets were more likely to adopt; adoption had positive impacts—new crops, higher value crop production, use more labour and less oxen power (using water for gardens, not supplementary irrigation of staples as planned by govt). Labour requirements and costs were major factors affecting adoption. Major problems are lifting and accidents in absence of covers; and community ponds are being abandoned leading to health issues	Useful assessment of household ponds	DM has it, from Wageningen website
234. F Hagos, E Boelee, SB Awulachew, T Slaymaker, J Tucker, and E Ludi, Water supply and sanitation (WSS) and poverty: Micro-level linkages in Ethiopia, RiPPLE WP 8, 2008	Based on survey of 1500 households in Eastern Hararghe (Oromia), found very positive impacts of access to water: significant timesaving, significantly reduced incidence sickness and reduced health expenditures [but more water-related illness]; time saved was used to participate in more off/on farm employment. Those with access to improved water supply and water for productive use-lower overall and food poverty	Findings are important	DM has it, from RiPPLE website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
235. J Rockström, P Kaumbutho, J Mwalley, AW Nzabi, M Temesgen, L Mawenya, J Barron, J Mutua, and S Damgaard-Larsen, Conservation farming strategies in East and Southern Africa: Yields and rainwater productivity from on-farm action research, Soil and Tillage Research 103: 23–32, 2009	Reports action research over about 4 years on conservation farming (CF) in several countries including Ethiopia (Tigray). CF practices including ripping + ridging or subsoiling. Compared to conventional tillage, and both treatments with and without fertilizer. Main finding CF WITH fertilizer leads to higher yields and WP. Shows CF is primarily a water harvesting strategy, not solely aimed at minimum tillage	Very useful study Paper does not link findings to implications for livestock (oxen vs. cows)	DM has it, from Wageningen website (also ScienceDirect)
236. Yitaferu, B., Soil and Water Conservation Technologies, Transfer and Adoption by the Smallholder Farmers in the Amhara Region, IN: T Amede, ed., 2002, pp 155–172	General review of experiences and research results of SWC in Amhara	Moderately useful	DM has photocopy of original from TA
237. Amede, T., Opportunities and Challenges in Reversing Land Degradation: The Regional Experience' IN: T Amede, ed., 2002. pp 173–183	Advocates systems approach to promoting improved SWC	Moderately useful	DM has photocopy of original from TA
238. Yesuf, M, A Mekonnen, M Kassie, and J Pender, Cost of Land Degradation in Ethiopia: A Critical Review of Past Studies, December 2005. Environmental Economics Policy Forum in Ethiopia and IFPRI (Study supported by World Bank).	Critical assessment of major past studies, noting methodological and other weaknesses; advocates full cost–benefit analysis of alternative interventions, distinguishing social and private benefits and costs	Very useful assessment	DM has it
239. Wubshet, H, Status Report on the Use of Vetiver Grass for Soil and Water Conservation by the GTZ IFSP South Gondor, Ethiopia. Integrated Food Security program South Gondor-Region 3. Bahir Dar: Amhara BoA and GTZ, 2003 (updated 2004)	After solving technical planting problems, claims vetiver grass is perceived by farmers as superior to physical structures, and is therefore spreading	Interesting, but need more detailed assessment.	DM has it
240. Kassahun, HT, CF Nicholson, D Solomon, A Collick, and T Steenhuis, Economics and Policy Context for the Biological Management of Soil Fertility (BMSF) in Ethiopia, 2009 [draft paper for submission?]	Based on long-term fertilizer consumption and other data from Amhara, discusses critical importance of BMSF and need for policy support	Useful paper, need to find published version	DM has it CROSS REFERENCE POLICY STUDIES
241. Nedessa, B, J Ali, and I Nyborg, Exploring Ecological and Socio-Economic Issues for the Improvement of Area Enclosure Management: A Case Study from Ethiopia, Drylands Coordination Group (DCG) Report 38, May 2005	Very good study of complex issues related to the promotion of AE; many positive benefits but large number of technical, institutional, policy etc. issues need to be addressed	Very useful paper even though cases seem not to be in Blue Nile	DCG website, DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
242. Dercon, S, and L Christiaensen, Consumption Risk, Technology Adoption and Poverty Traps: Evidence from Ethiopia, World Bank Policy Research Working Paper 4257, June 2007	Potential low consumption outcome if harvests fail does discourage application of fertilizer, and contributes to keeping households in 'poverty trap'; lack of insurance leads to inefficient production choice	Interesting insight	DM has it from DCG website
243. Tesfay, H, Assessment of Institutional Setup and Effect of Household Level Water Harvesting in Ensuring Sustainable Livelihood: A Case Study of Kobo, Alamata and Kilte Awlaelo *woredas* in Amhara and Tigray Regions of Ethiopia, DCG Report 52, November 2007	Field study in 3 *woredas* on impacts, use of household ponds and shallow-dug wells; Ponds largely not successful-design and location problems and top–down implementation; shallow wells-significant improvement in production, livelihoods including for women but potential for conflict with unregulated expansion	Very useful report	DM has it from DCG website
244. Kassie, M, P Zikhali, J Pender, and G Köhlin, Sustainable Agricultural Practices and Agricultural Productivity in Ethiopia: Does Agro-Ecology Matter? Norwegian University of Life Science, 2009. DCG website	Very carefully done study in Tigray and Amhara: conservation agriculture (reduced tillage)-clear superiority to chemical fertilizer in low-rainfall area; in high-rain areas fertilizer 'overwhelmingly superior' and reduced tillage can lead to productivity loss	Very interesting and useful report	DM has it from DCG website CROSS REFERENCE GEOGRAPHICAL TARGETING
245. Emana, B, H Gebremedhin, and N Regassa, Impacts of Improved Seeds and Agrochemicals on Food Security and Environment in the Rift Valley of Ethiopia: Implications for the Application of an African Green Revolution, DCG Report 56, February 2010	Study on economic and environmental impacts of green revolution technologies; economic mostly positive but environmental impacts mostly negative	Interesting and useful report	DM has it from DCGZ website
246. Amede, T and RJ Delve, Modeling Crop–Livestock Systems for Achieving Food Security and Increasing Production in the Ethiopian Highlands, Experimental Agriculture 44: 4410452, 2008	After classifying farmers into 3 groups based on their resources and goals, uses modelling to show the optimum cropping patterns for each group; site is in southwestern Ethiopia (highlands)	Interesting paper	DM has it from Tilahun
247. Eguavoen, E, The Acquisition of Water Storage Facilities in the Abay River Basin, Ethiopia. ZEF Working Paper 38, 2009	Critical review of experiences with large-scale dams and smaller-scale technologies for water storage; proposes topics for 'social-political assessment'	Useful report, under a project on Re-thinking water storage for climate change adaptation in sub-Saharan Africa	DM as it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
248. Sustainable Land Use Forum (SLUF), The Swedish NGO/CSO Cooperation Programme in Environment. Best Practice in Natural Resources Management: The Case of WATON Sub-Watershed IWSM project. Research Report No. 4, Addis Ababa, November 2008 (SLUF 2008a)	Assessment of outcomes and lessons learned from a case study in Amhara on community empowerment approach	Moderately useful	DM has it, from Tadele
249. SLUF, The Swedish NGO/CSO Cooperation Programme in Environment. Best Practice in Natural Resources Management: The Case of Four Sub-Grantee NGOs. Research Report No 3, Addis Ababa, January 2008 (SLUF 2008b)	Assessment of outcomes and lessons learned; 2 cases are most relevant here: one on vetiver grass, the other on 'conservation based farming through participatory land use options'	Moderately useful	DM has it, from Tadele
250. Wondimkun, Y, and M Tefera, Household Water Harvesting and Small Scale Irrigation Schemes in Amhara Region, IN: Awulachew et al. eds, 2006 [Best Practices Proceedings]	Survey of nearly 15k household RW ponds (87%) and shallow wells: only 22% functional, 70% not functional, balance destroyed; harvested water used for multiple purposes, but irrigated areas low	Useful study; also includes SSI	DM has it
251. Mekonnen, A, Vetiver Grass Technology (VGT)-Introduction and Promotion in the Amhara Regional State, 1999	Describes plans for creating vetiver network in the state	Not very useful	DM has it, from Tadele
252. Adgo, E, and A Teshome, Agricultural Water Management Interventions with Proven Returns to Investment under Smallholder Systems, Report submitted to IMAWESA, September 2008	Based on field work in 3 sites, provides detailed economic analysis of returns, profitability, financial returns for 3 AWM interventions: terraces, SSI, and WH ponds. Compared with/without. Very positive returns reported in all cases	Useful study but credibility is a bit doubtful	DM has it from IMAWESA website
253. H Rämi, Ponds Filled with Challenges. Water Harvesting Experiences in Amhara and Tigray. OCHA Assessment Mission, 30 Sept–13 October 2003. UN-OCHA, 2003	Anecdotal assessment of outcomes, problems and issues arising with campaign promoting water harvesting ponds in Amhara and Tigray, with photos and specific examples. Positive on concept, but critical of implementation	Somewhat useful study	DM has it from UN OCHA Website
254. Derib, SD, T Assefa, B Berhanu, and G Zeleke, Impacts of Micro-Basin Water Harvesting Structures in Improving Vegetative Cover in Degraded Hillslope Areas of North-east Ethiopia, The Rangeland Journal 31: 259–265, 2009	Over 2-year period compares performance of eye-brow basins, half moon and trench against normal pit planting of tree seedlings. Eye-brow recommended where stones are available; trenches where stone is scarce as they enabled significant increase in grass biomass and trees	Useful technical study	DM has it from IWMI library

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
255. Descheemaeker, K, D Raes, J Nyssen, J Poesen, M Haile, and J Deckers, Changes in Water Flow and Water Productivity upon Vegetation Regeneration on Degraded Hillslopes in Northern Ethiopia: A Water Balance Modeling Exercise, The Rangeland Journal 31: 237–249, 2009b	Shows positive impacts in terms of increased bio-mass and increased infiltration from exclosures—closing areas to agriculture and grazing.	Useful technical study	DM has it from IWMI library
256. Araya, H, K Tebari, L HaileSelassie, and G WoldeSelassie, Participatory Innovation Development in Water Management in Tigray, Ethiopia, IN Rural Development News 2/2008	Case of farmer with <0.5 ha building deep and long canals across the slope of his farm, lined with flat stones, and ending in excavated pits, giving good drainage during rains, and water for supplementary irrigation	Interesting example of farmer innovation	DM has it from Prolinnova website CROSS REFERENCE FARMERS' PERSPECTIVES and 1B—INNOVATION SYSTEMS
257. Hagos, F, M Yohannes, V Linderhof, G Kruseman, A Mulugeta, G G/Samuel, and Z Abreha, Micro Water Harvesting for Climate Change Mitigation: Trade-offs between Health and Poverty Reduction in Northern Ethiopia, PREM Working Paper 06–05 [Poverty Reduction and Environmental Management], 2006	Household ponds and wells are important factors in malaria prevalence except in high altitudes; and willingness to pay for improved health services does not increase among those having these ponds; ponds are not fully and well-exploited, and therefore do not contribute to household income or welfare. Their presence imposes high external costs to the economy	Interesting negative findings, contrary to other studies	DM has it from www.prem-online.org CROSS REFERENCE CLIMATE
258. Hagos, F, G Kruseman, Z Abreha, V Linderhof, A Mulugeta, G G/Samuel, Impact of Small Scale Water Harvesting on Household Poverty: Evidence from Northern Ethiopia, PREM Working Paper 2007–01, 2007	Uses 'advanced econometric evaluation techniques' on sample of 650 households. Finds households with ponds and wells are no better off than those without; possible reason is under-use	Interesting negative findings, contrary to other studies	DM has it from www.prem-online.org
259. Bossio, D, A Noble, N Aloysius, J Pretty, and F Penning de Vries, Ecosystem Benefits of 'Bright' Spots, Chap 14 IN: Bossio and Geheb, eds, 2008	Discusses several cases including one from northern Ethiopia—benefits from RWH and microdams with positive outcomes	Maybe not sufficiently detailed for use in this project	DM has it from IWMI website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
260. Aune, JB, R Asrat, DA Teklehaimanot, and BT Bune, Zero Tillage or Reduced Tillage: The Key to Intensification of the Crop–Livestock System in Ethiopia, Chap 12 IN: Pender et al. eds, 2006	Reviews evidence showing benefits from adoption of zero or reduced tillage, and conditions favourable for this. Argues this is a way to change the balance from oxen to higher value dairy cattle. Proposes policies needed in terms of favourable input and output prices and stronger local institutions; endorses idea of 'cross compliance'—making access to credit and inputs contingent on installing erosion control measures, adoption of zero or reduced tillage	Very interesting case made for zero/reduced tillage linked to increasing value of livestock products	DM has it. Contained in Pender et al. eds, 2006 CROSS REFERENCE POLICY STUDIES
261. Holden, S, B Shiferaw, and J Pender, Non-Farm Income, Household Welfare, and Sustainable Land Management in a Less-Favored Area in the Ethiopian Highlands, Food Policy 29: 369–392, 2004	Models impact of access to low-wage non-farm income on household income and incentives to invest in conservation. Finds substantial positive impact on household income but it reduces incentives for conservation leading to more soil erosion and land degradation	Useful insight into household incentives	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES
262. Shiferaw, B, and ST Stein, Farm-Level Benefits to Investments for Mitigating Land Degradation: Emperical Evidence from Ethiopia, Environmental and Development Economics 6: 335–358, 2001	Studies economic incentives at farm level to implement SWC investments. Results show incentives are very low except low-cost methods like grass strips; yield penalty due to area loss and high investment costs are the main reasons. Short-term support for low-cost technologies that provide short-term benefits is the preferred policy option	Very useful study	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES
263. Nyssen, J, J Poesen, D Gebremichael, K Vancampenhout, M D'aes, G Yihdego, G Govers, H Leirs, J Moeyersons, J Naudts, N Haregeweyn, M Haile, and J Deckers, Interdisciplinary on-Site Evaluation of Stone Bunds to Control Soil Erosion on Cropland in Northern Ethiopia, Soil and Tillage Research 94: 151–163, 2007	Technical, ecological and economic assessment of stone bunds finds their extensive use with farmers' participation leads to very positive outcomes overall, and 75% of farmers are in favour or them	Very useful study	DM has it from IWMI library
264. T Gebreegziabher et al. Contour furrows for *in situ* soil and water conservation, Tigray, Northern Ethiopia, Soil and Tillage Research 103(2): 257–264, 2009	Assesses performance of permanent raised beds with contour furrows at 60–70 cm intervals; finds significant positive impacts on runoff and soil loss compared to traditional ploughing	Useful study	DM has it from IWMI library

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
265. D. Kassahun, Rainwater Harvesting in Ethiopia: Capturing the Realities and Exploring the Opportunities. FSS Research Report No. 1. Addis Ababa: Forum for Social Studies, 2007	Based on household surveys (N = 300) in 5 *woredas* in Oromia (East Showa) and Amhara (South Wollo, Oromia Zones), assesses the experience, outcomes, issues related to household ponds	Very useful study, brings out important issues, for example women-headed and generally poor households not benefiting [because of use of collective labour for construction), linkage to rise in malaria; water lifting and agronomy issues; discusses issue of location near household versus in fields; diversification of livelihoods and improved food security	DM has photocopy of report from Tadele Cross reference implementation strategies
266. Hadgu, KM and L Kooistra, Assessing the Effect of Faidherbia albida Based Land Use Systems on Barley Yield at Field and Regional Scale in the Highlands of Tigray, Northern Ethiopia, Food Security 1: 337–350, 2009	Biodiversity components such as F albida trees can increase crop yield and soil fertility significantly when grown within and near farm lands (agroforestry)	Useful study	DM has it from IWMI library
267. Araya, A, and L Stroosnijder, Effects of Tied Ridges and Mulch on Barley (Hordeum vulgare) rainwater use efficiency and production in Northern Ethiopia, Agricultural Water Management 97: 841–847, 2010	Tied ridging reduced runoff and increased grain yield over control during below-average rainfall but not when above average; recommends tied ridges for loams in the study area but they could be opened to release excess water	Useful case study	DM has it from IWMI library

7. CLIMATE RISK-RELATED ADAPTATION-ADOPTION STUDIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
268. Environmental Protection Authority (EPA), The 3rd national report on the implementation of the UNCCD/ NAP in Ethiopia, Addis Ababa: February 2004	Progress report with respect to climate change actions	Not very useful to us	DM has it CROSS REFERENCE POLICY
269. T Below, A Artner, R Siebert, and S Sieber, Micro-level practices to adapt to climate change for African small-scale farmers: A review of literature. IFPRI discussion Paper 00953, 2010	Reviews 5 categories of adaptation practices from literature	Useful categories and insights	IFPRI website; DM has it
270. T Deressa et al. Analysing the determinants of farmers' choice of adaptation methods and perceptions of climate change in the Nile Basin, IFPRI Discussion Paper 00798, 2008a	Based on large sample survey, identifies farmers' perceptions of cc, adaptation, and barriers to adoption	Useful study	IFPRI website, DM has it CROSS REFERENCE FARMER PERCEPTIONS
271. T Deressa, RM Hassan, and C Ringler, Assessing household vulnerability to climate change: The case of farmers in the Nile Basin of Ethiopia, IFPRI DP 00935, 2009	Based on large sample survey; shows high level of vulnerability to shocks esp in kola (warm semi-arid) zones. Increasing farmers' incomes especially in kola areas is best way to reduce vulnerability	Not that useful for our study	IFPRI website, DM has it CROSS REFERENCE POLICY STUDIES
272. G You and C Ringler, Hydro-economic modelling of climate change impacts in Ethiopia, IFPRI DP 00960, 2010	Model shows impacts of extreme hydrological events most serious, justifies irrigation investments	Not that useful for our study	IFPRI website, DM has it
273. Block, PJ, K Strzepek, M Rosegrant, and X Diao, Impacts of Considering Climate Variability on Investment Decisions in Ethiopia, IFPRI Research Brief 15–12, 2008c	Based on detailed paper [IFPRI DP 150], summarizes results of economy-wide multi-sector, multi-regional model: climate variability lowers economic welfare especially returning to growth after a shock; investments in irrigation slightly more effective in promoting growth and poverty reduction than investing in roads; but both together even better	Not that useful for our study.	DM has it from IFPRI website
274. M Yesuf and R Bluffstone, Risk aversion in low income countries: Experimental evidence from Ethiopia, IFPRI DP 00715, 2007	Uses experimental approach, finds poor farmers highly risk-averse and therefore need insurance in early stage	Useful insight in planning interventions	IFPRI website, DM has it CROSS REFERENCE FARMERS PERCEPTIONS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
275. T Deressa, RM Hassan, and C Ringler, Measuring Ethiopian farmers' vulnerability to climate change across regional states, IFPRI DP 00806, 2008b	Assesses levels of vulnerability across major regions	Not that useful here	IFPRI website, DM has it
276. M Molla Kassahun, Climate change and crop agriculture in Nile Basin of Ethiopia: Measuring impacts and adaptation options, MSC thesis, AA University, 2009	MSc thesis assesses climate change impacts on dryland and irrigated ag	Not that useful here	IFPRI website, DM has it; See also paper on EDRI website
277. T Deressa, RM Hassan, C Ringler, T Alemu, and M Yesuf, Determinants of farmers' choice of adaptation methods to climate change in the Nile Basin, IN: Humphries et al. eds, IFWF2 vol.1, pp. 164ff, 2008a	Socio-econ characteristics affecting choice of adaptation strategies	Somewhat useful, very short	Ifwf2 website, DM has it; contained in Humphries et al. IFWF2 book CROSS REFERENCE FARMER PERCEPTIONS
278. Bewket, W, Rainfall Variability and Crop Production in Ethiopia Case Study in the Amhara Region, IN: S Ege, H Aspen, B Teferra, and S Bekele, eds, Proceedings of the 16th International Conference of Ethiopian Studies. Trondheim, 2009	Assesses relationship rainfall variability and crop production in ANRS. Finds significant intra-regional differences in rainfall patterns. Inter-annual and seasonal variability in rainfall is a major cause of fluctuations in cereal production; 6 major cereals show similar patterns though 2 rainy seasons affect them differently; and significant correlation among cereals, showing it is a common yield-reducing factor. Argues household RWH is a viable adaptation to supplement rainfed crop production with higher value vegetables	Useful study	DM has it
279. K Georgis, A Dejene, and M Malo, Agricultural Based Livelihood Systems in Dry lands in the Context of Climate Change: Inventory of Adaptation Practices and Technologies of Ethiopia, Final Draft February 2009	Overview of crops, land management, livestock, agroforestry etc. adaptations to climate change focusing on arid and semi-arid areas (mostly eastern Ethiopia)	Somewhat useful	DM has photocopy from first author.
280. Oxfam International, The Rain Doesn't Come on Time Anymore: Poverty, Vulnerability and Climate Variability in Ethiopia, 2010	Based on views of 4 communities (none in Blue Nile): farmers' perspectives on climate change, their adaptation strategies, and need for more support to build resilience	Somewhat useful	DM has it, from Oxfam website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
281. Kim, U, JJ Kaluarachchi, and VU Smakhtin, Climate Change Impacts on Hydrology and Water Resources of the Upper Blue Nile Basin, Ethiopia. IWMI RR 126, 2008	2050s likely to be wetter with few droughts, therefore potential for increase in water flows, storage and hydropower	Somewhat useful in setting the scene	DM has it from IWMI website CROSS REFERENCE ETHIOPIA and NILE
282. Gaia Consulting Oy, Climate Risk Management in Finnish Development Cooperation: Ethiopia Adapting to Climate Change, Climate Screening Assessment. Final Report, September 2009	Assesses climate change risks for Ethiopia, examines 3 projects supported by Finland, and assesses government and development partners' attention to climate change	Somewhat useful	DM has it from Tadele

8. IMPLEMENTATION STRATEGIES AND INSTITUTIONAL INNOVATIONS—LESSONS LEARNED AND IMPACTS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
283. L German et al. Enabling equitable collection action and policy for poverty reduction and improved natural resource management in the Eastern African Highlands, CAPRi WP 86, 2008	Reports on action research experiences and lessons in 2 sites in Ethiopia and Uganda to promote NRM through collective action	Useful in terms of designing action research program	IFPRI website, DM has it CROSS REFERENCE 1B INNOVATION SYSTEMS
284. A Bekele-Tesemma, A participatory agroforestry approach for soil and water conservation in Ethiopia, TRMP 17, 1997 [Wageningen PhD]	Detailed study of application of a participatory approach to agroforestry and other SWC measures; 6-step participatory approach described, applied, and results analysed. Contains considerable information on farmers' perspectives, indigenous SWC measures, agroforestry. Study site is northeast of Addis in Amhara (*weyna-dega* zone)	Very useful study	DM has it, from Wageningen website CROSS REF FARMERS PERSPECTIVES
285. Liu, BM, Y Abebe, OV McHugh, AS Collick, B Gebrekidan, TS Steenhuis, Overcoming limited information through participatory watershed management: Case study in Amhara, Ethiopia, Physics and Chemistry of the Earth 33:13–21, 2008	Lessons from a case (USAID–AMAREW Project), in Yeku and Lemche Dima watersheds, Amhara, in which a highly participatory approach was followed; including developing leadership through Community Watershed Management Organizations [CWMOs]. Demonstrates very positive results that can be achieved with limited technical information through systematic participatory approach led by CWMOs	Quite useful	DM has it, from Wageningen website (or from ScienceDirect) CROSS REF FARMERS PERSPECTIVES, IMPLEMENTATION PROJECTS
286. Lakew Desta, V Carucci, A Wendam-Agenehu and Y Abede, eds, Community Based Participatory Watershed Development: A Guideline. Addis Ababa: MoARD, Part 1, January 2005a; Annex is 2005b	Drawing from experiences of many projects and international experience, provides comprehensive guidelines for participatory watershed development-every phase. Also includes technical guidelines for many interventions. Major principles: participatory, gender sensitive, build upon local experience, realistic, integrated, productive and manageable, watershed logic, flexibility, cost sharing	Extremely useful and important guideline	DM has electronic copy (through Tadele)

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
287. Amede, T, T Belachew, and E Geta, Reversing the Degradation of Arable land in the Ethiopian Highlands, IIED Managing Africa's Soils No 23, AHI and Areka Research Centre, May 2001	Case study in southern Ethiopia on participatory approach to helping farmers improve soil fertility	Minor usefulness	DM has it, from Tilahun CROSS REFERENCE RWM INTERVENTIONS
288. German, L, H Mansoor, G Alemu, W Mazengia, T Amede, and A Stroud, Participatory Integrated Watershed Management: Evolution of Concepts and Methods in an Ecoregional Program of the Eastern African Highlands, Agr. Systems 94:189–2004, 2007	Excellent presentation of lessons learned from AHI experience with participatory integrated approaches, and the difficulties of achieving these in practice	Very useful for proposed action research	DM has it, from Tilahun CROSS REFERENCE 1B INNOVATION SYSTEMS
289. Hurni, H, S Abate, A Bantider, B Debele, E Ludi, B Portner, B Yitaferu, and G Zeleke, Land Degradation and Sustainable Land Management in the Highlands of Ethiopia, chapter 12 IN: H Hurni and U Weismann, eds with an international group of co-editors, Global Change and Sustainable Development: A Synthesis of Regional Experiences from Research Partnerships. Perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South, University of Bern, Vol. 5, Bern, Switzerland: Geographica Bernensia, pp 187–207, 2010	Review of results and lessons learned from several decades of research and suggestions for future research	Very useful overview, though perhaps from the perspective of one long-term research program	DM has it from Tadele
290. Amede, T, K Descheemaeker, K Geheb, E Mapedza, A Haileselassie, and D Peden, Facilitating Adoption of Livestock Water Productivity Interventions in Crop–Livestock Systems, IN: Humphries et al. eds, IFWF2, vol 2, pp. 101ff, 2009d	Based on the outcomes of 8 international research programs working in Ethiopia, assesses why technologies have not been widely adopted, and what the success factors are for adoption. Farmer–farmer dissemination works but in limited area. Discusses nature of effective 'entry points' and 'linked technologies' whose simultaneous implementation fosters visible benefits; identifies key success factors	Very useful approach	DM has it. Contained in Humphries et al. eds, IFWF2, vol 2 CROSS REFERENCE LWP
291. German, L, S Charamila, and T Tolera, Managing Trade-Offs in Agroforestry: From Conflict to Collaboration in Natural Resource Management, AHI WP 10, 2006b	Approaches to assisting communities to manage tradeoffs from impact of fast-growing agroforestry on water	Useful paper	DM has it

9. SOCIAL and GEOGRAPHICAL TARGETING and GENDER

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
292. J Pender, s Ehui, and F Place, Conceptual framework and hypotheses, IN: J Pender et al. eds, Strategies for sustainable land management in the East African highlands, IFPRI 2006	Uses concept of development domains: 4X4 table of High–low agricultural potential, and High to medium/low market access	Useful for targeting	IFPRI website, DM has it
293. Notenbaert, A, M Herrero, R Kruska, L You, S Wood, P Thorton, A Omolo, Classifying Livestock Production Systems for Targeting Agricultural Research and Development in a Rapidly Changing World, ILRI Discussion Paper 19, Nairobi: 2006	Adapts Seré and Steinfeld livestock production classification by including data sets on agricultural intensification in mixed crop–livestock systems	Not very useful as it is, not fine enough; but has some good ideas	DM has it from ILRI website
294. Kruseman, G, R Ruben, and G Tesfay, Village Stratification for Policy Analysis: Multiple Development Domains in the Ethiopian Highlands of Tigray, IN: Pender et al. eds, 2006a	Complements idea of development domains with discussion and analysis of implications of heterogeneity within communities	Useful for targeting	IFPRI website, DM has it. Contained in Pender et al. eds, 2006
295. J Chamberlin et al. Development domains for Ethiopia: Capturing the geographical context of smallholder development options, IFPRI DSDG Discussion Paper 43 (EPTD disc. Pap.159), 2006	Attempt at rigorous definition of development domains useful for targeting policy interventions	Very useful for first-cut targeting of interventions	IFPRI website, DM has it
296. Malesu M, E Khaka, B Mati, A Oduor, T de Bock, M Nyabenge, and V Oduor, Mapping the potential of rainwater harvesting technologies in Africa: A GIS overview of development domains for the continent and nine selected countries, ICRAF technical manual 7, 2006b	Provides GIS-based maps of 'development domains' suitable for 4 kinds of RWH [but not with regard to agricultural use etc]	Potentially useful	ICRAF website, DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
297. E Kato, C Ringler, M Yesuf, and E Bryan, Soil and water conservation technologies: A buffer against production risk in the face of climate change? Insights from the Nile Basin in Ethiopia. 2009, IFPRI discussion paper 00871	Based on survey of 1000 households in 5 regions in Blue Nile. Compares outcomes of a range of SWC technologies in 5 regions, distinguished by high and low rainfall and shows differential outcomes by zone and region within zone in some cases in effects on yields, and effects on risk reduction. E.g. in low-rain areas soil bunds are risk-reducing and in Amhara and Oromia stone bunds also reduce risk. Contours, irrigation, improved seed do not reduce risk in dry areas. In high rain areas, most soil conservation technologies have positive effects. In low rain areas all SWC considered had positive impacts on crop output; in high-rain areas only waterways and trees do	Very useful	IFPRI website; DM has it CROSS REFERENCE TO CLIMATE RISK and RWM INTERVENTIONS
298. G Kruseman et al. Diversity and Development Domains in the Ethiopian highlands, Agricultural Systems 88(1):75–91, 2006	Shows development domains do offer viable way to target interventions	Useful	DM has it (from IWMI library)
299. Abebe, A, D Legesse, D Peden, and G Tadesse, GIS-based Multicriteria Decision Analysis for land Suitability Modeling of Livestock Production in Tana Subbasin, Ethiopia, IN: Humphries et al. eds, IFWF2, vol 2, pp. 106ff, 2008b	Presents a spatial modelling technique for identifying suitability of areas for livestock; identifies 5 suitability classes. Tana sub-basin is 'optimally located' for livestock production, but there is a mismatch between the most suitable areas and livestock location—they are concentrated in marginal areas where more interventions are needed to improve LWP	Useful methodology	DM has it. Contained in Humphries et al. eds, IFWF2, vol 2 CROSS REFERENCE LWP and METHODOLOGIES
300. Pineau, M, W Ayalneh, C Studer, and D Peden, Response-inducing Sustainability Evaluation (RISE) Linking Agricultural Practices and Water Productivity, IN: Humphries et al. eds, IFWF2, vol 2, pp. 110ff, 2008b	Demonstrates use of a 'holistic sustainability assessment tool' (RISE) on 29 farms in Gumera watershed. Finding is most farms are not sustainable, i.e., are degrading. Agricultural productivity is low; any practice that improves yield will positively affect WP of crops and livestock. RISE can be used to identify intervention points	Potentially useful tool; see: http://rise.shl.bhf.ch	DM has it. Contained in Humphries et al. eds, IFWF2, vol 2 CROSS REFERENCE LWP and METHODOLOGIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
301. Frank, E, Gender, Agricultural Development and Food Security in Amhara, Ethiopia: The Contested Identify of Women Farmers in Ethiopia. USAID/Ethiopia. October, 1999	Based on interviews and literature, assesses roles of women in agriculture in Amhara, and structural and cultural barriers	Useful insights	DM has it
302. Mapedza, E, T Amede, K Geheb, D Peden, E Boelee, TS Demissie, E van Hoeve, and B van Koppen, Why Gender Matters: Reflections from the Livestock–Water Productivity Research Project, IN: Humphries et al. eds, IFWF2, vol 2, pp 97ff, 2008b	Gender and power affect who benefits from improved LWP; for example in an Ethiopia case women benefit from better dairy cows as they control milk and its sale; in a Zimbabwe case, women benefit from small livestock which they care for	Very useful	DM has it. Contained in Humphries et al. eds, IFWF2, vol 2 CROSS REFERENCE LWP
303. World Bank, Ethiopia: Unleashing the Potential of Ethiopian Women. Trends and Options for Economic Empowerment. Report No 49366–ET, Poverty Reduction and Economic Management 2, Africa Region. Washington DC: World Bank, June 2009	Comprehensive assessment of progress to date and additional measures needed to improve women's access to opportunities; demonstrates potentially large benefits in terms of GDP growth rates	Useful overview of important of attaching gender issues	DM has it from World Bank website
304. Masbout, R, and I van Stavern, Disentangling Bargaining Power from Individual and Household Level to Institutions: Evidence on Women's Position in Ethiopia, World Development 38 (5): 783–796, 2010	Shows that access to and control over individual resources sometimes decreases, not increases women's bargaining power; role of gendered local level institutional arrangements is critical	Useful corrective to oversimplified views of gendered power relations within households	DM has it from IWMI library CROSS REFERENCE LOCAL INSTITUTIONS

10. FARMERS' PERSPECTIVES, FARMING SYSTEMS, ADOPTION STUDIES, AGROFORESTRY and LIVESTOCK WATER PRODUCTIVITY

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
305. A Abeygaz, Farm Management in Mixed Crop–Livestock Systems in the Northern Highlands of Ethiopia. TRMP 70. Wageningen University. 2005	PhD thesis in Tigray—detailed study of nutrient dynamics combining modelling and field research in poor, medium and 'rich' farms; Finds negative trends cycle especially in poor farms, offers recommendations	Useful to understand technical dimensions of nutrient dynamics	DM has it from Wageningen website
306. T Beshah, Understanding farmers: Explaining soil and water conservation in Konso, Wolaita and Wello, Ethiopia, TRMP 41 [and Wageningen PhD thesis], 2003	Detailed comparative study of factors explaining farmers' (non)adoption of SWC. Konso case is an 'anthropological' study of an ancient terraced farming system; Wolaita and Wello cases (southern and northern Ethiopia) examine 2 sites of SCRP to assess its impacts and farmers' responses. Provides in-depth analysis of farmers' SWC knowledge, indigenous knowledge and practices, responses to and adaptation of SCRP technologies. Overall very critical of SCRP	Very useful study; provides good background on overall historical, social etc. context; has a well-thought-out methodology emphasizing understanding farmers' perspectives, knowledge, attitudes behaviour, integrated bio-physical measurement	DM has it, from Wageningen website CROSS REFERENCE ASSESSMENTS OF RWH/SWC PROGRAMS [SCRP] and RWM IMPLEMENTATION STRATEGIES
307. Elias, E, and D Fantaye, Managin g Fragile Soils: A Case Study from North Wollo, Ethiopia, SOS Sahel, April 2000.	Detailed case study on soil fertility trends and farmers' perspectives and adaptation strategies in 3 agro-ecological settings in Meket District	Very useful to understand farmers' strategies and perspectives	DM has it
308. Amede, T, R Kirkby and A Stroud, Intensification Pathways from Farmer Strategies to Sustainable Livelihoods: AHI's Experience, IN: Current, No 40–41, published by SLU Sweden, September 2006	Examples from experiences with participatory farmer-driven approaches	Moderately useful	DM has it, from Tilahun (available on website of Swedish University of Agricultural Sciences)
309. Aklilu Amsalu Taye, Caring for the Land: Best Practices in Soil and Water Conservation in Beressa Watershed, Highlands of Ethiopia, TRMP 76 [Wageningen U PhD thesis], Wageningen University, 2006	Detailed PhD thesis in a small watershed (3 villages) north of Addis. Most chapters published in journals (see below for 2). Combines bio-physical and socio-economic analysis, providing both technical assessments and farmers' perspectives and decisions. Chap 3-dung-cake sales threaten agricultural development; Chap 5-determinants of adoption; chap 6-participatory evaluation of SWC practices; chap 7-enabling conditions	Very useful Watershed is in North Shewa Zone, Amhara, in headwaters of Blue Nile	DM has it, from Wageningen website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
310. Aklilu Amsalu and J de Graff, Farmers' views of soil erosion problems and their conservation knowledge at Beressa Watershed, central highlands, Ethiopia, Agriculture and Human Values 23:99–108, 2006	Based on survey of 147 households, shows 72% report erosion problems and perceive conservation as necessary; most believe erosion can be halted and use a variety of practices. But most have developed negative attitudes to externally recommended measures; therefore need to consider farmers' knowledge and practices more seriously	Very useful Watershed is in North Shewa Zone, Amhara, in headwaters of Blue Nile This is a chapter in Amsalu's PhD thesis	DM has it from IWMI library
311. Aklilu Amsalu, L Stroosnijder and J de Graaf, Long-term dynamics in land resource use and the driving forces in the Beressa Watershed, highlands of Ethiopia, Journal of Environmental Management 83(4): 448–459, 2007	Based on detailed research on land degradation trends over 40 years on 1 watershed; examines dynamics, farmers' perceptions and responses; finds little investment in SWC or fertility amendments, threatening long-term sustainability [i.e., farmers do some things but insufficient]. Very little expansion cultivated area contrary to other findings; people adapt to rising population pressure through dairy, dung cake sales, tree planting, off-farm employment	Very useful Watershed is in North Shewa Zone, Amhara, in headwaters of Blue Nile This is a chapter in Amsalu's PhD thesis	DM has it from IWMI library
312. Tegegne, B, Land-Cover/Land-Use Changes in the Derekolli Catchment of the South Welo Zone of Amhara Region, Ethiopia. Eastern Africa Social Science Research Review 18 (1): 1–20, January 2002 [republished online 2005 by MSU Press]	Study on changes in land use since 1957 using images, GIS and field studies. No further increase in crop land after 1986; deterioration of natural shrubland to shrub grass land then grassland. Located in Awash basin	Moderately useful background	DM has it from Project Muse website
313. G Tesfay, Agriculture, resource management and institutions: A socioeconomic analysis of households in Tigray, Ethiopia, TRMP 88 [Wageningen PhD], 2006	PhD study on socio-economic and institutional factors affecting agricultural decision-making and resource management; examines impacts of sharecropping, risk perceptions, collective action through household quota system	Fairly useful detailed study	DM has it, from Wageningen website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
314. K Segers, J Dessein, J Nyssen, M Haile, and J Deckers, Developers and farmers intertwining interventions: the case of rainwater harvesting and food for work in Degua Temben, Tigray, Ethiopia, International Journal of Agricultural Sustainability 6(3): 173–182, 2008a	Anthropological analysis in Tigray of interface farmers and extension people and how the PSNP and Rainwater Harvesting Pond Program (RHPP) have become inter-twined in a way that undermines the real goals of both. People participate in RHPP as a means to get FfW from PSNP. The most needy families therefore are excluded from PSNP, and the ponds are not sustained and used	Very useful study—good insights into reality at grassroots level	DM has 'pre-print', Catholic University Leuwen website. CROSS REFERENCE INTERVENTIONS and LOCAL INSTITUTIONS
315. K Segers, J Dessein, S Hagberg, P Develtere, M Haile, and J Deckers, Be Like Bees—The Politics of Mobilizing Farmers for Development in Tigray, Ethiopia, African Affairs 108/430: 91–109, 2008b	Based on long-term anthropological research in Tigray, analyses relationships between local politics, local government officials and farmers' participation in rural development. Local 'development brokers' use the 1975–1991 revolution and ruling party to mobilize participation in development programs	Very insightful	DM has it from IWMI library CROSS REFERENCE INTERVENTIONS and LOCAL INSTITUTIONS
316. W Bewket, Soil and water conservation intervention with conventional technologies in northwestern highlands of Ethiopia: Acceptance and adoption by farmers, Land Use Policy 24(2): 404–416, 2007	Based on formal survey Digil watershed (East Gojjam Zone, Amhara), a site where SWC program was supported by SIDA, identifies factors discouraging sustainability of technologies even though farmers recognize their value. Participation only by 'consultation'. Most farmers acknowledged effectiveness of technologies but sustainable adoption and further replication unlikely; reasons included labour shortage, fitness of technologies for their needs, and land tenure insecurity	Very useful study	DM has it from IWMI library CROSS RCROSS REFERENCE PROJECT ASSESSMENT [SIDA]
317. Ayele, G., G Ayana, K Gedefe, M Bele, T Horodofa, and K Georgis, Water Harvesting Practices and Impacts on Livelihood Outcomes in Ethiopia, Research Report VI. Addis: EDRI. No date [approx 2005]	Survey of farmers' experiences with ponds, shallow wells, traditional diversion irrigation: 2033 households in 4 regions (Amhara, Tigray, Oromia, SNNP)	Moderately useful; sometimes the analysis is not so clearly explained	DM has a photocopy (from Tadele)

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
318. Zegeye, AD, TS Steehuis, RW Blake, S Kidnau, AS Collick, and F Dadgari, Assessment of Upland Erosion Processes and Farmer Perception of Land Conservation in Debre-Mewi Watershed, near Lake Tana, Ethiopia, presented at an international symposium and submitted to Ecohydrologica, 2009	Data on rate of rill erosion, and some discussion of farmer perceptions	Moderately useful	DM has it
319. Bewket, W, Towards Integrated Watershed Management in Highland Ethiopia: The Chemoga Watershed Case Study, TRMP 44 (PhD thesis, Wageningen University), 2003	Detailed study, both technical (degradation processes), and socio-economic, of a Blue Nile upper watershed (in East Gojjam Zone). Most chapters published in journals; soil quality is declining; deforestation trend reduced through private tree planting; adverse changes in stream flow; field soil erosion is reducing productivity; landholding size, productivity, livestock per household declining; Most farmers participated in SWC program against their will and perceive *fanya juu* being promoted negatively	Very useful detailed study	DM has it, from Wageningen website
320. Bewket, W, and G Sterk, Farmer' Participation in Soil and Water Conservation Activities in the Chemoga Watershed, Blue Nile Basin, Ethiopia, Land Degradation and Development 13: 189–2000, 2002	Most farmers were coerced into participating in the SWC program; major factor discouraging participation was perceived ineffectiveness of structures (stone bunds, *fanya juu*), not lack of awareness, labour shortage, or tenure insecurity	Very useful on implementation strategies, farmers' perspectives, and *fanya juu*	DM has it from IWMI library CROSS REFERENCE SPECIFIC RWM INTERVENTIONS
321. Yesuf, M, and G Köhlin, Market Imperfections and Farm Technology Adoption Decisions—A Case Study from the Highlands of Ethiopia, University of Gothenburg School of Business, Economics and Law, Working Papers in Economics 403, November 2009	Using detailed plot data, investigates impacts of market and institutional imperfections on fertilizer use and SWC adoption: fertilizer adoption significantly and negatively affected by SWC adoption; latter 16% less likely to use fertilizer; market imperfections e.g. credit significant in explaining variation	Useful detailed study on tradeoffs farmers make in absence of good credit access etc	DM has it, from UG website
322. Kassie, M, M Yesuf, and G Köhlin, The Role of Production Risks in Sustainable Land-Management Technology Adoption in the Ethiopian Highlands, University of Gothenburg School of Business, Economics and Law, Working Papers in Economics 407, November 2009	Using detailed plot data from Amhara, shows adoption of fertilizer positively affected by higher expected returns and negatively by variance of return and probability of failure [risk]; SWC not significantly affected by risk exposure but is affected by expected return	Useful detailed study on differential factors affecting farmers' adoption decisions; study was supported by SIDA	DM has it from UG website

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
323. Babulo, B, B Muys, F Nega, E Tollens, J Nyssen, J Deckers, and E Mathijs, Household Livelihood Strategies and Forest Dependence in the Highlands of Tigray, Northern Ethiopia, Agricultural Systems 98: 147–155, 2008	Based on survey of 360 sample households, finds those with the fewest assets depend most on forests for their livelihoods; advocates policies that enhance poor households' assets to enable them to diversify	Useful study	DM has it, from IWMI library
324. GebreMichael, Y and A Waters-Bayer, Trees are our Backbone: Integrating Environment and Local Development in Tigray Region of Ethiopia, IIED Issues Paper No 145, for Irish Aid, July 2007	Review comparing Tigray environmental policies and practices with local perceptions and practices; finds considerable discontinuity and recommends building on local knowledge more effectively	Insightful study	DM has it from IIED website CROSS REFERENCE 1B INNOVATION SYSTEMS
325. Jonfa, E, and A Waters-Bayer, Unlocking Farmers' Potential: Institutionalizing Farmer Participatory Research and Extension in Southern Ethiopia, Farm Africa Project Experience Series, November 2005	Explains process, outcomes, lessons learned from a project involving famer-led participatory agricultural research	Useful approach, provides a way to build on indigenous knowledge and integrate it with 'scientific' knowledge	DM has it from FarmAfrica website CROSS REFERENCE 1B INNOVATION SYSTEMS
326. Shiferaw, B, and S Holden, Resource Degradation and Adoption of Land Conservation Technologies in the Ethiopian Highlands: A Case Study in Andit Tid, North Shewa, Agricultural Economics 18: 233–247, 1998	Separately models farmers' recognition of the soil erosion problem, and adoption and level of use of control practices. Results show importance of perceptions in shaping conservation decisions, but where poverty is widespread and support policies are lacking, population pressure alone is not able to encourage sustainable land use. Policy incentives and technologies that confer short-term benefits to the poor while conserving the resource base are needed	Useful study on need for supporting incentives	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES
327. Shiferaw, B, and S Holden, Soil Erosion and Smallholders' Conservation Decisions in the Highlands of Ethiopia, World Development 27 (4):739–752, 1999	Based on large survey sample, examines why peasants have limited investments in land despite awareness of erosion problem; concludes pervasive market imperfections, poverty, and high rates of time preference undermine erosion-control investments; lack of technologies providing quick returns is a problem; lower private incentives may require public investment	Useful study, like Yirga and Hassan, provide arguments for providing incentives for SWC	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
328. Yirga, C, and RM Hassan, Social Costs and Incentives for Optimal Control of Soil Nutrient Depletion in the Central Highlands of Ethiopia, Agricultural Systems 103: 153–160, 2010	Modeling study that found small farmers heavily discount future private gains leading to over-exploitation of soil nutrients; recommends policy support to achieve the apparent high social gains obtainable from better use of soil resources	Provides an argument for providing incentives to farmers to improve nutrient management; supports Shiferaw and Holden 1999 conclusions	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES
329. Fafchamps, M, and AR Quisumbing, Control and Ownership of Assets within Rural Ethiopian Households, FCND DP 120, August 2001	Based on 1997 ERHS survey of 1500 households in 15 villages (only 1 in Blue Nile), finds control over assets including those a woman brings to marriage is centralized in hands of household head; s/he has larger claims on these assets at divorce	Useful background on gender power relations in rural households	DM has it from IFPRI website CROSS REFERENCE TARGETING
330. J Nyssen, G Simegn, and N Taha, An upland farming system under transformation: Proximate causes of land use changes in Bela-Welleh catchment (Wag, Northern Ethiopian Highlands), Soil and Tillage Research 103(2): 231–238, 2009	Based on work in Bela-Welleh catchment, upper Tekeze basin (Wag zone), Amhara, characterizes land use/land cover changed (LUCC) since 1965. Major changes are abandonment of mountain agriculture and re-growth woody vegetation and wide-spread introduction of irrigation where water is available, especially in valley. 'Classic example of mutation of a permanent upland cultivation system' into a system with irrigated agriculture	Moderately useful to understand trends and potential for positive evolution	DM has it (from IWMI library)
331. L Ersado, G Amacher, and J Alwang, Productivity and land enhancing technologies in northern Ethiopia: Health, public investments and sequential adoption, IFPRI EPTD Disc Pap 102, 2003	Based on survey 800 households in Tigray in 1996–1997, finds evidence for 'sequential adoption' of productivity-enhancing and resource-conserving technologies; in this context, poor health reduces likelihood of adoption of innovations	Useful insight—sequential adoption and importance of health; and distinction productivity-enhancing and resource-conserving technologies	IFPRI website, DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
332. Gessesse, GD, A Klik, and H Hurni, Assessment of Soil Erosion and Soil Conservation Practices in Agereb Watershed, Ethiopia: Technological and Land User Context, Presented at Conference on International Research on Food Security, Natural Resource Management and Rural Development, University of Hamburg October 6–8, 2009, Tropentag 2009	Detailed study in a watershed north of Lake Tana, compares stone terraces to terrace implementation guideline (Hurni 1986). Finds farmers are aware of gully erosion but less aware of 'more dangerous sheet erosion, rill erosion, and tillage erosion;' and unstable fragmented terrace layout combined with wide terracing were common causes of erosion damage in plots and adjacent fields, reducing biomass yield 10–46%. Argues for training farmers because their erosion indicators are not adequate	Useful study	DM has it, not sure of source. CROSS REFERENCE PROGRAMS—LAKE TANA
333. Mengistie, FA, Assessment of Adoption Behaviour of Soil and Water Conservation Practices in the Koga Watershed, Highlands of Ethiopia, Master of Professional Studies Thesis, Cornell University, August 2009	Based on interviews of 100 households, identifies major household characteristics affecting adoption of SWC practices	Not that useful	DM has it, not sure of source
334. Hadgu, KM, WA Rossing, L Kooistra, and AHC van Bruggen, Spatial Variation in Biodiversity, Soil Degradation and Productivity in Agricultural Landscapes in the Highlands of Tigray, Northern Ethiopia, Food Security 1: 3–97, 2009	Insight into recent changes in agrobiodiversity and soil degradation at different scales; significant decrease in diversity 2000–2005 largely from use inorganic fertilizer, proximity to roads, towns	Useful study	DM has it from IWMI library

11. LIVESTOCK WATER PRODUCTIVITY

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
335. D Peden, M Alemayehu, S Bekele, T Amede, H Faki, A Haileslassie, M Herero, E Mapedza, D Mpairwe, MT Musa, G Tadesse, and P van Bruegel, Nile Basin Livestock Water Productivity, Project No 37, CPWF Project Report, October 31 2009, draft	Comprehensive assessment of opportunities for improving livestock management as a means of increasing water productivity, incomes, livelihoods in Nile Basin	Useful source of ideas, references	DM has it from Tilahun (but it is a draft with comments embedded) CROSS REFRENCE RESEARCH PROJECTS
336. Amede, T, K Gehebe, and B Douthwaite, Enabling the Uptake of Livestock–Water Productivity Interventions in the Crop–Livestock Systems of Sub-Saharan Africa, The Rangeland Journal 31:223–230, 2009c	After defining LWP, proposes a conceptual framework based on innovations systems and illustrates it with 3 case studies from Kenya, Zimbabwe, Tanzania	Moderately useful but too simplified a conceptual model. This article is in a special issue of The Rangeland Journal	DM has it from IWMI library
337. Amede, T, K Descheemaeker, D Peden, and A van Rooyen, Harnessing Benefits from Improved Water Productivity in Crop–Livestock Systems of sub-Saharan Africa: A Synthesis, The Rangeland Journal 31: 169–178, 2009d	Extracts key points from this special issue of the journal and offers recommendations in broad terms on how to improve LWP	Useful overview of issues and possible interventions. This article is in a special issue of The Rangeland Journal	DM has it from IWMI library
338. Cook, SE, MS Andersson, and MJ Fisher, Assessing the Importance of Livestock Water use in Basins, The Rangeland Journal 31: 195–205, 2009	Reviews complexities and possible solutions to understanding the importance and roles of livestock in 'livestock-containing' food and water systems	Moderately useful overview. This article is in a special issue of The Rangeland Journal	DM has it from IWMI library
339. Descheemaeker, K, T Amede, and A Haileslassie, Livestock and Water Interactions in Mixed Crop–Livestock Farming Systems of sub-Saharan Africa: Interventions for Improved Productivity. IWMI WP 133, 2009a	Review of available knowledge on LWP, to identify critical research and development gaps; Identifies promising interventions in 2 domains: biophysical (feed, water, animal management) and socio-political-economic domain	Useful review, with figures illustrating conceptual frameworks and research gaps	DM has it from IWMI website
340. Descheemaeker, K, T Amede, and A Haileslassie, Improving Water Productivity in Mixed Crop–Livestock Farming Systems of sub-Saharan Africa, Agricultural Water Management 97: 579–586, 2010	Synthesises available knowledge on various components of livestock and water sectors in SSA, analyses livestock–water interactions, and identifies promising interventions	Useful study, based on Descheemaeker et al. 2009a	DM has it from IWMI library

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
341. Peden, G Tadesse, and AK Misra, Water and Livestock for Human Development, Chapter 13 IN: Molden, ed. pp. 485ff, 2007	Authoritative presentation of concept and application of LWP.	Useful conceptual paper on LWP	DM has it, from IWMI website
342.Haileslassie, A, D Peden, S Gebreselassie, T Amede, and K Descheemaeker, Livestock Water Productivity in Mixed Crop–Livestock Farming Systems of the Blue Nile Basin: Assessing Variability and Prospects for Improvement, Agricultural Systems 102:33–40, October 2009a	Assesses LWP in 3 farming systems in Gumera Watershed (Blue Nile); found much variation across farming systems explainable by farmers' strategies and prevailing biophysical conditions; identifies opportunities for improvement	Useful study	DM has it from IWMI library
343. Haileslassie, A, D Peden, S Gebreselassie, T Amede, A Wagnew, and G Taddesse, Livestock Water Productivity in the Blue Nile Basin: Assessment of Farm Scale Heterogenity, The Rangeland Journal 31:213–222, 2009a	Similar to Haileslassie et al. 2009a but emphasizes range of difference among wealth groups larger than among farm systems; positive trend LWP and CWP and household access to resources	Useful study	DM has it
344. Peden, D, T Amede, A Haileslassie, and G Taddesse, Strategies for Improving Livestock Water Productivity, Keynote paper IN Humphries et al. eds, IFWF2, vol 1, pp 28ff., 2008b	Based on work in Blue Nile, proposes 4 ways to improve LWP: provide high WP feed, use marketing, animal science etc. to maximize potentials, adopt livestock management practices that are environmentally friendly, spatial allocation of watering sites	Useful overview of what can be done	DM has it, contained in IFW2 vol 1 book
345. Van Breugel, P, M Herrero, JA van de Steeg, and D Peden, Spatial Variation and Management of Livestock Water Productivity in the Nile Basin, IN: Humphries et al. eds, IFW2 vol 1, pp. 146ff, 2008a	Using data from the Nile, develops a spatial framework accompanied by modelling to identify areas where based on water availability livestock can be discouraged or encouraged in the context of increasing WP and reducing degradation	Useful approach in broad terms	DM has it, contained in Humphries et al. eds IFW2 vol 1, 2008a
346. M Alemayehu, D Peden, G Taddesse, A Haileselassie, and W Ayalneh, Livestock water productivity in relation to natural resource management in mixed crop–livestock production systems in the Nile River Basin, Ethiopia, IN: Humphries et al. eds, ifwf2, vol 2, pp 79ff, 2008b	Investigates effects traditional livestock management on sustainability of resources and opportunities for improving water productivity; evolution of system is increasing LWP, for example through double cropping on residual moisture.	Moderately useful	Ifwf2 website, DM has it Contained in Humphries et al. eds, IFWF2. Vol 2, 2008b

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness etc.	Location
347. Tulu, M, E Boelee, G Tadesse, D Peden, and D Aredo, Estimation of Livestock, Domestic Use, and Crop Water Productivities of SG-2000 Water Harvesting Projects in Ethiopia, IN Humphries et al. eds, IFWF2, vol 2, pp 88–91, 2008b	Using secondary data found that domestic use and livestock have high WP in dollar terms, with crop WP giving negative gross returns	Interesting study	DM has it, from IFWF2 website contained in Humphries et al. eds, IFWF2, vol 2, 2008b
348. A Tegegne, T Mengistie, T Desalew, W Teka, and E Dejen, Transhumance Cattle Production System in North Gondor, Amhara Region, Ethiopia: Is it Sustainable? IPMS Project. Working paper 14. Nairobi: ILRI, 2009	Detailed study (180 sample households in 9 *kebele*s) in 3 highland *woredas* and 1 lowland *woreda* in North Gondor Zone. Provides detailed data on practices, productivity, constraints, issues. About 60% of highland cattle were taken to lowlands esp in May–June. Most believed transhumance is increasing due to feed shortage; but development in lowlands will lead to increasing conflict	Detailed and useful study	DM has it from ILRI website
349. Herrero, M, PK Thorton, AM Notenbaert, S Wood, S Msangi, HA Freeman, D Bossio, J Dixon, M Peters, J van de Steeg, J Lyman, P Parthasarathy Rao, S Macmillan, B Gerard, J McDermott, C Sere, and M Rosegrant, Smart Investments in Sustainable Food Production: Revisiting Mixed Crop–Livestock Systems, Science 327: 822ff, 12 February 2010	Argues for enhanced policy support for smallholders to intensify production by careful management of inputs supported by increased access to markets, new varieties and technologies	Useful authoritative synthesis	DM has it from IWMI library

12. IRRIGATION PROJECTS and STUDIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
350. Catterson, T, M Worku, M Endalew, C Green Abate, F Brockman, AW Amaneul, and K Mamusha, for Catholic Relief Services. Programmatic Environmental Assessment of Small-Scale Irrigation in Ethiopia. USAID and CRS, September 1999	Assessment of environmental impacts of SSI programs implemented by CRS.	Not very useful to us	DM has it
351. D Bacha, R Namara et al. Impact of small-scale irrigation on household poverty: Empirical evidence from the Ambo District in Ethiopia. Irrigation and Drainage (published on line Dec 2009)	Case study on poverty impacts of irrigation, comparing with and without: finds major reductions in poverty from irrigation, though many with irrigation remain poor for other reasons	Useful study showing positive impacts of irrigation	Journal website; DM has a near-final copy from Regassa
352. F Hagos et al. Importance of irrigated agriculture to the Ethiopian economy: Capturing the direct benefits of irrigation. IWMI RR 128, 2009	Very good study quantifying average incomes of irrigation vs. rainfed, gross margins over rainfed of small, medium and large scale irrigation	Useful study showing benefits of irrigation investments to country	IWMI website, DM has it
353. M Girma and S Awulachew, Irrigation practices in Ethiopia: characteristics of selected irrigation schemes, IWMI WP124, 2007	Basic data on about 12 schemes studied under a project on irrigation and poverty	Not useful for us	IWMI website, DM has it
354. Awalachew, SB, AD Ylma, M Loulseged, W Loiskandl, M Ayana, and T Alamirew, Water resources and irrigation development in Ethiopia, IWMI WP123, 2007	Based on a data base IWMI has developed, provides basic information on existing and potential irrigation by regions and basins; notes there are no complete authoritative data on existing irrigation	Not useful for us	IWMI website, DM has it
355. W Teshome, Irrigation practices, state intervention and farmers' life-worlds in drought-prone Tigray, Ethiopia, Wageningen PhD, 2003	Detailed study on lack of fit of SSI and local peoples' culture and problems at interface government-farmers	Useful for insights into local cultural aspects	DM has hard copy [Seleshi may have a soft copy] CROSS REFERENCE FARMERS' PERSPECTIVES
356. Mamaru Tsediku, Water-Irrigation for Food Security in Amhara National Regional State, presentation, 2009	Overview of irrigation opportunities in Amhara State	Not very useful	DM has it

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
357. Teshome, W, Irrigation Practices, State Intervention and Farmer's Life-Worlds in Drought-prone Tigray, IN Awulachew et al. eds, 2006 [Best Practice Proceedings]	An anthropological study of different perspectives of farmers and local officials, their discontinuity and resulting poor irrigation performance	Useful	DM has it, from CD CROSS REFERENCE FARMERS' PERSPECTIVES
358. Gebregziabher, G, RE Namara, and S Holden, Poverty Reduction with Irrigation Investment: An Empirical Study from Tigray, Ethiopia, Agricultural Water Management 96:1837–1843, 2009	Based on sample of 613 households (irrigators and non-irrigators), finds non-irrig households income 50% less than irrig; farm income more important to irrig than non-irrig households	Good study	DM has it, from IWMI library
359. Adgo, E, M Lakachew, and MZ Abedin, Farmers Innovations in Agricultural Water Management: Traditional Irrigation Practices in Amhara Region, Ethiopia, no date, source not certain	Documents traditional irrigation practices on 2 traditional SSI	Interesting study	DM has it, not sure of source
360. Ayana, M, and S Awulachew, Assessment of the Performance of Selected Irrigation Schemes in Ethiopia, Zeitschrift für Bewässerungs wirtschaft, 44. Jahrg., Heft 1 /2009. Pp121–142	Uses conventional irrigation performance indicators to compare performance of large (commercial) and small scale irrigation in Awash Valley	Interesting but not useful for this study	DM has it
361. Bastiaanssen, W, and C Perry, Agricultural Water Use and Water Productivity in the large Scale (LSI) Schemes of the Nile Basin. Final report, multiple volumes, NBI–EWUAP, May 2009	Uses satellite date to assess performance of LSI in the Nile (for EWUAP)	Detailed and good study but not useful for this project	DM has it from Tadele CROSS REFERENCE RWM PROGRAMS—ENTRO
362. Wegerich, K, T Dubale and B Bruins, Never Look a Gift Horse in the Mouth or Should You? Upgrading the Hare Irrigation System in Southern Ethiopia, Irrigation and Drainage 57: 470–480, 2008	Negative outcomes as a result of lack of transparency and communication among local community, government and design-construction company—farmers refuse to accept responsibility after completion	Interesting but not useful for this project	DM has it from P Wester, Wageningen U
363. Tesfaye, A, A Bogale, RE Namara, and D Bacha, The Impact of Smallholder Irrigation on Household Food Security: The Case of Filtino and Godino Irrigation Schemes in Ethiopia, Irrigation and Drainage Systems 22: 145–158, 2008	Based on survey 200 households, schemes in Oromia Region, found 70% irrigation users are food secure, 20% non-users are. Enabled users to grow more crops per year	Not very useful for our project	DM has it, from IWMI library

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
364. IFAD-Participatory Small Scale Irrigation Development Program, President's Report, 2007	USD 57.7m project to support SSI development mostly in Nile basin region	Need to find out more; IFAD has had other experiences as mentioned in PR	IFAD website, DM has it CROSS REFERENCE PROJECTS
365. IFAD, Special Country Programme Phase II (SCP II): Appraisal Report. Main Report and Appendices. Report No 0755-ET, April 1997	Detailed SSI project plan	Not useful to us, except as part of history of SSI work	DM has hard copy, from IFAD HQ CROSS REFERENCE PROJECTS
366. Tabet, A, J Koopman, and J-P Adinet, Evaluation of the Special Programme for Sub-Saharan African Countries Affected by Drought and Desertification. Case Study No 3: Ethiopia—Special Country Programme, Small-scale Irrigation Sub-Programme (SRS 003 UG), no date [IFAD}	Based on documents, assesses outcomes, experience, lessons learned of SCP I, which is fore-runner of SCP II (SSI program)	Not useful to us except as history	DM has it, source may be Tadele CROSS REFERENCE PROJECTS
367. Amede, T, IFAD Interim Evaluation Mission on Small-Scale Irrigation Schemes-Special Country Programme–Ethiopia, Working Paper and Contribution to the Main Report. Draft, October 2004	Based on rapid appraisals of 16 schemes, overall findings are positive-higher production, diversification, intensification, improved food security; but with concerns about fertility management, extension support	Interesting assessment of SSIs	DM has it from Tilahun CROSS REFERENCE PROJECTS
368. IFAD, Special Country Programme Phase II (SCP II): Interim Evaluation. Report No 1643-ET, April 2005	Interim Evaluation of this SSI project was done jointly with government, makes many detailed recommendations for improvement in remaining time and for phase III	Interesting evaluation though not very useful for our study. See also PCR (IFAD 2007)	DM has it from Tadele CROSS REFERENCE PROJECTS
369. IFAD, Special Country Programme Phase II (SCP II): Project Completion Report. Report No 1900-ET, May 2007	Evaluation of outcomes and lessons learned of this SSI project at end of project; rated 'satisfactory' in spite of a considerable number of issues	Interesting evaluation though not very useful for our study	DM has hard copy only, from IFAD HQ CROSS REFERENCE PROJECTS
370. Turral, H, M Svendsen, and JM Faures, Investing in Irrigation: Reviewing the Past and Looking to the Future, Agricultural Water Management 97: 551–560, 2010	Update of paper in Molden, ed, 2007; argues for investing improving management of irrigation but notes there are no silver bullets	Interesting though not very useful for this study	DM has it from IWMI library CROSS REFERENCE CONCEPTUAL

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
371. Hanjra, MA, T Fered, and DG Gutta, Pathways to Breaking the Poverty Trap in Ethiopia: Investments in Agricultural Water, Education and Markets, Agricultural Water Management 96: 1596–1604, 2009b	Reductions in poverty greater if irrigation is combined with universal literacy plus market investments and policy support (see Hanjra et al. 2009a)	Interesting study, argument is more widely relevant	DM has it from IWMI library CROSS REFERENCE ETHIOPIA, POLICY STUDIES

13. INSTITUTIONAL INNOVATIONS—SOME NOT TESTED IN ETHIOPIA

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
372. R Tabo, A Bationo, S Sawadogo-Kabore, O Hassane, B Amadou, and P Siebou, Institutional innovation: the potential of the warrantage system to underpin the green revolution in Africa, IN: Humphreys and Bayot, ed, 2009	Positive experiences with inventory credit system in several countries in West Africa; discusses how it works, its benefits, constraints (e.g. lack of capital, lack of local infrastructure, lack of well-organized farmer associations	Possible useful institutional innovation—could be tried in Ethiopia in areas with some market access and strong PA	DM has it (CPWF or IFPRI website) CROSS REFERENCE POLICY STUDIES
373. T Bernard, EZ Gabre-Madhin, and AS Taffesse, Smallholders' commercialization through cooperatives, IFPRI DP 00722, 2007	Shows limitations of cooperatives: large disparities among and within regions on their availability; household participation is just 9% with poorer households less likely to participate; while coops do get better prices for members, this does not result in higher % of cereal production sold; and small farmers tend to reduce marketable surplus as a result of higher prices, opposite to large farmers	Possibly useful for institutional innovation	DM has it, from IFPRI website CROSS REFERENCE POLICY STUDIES
374. Alemayehu, B, F Hagos, A Haileslassie, E Mapedza, S Gebreseleasse, S Bekele, and D Peden, Prospects for Payment for Environmental Services: The Case of Blue Nile; IN: Humphries et al. eds, IFWF2, vol 3, 2008c	Based on study of willingness to pay/ willingness to compensate, concludes PES has potential: most up- and down-stream households willing to pay for improved land and water management, and downstream people willing to compensate upstream service providers; but implementation will require stronger engagement of state and subsidies	An institutional innovation to be considered	DM has it. Contained in Humphries et al. eds, IFWF2, vol 3 CROSS REFERENCE POLICY STUDIES
375. Porras, I, M Grieg-Gran and N Neves, All that Glitters: A Review of Payments for Watershed Services in Development Countries, Natural Resources Issues 11, IIED, 2008	Updates a previous assessment of experiences with PES (PWS = Payment for Watershed Services) and conditions for success	Useful review	DM has it from IIED website CROSS REFERENCE POLICY STUDIES
376. Milder, J, SJ Scherr, and C Bracker, Trends and Future Potential of Payment for Ecosystem Services to Alleviate Poverty in Developing Countries, *Ecology and Society* 15 (2): 4ff, 2010	Assesses experiences to date and likely future market for PES of various kinds including PWS which could benefit 80–100 million people	Useful review	DM has it from IIED website CROSS REFERENCE POLICY STUDIES

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
377. E Meherette, Providing weather index and indemnity insurance in Ethiopia, Focus 17, Brief 8. IFPRI, 2009	Examines Nyala insurance products; this is a 2-page focus brief	Possibly useful for institutional innovation?	DM has it, from IFPRI website CROSS REF POLICY STUDIES
378. Shiferaw, B, and ST Holden, Policy Instruments for Sustainable Land Management: The Case of Highland Smallholders in Ethiopia, *Agricultural Economics* 22: 217–232, 2000	Analyses social efficiency of 'interlinked contracts' which create positive incentives for land conservation	Possible linkage to PES?	DM has it from IWMI library CROSS REFERENCE POLICY STUDIES
379. Merrey, DJ. African Models for Transnational River Basin Organizations in Africa: An Unexplored Dimension. *Water Alternatives* 2 (2): 183–204, 2009	Argues more effective and legitimate RBOs might be developed by building on African indigenous institutional models and principles rather than imposing those based on western or 'international' principles	Potentially interesting idea	DM has it, from *Water Alternatives* website. CROSS REFERENCE POLICY STUDIES and 1B INNOVATION SYSTEMS

14. OTHER TOPICS

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
380. S Awulachew et al. Training manual on agricultural water management, ILRI, 2009	5 modules from IPMS project (Ethiopia) http://www.ilri.org/Infoserv/webpub/fulldocs/IWMI_IPMSmodules/Modules1_5.pdf	These are technical guidelines, not on implementation strategies	Need to click on module number in the main brochure on ILRI website
381. L Weissleder, Foreign Direct Investment in the Agricultural Sector in Ethiopia. Ecofair Trade Dialogue Discussion Papers 12, October 2009. Berlin: Heirich Boell Stiftung and Misereor	Overview of FDI in Ethiopian agricultural sector	Background only, not useful to us	DM has it
382. Tesfaye, T, RS Karippai, and T Tesfaye, Effectiveness of Training Offered by Ethiopian Institute of Agricultural Research to Farmers: The Case of Holetta, Melkassa, and Debre Zeit Agricultural Research Centres. African Journal of Agricultural Research 5(7):500–513, April 2010. www.academicjournals.org/AJAR	Based on survey found trained farmers had far greater knowledge than untrained	Not very useful or insightful	DM has it
383. Heney, J, and B Seiffert, Improving Household Food Security and Nutrition in North Shewa, Amhara Region and Southern Zone, Tigray Region, Ethiopia: Community Action Planning Guidelines for Facilitation Teams, FAO, May 2003	Broad guidelines for teams facilitating community work	Moderately useful if we find more on the project itself	DM has it
384. Castalia Strategic Advisors, Public–Private Partnership Options and Action Plan Study, Draft Final Report to the World Bank, February 2008	Detailed study and recommendations for Ethiopian Nile Irrigation and Drainage Project	Not useful for our study	DM has it; but it is marked 'confidential'
385. M McCartney and J King, Use of Decision Support Systems to Improve Large Dam Planning and Operation in Africa, CPWF Working Paper, draft, no date	Provides advice on considerations in promoting large dams in Africa	Not useful for this study	DM has it, from Seleshi
386. US Government, Feed the Future (FTF) FY 2010 Implementation Plan, Ethiopia. US Government Working Document, 2010	Summarizes new USG thrust under Global Food Security and Hunger Initiative; includes NRM, SSI, watershed management	Not useful for this study	DM has it, through Development Gateway website
387. Danano, D, ETHIOCAT Documented SLM Practices for Up-scaling in Ethiopia, Presentation to WOCAT WWSM 13, Berne, Switzerland, October 20, 2008	Overview of WOCAT, SLM issues in Ethiopia, with good photos	Mildly useful for this study	DM has it from Tadele

Reference and document number	Theme/topic/main point or conclusion	Remarks e.g. usefulness e.g.	Location
388. Alemu, AG, Annotated Bibliography on Agriculture, Food, Rural Development, and Environment in Ethiopia. 2020 Vision Network for East Africa Report 2. Washington DC: EDRI and IFPRI, July 2002	Useful for searching older papers; gives a location for each	Not that useful here	DM has it from IFPRI website
389. CPWF. 2008 Annual Report. June 2009	Useful background on transition of CPWF to phase 2	Not that useful here	DM has it from CPWF website

Annex Table 2. Analysis of RWM Policy Framework in Ethiopia

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Agricultural-Development Led Industrialization (ADLI)	MoARD	Since early 1992 (officially 1993?)	Use agricultural development as main engine of growth; provides broad framework for other strategies	Remains broad policy framework but being questioned—insufficient attention to demand side, urbanization, marketing		Amede et al. 2009, Hydrosult 2006, MoFED 2002, 2003, 2006a, 2006b
National Food Security Strategy	MoARD	Since 1996; updated 2002	Central objective is to ensure food security at the household level within ADLI framework; Target areas are 'chronically food insecure moisture deficit areas and pastoral areas. It has also placed due attention to environmental rehabilitation to reverse degradation and to set conducive environment for sustainable and productive agriculture, through promoting water harvesting technologies and high value crop production'	Institutional capacity building through technical vocational training to produce skilled manpower to serve at the grassroots level is also emphasized in the strategy; as are market development, private investment, infrastructure development		Amede et al. 2009; summary in Hydrosult 2006
Food Security Program	Food Security Coordination Bureau (FSCB)	2004–2009	Coordinated government and development partner program to improve food security of 3 m households of which 1 m will graduate to food secure status	Program of the 'New Coalition for Food Security in Ethiopia'	I only have an M&E plan	FSCB 2004
Livestock Development and Conservation Policy and Strategy	MoARD		'Vision to improve livestock production and productivity; supply adequate quantity, quality and sustainable livestock products to industries and enhance livestock qualities, livestock products and by-products marketing system and earn foreign exchange earnings.'	'Improvement of animal feed, honey production; silk production; fishery development and genetic improvement are the major strategic areas of the livestock development policy'		Amede et al. 2009

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Sustainable Development and Poverty Reduction Program (SDPRP)	MoFED, MoA	2000–2005 (preceded PASDEP)	Built on ADLI focusing on: rapid overall development; liberation from dependency; and promotion of a market economy Deepened de-centralization Introduced more extension packages, micro-finance, autonomous cooperatives, better marketing infrastructure	1st stage of PRSP		Summary in Hydrosult et al. 2006, MoFED 2002 is main document
Rural Development Policy and Strategies	MoFED, MoARD later	Same as SDPRP?	Provides a discussion and arguments for the rural and agricultural development policy; covers broad range of topics, including water resources, soil conservation, targeting different strategies in different regions		Not specified	MoFED 2003
Plan for Accelerated and Sustainable Development to End Poverty (PASDEP)	MoARD plus others	2006–2010	Built on SDPRP, ADLI but enhanced to capture private initiative of farmers and support shift to diversification and commercialization of agriculture while also improving pro-poor agriculture, local support services, SSI. PASDEP distinguishes 3 main economic and agroclimatic zones: traditional semi-arid/sub-humid highlands; potentially productive semi-tropical valley areas; and hot semi-arid lowlands. Mentions watershed management in several places	2nd stage of PRSP	ETB 332.56 billion overall, of which ETB22b for agric, rural development, and food security, ETB 20.75b for irrigation	Summary in Hydrosult et al. 2006, MoFED 2006a, 2006b is main document

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Ethiopian Strategic Investment Framework (ESIF) for Sustainable Land Management (SLM) ('National SLM Framework")	MoARD and National SLM Platform supported by multiple donors; National SLM Steering Committee and National SLM Technical Committee; replicated at regional levels	Phase 1: 2009–13 Phase 2: 2014–18 Phases 3: 2019–23	Framework to guide SLM planning and investments to address linkages of poverty and land degradation; Development objective—improve livelihoods and economic well-being of farmers, herders, forest users by scaling up SLM; Environment objective-rebuild natural capital assets	6 component areas: 1) field-based projects; 2) land tenure administration; 3) capacity-building; 4) improving policy, legal, institutional, financial environment; 5) building SLM knowledge base; 6) management and implementation of ESIF	USD 6.7 billion over 15 years through variety of ongoing and planned projects	MoARD–SLM Secretariat 2008, ANRS, GEF and IFAD 2008
Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia	NMA	Not specified	Provides analysis of anticipated climate change impacts on Ethiopia, and inter alia offers prioritized list of 11 adaptation projects—many related to RWM	Tries to show how various other development and environment policies are linked to addressing climate change impacts	Lists 11 projects, implementation cost USD 770m	NMA 2007
National Action Plan (NAP) to Control Desertification	EPA	2007–2012	The main purpose was to identify the priority adaptation needs of the country to climate change			
Ethiopian Forestry Action Plan (EFAP)		1994–2014	Main goal includes increasing sustainable tree and forest production; increasing agricultural production through reduced land degradation; and conserving forest ecosystem, genetic and wildlife resources			

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Ethiopian National Biodiversity Strategy and Action Plan	Institute for Biodiversity Conservation		Objectives are conserving representative examples of Ethiopia's remaining ecosystems through protected areas; having all remaining natural ecosystems outside of protected areas under sustainable use and management by 2020;and conserving the rich agrobiodiversity of Ethiopia effectively through *in situ* and *ex situ* conservation programs			
Ethiopian Water Sector Policy	MoWR	2002–2016	Sets out broad goals, objectives, principles, strategies, priorities. Overall goal of policy is to 'enhance and promote all national efforts towards the efficient, equitable and optimum utilization of the available Water Resources of Ethiopia for significant socioeconomic development on sustainable basis'	Covers broad range of purposes of water resources development, focused largely on blue water	None stated	MoWR 2001a

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Ethiopian Water Sector Strategy	MoWR	2002–2016	Describes 'a set of short, medium and long-term action programs to realise the achievement of development goals and water-related policies;' i.e. provides a road map for development and management of water resources. Lists specific actions, specific development projects/programs to be developed and implemented Amede et al.: 'Embraces water for all purposes, including water for power and irrigation, and husbanding of the nations water resources in their entirety. This demands close and substantial interaction and collaboration of various agencies. It also focuses on gender considerations while designing projects and programs'	Main elements: Provide clean potable water access to all of the population over the coming seven years; Promote enhanced irrigation development in an integrated manner to contribute to economic growth and alleviation of poverty and food insecurity; Emphasize and promote multipurpose development of water resources wherever applicable; Build capacity at different levels, particularly at sub-national level where actual implementation is taking place; Focus on low-cost, affordable, and labour-intensive technologies; and Improve sanitation outcomes	None stated	MoWR 2001b, Amede et al. 2009
Water Sector Development Programs (WSDP)	MoWR	2002–2016	'WSDP incorporates four sub programs: Water Supply and Sewerage Development, Irrigation Development, Hydropower Development, Water resource development, and Institution and Capacity building Programs' Sets out technical content of all planned activities, major output, investment plans for each major sub-sector	Very detailed program over short, medium and long term covering all aspects—studies, planning, infrastructure, institutional, capacity building	Total estimate is USD 655.6 m of investments	MoWR 2002 Amede et al. 2009

Name of policy	Lead agency	Period in effect	Main purpose, goals	Other information	Resources	Documentation
Environmental Policy	EPA	From 1997	'Overall policy goal is stated as to enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through sound management and utilization of natural, human-made and cultural resources and the environment as a whole.'	Cross-sectoral, incorporating various specific environment or resource related policies		Amede et al. 2009

Annex Table 3a. Major RWM development/implementation programs (1): Basic facts

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
Productive Safety Net Program (PSNP)	2004–present	Regions and *woredas*, funded by WB, DFID, EC, CIDA, Irish Aid, USAID, Netherlands, WFP	Objectives: to provide transfers to food insecure population in chronically food insecure *woredas* so as to prevent asset depletion at household level and create assets at the community level. Public works component supports SWC, feeder roads, water supply, SSI, farmer training	+/– USD 200 m/ year, most of which goes to public works	national	A broad range of technologies (similar to MERET)
MERET phase 1 ('Project ETH 2488 …']	1980–87 (Some efforts from mid-1970s)	MoA with WFP support	Improve agric. Productivity, livelihoods food security in degraded areas; provide food assistance (FFW), land conservation	2.3 million people	Earlier phases had more funds, worked in 6 regions and more *woredas*	SWC on degraded areas; closure and management commons
MERET-Phases 2–4 ('Managing Environmental Resources to Enable Transitions')	1987–2002	MoA with WFP support	Same as phase 1 but increasing focus on community-based approach (LLPA), shift to small watersheds	Approx 7 million people (since 1980)	Targeting is through the use of VAM (Vulnerability Analysis and Mapping)	
MERET	2003–2006	MoA/MoARD with WFP support	Same but LLPA now consolidated, asset development added	1.3 m people		
MERET-PLUS ('MERET through Partnerships and Land Users Solidarity')	2007–2011		Same but more focus community capacity building, homestead production, income generation; focus on lower potential areas; Yirga 2010: packages include SWC, soil fertility management, forest and biological stabilization; homestead productivity, income generation, water harvesting various levels, access roads, SSI	0.7 m people WFP 2006 claims target is 1.7 m beneficiaries over 5 years in 65 *woredas*, and 125k ha land	currently: 70 *woredas* in Tigray, Amhara, SNNPR, Oromia	SWC; re-forestation; closure and management of degraded commons; water harvesting; low-cost soil management; homestead gardens; income-generation; local capacity building

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
MERET in Tigray	Approx 2007–2010	Local government; funding mostly through MERET, PSNP, possibly some GTZ, USAID, and communities	Ensure food security and eradicate poverty through natural resource rehabilitation and development of crops and live stock	This is a rapid assessment in 2 *woredas* (1 *kebele* each)	Tigray: *Kebeles* of Abrha-Atsbha and Berka Michael in Kilte Awlalo and Atsbi Womberta *woredas*	Multiple physical, biological and agronomic interventions
SLM Program ('Ethiopian Sustainable Land Management Framework' [ESIF])	2009–2015	SLM Secretariat in MoARD with WB support; GTZ with KfW, DED; WFP, IFAD, GEF, AfDB, UNDP, EC, USAID, Norway, Sweden, Finland, Netherlands; FAO, IARCs, NEPAD (TerrAfrica), others	Provides integrated holistic framework under which government, civil society, partners can work together to promote and scale up SLM; intended to guide prioritization, planning, implementation of SLM in a way to address poverty, vulnerability, and land degradation	USD 6.7 billion; in 3 phases	35/177 identified priority watersheds in high potential areas	6 component areas: field-based programs, land administration, capacity building, enabling policies and institutions, building knowledge base, management and implementation of ESIF
Sustainable Land Management Project	2008–2012	MoARD with WB and GEF funding	Supports MoARD SLM program; intends to scale up best SLM management practices in vulnerable 'high potential/food secure' areas, on farm, homestead and community lands; and support rural land certification	USD 37.79 m grant from WB and GEF over 5 years for work in 35 watersheds	6 regions	Multiple SWC, IWM technologies; land certification
Sustainable Use of Natural Resources for Food Security Project (SUN)	2005–2008	MoARD with GTZ support	The main objective is to tackle the challenges and improve the livelihoods and income of rural population in the Ethiopian highland regions of Amhara, Oromia, and Tigray through the sustainable management of natural resources. This includes reducing of soil erosion while intensifying agricultural production using appropriate technologies; introduction of new species and technologies to help diversification; and scaling up of successful innovative approaches and methods of SLM		Three regions	Protection of soil erosion and gullies by physical and biological means, use of technologies to improve productivity and diversify income sources and help build necessary capacity to sustain system

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
Agriculture Sector Support Project (ASSP)	2003–2010	MoARD, MoWR, EPA working through the Regional Bureaus Supported by AfDB	Objective: To improve rural livelihood and food security through promotion of small-scale irrigation, water harvesting techniques and integrated ecosystem management. Revised verifiable outputs: – Development of 82 schemes with a command area of 10,030ha of which 69 schemes in 4 regions and the rest in the emerging regions. A total of 29,080 households benefited from these schemes. – ASSP policy in line with Government policy namely that 30% of beneficiaries to be female and 100% of female-headed households benefit in the project sites	USD 55.7 m total	National, but concentrated in: Oromia, Amhara, Tigray and SNNPR	Multiple technologies including SSI, RWH, SLM etc.; Formation of self-help Community Water Harvesting Associations (CWHA)
Koga Irrigation and Watershed Management Project	2001–?	MoWR, and Commission for Sustainable Agriculture and Environmental Rehabilitation of Amhara Region (COSAERAR), with AfDB support	Objective is to improve agricultural production in a sustainable manner in the Project area, through: Construction of dam and 6k ha irrigation scheme; 22k ha conserved rainfed agriculture on watershed; capacity building	USD 37.84 m Dam, irrigation (7,200 ha) and watershed protection	Lake Tana sub-basin, Gilgel Abbay Watershed (Koga River)	Dam and large scale irrigation, conservation farming-IWM
Tana Beles Integrated Water Resources Development Project [TBIWRDP]		MoWR at national level, plus new ARBO, Amhara BoARD, others with WB support	Pilot to test 2 new GoE thrusts: development of a growth zone through integrated planning, institutional development and investments, and setting up basin management organizations (on Abay, and the 2 sub-basins). Major component (>USD 40 m) for NRM investments, i.e. watershed development and flood management, linked to SLM Project	USD 69.85 m for 2 sub-basins	Tana and Beles sub-basins of Abay	Multiple technologies and support for new institutional arrangements

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
IFAD Special Country Program (SCP) II [SSI]	SCP I–1987–96 SCP II–1999–2005?	MoWR, Provincial bureaus, funded by IFAD, Ireland, France	Goal: 'improve food security and incomes amongst poor rural households by enhancing their resilience to drought, through intensification, diversification and commercialization of smallholder agriculture'; Through improved and expanded irrigation development, (ii) enhanced delivery of agricultural support services to meet the needs of farmers in irrigation, water management and crop production, (iii) improved agricultural production and natural resource use and management through the adoption of better soil and water conservation practices, (iv) increased access to improved seeds, particularly for horticulture, (v) the development of family vegetable gardens to improve nutrition and enhance the role of rural women in irrigated agriculture, and (vi) institutional capacity building for the decentralised regional governments	58 schemes (MTR reduced it to 40 but interim evaluation estimates 46 by 9/2004)	in Amhara, Oromia, Tigray, SNNPR	Small scale irrigation—mostly upgrading traditional schemes
Participatory Small Scale Irrigation Development Program	2008–2015	MoARD with IFAD Support	The programme's goal is to improve food security, family nutrition and incomes for poor rural households by developing irrigation schemes for small-scale farmers in four states of Ethiopia. The programme will target poor rural households in areas that are prone to drought and food insecurity	Total cost of USD 57.8 million	Benefiting 62,000 households in four regions (Amhara, Oromia, SNNP, and Tigray)	Irrigation, access road, and improved agricultural practices

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
SIDA/ ANRS Rural Development Project (SARDP)	1998–	ANRS with SIDA support	The overall objective of SARDP III is to contribute to poverty reduction of the Amhara Region by improving the food security conditions of the rural population in the targeted *woredas* of East Gojjam and South Wollo zones. The total budget for the full programme period is 300 million SEK, of which 70% is allocated directly to *woredas*	Total budget for the full program period is 300 Million SEK	East Gojam and South Wello, ANRS	Multiple: soil conservation structures, spring development, crop improvement, livestock, fodder, agroforestry, improved implements (mould board plough)
SARDP III	Phase 1: 1997–2001 Phase 2: 2002–? Phase 3: 2004–2008 (Program Document)	'housed' in ANRS-BoFED, implementation through various bureaus, *woredas* and communities, funded by SIDA	Poverty reduction by improving food security; outputs = agriculture and NRM; economic diversification; infrastructure and social services; decentralization. NRM-from logframe: • Different crop types, varieties and other technologies introduced, tested and adopted by farmers • Use of small-scale irrigation for crop production increased from • 5,5% to 10%. [100% increase in SSI] • Improved livestock technologies introduced, tested and adopted by 25% for SARDP targeted households. • Controlled grazing and improved pasture introduced and adopted by farmers • Integrated watershed management and land rehabilitation undertaken and increased from 5% to 50% in the local Communities	Ph1: 12 *woredas* Ph2: 15 *woredas* Ph3: up to 30 *woredas*: approx. 4.4 million people; 300 m kronor 2004–2008	East Gojam and South Wello, ANRS	Multiple, including improved seeds, participatory integrated watershed management, SSI, SWC, nurseries

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
SARDP III	As above Extension to 2010	As above	Project is broader than NRM: includes education, land administration, strengthening local justice system, capacity building of *woredas*, agricultural research etc.	As above	As above	As above
Water Harvesting Pilot Project (Horn of Africa Initiative on Food Security)	2003–2004 (15 months)	IGAD	Overall sector goal is increased food security in the IGAD region. The specific objective of the pilot project is to develop a feasible, viable and sustainable community-based water-harvesting program in the conflict-prone, arid and semi-arid areas of the IGAD region	USD 1.22 m	Karamoja Cluster (the semi-arid and arid areas of northeastern Uganda, southeastern Sudan, northeastern Kenya and southwestern Ethiopia)	Literature review and pilot testing of RWH techniques
Water Harvesting and Institutional Strengthening in Tigray Project (WHIST); from 2002 complemented by Tigray FFW Project	2001–2010	Commission for Sustainable Agriculture and Environmental Rehabilitation of Tigray (COSAERT) (later reorganized into TWRDA) and BOA, Tigray; Tigray Agricultural Research Institute (TARI) added later; funded by CIDA	WHIST focused on capacity building-training, mentoring, improved manuals, procedures etc. and more effective management of SSI by WUAs FFW Project added focus on catchment rehab through SWC, forestry, enclosure; community ponds Note: PRFA was executing agency according to Ferguson and Kassa 2007; but website mentions Hydrosult, USD 16.9 m, and 2005–2011 as period; a separate 'Water harvesting in Tigray' project is listed for USD 7.5 m implemented by 'Agriculture and Agri-Food Canada', 2001–2010	WHIST USD 7.5 m FFW USD 7.5 m	Amhara	WHIST focus on SSI-capacity building for design and construction, water management FFW focus on SWC—but the two did not get linked as planned

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
Community-Based Integrated Natural Resource Management PROJECT [CBINReMP], in Lake Tana Watershed (in some docs: LTW-CB-INRM)	2010–2016	MoARD (SLM Platform) at national level; ANRS-BoARD at regional level with EPLAUA and others; IFAD supervised; funding from IFAD, GEF, govt; partnerships with WB, UNDP, and others (link to TerrAfrica)	Goal: poverty sustainably reduced for 312k households in 21 *woredas* of LTW through 2 main components: community-based IWM practices adopted; institutional and legal reforms enacted and implemented. Project is to be implemented in context of SLP Platform	Total cost USD 25.4m; Lake Tana watershed; SLM treatment in 227.5k ha watershed [GEF document focuses on 2 subwatersheds]	Lake Tana Watershed, Amhara. GEF: 13 *woredas* in Gilgel Abay and Megech sub-watersheds; IDAD document-650 watershed management plans covering 227.5 k; 450k households will have secure land tenure	Multiple: integrated watershed management (SWC, agroforestry, participatory forestry etc.)
Eastern Nile Watershed Management Project	5 years; not clear if started	MoWR and Amhara BoARD; support from ENTRO, GEF funding	Development objective is improved livelihoods of rural households in upper catchments through enhanced productivity and promoting sustainable land use practices; 3 components: improved livelihoods, natural resources (SWC, WSS, SSI), capacity building, training and project management	About 82k ha in 3 subwatersheds; over Birr 444m	5 sub-watersheds in Ribb, Gumera, Jema subwatersheds of Lake Tana [note: includes Farta *woreda*]	Multiple SWC, land and crop management strategies, SSI (<5 ha)– check weirs and diesel pump stations; forestry and agroforestry
BoA/GTZ Integrated Food Security Program, South Gondor, Region 3	1996–2004	BoA of Amhara] with GTZ support; Food Security Desk, Tigray added later	Improved agricultural techniques dryland and lowland areas and Improved SWC techniques and rehab of degraded lands developed, tested, disseminated; Reduction of acute nutritional shortfalls Training farmers and local staff	Approx Euros 16m 21 microwatersheds across 6 *woredas* in South Gondor Tigray expansion funded separately and not reported here	South Gondor, Amhara primarily	Tree nurseries-multi-purpose trees, new fodder plants Low-cost gully treatment using biological treatments Bio-physical erosion control (vetiver) Dissemination Tritcale Introduction of new plough-modified maresha (tenkara kend)

Project/ program name	Period	Implementing and funding agencies	Objectives	Scale	Location	Technologies
Norway DF-funded programs implemented by REST	1997–2000	REST with Norway Development Fund support	Promoting a variety of SWC, livestock improvement, forestry programs etc. to improve peoples' livelihoods	Approx ETB 60m	Tigray Central Zone	Multiple

Annex Table 3b. Major RWM development/implementation programs (2): Analysis

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
PSNP	CfW and FfW for works on public lands; uses MoARD 2005 guidelines for SWC	Significant reductions in soil erosion and sedimentation, increase in vegetation cover, area enclosed	Increased forage for livestock, enhanced spring yields and base flows, increased access to safe water high benefit–cost	Recommends inclusion of work on private lands; better use of environmental and social management frameworks	MA Consulting and Prospect Consulting 2009
PADETES	Top down transfer of technology	Mixed, much resistance reported			Bewket 2003 See Teshome 2003
MERET phase 1 ('Project ETH 2488 …']	Top–down, use of FFW, 'command and control' during Derg period	Not quantified in Bewket; Cohen et al.: 2.3 m beneficiaries	Apparently SWC efforts were not well-sustained in beginning; at end of Derg, many assets were destroyed	Top–down, no community ownership, not sustained, motivation based on food alone	Bewket 2009; Cohen et al. 2008; Zekele 2005
MERET-Phases 2–4	1993 on shifted to community-based participatory approach	Not quantified in Bewket; Cohen et al.: +/-5 m beneficiaries	Over time, with shift to more participatory approach, impacts and sustainability improved	Shift from large watersheds to small watersheds focus	Bewket 2009; Cohen et al. 2008; WFP 2002; Zekele 2005

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
MERET	Community-managed, asset-building; focused on small watersheds: 70% in drought-prone food deficit areas; balance in higher rain but severely degraded and dense population Use of community-based Planning Teams (PT)-5 year plans reviewed annually by community; district-community link through DAs	Not quantified in Bewket; Cohen et al.: 1.3 m in 2002–2006; this report has a table of physical achievements as of 2005; Production of CBPWD guidelines (2005) now considered standard Zekele: Table 1, p22, shows years of each phase, number beneficiaries, costs. Confirms 1.3m beneficiary figure for MERET (in 74 woredas, 600+ subwatersheds), but lists more for pre-MERET phases; 300k ha rehabilitated	LLPA led to increasing community ownership and sustainability; Evidence of increasing empowerment of and benefits for women (Cohen et al.) All evaluations show significant impacts on food security through higher production, some income generation, asset creation (Cohen et al.) Zekele: capacity building regional and local technicians (>2500) and beneficiaries (30k) a major achievement; Linking conservation with improved land productivity and household incomes is an important lesson, enhancing sustainability	Shift from technical emphasis to capacity building and income-generating focus—'food for assets' (Cohen et al.); High turnover DAs etc. big problem; Evidence of some scaling up-out of MERET e.g. to neighbouring watersheds; but no institutional mechanism to scale up beyond *kebele* (Cohen et al.) Zekele: focus on low potential has diverted attention from land degradation in high potential areas; project has benefited from links to research projects (e.g. SRCP from 1982, EHRS from 1983 has provided substantial scientific information; project has learned from experiences and adapted over time; shift to working on small watersheds within larger watershed context for maximizing impacts; Table 2 p.37 lists impacts from FAO/WFP 2005 assessment; Main object should not be reducing soil loss but enhancement of rural livelihoods through sustainable land management Issues include need for stronger partnerships and addressing wider set of stakeholders, inbuilt M&E, negative impact of institutional instability, and not limiting to food-insecure woredas	Bewket 2009; Nedassa 2002; Fanzo and Pronyk no date; Amede et al. 2007; Cohen et al. 2008; Zekele 2005

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
MERET-PLUS	Community-managed, asset-building; more emphasis income-generation ('Local Level Participatory Planning Approach', LLPPA)	Since inception: 400k ha in 74 woredas, 6 regions rehabilitated; 1.3 m people direct beneficiaries EDRI and WB: 130k land; 800 springs; 211 community ponds; 1000 shallow wells; 19 farm dams, 50 soil storage/overflow dams; 317 m trees etc.; enhanced capacity and knowledge etc. MoARD: has even higher figures for area benefitted	Multiple ecosystem benefits, reduction soil loss, enhanced water availability, productivity, food security, agricultural diversification, incomes, asset-building, community empowerment, gender equity, local capacity and institutions	Bewket: Key elements for success—Lessons: flexibility and experiential learning, community ownership and gender sensitivity, interface land management and livelihood improvement, results-based M&E; focus on small watersheds, adequate duration (9 years). IASC: focus on livelihood enhancement measures; need maintenance of assets by community; SLM and infrastructure projects must provide income-generating opportunities; align project-program with government projects; lessons MERET crucial in PSNP implementation	Bewket 2009; IASC 2009; EDRI and WB 2006; MoARD 2010; WFP 2006; Cohen et al. 2008; Yirga 2010
Meret in Tigray	Applied CBPWD principles from 2005 guidelines: participatory, gender sensitive, build upon local experience, realistic, integrated, productive and manageable, watershed logic, flexibility, cost sharing	Many hand-dug shallow wells, each shared by +/-3 households; many treadle pumps and diesel pumps; drip irrigation kits	500 households graduated from PSNP; irrigable land 440ň1810 ha increase in crop intensity, diversification to vegetables, increase in livestock, bee and crop productivity	CBPWD if implemented properly really works; need to provide more hand tools; need for support services for TPs; Limited budget is main implementation constraint	AH Consulting 2010

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
SLM Program (ESIF)	Integrates a variety of separate programs and projects initially. Establishes national SLM Secretariat, Steering Committee, Technical Committee; MoARD has primary responsibility. Regional level-BoARDs lead, with similar committee structure; similar for *woreda* level	Anticipated outcomes: reduced poverty and vulnerability, reduction in area affected by land degradation, remove barriers to land security, improved knowledge, capacity and policies, effective institutional capacity	Will seek to scale up SLM practices with proven potential to restore, sustain, enhance land productivity; Highly focused on sustainability issue (institutional, financial); focuses on active community participation and leadership; offering choice of technologies, seeking quick and tangible benefits, avoiding perverse incentives	This is an effort to expand on lessons learned from previous projects and applying them more widely	GTZ website; EDRI and World Bank 2006; G Zekele et al. 2006; MoARD-SLM Secretariat 2008
SLM Project (WB)	Supports SLM Program implementation strategies	Expected outcomes include sustainable ag productivity improvements, reforestation of degraded lands, improve management of grazing land, improved resilience of farmers to extreme events, protection of ecologically critical habitats; strengthened capacity for knowledge management and implementation; scaled up land certification	Anticipates sustainable improvements in NR management and agricultural production		World Bank 2008a

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
Sustainable Use of Natural Resources for food security (SUN) of GTZ	Capacity building, provision of technologies and planting materials when feasible, participatory approach and ownership of communities and individuals	Rehabilitated ecosystems and degraded lands, reduced soil erosion, improved productivity and income at household level, and use of improved technologies	Rehabilitated gullies that are communally managed and technologies that are owned by individual farmers and the community at large. Active involvement of communities from the outset contributes to sustainability of the system		A summary of the Food Security program of South Gonder
ASSP	Capacity building, participatory approaches, investment in hardware etc.	MTR provides revised detailed quantitative targets	MTR raises some questions on this e.g. for SSI and watershed management, but more time is needed to assess	Need for stronger effort in extension services on SSI Need to organize WUAs/WUCs from beginning of each project, not at the end	AfDB 2003, 2008
Koga Irrigation and Watershed Management Project	PAD claims farmers will be involved from the beginning; extension service to be strengthened to implement IWM and irrigation extension as system becomes operational. But most of the investment is infrastructure creation	6k ha irrigation 22k ha improved rainfed production in watershed; soil loss and sedimentation reduced 50% etc.	Sector OVIs: Poorest quartile household incomes increase by 100% by PY6 2. Minimum of 10% reduction in the proportion of project area population living below poverty line by end of project (BEP); 3. Participating beneficiary household incomes raised from ETB. 2,635 to ETB 11,600 in PY 6 (from irrigation and watershed management); 4. 1.5 million person-days employment created, annually from PY4	Need to find more recent documents for this	Summary in Hydrosult et al. 2006; AfDB 2001

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
TBIWRDP	Multiple strategies: creating new institutional arrangements at basin and sub-basin levels, promoting SLM through 'normal' SLM program etc.	Establishing, strengthening institutions, investment in IWM and community-based flood preparedness; preparation of set of investments for successive projects	Stronger and more effective institutions, better management of watersheds		World Bank 2008d; MoWR Abbay Basin Team 2009
SCP II [SSI]	Participatory improvement of traditional SSI	Amede 2004 is based on RRA in 16 schemes, report is very positive: higher production, diversification, intensification, improved food security; but with concerns about fertility management, extension support IFAD 2005: some poverty reduction, but modest; no progress on SWC	Amede: Clear improvement of food security and incomes; sustainability is threatened by poor fertility management, lack of crop rotation in the small irrigated plots; growing competition upstream–downstream over water. IFAD: far more modest about impacts and questions sustainability	Amede: Need to pay more attention to rotations (legumes), diversification, soil fertility Need to pay more attention to conflicts among schemes for scarce water Need to strengthen extension services IFAD: multiple lessons related to improved M&E, more emphasis on strengthening agricultural and marketing components, achieving better understanding of traditional systems as basis for offering improvements, resolving institutional issues (building on traditional arrangements vs. legal WUAs) etc.	Amede 2004; IFAD 2005
SARDP	Participatory at microwatershed level	Some yield increases quantified but most benefits not quantified in this paper	Possibly this paper is too early in project	Small watershed is a logical planning unit, integrated approach combining bottom–up and top–down interactions, capacity building is key, define 'integrated' broadly	Simane 2002

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
SARDP III	Highly participatory with strong emphasis on governance, local ownership, gender equity, support to vulnerable households, market development etc.	Planning document	Not reported		SIDA 2005
SARDP III	As above. 4 broad areas of intervention: agricultural and NRM; economic diversification; infrastructure; decentralization	External evaluation: overall very positive outcomes in all categories; weakness of M&E and baseline make quantification difficult	Overall very positive impacts with regard to agricultural production, livelihoods, well-being; clear improvements since beginning of Phase I, though attribution is difficult; progress on gender equity for example in land titling; but overall disappointing on gender	Overall project approach rated highly; but concerns about targeting (lack of a data base to enable this); concerns about sustainability of some outcomes, e.g. SSI and SWC; Need for much more explicit approach to gender	Tengnäs et al. 2009 [external evaluation]; Farnworth and Gutema 2010 [gender]
IGAD Water Harvesting Project	Literature review and pilot testing, using consultants	Options for RWH and capacity building	Not available	Not available. Need to get reports on results	Mention in Cohen et al. 2008 and elsewhere AfDB 2002
WHIST (and FFW)	WHIST focus on capacity building	Strengthened technical capacity of Amhara SSI implementing and research institutions; 225 WUAs established	Improved performance of the 5 SSI schemes WHIST used as study areas Reorganization of regional government in 2002 and shift to ponds/shallow wells had major negative impacts, as did high staff turnover, non-availability of counterparts; uncertain policy environment is a threat	Need for better information management; need for strong irrigation policies, need for more targeted and focused training and support	Ferguson and Kassa 2007

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
LTW-CBINReMP	Integrated participatory approach through local government and communities; will contribute to harmonizing and improving policies and implementation at national level	Just starting implementation; anticipate: 650 watershed management plans covering 227,500 ha implemented; · Some 450,000 rural households have land tenure; Forest cover of the watershed increased by at least 10%; About 9, 400 ha under fodder production. 32,500 ha of agricultural land rehabilitated; Participatory forestry established on 18,900 ha	Expect 25% reduction in no of households living below poverty line; expects it to be sustainable because it is implemented through normal govt departments as part of SLM program	Too early to specify; but project is building on lessons from previous programs and projects, Ethiopian experience, and international experience through TerrAfrica	IFAD 2009b; ANRS, GEF and IFAD 2008
Eastern Nile Watershed Management Project	Integrated participatory approach based on MoARD 2005 CBPWD guidelines [15 steps explained in Annex E]; explicit links to Tana-Beles Project	Status of implementation not certain			ENTRO 2007
BoA/GTZ Integrated Food Security Program, South Gondar, Region 3	Participatory development and testing of technologies; LLPPA on watersheds	Claims integrated watershed program shows 'most successful' innovations; new bio-physical treatments successful; new plough works well	Too early, no information given	Participatory approaches are successful; one evidence is demand from Tigray and elsewhere	BoA and GTZ 2003

Project/program	Implementation strategy	Outcomes	Impacts and sustainability	Issues and lessons	Documentation
Norway DF-funded programs implemented by REST	Participatory development, strengthening community capacities	Very positive assessment with performance usually exceeding targets	Improved effectiveness of environmental rehab component (i.e., better quality terraces, regeneration of vegetation etc.); short-term impacts of employment generation	Need for continuous training of REST staff and farmers; expresses reservations on effectiveness of sftb; Discusses gender inequity issues that occur in spite of positive REST gender policy	Robinson et al. 2001

Annex Table 4a. Major RWM Research programs (1): Main features

Project/program	Period	Implementing agencies	Objectives	Location	Scale	Relationship with development-implementing agencies
Ethiopian Highlands Reclamation Study (EHRS)	1980s–1992 [main reports 1986]	FAO, MoA, with WB loan financing	'... to analyse and explain the processes, causes, extent and types of degradation in the Highlands; identify the areas and peoples most critically affected and threatened; estimate the rates and costs of degradation in different areas, both now and in the future; assess the need to tackle degradation (in terms of alternative development options); and evaluate what is already being done to combat or avoid degradation'; and to 'systematically review the options for improving what is already being done to combat degradation and to formulate a coherent strategy both for reclaiming already degraded lands and for conserving lands threatened by degradation'	Highlands (above 1500 m)	Entire highland area of Ethiopia	Requested by government; MoA co-implemented study and subsequently built on it even with change of government
Soil Conservation Research Project (SCRP)	1984–1996; *1981 ff, 2001–? PhD work	University of Berne, MoA, with Swiss and Ethiopian funding	Long term monitoring of land-use changes, land degradation, sustainable land management; intended to provide basic data for implementing SWC, test proposed measures, build National Soil Conservation Research Unit within SWCD and train local and international personnel	Ethiopian Highlands—multiple sites (4 in 1986 with 2 more being established)		Implemented by SWCD unit of MoA
SCRP	Operated from 1982; decentralized in 1996, phased out 1998		Intended to develop and disseminate a suitable SWC program, on govt request, to guide SWC program supported by WFP	Study in 2 of 6 locations, Gunno in Wolaita Zone and Maybar in Wello Zone [Awash basin]		Requested by govt, nominally in MoA but implemented as a separate franchise

Project/program	Period	Implementing agencies	Objectives	Location	Scale	Relationship with development-implementing agencies
Sirinka Pilot Catchment Rehabilitation Project (SPCRP)	1978ff	MoA and RRC Financed by IDA credit	Objectives poorly articulated and changed over time, but basically to establish a firm data base from testing and practical experience in conservation and rehabilitation of land	'northeast escarpment'	360 km2 catchment	Implemented by MoA and Relief and Rehabilitation Commission
African Highlands Initiative (AHI)	1995–?	CGIAR, ASARECA, NARS	Develop new working approaches at farm and landscape level for improving NRM; emphasis has been on participation, integration	Highlands of Ethiopia, Uganda, Tanzania, Kenya, Madagascar	Case studies on small watersheds	Not clear German et al. 2007
Policies for Sustainable Land Management in the Highlands of Tigray, Northern Ethiopia	1997 or 1998–2003 [?]	IFPRI, ILRI, Mekelle University with Swiss Agency for Dev. Coop. support [also Norway, Italy, USA]	Project objectives: • characterize problems of land management in the highlands of Tigray and develop hypotheses about the key causes, emphasizing government policies and programs; • identify dominant pathways of development. in the region, and their causes; • determine the past and current impacts of different factors (esp. policies and programs) on land management in the different development pathways and their implications for agricultural productivity, poverty and sustainable land use; • strengthen capacity of collaborating organizations in Tigray to conduct policy research and analysis related to land management; • help facilitate adoption, implementation of policy and institutional strategies to improve land management in Tigray highlands	Tigray	50 Communities in 100 villages, 500 households and 2117 plots sample	Regional government (BoANR, BoPED) were partners

Project/program	Period	Implementing agencies	Objectives	Location	Scale	Relationship with development-implementing agencies
Policies for Sustainable Land Management in the Highlands of Amhara Region (and Oromia)	1998 or 1999–2003(?)	IFPRI, ILRI, ANRS–BoA, AU–Norway; OADB, EARO, Purdue and Manchester Universities; Norway financial support [and SDC, Norway, Italy, USA]	Purpose to help policymakers identify and assess policy, institutional and technological strategies to improve land management	Amhara Region and Oromia Region	Surveys at PA and village levels: 434 households, 1422 plots, 49 Pas and 98 villages	Regional BoA was a partner
Amhara Micro-Enterprise Development, Agricultural Research, Extension and Watershed Management Project (AMAREW)	2002–2007	Virginia Tech-led Consortium, ARARI, Amhara BoARD etc. funded by USAID	Primary objective: to achieve a community-based paradigm shift within ANRS for development of strong and long-term partnerships among collaborating universities, research and service institutions, ANRS bureaus, extension services, and NGOs; focused on increasing rural household income to achieve food security. IWM: build capacity for community-based watershed management	Amhara Region 2, later 3 pilot watersheds in Amhara (more for other activities e.g. research)	2 pilot watersheds Lenche Dima and Yaku and later 3rd watershed (Gumet) for IWM	BoARD and other implementing agencies were partners in project
Efficient Water use for Agricultural Production (EWUAP)	2006–2009	Anderson Irrigation and Eng. Services Ltd for PMU under NBI	Training and capacity building in nine of the 10 member countries; bring together stakeholders in the Nile basin to develop a common shared vision on the increased availability and efficient use of water for agricultural production; produced detailed 'best practice' guidelines derived from studies in basin	Nile Basin	Entire basin, used desk studies, workshops etc. largely	Collaborated fairly closely through consultations and workshops

Project/program	Period	Implementing agencies	Objectives	Location	Scale	Relationship with development-implementing agencies
Eastern Nile Watershed Management Project (Watershed Management Cooperative Regional Assessment-CRA)	2007–	Consortium of consulting firms on behalf of ENTRO	Primary objective is to develop sustainable framework for catchment management as basis for promoting better livelihoods, conservation, foundation for investments	Eastern Nile	Eastern Nile	Probably close through consultations and workshops
Improving Productivity and Market Access (IPMS)	Approx. 2005–2011	ILRI on behalf of MoARD, with CIDA funding	Project aims at contributing to market-oriented agricultural progress, as a means for achieving improved and sustainable livelihoods for the rural population, by strengthening the effectiveness of the Government's efforts to transform agricultural production and productivity, and rural development in Ethiopia. IPMS employs innovation system approach (ISA) as a guiding principle in its research and development activities	Selected pilot learning woredas (about 10)		Works closely with MoARD and regional governments

Annex Table 4b. Major RWM Research programs (2): Findings and outcomes

Program/project	Main findings	Capacity building outcomes	Impacts	Lessons learned	Documentation
EHRS	Very comprehensive study; Estimated rates of erosion and soil loss and impacts on yields and future productivity; identified proximate and more fundamental causes of degradation; assessed a wide variety of options to reverse degradation and its impacts based on altitude-based AEZs; and proposed a comprehensive long-term 'conservation-based development strategy'	Main report claims Ethiopian counterparts got capacity building by working with international team	Provided the base line for most subsequent research, policy analysis, project design	Multiple findings that became the 'received wisdom' in the following decades, many still resonate. EHRS offered detailed proposals for long term programs, with priorities, costing, advice on technical aspects etc.	Referred to by Yitaferu 2002 and others; FAO 1984, 1986 Yesuf et al. 2005 for costs; FAO 1986a, b are the main reports complemented by 27 working papers
SCRP	Measured changes in land-use, land degradation, deforestation, and impacts on productivity; Assessed effectiveness of a variety of indigenous and exogenous soil conservation techniques	Many Ethiopian PhDs and MScs		Multiple research findings on land-use, erosion, impacts of these processes, effectiveness of various SWC techniques etc. EHRS 1986a raises questions about establishing separate conservation research unit—advocates integration with other agricultural research	Referred to by Yitaferu 2002, referencing papers by Lakew Desta and others; Amede 2002 refers to SCRP 1996 Yesuf et al. 2005 for costs Hurni et al. 2010 See FAO 1986a

Program/project	Main findings	Capacity building outcomes	Impacts	Lessons learned	Documentation
SCRP	Interventions did not take root in targeted farming systems and did not change extent of land degradation in the country; Farmers' reactions largely negative which become more pronounced after downfall of derg; project failed to respond to negative reactions which related to negative side effects	Not discussed in this study	This study claims impact was far less than anticipated because program was technocratic and authoritarian, did not take account of socio-economic context; 'SCRP … failed to meet its objective' [P.202] [but this criticism seems extreme, as SCRP did support various socio-economic and participatory researchers]	Critical importance of understanding farmers' perspectives and building on these; farmers' priority is soil fertility not erosion reduction; farmers had good reasons for resisting and in Wello modifying SCRP interventions; FfW use was flawed—became motivation for participation with no effort to create community ownership	Beshah 2003
Sirinka Pilot Catchment Rehabilitation Project (SPCRP)	Overgrazed and degraded hillsides can be re-vegetated naturally in 3–4 years at reasonable cost; serious questions on value of contour trenching or terracing for re-forestation; grass strips even on low slopes not very effective to reduce run-off and not very acceptable to farmers; and others	Not stated	Potentially useful research findings on physical issues but as of 1986 not sufficiently integrated with implementation agencies	After 12 years, had not had as much impact as would be expected; EHRS made recommendations for its re-orientation but not clear if these were taken up	FAO 1986a, b
AHI	Developed and tested participatory integrated approaches to improving watershed management at farm and landscape level			'participation' must move beyond community forums and manage trade-offs of diverse groups; achieving 'integration' requires explicit detailed efforts to achieve synergies, deal with trade-offs to define and reach system-level goals	German et al. 2007

Program/project	Main findings	Capacity building outcomes	Impacts	Lessons learned	Documentation
Policies for Sustainable Land Management in the Highlands of Tigray, Northern Ethiopia	Findings are diverse and many, reported in various individual papers, on factors affecting adoption and outcomes of various technologies, trends in soil fertility, landlessness etc.	PhD theses, training; but no specific information provided	No specific information on this, but capacity for research was built; findings probably did impact policies; findings were taken up by other researchers		Pender 2003; Gebremedhin et al. eds, 2003
Policies for Sustainable Land Management in the Highlands of Amhara Region and Oromia Region	Broadly, documents many positive socio-economic trends of many indicators, 1991–1999; but worsening of resource quality, welfare with growing population pressure; agric extension having positive impacts	No information-supported students and training	No information-may have affected policies	No information	Benin et al. 2002, summarizing other pubs.; Jabbar et al. eds, 2000
AMAREW	Multiple research findings reported elsewhere; CWMOs demonstrated as effective approach	Final report claims large number of outcomes-quantified table on p.124–129; effective community watershed management organizations (CWMOs)	Reduced erosion, higher productivity, improved water availability Final report claims implementation through-by ANRS will result in sustainability of approaches; and emphasis on community capacity building and CWMOs will ensure community-level sustainability	Community participation and management is critical to success; community needs to have opportunity to understand water harvesting options and choose	Gebrekidan et al. 2005, 2007; USAID CRSPT 2000

Program/project	Main findings	Capacity building outcomes	Impacts	Lessons learned	Documentation
EWUAP	Low levels of productivity of agricultural water in basin and some common reasons for this; Identified best practices for irrigation, RWH, SSI, LSI	Produced useful best practice analyses and detailed guidelines for their implementation: SSI, LSI, WH	Too early to assess?	Systematic review of experiences with wide variety of technologies—identifies strengths, weaknesses; IWM superior to single-technology scattered treatment, but—critical important of participatory approach, community leadership in IWM; potential benefits upstream–downstream of IWM	Anderson 2008; Anderson and Burton 2009a–e; Bastiaanssen and Perry 2009; For Ethiopia specifically: Gezahegen 2008
Eastern Nile Watershed Management Project (CRA for Watershed Management)	Comprehensive assessment of IWM issues, lessons learned, costs and benefits etc.	Not a direct objective; did identify capacity building needs for IWM	Too early to assess?	Provides systematic detailed review of characteristics and issues in eastern Nile, with lessons learned identified and many recommendations made	Hydrosult Inc et al. 2007a–c (watersheds); Hydrosult Inc et al. 2006 (Ethiopia country report)
IPMS	Multiple topics addressed; for example the study on North Gondor transhumance; knowledge management systems, innovation systems, value chain, policy, commodities etc. About 52 new or improved crop varieties	Established National Agricultural Information Resource Centre (NARIC) and transferred to MoARD; 136 short term training initiatives and 97 students supported as of 2008	Claims impacts in terms of adoption of new varieties, groups growing onion seeds etc. in pilot woredas		Inside cover of Tegegne et al. 2009 www.ipms-ethiopia.org; IPMS 2009

Annex Table 5. Experience and lessons from most promising RWM interventions (technologies, practices)

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
Ex situ AWM (esp deep wells, micro dams, river diversion) compared to non AWM and *in situ* (erosion control)	General study of 1517 households in 4 regions	AWM technology uses have significantly lower poverty than non-users; *ex situ* technology (esp deep wells, river diversion, micro-dams) have lower poverty (higher food security); but use of *in situ* technologies (erosion control) has not led to reduction in poverty-food insecurity	Not addressed	AWM technologies are poverty-reducing and 'equity-enhancing'; use of modern water withdrawal technologies (TP, motor pump) also poverty-reducing; impacts can be enhanced through improving assets, education access to services and markets. Note: Direction of causality is not clear	Awulachew, Hagos and Loulseged 2009
Ponds (household)	Tigray, Amhara, Oromia, SNNP	Variability in durability, capacity leads to mixed outcomes; With targeting, management, use for supplem irrigation for horticulture can bring substantial benefits Poor targeting and construction; in some cases not demand-driven	Not discussed	Negative CBR and NPV over 5 and 10 year periods for ponds; nevertheless in places where they are appropriate they generate high incomes and more food security for households, esp in kola [low] and *weyna-dega* [mid] agro-ecologies	Ayele et al. no date Guidelines in Lakew Desta et al. eds. 2005
	5 *woredas* in Oromia (East Showa) and Amhara (South Wollo, Oromia Zones)	Women-headed and generally poor households not benefiting [because of use of collective labour for construction); Linkage to rise in malaria; Water lifting and agronomy issues; Discusses issue of location near household versus in fields; Evidence for diversification of livelihoods and improved food security	Not discussed	Need for better targeting to poor and women-headed households Policy harmonization Systematic institutional arrangements (e.g. refers to 'rainwater cooperatives') Encourage construction in grain fields for supplementary irrigation	Kassahun 2007

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
	3 *woredas* in Amhara and Tigray	Over half surveyed not in use; lack of interest and minimal effective use; reasons included design problems, bad locations (not near household), top–down promotion by govt	Not identified as issue	Technically have a high potential, but need to promote through bottom–up approach—farmers as 'owners' not 'beneficiaries'	Tesfay 2007
	Tigray (case study in Degua Temben)	Anthropological analysis of interface farmers and extension people and how the PSNP and Rainwater Harvesting Pond Program (RHPP) have become inter-twined in a way that undermines the real goals of both. People participate in RHPP as a means to get FfW from PSNP. The most needy families therefore are excluded from PSNP, and the ponds are not sustained and used	Not discussed	Programs driven by quotas –accountability upwards—leads to distortions of outcomes on the ground	Segers et al. 2008
	Tigray	Main conclusion is RWH ponds can contribute significantly to household incomes and enable purchase of 30–80% of food needs by year 5; but this requires complementary extension support and use of water for high value crops that can be sold in local markets	Not discussed	High returns in backyard plots but questionable away from homes; Far better extension and post-construction O&M needed; need better manuals, quality control, adaptation designs to conditions	Landell Mills 2004
	Minjar *woreda*, North Shoa Zone, Amhara [Rift Valley]	Plastic lined trapezoidal tanks (=/-102 m3) used for seedlings [esp. onion], fruit, household, livestock. Reports very positive returns at all 3 levels (*dega*, *weyna-dega*, *kola*); high yields, profitable, very high returns to investment costs	Not discussed	Very high returns reported, apparently because they were growing 2 onion crops/year—must be nearby market	Adgo and Teshome 2008
	Alaba *woreda*, SNNP	Households with more assets were more likely to adopt; adoption had positive impacts—new crops, higher value crop production, use more labour and less oxen power (using water for gardens, not supplementary irrigation of staples as planned by govt). Labour requirements and costs were major factors affecting adoption	Not discussed	Major problems are water lifting [most use buckets] and accidents in absence of covers; and community ponds are being abandoned leading to health issues	Amha 2006

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
Household ponds and shallow wells	Amhara Region	Survey of nearly 15k household RW ponds (87%) and shallow wells: only 22% functional, 70% not functional, balance destroyed; harvested water used for multiple purposes, but irrigated areas low	Not discussed	Major problems were technical, social, environmental	Wondimkun and Tefera 2006
Ponds and shallow wells	Amhara and Tigray	Anecdotal assessment of the outcomes, problems and issues arising with campaign promoting water harvesting ponds in Amhara and Tigray, with photos and specific examples. Positive on concept, but critical of implementation	Not discussed	Major problems were in implementation, technical quality; has examples of pond excavation finding groundwater leading to conversion to a shallow well	Rämi 2003
	Tigray	Uses 'advanced econometric evaluation techniques' on sample of 650 households. Finds households with ponds and wells are no better off than those without; possible reason is under-use. Household ponds and wells are important factors in malaria prevalence except in high altitudes; and willingness to pay for improved health services does not increase among those having these ponds; ponds are not fully and well-exploited, and therefore do not contribute to household income or welfare. Their presence imposes high external costs to the economy	Not discussed	Raises questions on the value of these investments from both private and public investment perspectives	Hagos et al. 2006, 2007
Community livestock watering ponds	Tigray-5 *woredas* in Central zone	DF-Norway support to REST: After one season, observation of 49 ponds shows definite benefits in terms of livestock access to water in dry season	Not discussed	Concrete watering troughs not used; variety of governance arrangements but those most closely guarded seem to be more productive	Robinson et al. 2001

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
Shallow wells	Tigray, Amhara, Oromia, SNNP	In some areas enable farmers to grow high-value crops; cheaper than ponds; but can cause conflict through overuse of water	Unplanned expansion on watersheds can lead to over-use and conflicts		Ayele et al. no date Guidelines in Lakew Desta et al. eds. 2005
	3 *woredas* in Tigray and Amhara	Study found that most are being used productively, improving incomes, livelihoods; diversification of crops, livestock benefits; evidence women are benefitting; treadle pumps used by many households. Main problem is potential for conflict through unregulated construction and location	This emerged as a potentially serious problem	Shallow wells where groundwater is available can enable farmers to improve their incomes, livelihoods, and provide a way for women to benefit substantially; need to address marketing issues and improve water use efficiency	Tesfaye 2007
River diversion	Tigray, Amhara, Oromia, SNNP	Low productivity	Not discussed		Ayele et al. no date Guidelines in Lakew Desta et al. eds. 2005
Fanya juu	Northwestern Ethiopia through SCRP	Negative returns in wet highlands	Not discussed	Importance of targeting—*fanya juu* not appropriate in wet zones Need to balance public and private gains and emphasize latter	Kassie et al. 2008 Guidelines in Lakew Desta et al. eds. 2005
	Chemoga watershed, East Gojjam Zone	*Fanya juu* being promoted by technical experts; most farmers claimed participation not voluntary; most perceived these as making erosion worse—failure being main reason cited, and caused moisture stress on crops. Farmers are aware of erosion, have sufficient labour, and tenure insecurity was not a problem	Not discussed	DAs failed to consult farmers; intensity of rainfall suggests other SWC technologies more appropriate. SWC structures need to take into account ground realities with farmers' full participation to ensure acceptance	Bewket 2003, chapter 8; Bewket and Sterk 2002

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
Fanya juu and grass strips	Anjene watershed, West Gojjam Zone, Amhara, constructed through SCRP	Very positive returns reported in terms of yields, profitability, WUE, gross returns to labour [teff, barley, maize], net returns to labour [teff, barley only]; returns on investment; women also benefitted. Increasing vegetation, soil depth and water storage	Not discussed	Construction was not through FfW, but community were offered a health clinic on completion; maintenance and management by farmers good; original terraces were too narrow for ox ploughing, so farmers removed alternate bunds	Adgo and Teshome 2008
Vetiver grass	South Gondor	After solving problems of transplanting, claims farmers perceive this is superior to physical structures: immediate benefits of grass, reduction of rats, reduces erosion	Not discussed		Wubshet 2004 BoA and GTZ 2003
	Metu *woreda*, Oromia	Case study of introduction of vetiver grass as part of a broader wetland and catchment management program: reducing runoff and erosion, stabilized terraces; grass is used for multiple purposes; improved productivity (yields +20–40%, coffee tree survival rate up)	Reduction in erosion and siltation; restoration of wetlands	Planting on private land but with community and govt support enhances sustainability; issue of multiplication—expensive	SLUF 2008: Chapter 3
Enclosure of common areas in upper watersheds	Tigray-5 *woredas* in central zone	REST-provided guards (not community): DF-Norway evaluation claims broad success though minimal impact of overplanting exotics	Not discussed	Enclosure seems to be improving forage productivity but problems of productivity	Robinson et al. 2001
Area enclosures (AE)	Amhara, Oromia, Tigray, SNNP	Many positive impacts, but complex array of technical, implementation, social, institutional, policy issues affecting outcomes and sustainability	Not discussed	Many identified in report	Nedessa et al. 2005 Guidelines in Lakew Desta et al. eds. 2005
Stone bunds	Amhara and Tigray	Positive returns stone bunds in low-rainfall area (Tigray) but not high-rainfall area (Amhara); uses large sample and sophisticated statistical techniques		Performance of stone bunds varies by agro-ecological type; must therefore design and implement technologies appropriate to site	Kassie et al. 2007
Stone-faced trench bunds (sftb)	Tigray-5 *woredas* in central zone	Farmers not happy—lose as much as 39% of land; costs high; trench usually not necessary			Robinson et al. 2001 Guidelines in Lakew Desta et al. eds. 2005

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
SWC: Stone bunds, soil bunds, cut-off drains, grass strips; and fertilizer	7 villages in 5 *woredas* in East Gojjam, South Wollo	Fertilizer adoption significantly and negatively affected by SWC adoption; latter 16% less likely to use fertilizer; these are therefore substitutes for sample households. Market imperfections e.g. credit significant in explaining variation	Not discussed	Importance of reducing Market imperfections a critical factor; measures to reduce poverty and increase asset security help reduce risk aversion and encourages adoption	Yesef and Köhlin 2009
Eye-brow basins, trenches on degraded hillsides	North-east Ethiopia	Over 2-year period compares performance of eye-brow basins, half moon and trench against normal pit planting of tree seedlings. Eye-brow recommended where stones are available; trenches where stone is scarce as they enabled significant increase in grass biomass and trees	Not discussed	Technical study only—makes specific recommendation	Derib et al. 2009
SWC and fertilizer	Amhara [same data set as Yesef and Köhlin?]	Adoption of fertilizer positively affected by higher expected returns and negatively by variance of return and probability of failure [risk]; SWC not significantly affected by risk exposure but is affected by expected return	Not discussed	Impact of production risk varies by technology type; neglecting risk in fertilizer promotion could leak to wrong policies; economic instruments to hedge risk desirable	Kassie et al. 2009
Treadle pumps		No performance information			
Solar, diesel pumps		No performance information			
Drip irrigation kits		No performance information			Guidelines in Lakew Desta et al. eds. 2005
Conservation tillage	Tigray and Amhara	conservation agriculture (reduced tillage)-clear superiority to chemical fertilizer in low-rainfall area; in high-rain areas fertilizer 'overwhelmingly superior' and reduced tillage can lead to productivity loss	Not relevant	Importance of policymakers targeting innovation more effectively; encouraging 'resource-constrained farmers to adopt sustainable agricultural practices' will enhance productivity, reduce costs, and have environmental benefits	Kassie et al. 2009 Guidelines in Lakew Desta et al. eds. 2005

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
'conservation based farming through participatory land use options'	South Wollo Zone, Amhara	Rudimentary simple approach makes it easier to implement the planning in a participatory way and to implement the plans themselves; actions included tree nurseries, area enclosure, many eyebrow basins, stone bunds, waterways, improved seeds, SSI including treadle pump introduction	Reduced erosion and therefore siltation	Large increase in grass production; return of wildlife; Challenges in mobilizing free labour-high dependency; Sustainability likely because of benefits, active watershed committee. Relatively practical and low cost approach	SLUF 2008a: chapter 5
Zero and reduced tillage	Ethiopia generally but focus on highlands	Evidence showing benefits from adoption of zero or reduced tillage, and conditions favourable for this. Argues this is a way to change the balance from oxen to higher value dairy cattle	Not discussed except mention reduced erosion	Proposes policies needed—favourable input and output prices and stronger local institutions; endorses idea of 'cross compliance'—making access to credit and inputs contingent on installing erosion control measures, adoption of zero or reduced tillage	Aune et al. 2006
Conservation Farming (CF)	Tigray	CF practices including ripping + ridging or subsoiling.Compared to conventional tillage, and both treatments with and without fertilizer. Main finding CF WITH fertilizer leads to higher yields and WP. Shows CF is primarily a water harvesting strategy, not solely aimed at minimum tillage	Not discussed	Challenges include improving farmer awareness and efficient incorporation of green manure or cover crops to control weeds	Rockström et al. 2009
Broad bed maker (BBM)	Amhara, Oromia Vertisol soil areas	Detailed impact assessment 20 years after introduction; based on surveys (121 households). BBM developed under 'Joint Vertisol Project' for Vertisol soils. About 100k adopters on 63k ha to date. Recent innovations in the BBM plough, improved seed varieties and water harvesting strategies have enhanced adoption and outcomes in recent years	Not relevant	Main lesson is key factors impeding adoption must be addressed	Rutherford 2008

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
Conservation tillage implements	3 sites including Tigray	Assesses light low-cost implements developed for Ethiopia as modifications to maresha plough: sub-soiler, tie-ridger, and sweep. Concludes they are appropriate for CF in semi-arid areas. 'Rip-plant' CF was not appropriate for maize-high loss of soil moisture, but reduced tillage tested on tef resulted in higher grain yields compared to conventional tillage	Not relevant	Rip-plant type of conservation tillage seems to lead to higher loss of soil moisture. Claims implements tested are lighter than BBM	Temesgen et al. 2009
'community empowerment approach'	Waton sub-watershed, East Gojjam Zone, Amhara [Abay Basin]	Constructed various physical SWC structures; enclosed areas protected; seedling production and tree planting; Gullies stabilized, erosion reduced, multipurpose trees growing, more bees, wild life Reduction of food gap from 3 to 1.5 months	Runoff flooding and siltation reduced	Methodology focuses on facilitating capacity building; promotes development of community based institutions, not project implementation; therefore by 2nd phase CBI was able to take the lead in IWM interventions. NGO implementing this case has an exit strategy and explicit criteria for this. Study recommends adoption of this approach but notes it requires persistence, competence, financial sources of support; sustainability not ensured without this. CBIs increase likelihood of NRM sustainability	SLUF 2008b

Intervention	Locations	Outcomes and Reasons	Upstream–downstream links	Lessons	Documentation
'Participatory Agroforestry Approach' [PAA]	Northeast of Addis in Amhara (*weyna-dega* zone)	Application of a participatory approach to agroforestry and other SWC measures; 6-step participatory approach described, applied, and results analysed. Contains considerable information on farmers' perspectives, indigenous SWC measures, farmers' understandings of land quality, agroforestry. Farmers are skeptical of many introduced technologies; FfW has been counter-productive; but participatory approach building on indigenous measures has very positive outcomes. 11 agroforestry and SWC intervention categories defined, implementation issues prescribed-applicable to *weyna-dega* zone	Not discussed	Critical importance of understanding farmers' perspectives, priorities; and building on indigenous knowledge; effectiveness of PAA approach demonstrated	Bekele-Tesemma 1997

Annex Table 6. Inventory of Governmental, Non-Governmental, and Other Organizations with Summary Information on Responsibilities and Roles

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Institutions/Organizations at National Level					
Ministry of Agriculture and Rural Development (MoARD) www.moard.gov.et – Mr. Daniel Danano, SLM project coordinator) and Mr. Dejene Abesha (National Project Coordinator for IFAD SSI projects) ethiocat@ethionet.et and dejeneabesha@yahoo.com	– Initiate policy on agriculture, rural development, natural resources, and agric markets (land use, fertilizer, seed, animal health, flora and fauna resources and others); – Development of different supportive strategies; – Create the necessary enabling Environment – Provision of support services	– Promote expansion of extension and training services; – Quarantine on plants, seeds, animals and animal products; – Control the outbreak of animal and plant diseases and migratory pests; – Facilitate and implement food security programs and carry out disaster prevention/preparedness activities; – Build capacity at all levels and provide back-up services; – Develop extension packages and necessary facilities to support dissemination and adoption of tech.; – Facilitate protection of Natural Resources by the implementation of sustainable agricultural development; – Ensure the supply, marketing and distribution of inputs and ensure development of markets for products; – Ensure development of appropriate technologies and conservation of bio-diversity; – Monitor event affecting agric production and set up an early warning system; – Develop and implement strategy for food security	Involvement is at federal level and so in principle involved in the whole country. Involved on: – Issues related to land tenure, Use and Administration; – Crop production and productivity (Cereals, pulses, oil seed, fruit, vegetable, roots and tuber, fibre crops, bio-fuel, animal feed); – Animal production (Livestock, poultry, bee-keeping, fishery); – Natural Resource Management (Sustainable Land Management project); – Soil and Water Conservation (Sustainable Land Management) project); – Small scale irrigation and Water Harvesting IFAD financed small scale irrigation); – Monitoring and supervising food security programs	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Ministry of Water Resources (MoWR) www.mowr.gov.et info@mowr.gov.et – Directorate of Irrigation and Drainage; teshome987@yahoo.com	– National policies and strategy on water resources; – Studies, inventories and negotiations of treaties on surface and ground water resources; – Issuance of permits and regulations and allocation of water resources; – Provision of other services and develop water infrastructure	– Undertake basin wide studies and determine country's potential of surface and ground water; – Work on equitable and optimal allocation and utilization of water resources; – Undertake studies and negotiations of treaties related to utilization of inland and transboundary waters; – Cause the carrying out of study, design and construction to promote expansion of irrigation schemes >3000 ha; – Administer dams and hydraulic structures; – Issue permits and regulate construction and operation of water works related to water bodies; – Provide services such as meteorological	– Water (Surface and ground); – Dams and hydraulic structures; – Diversions, weirs, canals, structures; – Large and Medium Irrigation schemes (number of irrigation schemes under development); – Transboundary issues; – Siltation of dams, structures and storage facilities; – Floods	On-going	User
Environmental Protection Authority (EPA) www.epa.gov.et	– Preparation of environment related policies, strategies and laws, and regulatory frameworks; – Regulatory Authority for environmental protection and for the enforcement and compliance – Provision of other services	– Preparation and implementation of relevant environmental management systems; – Building of capacities and empowerment of community; – Identification and availing environmentally sound technologies and best practices for NRM; – Review EI study reports of projects; – Set standards, carry out studies to combat desertification, take part in negotiations of international environmental agreements; improving education and awareness and availing information; – identification and availing of environmentally sound technologies and best practices	Natural Resource, environmental degradation, soil and water conservation, water quality	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
The Ethiopian Institute of Agricultural Research (EIAR) www.eiar.gov.et Dr. Tolessa Debele, Director, Soil and Water Research tolessadebele@yahoo.com	The Ethiopian Institute of Agricultural Research has vision to improve the livelihood of all Ethiopians engaged in agriculture, agropastoralism and pastoralism through the development of relevant technologies that contribute to increased agricultural productivity and nutrition, food security, economic development, and sustainable management and conservation of the natural resources and the environment. In addition, EAIR will advise government on development and formulation of policy for agric research; Coordinate research within the Ethiopian Agricultural Research System (EARS)	– Development of technologies and best practices using the services of the federal research centres; – Overall coordination of agricultural research programs in the country at large; – Popularization of improved technologies; – Building of capacity – Collaborate with other national, regional and international research organization in the development of technologies	Development of technologies on crops, animals, soil and water, irrigation, range management, forestry, small hand tools and mechanization, socio-economy, biodiversity, value addition, post harvest management etc.	On-going	User/ partner
Federal Cooperatives Agency (FCA)	– Development of strategies and guidelines for the establishment of Service Cooperatives and Unions	– Organize and establish Service Cooperatives, Unions, Federation of Unions and Water User Associations (WUA); – Build capacity	Service Cooperatives, Unions, WUA, etc.	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Ministry of Mines and Energy (MoME) www.mome.gov.et	– Development of policies and strategies on energy and mines; – Studies and promotion on the development of mining and energy – Issue licenses to for explorations and mining operations	– Promote development of mines and energy – Collection of data on sector and availing it to users – Facilitate exploration and mining operations – Set standards – Identification of ground water potential in the country	Mines and energy, and ground water resources	On-going	User
Institute of Biodiversity Conservation www.ibc-et.org info@ibc-et.org	– Conservation and use of the vast biodiversity resources of the country	– Collect, identify, characterize, maintain and preserve the biodiversity resources of the country – Provide materials to local research organizations – Establish relations with other similar organizations and exchange materials for research purposes	Cereals, pulses, oil seeds, fruits, stimulants, forage and fodder crops and others of economic importance.	On-going	User/ partner
Central Statistics Agency (CSA) www.csa.gov.et	– Undertake studies and census and generate data and info on demography, agriculture, market and the economy at large	– Collect data on extents of cultivated land, and provide information on total production and roductivity of crops – Collect data on extent of irrigated agriculture, improved seed fertilizer and pesticide use	– Crops (cereals, pulses, oil seeds, spice, stimulants, fruits and vegetables, fibre crops etc.); – Amount of land covered by different crops	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Institutions and Organizations at Regional level					
Bureaus of Agriculture and Rural Development (BoARD)—Amhara, Oromia, Benshangul-Gumuz are relevant	– Develop laws and policies on the conservation and use of forest and wildlife resources; – Coordinate food security rograms; – Facilitate and support gric development activities	– Formulate relevant strategies and guidelines based on existing local conditions and national policies; – Supervise and monitor implementation of agricultural development activities; – Provide support to extension services in crop/animal production, water management, water harvesting, irrigation and conservation; – Promote efficient input and product marketing systems; – Implement most of the development programs on sustainable land management, integrated water resources development, watershed management and related programs	Coordinate food security programs; support expansion of water harvesting and small scale irrigation development; and promote market-led agriculture development	On-going	User/ partner
Bureaus of Water Resources (BoWR)—Amhara, Oromia, and Benshangul-Gumuz (Most relevant for the Abay)	– Develop region-wide policies, strategies and guidelines based on national policies; – Manage the water resources on behalf of the MoWR; – Facilitate the implementation of water development activities	– Provide support service for the implementation of water sector activities at all levels; – Facilitate and supervise in the study and design of irrigation schemes; – Administer water resources under their geographical jurisdiction (regional and non-transboundary); – Issue permits to develop water resources; – Develop the water resources of the region; – Introduce an integrated water resources management; – Assist resolve water related conflicts	Same as the MoWR	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Regional Agricultural Research Institutes (OARI, TARI ARARI, SARI along with their research centres in each region)	– Coordinate research activities at regional level; – Advise regional government on policy issues related to agriculture	– Develop agricultural technologies in order to address problems of land and water productivity, NR management, and environmental protection; – Popularize improved technologies; – Build capacity	Same as for the EIAR	On-going	User/ partner
Amhara Regional Agricultural Research Institute (ARARI) www.ar-ari.org ararai@ethionet.et Oromia Agric. Research Organization www.eap.gov.et/Research/AgriResearch/Research-Institute/OARI.asp	ARARI focuses in coordinating and managing agricultural research activities in the Amhara Region, Ethiopia with a goal and objective of developing technologies that help in transforming the agriculture of the region and thereby contributing to economic development and improving the livelihood of farmers.	The main key program areas of ARARI include but are not limited to technology development, information dissemination, and building the necessary enabling environment (human and institutional capacity) which contribute to: – sustainable agriculture and rural development; – food security and poverty reduction; – natural resources management including environmental management (soil erosion and conservation); and – Socio-economic and extension ARARI uses the services of more than eight research centres, five subcentres and over 23 testing sites in its effort to generate technologies across different agro-ecological zones	The main areas of involvement of ARARI are in development and dissemination of technology of crops (food, oil, industrial, feed and others), animals, fruits, natural resources, land and water	On-going	User/ partner
Environmental Protection and Land administration and Land Use Authorities (EPLAUA)	Responsible for the development of regional regulations and strategies based on federal policy; environmental impact assessment (EIA) procedures to support development projects; issue directives for the implementation of rural land proclamation	– Make all necessary preparations to Issue land certificates to holders/owners of land; – Issue environmental clearance to development projects that meet set criteria; – Coordinate environmental protection efforts of NGOs and community organizations in their development efforts to conserve natural resources of the region	Ensure interventions are carried out in a manner that will protect the welfare of human beings as well as sustainably protect, develop and utilize resources; create an enabling environment for the effective management, administration, and use of rural land of the region	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Regional Cooperative Offices (RCO)	RCB is responsible to organize, register and train; provide other technical supports to cooperatives	– Organize farmers and others to form joint activities; – Establish cooperatives and unions and provide necessary technical and back-up services; – Help formulate guidance and by-laws for cooperatives and unions and provide training and auditing of accounts	Coordinate, support, organize and establish SCs and Unions at all levels		
Service Coops and Unions	Provide service to individual members and cooperatives	– Help members gain access to agricultural inputs, markets and other services that would help improve productivity and way of life of members – Represent farmers interest in any forum	Marketing of crops, animals, fertilizer, and seeds, management of irrigation, and delivery of credit and others services	On-going	User
Water User Association (WUA)	Social units organized by communities for a fair water distribution improved delivery and accounting	– Administration of water for irrigation activities at the community level – Organization of members and delivery of water resources based on set schedule	Ensure fair and effective water distribution among members and take necessary measures for effective administration	On-going	Use
Irrigation Cooperatives (IC)	Established by the government to do similar work to that of WUA and more	– Broader operational scopes such as water distribution and operation and maintenance and also provide marketing, credit and extension services with much stronger links with government institutions	Irrigation water distribution, maintenance of structures, credit delivery and marketing, and extension services	On-going	User
Water and Sanitation (WATSUN)	Manage the drinking water points, operate and maintain water points	Support and manage community drinking water and provide sanitation training to members	Look in to drinking water and sanitation	On-going	User
Woreda Administration Offices	Provide overall guidance and implementation of development activities	– Budget allocation and appropriation – Supervise the works of the different sector offices and give guidance and advice – Monitoring and evaluation of interventions	Overall coordination and the management of development activities at the woreda level and provision of administrative services	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Woreda Agriculture and Rural Development offices	Responsible for rural development activities including the implementation of all agriculture and rural development activities	– Technical support and advisory services – Manage development interventions in the agriculture and water sectors – Deal with registration and issuance of land holding certificate – Technology development and dissemination – Delivery and marketing of inputs	Crop, livestock, water, natural resources, extension services and other rural development activities	On-going	User
Kebele Council/ Administration	Responsible for all government activities taking place at the kebele level	– Community mobilization – Coordinate implementation of project or development activities – Deal with all development activities related to all sectors	Crop, livestock, water, natural resources, extensions services and other rural development activities	On-going	User
Land Administration Committees (LACs)	Administer the land found in the kebele and assist in decision related to land use through participation of public and branch office of agency	– Involvement is limited to facilitating activities related to land registration, mapping and certification processes at kebele level	Land	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
INTERNATIONAL AND REGIONAL INSTITUTIONS/ORGANIZATIONS					
International Water Management Institute (IWMI) www.iwmi.org iwmi@cgiar.org Dr. Deborah Bossio d.bossio@cgiar.org; Dr. Seleshi Bekele S.BEKELE@CGIAR.ORG Dr. Tilahun Amede t.amede@cgiar.org	The International Water Management Institute is one of the international research centres supported by CGIAR with a mission to improve the management of land and water resources for food, livelihoods and nature and the goal of contributing to the CGIAR vision of a 'Food Secure World for All' and the achievements of the UN MDGs of reducing poverty and hunger and maintaining the environment	IWMI's programs were focused on four research themes dealing with: – Water management: understanding water productivity; – Land, water and livelihoods: improving livelihoods for the rural poor; – Agriculture, water and cities: making an asset out of wastewater; and – Water management and environment: balancing water for food and nature	IWMI is involved in technology development and dissemination on issues and problems related to land, water and environment. In line with this conducting applied and policy oriented research; building research capacity; sharing knowledge and information; and ensure these contribute to improving water and land resources management for food, livelihoods and nature	On-going	Partner
International Livestock Research Institute (ILRI) www.ilri.org ilri@cgiar.org Dr. Alan J. Duncan a.duncan@cgiar.org Dr. Shirley Tarawali, Theme Director, ILRI s.tarawali@cgiar.org	The International Livestock Research Institute works at the crossroads of livestock and poverty, through technology development and capacity-building to bear on poverty reduction and Sustainable development. ILRI envisions better world for poor people in developing countries by improving agricultural systems in which livestock are important	The main program areas and/or research groups of ILRI are in the following: – Biotechnology; – Market Opportunities; – People, Livestock and the Environment; – Poverty and Gender; – Sustainable Livestock Futures	The areas of involvement are in livestock and water productivity, land management for better integration of livestock sector, environment management including watershed approach to development efforts, market and trade, and poverty reduction through improved and integrated livestock management	On-going	Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Challenge Program on Water and Food (CPWF) www.waterandfood.org	CPWF is an international, multi-institutional research initiative bringing together research scientists, development specialists, and river basin communities aiming to improve the productivity of water in river basins in ways that are pro-poor, gender equitable and environmentally sustainable	The Challenge Program is working towards achieving: – Food security for all at household level; – Poverty alleviation through increased sustainable livelihoods in rural and peri-urban areas; and – Environmental security through improved water quality as well as maintenance of water-related ecosystems and biodiversity. CPWF is involved in the most comprehensive investment in research on water, food and the environment. Through paradigm shift of water productivity—help develop ways to produce more food with the limited water available—it offers a new approach to natural resources management research	The priority areas of research include: – Enhancing rainfed agriculture in upper basin areas; – Identifying practical water saving technologies; – Improving human health; – Increasing river yield from swamps and through control of aquatic weeds in open water courses and lakes; – Promoting sustainable fisheries; and – Improving hydropower potential		
International Food Policy Research Institute (IFPRI) www.ifpri.org Dr. Paul A. Dorosh, Senior Research Fellow and Program Leader p.dorosh@cgiar.org Emily Schmidt, GIS/REKSS Coordinator, IFPRI ESSP II Project e.schmidt@cgiar.org	The mission of IFPRI is to achieve sustainable food security and reduce hunger and poverty in developing countries through scientific research and research-related activities in the fields of agriculture, livestock, forestry, fisheries, policy, and natural resources management	The programs of IFPRI focus on: identifying and analysing alternative international, national, and local policies in support of improved food security and nutrition emphasizing low-income countries and poor people and the sound management of the natural resource base that supports agriculture; contributing to capacity strengthening of people and institutions in developing countries that conduct research on food, agriculture, and nutrition policies; and engaging in policy communications, making research results available to all those in a position to apply or use them, and carrying out dialogues with those users to link research and policy action	IFPRI's involvement is broadly on the analysis of issues that affect the overall performance of the agriculture sector (water, land, natural resources, inputs, policies, markets, trade, value adding activities, credit and finance etc.) and on issues that affect production and productivity and the sustainable use of natural resources and the environment	On-going	Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
WorldFish Center www.worldfishcenter.org	The mission of the WorldFish Center is to reduce poverty and hunger by improving and harnessing the benefits of fisheries and aquaculture	International, non-profit, non-governmental organization working in partnership with a wide range of government and non-governmental agencies at regional, national and local levels in the developing world, and with advanced research institutions worldwide. Carries out research-for-development with partners to make small scale fisheries more resilient and productive, and to support the adoption of sustainable aquaculture that specifically benefits the poor	WorldFish Center is involved in research/development activities related to Policy Economics and Social Sciences, Natural Resource Management, and Aquaculture and Genetic Improvement	On-going	Partner
International Center for Research in AgroForestry or World Agroforestry Center (ICRAF) www.icraf.org http://worldagroforestry.org/eastafrica j.mowo@cgiar.org	ICRAF works towards mitigating tropical deforestation, land depletion and rural poverty through improved agroforestry systems. Its goal is to initiate and assist in the generation and dissemination of appropriate agroforestry technologies for resource-poor farmers and other land users	The research programs of ICRAF focus on land, water and forest resources with greater emphasis on agro-forestry systems	The involvement of ICRAF is on agroforestry development and management, ways and means of protecting forests, integrated management of natural resources including trees, water harvesting, soil and water conservation, and introduction of fruit trees as part of a forest management process	On-going	Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
International Crop Research Institute for Semi-Arid Tropics (ICRISAT) www.icrisat.org	The goal of the International Crop Research Institute for Semi-Arid Tropics is improving the well-being of the poor by reducing poverty, enhancing food and nutritional security and protecting the environment of the semi- arid tropics by helping empower the poor through science with a human face	The main programs of ICRISAT are focused at addressing the production and productivity of the agricultural sector through breeding of the most relevant crops (sorghum, millet, pulses, and others), management of water and other resources, conservation of water and use of other required inputs, and the proper management of natural resources and the environment	ICRISAT is involved in attaining scientific excellence and relevance in agriculture in the semi-arid tropics, focusing on key livelihood and income opportunities to improve the well-being of the poor with equity, multidisciplinarity, sustainability and community participation as core principles	On-going	Partner
CIMMYT www.cimmyt.org	Drawing on strong science and effective partnerships CIMMYT creates, shares, and uses knowledge and technology on maize and wheat to increase food security, improve productivity and profitability of farming systems, and sustain natural resources. CIMMYT works with and brings together public research and extension organizations, private companies, advanced research institutes, NGOs, and farmer associations to fight hunger and poverty	The centre develops and freely shares and disseminates information and materials on: – High-yielding, stress tolerant maize and wheat varieties. – Large, unique collections of maize and wheat genetic resources. – Productivity-enhancing, resource-conserving farming practices. – Training and information relating to the above. – addressing the emerging challenges of global climate change and resource degradation and scarcities	CIMMYT is involved in overall technology development of maize and wheat crops	On-going	Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
International Center for Agricultural Research in Dry Areas (ICARDA) www.icarda.org Geletu Bejiga (Ph.D.), Country Manager g_bejiga@cgiar.org	Contribute to the improvement of livelihoods of the resource-poor in dry areas by enhancing food security and alleviating poverty through research and partnerships to achieve sustainable increases in agricultural productivity and income, while ensuring the efficient and more equitable use and conservation of natural resources	The research programs of ICARDA focus on four major areas that include: – Biodiversity and integrated Gene anagement; – Integrated Water and Land Management; – Diversification and Sustainable Intensification of Production Systems; and – Social, Economic and Policy Research	The involvement of ICARDA is in crop improvement (barley, wheat, pulses and others) and in an integrated water and land management using watersheds as a planning unit that includes everything in the system (land, water, crop, livestock, fruits and vegetables, natural resources including tree crops, grass and animal feed of their mandate	On-going	Partner
Cornel University Prof. Tammo Steenhuis, Dept of Biological and Environmental Engineering Tss1@cornell.edu www.cornell.edu	The Dept of Biological and Environmental Engineering; and the Cornell International Institute for Food, Agriculture, and Development (CIIFAD), with partners in Bahir Dar University, supports innovative programs that contribute to improving global food security, sustainable rural development and environmental conservation in the Amhara region	The main areas of support program of Cornel University in the Amhara region are teaching at Bahir Dar University and undertaking various research and development programs in land, water, natural resources and the environment	Areas of involvement are teaching and research in the natural resources area	On-going	Partner
University of Bergen www.uib.no	The main goal of the University of Bergen is teaching, research and international cooperation	The programs include research, teaching and cooperation with other universities in the third world such as Arba Minch and Addis Ababa Universities	Areas of involvement are in climate, natural resources and the environment	On-going	Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
University of Berne www.unibe.ch/eng/ www.cde.unibe.ch/ University	The main goal of the University of Berne is to provide quality teaching at all levels and to serve as a centre of research	The programs are teaching and undertaking of research in various areas including natural resources management and the environment, water resources, soil, land and water management	Teaching and research in land, soil and water, environment, climate change, natural resources management, policy issues in water and environment and knowledge base in these areas	On-going	Partner
Nile Basin Initiative (NBI) www.nilebasin.org Ms. H. Ndombe, Exec. Director hndombe@nilebasin.org Dr. C. Kanangire, Head of SP ckanangire@nilebasin.org	An inter-governmental basin initiative with the goal of bringing sustainable socio-economic development through the equitable utilization of, and benefit from, the water resources of the Nile River	The NBI has regional projects (on efficient use of water, environment, power, capacity building, benefit sharing, and water resources) designed to identify best practices, establish an enabling environment and bring stakeholders together and sub-basin programs looking at potential investments in the different sectors	The NBI is involved in capacity building, creating an enabling environment, and in activities that need investment	On-going	User
Intergovernmental Authority on Development (IGAD) in Eastern Africa www.igad.org Mr. Maina Karaba, Director Agriculture and environment IGAD Climate Prediction and Applications Centre (ICPAC) www.icpac.net www.icpac.net	The IGAD mission is to assist and complement the efforts of the Member States to promote regional cooperation and integration, resolve conflicts and achieve food security	The program of IGAD includes works on agriculture and environment, adaptation to changes in climate and provision of information, and water management with respect to transboundary rivers	The main areas of involvement are in capacity building, advocacy, knowledge sharing, promotion and maintenance of peace and security and humanitarian affairs	On-going	User
Overseas Development Institute (ODI) www.rippleethiopia.org	The main goal is poverty reduction through practical interventions	The major program of ODI is income diversification	The main area of involvement is improved irrigation	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) www.asareca.org secretariat@asareca.org Dr. Seyfu Ketema, Exec. Manager s.ketema@asareca.org	The Association for Strengthening Agricultural Research in Eastern and Central Africa aim to increase the efficiency of agricultural research in the region so as to facilitate economic growth, food security and export competitiveness. The objective is improve relevance, quality and cost-effectiveness of agricultural research; establish and support regional mechanisms for collaboration of research systems; and improves delivery of new appropriate information and technology	The major components of the ASARECA strategy include: – Performance driven governance and management structures and systems established and operational; – Generation and uptake of demand driven technologies and innovations facilitated – Policy options for enhancing the performance of the agricultural sector in the ASARECA sub-region facilitated – Capacity for implementing agricultural research in the IAR4D paradigm in the ASARECA sub-region strengthened – Availability of information on agricultural innovation enhanced	Areas of involvement include: provision of support in terms of resources for implementation of selected activities; exchange of knowledge and information b/n members; support in the better management of technology development; capacity building and linkage with other research organizations (international and national)	On-going	User
International Sorghum and Millet (INTSORMIL) Collaborative Research Support Program (CRSP) www.intsormil.org Prof. Gebisa Ejeta, Director gejeta@purdue.edu	INTSORMIL conducts collaborative research on sorghum and millet through partnerships between U.S. university scientists and scientists of the national agricultural research system with the goal of improving productivity and utilization of the two crops contributing to improved income, poverty reduction and addressing issues of food security	The program focuses on enhancing production and use of sorghum, millet and some other grains (finger millet, folio and tef). This work has also identified new farming practices that improve yields, reduce crop losses to pests and protect natural resources and helped to develop new markets for these important grains. The program also supports education of researchers at various levels and an outreach program to help farmers access the technologies developed	The areas of involvement are activities related to germplasm exchange, the improvement of sorghum and millet involving crop breeding and selection, management for stress and fertilizer use, protection from pests and diseases, and development of tools that help better manage the two crops in dryland areas. INTSORMIL has a collaborative work with the EIAR	On-going	User/ partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Ethiopian Development Research Institute (EDRI) www.edri.org info@edri.org.etexe- director@edri.org.et	The Ethiopian Development Research Institute is a semi-autonomous economic policy institute founded in 1999 and hosted under the Office of the Prime Minister. The main goal and objective of EDRI: – conduct high quality economic research and policy analysis and respond to research and policy needs of government and the economy from short to medium and long-term perspectives	The programs of the Ethiopian Development Research Institute are in the areas of: – Economic research and policy analysis, – Bridging research and policy; – Capacity building (human and institutional); – Knowledge dissemination and exchange using workshops, seminars, and conferences, and establishment of linkages; and – Provision of consultancy services.	The main areas of involvement of EDRI are in all aspects of the economic sector (agriculture, trade, business, industry and services). The policy analysis is inclusive of such activities as water harvesting, fertilizer use and impacts, natural resources management, productive safety net programs, markets and trade that affect productivity of the agricultural sector	On-going	User/ partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
The Environmental Economics Policy Forum for Ethiopia (EEPFE) www.edri.org www.efdinitiative.org Dr. Alemu Mekonnen, Coordinator, EEPFE, EDRI info@edri.org.et	The Environmental Economics Policy Forum for Ethiopia (EEPFE) is the Ethiopian node in the EfD network, founded in 2003 with the goal of supporting poverty alleviation and sustainable development through an increased use of environmental economics in policymaking processes. The vision is to be the leading centre for environmental economics policy research and a locus for interactions among researchers, civil servants, and policymakers interested in policy oriented environmental research in Ethiopia. The Mission of the forum is to provide policy advice to the government and other stakeholders	The EEPFE programs are aimed at the following: – Increasing number of trained environmental economists by creating a conducive working environment for environmental economics; – Strengthening the capacity of environmental economics graduates to do applied research on poverty and environmental management by linking research fellows with international research organizations; – Undertaking objective research and analysis on impact assessment, environmental management, and poverty with the goal of providing advice to policymakers and development agencies; – Collecting and analysing data on sustainable land use with the objective of disseminating results to a wide range of stakeholders; – Increasing the knowledge base on environmental and development issues with the objective of increasing awareness of the link between environment management and poverty alleviation	The areas of involvement are in the broad areas of environment (water, land, natural resources) by undertaking research (data collection, compilation and analysis) and providing the necessary outcomes to policymakers and the public at large	On-going	User/ partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
ESSP-II www.ifpri.org/themes/essp/essp.htm www.edri.org.et ifpri-addis@cgiar.org	The Ethiopia Strategy Support Program II (ESSP-II) is a collaborative program of capacity building, research, policy analysis and knowledge dissemination by IFPRI and EDRI	The activities of the ESSP-II is collaborative research within three key institutions (EDRI, Central Statistics Agency, and MoARD) promoting poverty reduction and economic development in Ethiopia. The programs are: – knowledge-management to contribute to policy dialogue, strategic priority setting, and evidence-based policy analysis; – Capacity strengthening and increased knowledge dissemination within the academic and policy research community; – Enhancing communications and institutional linkages between policymakers, policy analysts, civil society, and other policy and research actors through joint seminars and other dissemination events	The areas of involvement are research in the determinants of agricultural productivity and rural poverty, trade, markets, food security, and GIS analysis, data/info dissemination, training and capacity building on GIS	On-going	User/ Partner
Nile Basin Initiative (NBI) / Water Resources Planning and Management (WRPM) project http://wrpmp.nilebasin.org Dr. H. Ghany, Project Manager hghany@nilebasin.org	The shared vision of the NBI is to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources	The programs of the NBI include the Shared Vision Program comprising seven projects (dealing with planning, development, management and efficient use of water, environmental management, capacity building, power, confidence building, and socio-economic development) and the Subsidiary Action Programs (two sub-basin programs dealing with investment kind of activities). The WRPM project deals with key water resources management issues and information requirements for cooperative development and management of the shared water resources	The WRPM project is involved in the development of the Nile Basin Decision Support System (DSS) to provide the necessary knowledge base, analytical tool and basic information needed to support effective and integrated planning, management and policy development for water resource use across the basin. This will be the source of information or a data base for all the Nile Basin countries	On-going	User/ partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
The Eastern Nile Subsidiary Action Program (ENSAP) and the Eastern Nile Technical Regional Office (ENTRO) Dr. Ahmed Khalid, ENTRO Executive Director akhalid@nilebasin.org http://ensap.nilebasin.org	The Eastern Nile Technical Regional Office established in 2002 to facilitate preparation and advance the implementation of ENSAP. The Eastern Nile Subsidiary Action Program (ENSAP) seeks to realize the NBI's shared vision for the Eastern Nile region and is aimed at contributing to the reduction of poverty, economic growth and the reversal of environmental degradation	ENSAP is an investment program of the Governments of Egypt, Ethiopia and Sudan focusing on the Integrated Development of the Eastern Nile (IDEN) comprising some seven components like the Baro-Akobo Multi-purpose Water Resources Development; Flood Preparedness and Early Warning; Irrigation and Drainage; Watershed Management; and others	ENSAP/ENTRO is involved in the natural resources management, environmental management, soil and water conservation, land management, irrigation development and management, erosion and sedimentation, and others	On-going	User/ partner
Global Water Partnership (GWP) for eastern and southern Africa www.gwpforum.org Simon Thuo, Coordinator, Eastern Africa sthuo@nilebasin.org	The Global Water Partnership founded in 1996 aims to have a water secure world by supporting the sustainable development and management of water resources at all levels	GWP works with national governmental organizations and NGOs to foster an integrated water resource management (IWRM), and ensure the coordinated development and management of water, land, and related resources by maximizing economic and social welfare without compromising the sustainability of vital environmental systems. Overall, the programs/projects of GWP focus on: – Managing water and land resources in an integrated manner; – Sustainable management of the environment; – Watershed management and development; – Poverty alleviation through management of water; – Support to institutional development and the building of capacity	– Development of water sector; – Environmental rehabilitation; – Manage watersheds through support to soil and water conservation activities including planting of trees; – Support to institutional development; – Building capacity in sector offices and NGOs involved in water development; – Obtaining political support through awareness creation among decision-makers	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Improved Management of Agricultural Water in Eastern and Southern Africa (IMAWESA) www.imawesa.org	The Improved Management of Agricultural Water in Eastern and Southern Africa (IMAWESA) is a regional knowledge management network whose goal is to contribute to poverty reduction through improved policy, institutions, practices and performance of smallholder management of water for agriculture	Programs are enhanced policy and institutional framework for smallholder management of agricultural water; Enhanced understanding by stakeholders and development partners, of key issues (technical, economic, social and environmental), to guide future interventions and investments in AWM; Strengthened capacity and improved effectiveness in the management and implementation of AWM projects and programs; and Enhanced sharing of knowledge and best practices in management of agricultural water, within and across the Region	IMAWESA is involved on issues related to Agricultural Water Management (AWM) and sharing of knowledge and experiences of best practices in the management of agricultural water	Phase 2 begin July 2010 implemented by IWMI; funded by IFAD	User
NON-GOVERNMENTAL ORGANIZATIONS					
Famine Early Warning Systems Network (FEWS NET) www.fews.net Ethiopia@fews.net	Famine Early Warning Systems Network (FEWS NET) activity collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues	FEWS NET monitors and analyses relevant data and information in terms of its impacts on livelihoods and markets to identify potential threats to food security and shares these with governmental organizations, NGOs and others that are involved in the delivery of emergency food aid, mitigation of food security problems, and planning and implementation of development activities	Monthly food security updates of the country, regular food security outlooks and alerts, briefings and support to contingency and response planning efforts. Studies in areas such as livelihoods and markets to support analysis as well as program and policy development. Is also involved in strengthening early warning and food security networks (developing capacity, building and strengthening networks, and developing policy-useful information	On-going	User/ Partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Organization for the Rehabilitation and Development of Amhara (ORDA) www.ordainternational.org Orda.liaison@ethionet.et	The main vision and goal of Organization for the Rehabilitation and Development of Amhara (ORDA) is to empower people in the rural Amhara region to overcome poverty and hunger	– Make safe, uncontaminated water available to all. – Install irrigation systems to ensure household food security and income generation. – Reforest degraded land to combat desertification and global warming, decrease soil erosion, and provide fuel, animal feed, timber wood and other forest by-products for household use and income generation. – Ensure that women have an equal voice in decisions related to these programs and that they benefit equally to their male counterparts. – Provide HIV/AIDS prevention, care and support to the communities in which ORDA serves. – Involve in the provision of emergency food aid	– Development and promotion of water for multipurpose use; – Support communities adopt and practice better soil and water conservation activities; – Watershed management and environmental rehabilitation; – Support development of the agricultural sector; – Provide options and alternatives for income generation and diversification including credit delivery or facilitation	On-going	User
Relief Society of Tigray (REST) www.rest.org restaddis@ethionet.et	An indigenous NGO implementing a wide range of relief, rehabilitation and development activities in Tigray Regional State since 1978. Works with poor communities in addressing the issues of poverty and hunger	– Make safe, uncontaminated water available to all. – Install irrigation systems to ensure household food security and income generation. – Reforest degraded land to combat desertification and environmental degradation, decrease soil erosion, and provide fuel efficient stoves, animal feed, timber wood and other forest by-products for household use and income generation. – Ensure that women have an equal voice in decisions related to these programs and that they benefit equally to their male counterparts; – Create awareness and provide care on HIV/AIDS; – Involve on emergency food aid delivery	– Development and promotion of water for multipurpose use ; – Support communities adopt and practice better soil and water conservation activities; – Watershed management and environmental rehabilitation; – Support development of the agricultural sector; – Provide options and alternatives for income generation and diversification including credit delivery;	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
CARE/E www.care.org care.eth@ethionet.et	CARE's mission is to serve individuals and families in poorest communities in the world by promoting innovative solutions and to address poverty and hunger	– Strengthening capacity at the local and community levels for self-help; – Providing economic opportunity; – Delivering relief in emergencies; – Influencing policy decisions at all levels; – Addressing discrimination in all its forms	– Development activities in the agriculture and water sectors; – Support small scale irrigation and water harvesting activities; – Rehabilitation of degraded land and soil and water conservation activities; – Income generating activities and diversification	On-going	User
World Vision/Ethiopia (WV/E) www.worldvision.org wveth@ethionet.et	An international NGO established since 1971 to provide relief and then both relief and development activities. The main goal of WV/E is to enhance lives of affected people today and to help enact sustainable solutions for the future of their communities, families, and children	World Vision/Ethiopia has major programs in water and sanitation and also in what is considered/described as Area Development Program (ADP) which is an overall support program providing holistic community based approach to meet the needs of poor farmers with emphasis to children and women	The areas of involvement are in water and sanitation, veterinary posts and livestock vaccination; teaching improved farming methods to increase agricultural productivity; increasing immunization coverage; and offering access to primary education for children.	On-going	User
Catholic Relief Services/ Ethiopia (CRS/E) www.crs.org	CRS carries out the commitment of the Bishops of the United States to assist the poor and vulnerable by promoting human development and by responding to major emergencies, fighting disease and poverty, and nurturing peaceful and just societies	The Key program areas of CRS/E include: – Development and promotion of water and sanitation; – Participate in emergency preparedness and recovery activities; – Support agricultural development and livelihoods including microfinance activities; and – Create awareness on HIV and AIDS and provide care for the affected	– Development activities in the agriculture and water sectors; – Support small scale irrigation including the harvesting of water; – Support to the rehabilitation of degraded areas and management of watersheds; – Soil and water conservation and supply of clean water; – Diversification and income generation activities; – Promotion of improved seed use through their seed fair programs	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
FARM/Africa www.farmafrica.org/uk farm.ethiopia@ethionet.et	FARM-Africa's mission is to reduce poverty by enabling marginal farmers and herders to make sustainable improvements to their wellbeing by effectively managing renewable natural resources	FARM/Africa's support programs since 1988 are designed to improve people's long term opportunities to manage their natural resources effectively, increase their household income, nutrition and access to food and animal healthcare at the same time as protecting their local environment. The major areas of programs include: – Participatory forest management; – Pastoralist development; and – Female empowerment	– Support people who depend on felling trees for survival to diversify their activities in to honey production and making of furniture; – Train people and communities to better manage forest resources; – Help pastoralists maintain their traditional activities and at same time diversify source of income; – Train and build skill in women and with access to finance help women have better livelihoods; – Develop models of best practices for use by smallholder farmers and pastoralits; – Work with policymakers and the private sector so that required support to improve agricultural development could be realized	On-going	User
Save the Children (Canada, Denmark, Finland, Norway, Sweden, United Kingdom and United States) www.savechildren.org	Save the Children in Ethiopia have been working since 1965 on issues that are critical to children and as a result are active in all areas important to survival, protection and development of children	SC group delivers services essential to children's welfare, develop capacity of professionals, NGOs and children, conduct research on children's issues and advocate for policy change. Save the Children's programs address food security, education, health, nutrition, poverty alleviation, HIV/AIDS, exploitation and abuse, children's rights, harmful traditional practices, discrimination against girls and children with disabilities, and refugees, and in the provision of relief assistance	– Work on most issues that are important to the wellbeing of children; – Provide support to undertake programs that address food security and poverty alleviation; – Support programs and projects that deal with education, health and nutrition of children; – Interventions that eradicate harmful traditional practices and discrimination against girls	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
GOAL www.goalethiopia.com goal.ethiopia@ethionet.et	GOAL registered in 1987 as international implementing NGO in Ethiopia, and has since been delivering a range of relief, rehabilitation and development initiatives throughout the country	The major programs of GOAL in Ethiopia include: – Health, education and nutrition with special emphasis on children at risk; – Emergency food aid distribution; – Rural community development; – Support to agricultural development and livelihoods; – HIV and Aids – Water, Sanitation and Hygiene	The main areas of involvement include health, education, food aid, agriculture, livelihood, rural development, water and HIV and AIDS.	On-going	User
Amhara Development Association (ADA) www.telecom.net.et ada@ethionet.et	The Amhara Development Association is a for no profit NGO expecting to see people of Amhara free from poverty and backwardness and aspire to be a forerunner in development endeavour and in due course fight poverty and hunger	The support program of the development association is focused on selected sectors in the areas of health, education, basic skill training and other development activities, through community participation	The ADA is involved in the construction of health facilities, schools, rural roads, facilities for the supply of clean water, and building of skills that contribute to diversification of incomes and livelihood	On-going	User
COOPI www.itacaddis.org addis@coopi.org	COOPI promotes and carries out emergency program as well as development activities in Africa, Latin America, Asia and the Balkans with the goal of reducing poverty and hunger	COOPI's program support areas are focused on emergency relief, development and overall rehabilitation efforts	The main focus of its interventions is Integrated Rural development including Water Resource Development, Agricultural Development, Animal Health, Human Health, Capacity Building and Income Generation activities	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Sasakawa Global 2000 (SG 2000) www.saa-tokyo.org/english/country/Ethiopia Dr. Abera Debelo, Country Director	The Sasakawa Africa Association stems from the Sahelian drought and in 1984 Nippon Foundation mobilized funds to send emergency food and medical supply aid to Ethiopia. So the initial mission was food aid but this quickly changed to some development activities in the agricultural sector. SG 2000's principal objective was to demonstrate the potential of improved food crop technology, by training extension workers and farmers	The initial and expanded intervention programs of the Sasakawa Global 2000 include: demonstration of local technologies to farmers, training of extension agents and farmers, building capacity in the national agricultural extension system, technical training to management, agroprocessing, marketing, farmers organizations, value-adding activities	Involvement of SG 2000 is in crops, agricultural inputs, training, agroprocessing, market linkages, and value adding activities	On-going	User/ Partner
OXFAM/UK www.pxfam.org.uk www.oxfam.org addisababa@pxfam.ork.uk	Support the overall efforts in addressing poverty, food security and hunger in the country by working with communities	– Development of new / improved farming techniques to increase harvest and productivity ; – Development water resources and ensure reliable supply; – Promoting education, especially for girls; – Helping local communities influence government decisions that affect them	– Intervention in the agricultural sector through farmers training and demonstration of practices; – Water and sanitation; – Awareness creation and education	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Christian Relief and Development Association (CRDA) www.crdaethiopia.org Dr. Meshesha Shewarega, Executive Director crda@ethionet.et	CRDA is an indigenous non-profit umbrella organization whose objectives include: facilitate collaboration towards common ends; Support and coordinate dialogue, and exchange of information; Support members build their capacity; Represent the interest of members; and Policy research and analysis	CRDA allows resource mobilization and the sharing of experiences for effective and sustained impact. CRDA programs include building capacity in order to ensure efficiency and quality of interventions, efforts are not duplicated and lessons can be learnt. All this is geared towards championing societal transformation. The major support programs are engagement in relief and rehabilitation, developmental activities focusing on poverty alleviation and policy advocacy and lobbying	Areas of involvement of CRDA members emphasize on food security, rural and urban development, health, HIV/AIDS, education, water and sanitation, infrastructure, good governance, environmental protection, civic education etc.	On-going (See attachment for member NGOs of CRDA)	User
Agri-Service Ethiopia (ASE) www.agriservice. ethionet.et Mr. Ammanuel Asefa, Director, Program Support Department kidus_aman@yahoo.com	The vision of Agri-Service Ethiopia is development of Ethiopia where citizens enjoy dignified life and the facilitation of the empowerment of the poor and marginalized people in Ethiopia towards a sustainable livelihood	The core program areas of Agri-Service Ethiopia are related to the following: – Participatory learning and action; – Natural resources management; – Participatory research and development activities; – Indigenous knowledge; – Empowerment of communities and local institution; – Networking and advocacy	ASE is involved in ensuring food security at a household level; realizing a sustainable natural resource management; become 'a centre of excellence in community learning'; ensuring gender equity and reproductive health right; and minimizing spread and prevalence of HIV/AIDS	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Ethiopian Orthodox Church Development and Inter-church Aid Commission (EOC/DICAC) www.Eoc.cfao@ethionet.et	The Ethiopian Orthodox Church Development and Inter-church Aid Commission (EOC/DICAC) was established as a development wing of the church in 1972 to provide relief services and support poverty reduction and livelihood activities. Since its establishment, it has performed emergency relief, rehabilitation, development, refugees and returnees support, and HIV/AIDS prevention and control activities	Since its establishment, it has performed emergency relief, rehabilitation, development, support to refugees and returnees, and HIV/AIDS prevention and control activities. The main programs of intervention are in the areas of water and sanitation; food and agriculture; education; health and hygiene; and livelihood related activities. EOC is active in Amhara, Tigray, Oromia, and SNNP's regions	Main involvements are in water, land, natural resources, health, education and related services	On-going	User
Water Action (WA) www.wateraid.org/ethiopia	Established in 1995 by a group of Ethiopian water engineers, Water Action is an Ethiopian NGO with experience in conservation, water and sanitation with the overall goal of developing the water resources, promoting hygiene and sanitation	Water Action is implementing an integrated watershed development project in Amhara region with support from CRS. The Ngo is also involved in encouraging small-scale irrigation development programs	WA is involved in developing water sources, land and other natural resources within the overall framework of watershed	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
SNV in Ethiopia www.snvworld/eng/countries/ethiopia	SNV began work in the 70s responding to a call on the famine and emergency and is now focusing on some development programs that help reduce poverty and hunger	The programs of SNV are in two impact areas which are access to basic services and increase in production, income and employment	SNV's involvement focus on the following: - water, sanitation and hygiene; - renewable energy (biogas) - agricultural value chains: milk and milk products, honey and beeswax, oil seeds (sesame, Niger seed, safflower) and horticultural crops (apple, mango and pineapple); and - increasingly also tourism	On-going	User
International Development Enterprises (IDE) www.ideorg.org www.ide-ethiopia.org/	The purpose behind the establishment of the International Development Enterprises is to alleviate rural poverty is to help small- plot farmers use their own resources to earn a profit	This is accomplished with a two-pronged strategy: providing small-plot farmers with access to affordable irrigation technology, which allows them to grow high-value cash crops, and creating connections to markets, where they can sell their extra produce to generate income	The areas of involvement of IDE include providing farmers with the products they need, training on the basic skills to use the products, and the necessary choices they need to earn increased profits from their land	On-going	User
Glimmer of Hope www.aglimmerofhope.org/ethiopia	The main goal of a Glimmer of Hope is to support some development activities and unearth the entrepreneurial skills and there by contribute to poverty reduction, reduction of hunger and sustainable impact on society	The three major components of A Glimmer of Hope's Income Creation programs include such programs as micro-finance, micro-irrigation, and micro-enterprise	The main areas of involvement include small loans at low interest rates and without any collateral, support to changing marginal dry areas in to green farms through the provision of small pumps, and support to small enterprises and especially women groups so that they become productive and profitable in their enterprises	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Team Today and Tomorrow (TTT) TTT@ethionet.et		Team Today and Tomorrow is an indigenous NGO partnering with CRS and involved in programs related to the areas of water, natural resources, livelihoods and food security	TTT is involved in watershed management, small scale irrigation, food security and livelihoods through improved farming and agribusiness practices, and access to market	On-going	User
Ethiopian Wetlands and Natural Resource Association (EWNRA) www.wetlands.hud.ac.uk/ewnra	The Ethiopian Wetlands and Natural Resources Association was formed by professionals to with the aim of developing wetlands management, research and training capacity in the country thereby facilitating the wise use, management and utilization of wetlands	As a result it concentrates on awareness raising, the provision of technical guidance, support to institutional capacity development and training—both in communities and government agencies, and policy development for the wise use of wetlands and creating the necessary capacity for the sustainable management of wetlands	The areas of involvement are awareness creation, development of sustainable use regimes based on indigenous knowledge building of capacity, building of local institutions and supporting development of appropriate policies	On-going	User
Tigray Development Association (TDA) www.tadeint.org	Tigray Development Association is a for no profit local NGO established with the main aim and goal of rehabilitating areas affected by war and also bring development activities to fight hunger, poverty and food insecurity	The main areas of its support program are focused on health, education, skill building, agriculture and natural resources, conflict resolution, transport and culture	TDA's involvement are in the building of schools, health facilities, rural roads, water supply systems, rehabilitation of some degraded areas, and skill building	On-going	User
HIGHER LEARNING INSTITUTIONS AND INDEPENDENT RESEARCH ORGANIZATIONS					
Addis Ababa University (AAU) www.aau.edu.et	Teaching, res. and Information	- Produce manpower in natural res. management and biological sciences - Technologies and information on NRM, plant protection, food security environmental economics and others	Food security, Natural Res management, animal health, biodiversity	On-going	Partner/user

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Arba Minch University (AU) www.amu.edu.et www.arbaminch-univ.com	Teaching, Res. and Information	- Produce manpower in water resource management and engineering - Technologies and information on agricultural development and natural resources management	Management and use of water resources	On-going	Partner/ user
Haromaya University (HU) www.haramaya.edu.et	Teaching, Res. and Information	- Produce manpower in water and sanitation, irrigation and drainage, agriculture and natural resources management; - Generate technologies and also help in the dissemination process	Agriculture, Natural Resource Management, Livestock, Land and Water Resources	On-going	Partner/ user
Bahir Dar University (BU) www.bdu.edu.et www.telecom.net.et/~/bdu/	Teaching, Res. and Information	- Produce manpower in water and natural resources management; - Technology development and dissemination	Water resources and natural resources management	On-going	Partner/ user
Ambo University www.ambo.edu.et	Teaching, Res. and Information	- Produces manpower in agriculture and natural resources management; - Technology development and dissemination	Agriculture, natural resources and in cooperatives	On-going	Partner/ user
Mekele University (MU) www.mu.edu.et	Teaching, Research and information sharing	-Produces manpower in agriculture and natural resources management in relation to dry-land areas; - Technology development and dissemination	Agriculture, water and natural resources	On-going	Partner/ user
Jimma University (JU) www.ju.edu.et	Teaching, Res. and Information	- Produces manpower in agriculture and natural resources management; - Technology development and dissemination	Agriculture, natural resource, coffee and spices	On-going	Partner/ user

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Forum for Social Sciences (FSS) www.fssethiopia.org.et	The FSS was set up for the pursuit of independent policy research and the provision of public forum for debates and consultations on policy issues and aims to contribute its share to the fostering and expansion of the democratization process	The FSS Undertakes various research activities with policy implications and share the findings with governmental and Non-governmental organizations, and other interested groups or individuals	The involvement includes areas in land security, land administration, natural resource management, environmental rehabilitation and management, gender, and food security	On-going	Partner/ user
Ethiopian Economic Association (EEA) www.eeaecon.org	EEA is actively engaged in research, training, organization of International and National conferences and round table discussions on the Ethiopian economy and the dissemination of the results of these activities	-Contribute to the economic advancement of Ethiopia, -Promote the professional interests of its members, -Promote economic research and assist in the dissemination of the findings of such research in Ethiopia, -Provide fora for the discussion of economic issues and -Promote professional contacts between Ethiopian and Foreign Economists	Involved in almost all sectors and their research areas are in Business, Macro and Micro Economy, Finance, Food Security, Land, and others	On-going	Partner/ user
The Institute of Development Research (IDR) www.aau.edu.et/research/idr/	The Institute of Development Research (IDR) is a development research institute in the Addis Ababa University Ethiopia, and has been carrying out and promoting development research, teaching and research in social sciences since 1972	The Institute collects and analyses socio-economic data on development problems, and conduct multi- disciplinary socio-economic research that has development implications and to disseminate the results through publications and other outlets. The IDR is involved in the following programs: - Rural Development, Livelihoods, and Food Security Program; - Social/Human Development Program; - Environment, Technology Development and Natural Resource Management Program; and - Macro and Meso Policy Studies Program	IDR is involved in a number of research activities in agriculture, water, natural resources and watershed management, land tenure and administration, socio-economic and related subjects	On-going	User/ partner

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
Organization for Social Science Research in Eastern and Southern Africa (OSSREA) www.ossrea.net/	The Organization for Social Science Research in Eastern and Southern Africa (OSSREA) is a regional membership-based and donor-supported research and capacity-building organization whose mission is to promote dialogue and interaction between researchers and policy-makers in Eastern and Southern Africa with a view to enhancing the impact of research on policy-making and development planning	OSSREA's main programs are focused on research and teaching in the social sciences and as a result: - encourage and promote interest in the study of and research in the social sciences in Eastern and Southern Africa; - promote collaborative research and facilities for scholarly exchange of ideas and publications between individuals and institutions engaged in the study of and research in the social sciences; - promote the training of African scholars in the study of and research in the social science and encourage the establishment of institutions dedicated to this goal; - work in close cooperation with other individuals and institutions in Africa and elsewhere in the world engaged in the study of the social sciences	The research works although devoted to social issues are on agriculture, watershed, natural resources, livestock, water, and the environment	On-going	User/ partner
DEVELOPMENT PARTNERS (Bilateral and Multi-lateral)					
World Bank www.worldbank.org Dr. E.V. Jagannathan, Senior Water Management Specialist ejagannathan@worldbank.org	The World Bank is helping countries like Ethiopia fight poverty and hunger and at the same time develop the overall economy and thereby improve the living standard for its citizens	The CAS aims to support Ethiopia in achieving four main strategic objectives, consistent with the Government's Plan for Accelerated and Sustained Development to End Poverty (PASDEP): (i) fostering economic growth to sustain the emerging economic 'take-off'; (ii) improving access to and quality of basic service delivery to sustain the emerging basic service 'take-off';(iii) reducing Ethiopia's vulnerability to help improve prospects for sustainability; and (iv) fostering improved governance to support progress on the previous three objectives and empower citizens	The World Bank is involved in most of the sectors (education, health, agriculture, natural resources, water) and in such areas as research, extension, seed and fertilizer, markets, watershed management, small scale irrigation and other development activities	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
The African Development Bank (AfDB) www.afdb.org Mr. Hailemariam Hailemeskel (Agricultural Economist) hailemeskel@afdb.org	The Bank Group's 2006-2009 Country Strategy Paper (CSP) for Ethiopia aligns with the country's new Poverty Reduction Strategy Paper (PRSP) known as the Plan for Accelerated Progress and Sustained Development to End Poverty (PASDEP) and will aim at promoting growth	The focus of the support program of the AfDB will be on three PASDEP pillars, namely, infrastructure development, agricultural transformation and governance. In infrastructure, the Bank support will cover energy, water and sanitation, and roads. The priority within the agricultural transformation pillar will be small-scale irrigation and livestock development. The focus under the governance pillar will be to strengthen accountability and transparency in basic service delivery at local government level	The involvement of the AfDB using the three pillars will include: - energy development, water and sanitation and roads; - small scale irrigation and livestock development; - strengthen accountability and transparency in basic service delivery at local government level	On-going	User
The European Union (EU) www.deleth.ec.europa.eu Mr. Demi Thieulin Denis.thieulin@ec.europa,eu	EU's mission in Ethiopia is Support development efforts of the country by providing finance and technical advisory services and there-by eradicate poverty through sustainable development, democracy, peace and security	The EU–Ethiopia development cooperation has broadly focused on most of the vital sectors such as agriculture, food security, infrastructure, health and education, making Ethiopia one of the major beneficiaries of the EU's development assistance	The EU involvement is in economic and social areas and the support programs are: the Protection of Basic Services (PBS); Public Sector Capacity Building (PSCAP); Public Expenditure and Financial Accountability (PEFA) mission; Monitoring and Evaluation (M&E) Pool Fund and Export Stabilization Fund (STABEX); Education Sector Development (ESDP); Polio Eradication; Mine Action and Social Rehabilitation; and NGO Projects on Education, Health, Gender and Children's Rights	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
German Federal Ministry for Economic Cooperation and Development (GTZ/BMZ) www.gtz.de www.gtz.de/ethiopia Dr. Tesfai Mebrahtu, D/ Director, SLM, GTZ, tesfayemebrahtu@gtz.de	As part of the global development goal, the mission of the German government makes a commitment to strive for sustainable reductions in poverty and structural deficits as called for in the United Nations Millennium Declaration	The German development cooperation with Ethiopia is concentrated in three priority areas: - Sustainable Land Management Program (SLM) - Urban Governance and Decentralization Program (UGDP); and - Engineering Capacity Building Program (ECBP)	Natural resources management, food security, sustainable use of natural resources, capacity building, health and education	On-going	User
JICA www.jica.go.jp/ethiopia	The new vision of JICA is to support an inclusive and Dynamic Development by encouraging people to recognize the development issues they themselves face, participate in addressing them and the creation of self- reinforcing virtuous cycles of mid- to long-term economic growth and poverty reduction in constantly changing environment	The broad areas of support program identified by JICA include: addressing the globalization related issues; reducing poverty through equitable growth; improving governance; and achieving social and institutional capacity	Although not explicitly stated in which sectors the JICA support will focus, there are indications of a new approach to development efforts that includes provision of technical assistance, grant, loan, aid, information/knowledge and research to address economic growth, poverty and issues of the environment	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
United States Agency for International Development in Ethiopia (USAID/E) www.usaid.gov/mission/et/ Dr. Belay Demis and Ms. Suzanne Poland from ALT and BEAT offices bdemisse@usaid.gov spoland@usaid.gov	The USAID strategy had focused in managing transition from emergency to development through increased capacity of government, private sector, NGOs communities and households to generate economic growth to build base for reducing hunger and poverty	The USAID/Ethiopia program of support include: - Capacity to anticipate and manage through shocks; - Human capacity and social resiliency; - Capacity for good governance; - Market-led economic growth and resiliency; and - Knowledge management	The program support involves such activities as early warning, crisis management, policy reforms, health, family planning and nutrition services, HIV/AIDs, primary education, governance, women's empowerment, civil society capacity, selected input and product markets, natural resources management, agricultural productivity, livelihoods, information, and others	On-going	User
Department for International Development (DfID) www.dfid.gov.uk	DFID supports long-term program to help tackle the underlying causes of poverty. DFID also responds to emergencies, both natural and manmade	In recent years DFID's support program focuses mainly on Protection of Basic Services, Productive Safety Net, and Public Sector Capacity Building	The involvement of DFID is through support to government and NGOs and interventions are in health (children and mothers), primary education, livelihood, governance, and humanitarian assistance	On-going	User
SIDA www.sida.se Mr. Aklog Leake Embassy of Sweden Aklog.laike@for eign.minstry.se	The Swedish International Development Agency	The support program of the Swedish SIDA in Ethiopia focuses in the areas of: - Democracy and human rights; - Education and health; and - Economic development	Most of the involvements of SIDA are in the areas of agriculture and natural resources, infrastructure and social services, economic diversification, decentralization and cross cutting issues	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
CIDA/ECCO www.cida-ecco.org Dr. Asferachew Abate, Senior NR and Environment Advisor asferachew.abate@cida-ecco.org Ms. Etenesh Kebede, Senior agriculture growth advisor etenenesh.bekele@cida-ecco.org	The main goal of CIDA is to support the vision set out in Ethiopia's Plan for Accelerated Sustained Development to eradicate Poverty which establishes the overall framework for the national poverty reduction programs for the 2006-2010 period	Ethiopia's priority needs as set out in its national development plan include the following programs and CIDA/ECCO will support these programs: - A sustained effort to address the root causes of food insecurity (protect the vulnerable through productive safety net programs and by increasing agric productivity) - A concerted effort to improve the coverage and quality of basic services - Investments to promote market-based agricultural development - Support to build accountable and effective public institutions at all levels and to increase civil society capacity for engaging in poverty reduction policies and programming	The involvement of CIDA/ECCO include support to: - improved agricultural extension services through upgrading of farmer training centres and training of extension agents; - enabling farmers participate in the development of demand-driven research and extension; - rehabilitation of degraded land and watersheds through soil and water conservation measures; - introduction of market-based agribusinesses (e.g. bamboo processing) in food insecure areas	On-going	User
The Royal Netherlands Embassy (RNE) www.netherlandsembassyethiopia.org	The mission of the Royal Netherlands Embassy for a couple of years has been to contribute to regional peace and security, improving governance and supporting the realisation of the MDGs	The bilateral development cooperation of RNE focuses on three priority sectors: Governance (including human rights); Sustainable Growth; and Health/HIV and AIDS. In addition, RNE continues to use gender as a cross-cutting theme	The support of the RNE involvement follows a two track approach: improving governance and human rights and on influencing the regional security situation; and poverty alleviation, focussing on sustainable growth, investing in health, education and the rights of women	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
United Nations Development Program (UNDP) www.undp.org	UNDP Ethiopia works to support country's effort to achieve the Millennium Development Goals (MDGs), most notably to eradicate extreme poverty and hunger; promote gender equality and empowerment of women; and ensure environmental sustainability	UNDP's assistance is provided in support of and within the context of the Plan for Accelerated Sustained Development to End Poverty (PASDEP) as well as in coordination with the assistance provided by other partners, especially with other UN agencies. The programs of support are in the areas of health, education, economic development, water, human resources development, and the environment	UNDP's involvements are in skill building, support to health and education services, water supply and sanitation, environmental rehabilitation through the safety net programs	On-going	User
FAO www.fao.org	The Food and Agriculture Organization encourages sustainable agriculture and rural development, a long-term strategy of increasing food production and food security while conserving and managing natural resources	The Organization's work falls under two broad categories—the Regular Program and the Field Program. The Regular Program covers internal operations, including support for fieldwork, advice to governments on policy and planning, and a wide range of development project and among other things include: - Technical Co-operation Program (TCP); - Trust Fund Projects; - FAO/UNDP Co-operative Program; - Special program for food security	FAO performs the following four main responsibilities to: •provide technical advice and assistance to the agricultural community on behalf of Governments and development agencies; • Collect, analyse and disseminate information; • Advise governments on agricultural policy and planning; and • Provide opportunities for governments to meet and discuss food and agricultural problems by creating neutral forum	On-going	User

Organization	Responsibilities	Programs/Projects	Areas of involvement	Status	Category
WFP www.wfp.org	The main goal of the World Food Program is provision of relief and emergency assistance and work to address threats of food security and poverty	The main programs of WFP are focused on emergency food assistance, productive safety net, and development interventions' in most of the drought prone areas of the country	WFP involvement is through provision of food and cash in the overall efforts of rehabilitation of degraded lands, soil and water conservation, sustainable land and water management, school feeding to create awareness on natural resource and environment and asset building and protection	On-going	User/ partner
Austrian Development Agency (ADA) www.ada.gv.at	The major goals are reducing poverty, safeguarding peace and human security and preserving the environment	ADA's program areas focus on water and sanitation, rural development, sustainable resource management, energy, the promotion of small and medium-sized enterprises, education, and the promotion of good governance	Supports to food security, market-oriented livestock development; promotion of integrated watershed management practices; identification and promotion of alternative livelihood options; community based tourism development; enhancement of park infrastructure and its management; strengthening rural land administration; strengthening of institutional capacity through action-research and knowledge management	On-going	User
International Fund for Agricultural Development (IFAD) www.ifad.org ifad@ifad.org	Specialized UN agency to fund agricultural development with a mission to enable poor rural people to overcome poverty	Programs include development of small and medium scale irrigation schemes in Amhara, SNNPR, Oromia and Tigray along with treatment of catchments/ watersheds associated with schemes; and provision of credit facilities for income diversification. IFAD programs are implemented by the regional BoARD with supervision from the MoARD			

Annex Table 7. Potential Partners in Ethiopia on Rainwater Management in the Blue Nile

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF program	Documents
1.	Ministry of Agriculture and Rural Development (MoARD) – Directorates of Natural Resources Management and Agric. Development and Livestock www.moard.gov.et – Mr. Daniel Danano SLM project coordinator) and Mr. Dejene Abesha (National Project Coordinator for IFAD SSI projects) ethiocat@ethionet.et and dejeneabesha@yahoo.com	– Policy formulation on land use, fertilizer, seed, animal health, natural resources, and others); – Strategy development; – Create overall enabling environment; – Capacity building; and – Provision of technical assistance and other support service; – Coordinate and supervise implementation of projects at national level	– PSNP (asset building, food supply, livelihoods, income diversification, and others): WB, USAID, EU, DFID, WFP and others since 2005; – SLM projects(soil and water conservation, environmental rehabilitation with biological materials, water harvesting, and soil fertility management): WB, GEF, GTZ, EU, since 2008; – Supply of seeds and fertilizer; – Participatory SSI projects in relation to water harvesting and watershed management (with funds from IFAD, AfDB, and some NGOs); projects being implemented, dates, donors etc.	User, implementation partner, facilitator, and source of information	See separate list
2.	Ministry of Water Resources (MoWR) www.mowr.gov.et info@mowr.gov.et – Directorate of Irrigation and Drainage teshome987@yahoo.com	– Policies and strategy on water resources; – Studies, inventories and negotiations of treaties on surface and ground water resources; – Issuance of permits and regulations and allocation of water resources; – Provision of other services development of water infrastructure, and the development of irrigation schemes (large and medium scale)	– Undertake basin wide studies and determine country's potential of surface and ground waters; – Work on equitable and optimal allocation and utilization of water resources; – Study and negotiations of treaties related to utilization of inland and transboundary waters; – Study, design and construction of irrigation schemes (Ribb, Anger, Upper Beles, and others with support from WB); Medium scale irrigation supported by IFAD and French Gov't); Most irrigation schemes such as Koga are funded by FDRE; – Administer dams, hydraulic structures and irrigation infrastructures (since the 1980s); – Issue permits and regulate construction and operation of water works related to water bodies – Provide other services such as flood control (Awash Valley flood control project; FDRE and AfDB)	User, facilitator, source of information, and implementation partner	See separate list

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
3.	The Ethiopian Institute of Agricultural Research (EIAR) www.eiar.gov.et Dr. Tolessa Debele, Director, Soil and Water Research tolessadebele@yahoo.com	– The EIAR is responsible for coordination, policy formulation, and the development of relevant technologies that contribute to increased agricultural productivity and production, nutrition, food security, economic growth, and sustainable management/conservation of natural resources and the environment; – Advises government and MoARD on research and development issues; – Coordinate research within the Ethiopian Agricultural Research System (EARS)	– Programs include Crop and Animal improvement, soil and water, farm tools and implements, Research and Extension linkages, and Socio-economic and farming systems; (breeding, selection and development of crops, plants and animals; soil and water management practices, plant protection, packaging of technology, and related activities); – Collaborative work with regional and international research systems such as INTSORMIL, CIMMYT, ICRISAT, CIP, ICARDA, ASARECA, and others; – Work with the national seed system in the provision of starter seeds of improved or newly bred crops; – Work on invasive weeds and plants with GEF and UNDP; – Popularization of technologies work with farmers with JICA and regional research centres; – Develop packages for up-scaling; Support comes from various partners	Implementation partner, User and source of information	See separate list
4.	Ministry of Mines and Energy (MoME) www.mome.gov.et	– Development of policies and strategies on energy and mines sectors; – Studies and promotion on the development of mining and energy – Issuance of licenses and contracts to potential prospectors and for people interested in explorations and mining operations	– Promotion and development of mines and energy across the country; – Surveying, study and collection of data on sector and make information available to users; – Facilitate exploration and mining operations; – Set standards for extraction and management of potential sites; – Study and Identification of ground water potential in the country; – Provide detailed analysis of rocks, minerals, water and other resources	User and source of information	See separate list

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
5.	Environmental Protection Authority (EPA) www.epa.gov.et Dr. Teweldebirhan Gebregziabher, Executive Director esid@ethionet.et	– Formulate policies, strategies, laws and standards, which foster social and econ. development in a manner that enhance the welfare of humans and safety of the environment, and to spear head in ensuring the effectiveness of the process of their implementation – Regulatory Authority for environmental protection and for the enforcement and compliance; – establish an environmental information system that promotes efficiency in environmental data collection, management and use – periodic report on the state of environment of the country	– Preparation and implementation of relevant environmental management systems; – Building of capacities and empowerment of community; – Identification and availing environmentally sound technologies and best practices for NRM; – Review EI study reports of projects; – Set standards, carry out studies to combat desertification, take part in negotiations of international environmental agreements; improving education and awareness and availing information; – Programs and projects of EPA are in bio-safety, home gardens, African Environmental Information network, and others; – Partners UNEP, COB, Ramsar Convention on Wetlands, Basel Convention, UNFCCC, USEPA and other bilateral and multi-lateral organizations		
6.	Institute of Biodiversity Conservation www.ibc.gov.et www.ibc-et.org info@ibc-et.org	– Ensure the appropriate conservation and utilization of Ethiopia's biodiversity. – Guide biodiversity conservation, management and its sustainable use in the country and beyond; – Initiate policy and legislative proposals on conservation of the country's biodiversity; – maintaining and developing international relations with bilateral and multilateral bodies having the potential to providing technical assistance	– IBC undertakes development, research and conservation activities. – Identify and study localities where man-made and natural calamities are causing genetic erosion – Coordination and monitoring of the implementation of the National Biodiversity Strategy; – Register germplasm of Ethiopian origin and undertake studies, in particular, on those threatened by extinction to develop a strategy for their conservation; Works with funds from Germany, GEF, and Netherlands	User, source of information and facilitator	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
7.	Federal Cooperatives Agency (FCA)	– Development of strategies and guidelines for the establishment of Service Cooperatives and Unions	– Organize, establish and support Cooperatives, Unions, Federation of Unions and Water User Associations (WUA). Cooperatives are also involved in irrigation activities; – Build capacity and provide necessary support services to cooperatives and others; – Support from USAID and CoopAfrica	User and source of information	
8.	Central Statistics Agency (CSA) www.csa.gov.et Ms. Samia Zekaria, General Manager	– Collect, cause to collection of, organize, analyse, publish and disseminate statistical data. – Render Statistical Services to government organs, autonomous regions, administrative regions and urban centres of equivalent status; – Cause establishment of procedures for the collection of Statistical data	– Collect, compile and analyse data and information on the agricultural (cultivated land, total production of crops, and the productivity of crops per unit area) and other economic sectors; – Collect data on extent of irrigated agriculture, improved seed fertilizer and pesticide use – Undertake census and evaluate performance of the agricultural sector (land area, production, productivity, and use of inputs including irrigation), market and the economy	User and source of information	
9.	Regional Bureaus of Agriculture and Rural Development (BoARD)—Amhara, Oromia, and Benshangul-Gumuz	– Develop and formulate regional policies and strategies on land use, conservation and use of forest, wildlife and other resources; – Coordinate food security programs; – Facilitate and support agriculture production and development	– Supervise/monitor implementation of agricultural activities; – Provide extension services in crop/animal production, water management, water harvesting, irrigation, and conservation; – Ensure timely delivery of inputs (seed and fertilizer) to farmers; – Advise and implement sustainable land management, integrated water resources and watershed management		

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
10.	Regional Bureaus of Water Resources (BoWR)—Amhara, Oromia, and Benshangul-Gumuz	– Develop region-wide policies, strategies and guidelines that are in line with national policies; – Manage the water resources on behalf of the MoWR; – Facilitate the implementation of water development activities	– Provide support service for the implementation of water sector activities at all levels; – Facilitate and supervise in the study and design of irrigation schemes; – Administer and develop water resources (non-transboundary rivers); – Issue permits to develop water resources; – Introduce an integrated water resources management; – Assist resolve water related conflicts		
11.	Regional Agricultural Research Institutes (OARI, TARI ARARI, SARI along with their research centres in each region) Amhara Regional Agricultural Research Institute (ARARI) www.ar-ari.org ararai@ethionet.et www.eap.gov.et/Research/AgriResearch/Research-Institute/OARI.asp	– Coordinate, guide and lead agricultural research activities in the region; – Link and collaborate with federal, international and other regional research systems; – Advise regional government on policy issues related to research and development in the sector	– Develop relevant technologies to address problems of land and water productivities, NR management, and the environment; – Popularize and support dissemination of improved technologies; – Build necessary capacity and establish centres across the regions and major agro-ecological zones; Technology development are in: – Crop, plant and animal improvements; – Improved use and management of inputs; – Improved natural resources management; – sustainable land and soil management including conservation of soil and water, biological and physical; – Improvement of production and productivity of land and water; – natural resources management including environment management (soil erosion, sedimentation, water quality, and watershed management); and – Socio-economic studies and use of the extension system to reach and involve farmers (Support is received from CIDA, SIDA, USAID, ADA, WB, Netherlands and others)		

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
DEVELOPMENT PARTNERS (Bilateral and Multi-lateral)					
12.	World Bank www.worldbank.org Dr. E. V. Jagannathan, Senior Water Management Specialist ejagannathan@worldbank.org	World Bank provides financial and technical support to fight poverty and hunger and develop its economy and there by the welfare of people	World Bank support programs are in education, health, agriculture, and water sectors and the environment. – The WB is right now actively funding the PSNP, SLM, Tana-Beles Integrated water resources development project, and the Agriculture Growth	User, source of information and partners in some of their project sites like the Tana-Beles	
13.	The African Development Bank (AfDB) www.afdb.org Mr. Hailemariam Hailemeskel (Agricultural Economist) hailemeskel@afdb.org	The Bank's mission is to help reduce poverty and hunger and improve the living conditions by making available funds and technical support	The resources from AfDB support infrastructure development and agricultural transformation and some of the projects are in: – Water harvesting, SSI, watershed management, improved production and marketing of crops and livestock; – Linking production to markets; – Studies for irrigation and drainage in Baro Akobo area of the Nile (ENTRO of NBI) as well as in Koga	Users	
14.	The European Union (EU) www.deleth.ec.europa.eu Mr. Demi Thieulin Denis.thieulin@ec.europa.eu	EU supports efforts designed to address poverty and hunger by providing finance and technical resources for economic development, democracy, peace and security	EU supports agriculture, food security, health, education and governance and the support is through the Protection of Basic Services (PBS); Public Sector Capacity Building (PSCAP); Public Expenditure and Financial Accountability (PEFA); and Monitoring and Evaluation (M&E). EU also provides resources to NGOs to intervene in the PSNP	Users	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
15.	German Federal Ministry for Economic Cooperation and Development (BMZ and GTZ) www.gtz.de www.gtz.de/ethiopia Dr. Tesfai Mebrahtu D/Director, SLM, GTZ tesfayemebrahtu@gtz.de	The mission of the German government is to strive for sustainable reductions in poverty and structural deficits as called for in the United Nations Millennium Declaration	German development cooperation is focused in three priority areas: – Interventions in Sustainable Land Management (SLM) in Tigray and Amhara regions; – Support to the PSNP of MoARD; – Engineering Capacity Building Program (ECBP) in collaboration with universities and specific projects	Users and sources of information	
16.	Japanese International Cooperation Agency (JICA) www.jica.go.jp/ethiopia	The vision of JICA is to support Development by providing financial and technical assistance, and information/knowledge to enhance economic growth and development and contribute to the fight on poverty and hunger	The support programs identified by JICA include: – addressing globalization related issues; – reducing poverty through equitable growth by emphasizing in the water and sanitation sectors; – improving governance related issues; and – achieving social and institutional capacity	Users	
17.	United States Agency for International Development in Ethiopia (USAID/E) www.usaid.gov/mission/et/ Dr. Belay Demis and Ms. Suzanne Poland from ALT and BEAT offices bdemisse@usaid.gov spoland@usaid.gov	The USAID/E strategy is in managing transition from emergency to development and thus in generating economic growth as a base for reducing hunger and poverty	Program of support are in: – food security through PSNP ; – Human capacity and social resiliency (health and education); – Market-led economic growth and resiliency (support to private sector as an engine of growth; support to cooperatives and dairy development projects; marketing infrastructure and productivity for the livestock sector; – S&W conservation activities through support to NGOs; – Knowledge management through the FEWS NET project	Users and sources of information	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
18.	Department for International Development (DfID) www.dfid.gov.uk	The DFID mission is to help tackle underlying causes of poverty and hunger by providing finance and technical support and responds to emergencies	In recent years the DFID support program focuses mainly on the Protection of Basic Services (PBS), Productive Safety Net (PSNP), and Public Sector Capacity Building (PSCB)	User	
19.	Swedish International Development Agency (SIDA) www.sida.se Mr. Aklog Leake Embassy of Sweden Aklog.laike@foreign.minstry.se	The overall objective of SIDA is to contribute to poverty reduction by improving food security conditions of the rural population through the provision of technical assistance, fund, and information/knowledge	SIDA program in Ethiopia focuses on: – Economic and rural development through an integrated development process of which CADU (old) and SARDP (active) support in the Amhara region are good examples; – Expansion of quality education and health services across the country; and – Democracy and human rights	User, sources of information and potential to be a partner in some of their sites	
20.	CIDA/ECCO www.cida-ecco.org Dr. Asferachew Abate Senior NR and Environment Advisor asferachew.abate@cida-ecco.org Ms. Etenesh Kebede Senior agriculture growth advisor etenenesh.bekele@cida-ecco.org	The main goal of CIDA is to support the vision set out in Ethiopia's PASDEP which establishes the overall framework for the national poverty reduction programs for the 2006–2010 period	The CIDA/ECCO support programs: – Address causes of food insecurity and vulnerability (PSNP); – Increase agricultural productivity and income (improved technologies and market-oriented approaches and so demand driven research and extension, access to information and markets (IPMS implemented by ILRI); – Environmental rehabilitation based on soil and water conservation, and market based agribusinesses (WHIST and support to ESSP2)	User and sources of information	
21.	The Royal Netherlands Embassy (RNE) www.netherlandsembassyethiopia.org	The mission of the RNE has recently been to contribute to regional peace and security, improving governance and supporting the realisation of the MDGs	The bilateral development program focuses on three sectors: Governance; Sustainable growth; and Social services. The support programs include food security improvement, economic growth, natural resources management, capacity building, health, education and gender	Users	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
22.	United Nations Development Program (UNDP) www.undp.org	UNDP Ethiopia supports the country achieve its Millennium Development Goals (MDGs), most notably to eradicate extreme poverty and hunger; promote gender equality and the empowerment of women; and environmental sustainability	UNDP assistance is within the overall framework of the FDRE Plan for Accelerated Sustained Development to End Poverty (PASDEP) and in coordination with the other partners, notably other UN agencies. The programs of support are in the areas of health, education, economic development, water, human resources development, and environmental management and rehabilitation	Users	
23.	Representative of the Food and Agriculture Organization (FAO) of the United Nations www.fao.org	The Food and Agriculture Organization (FAO) in Ethiopia encourages sustainable agriculture and rural development, a long-term strategy of increasing food production and food security with the goal of reducing poverty and hunger while conserving and managing natural resources	The Organization's work falls under two broad categories – Regular and Field Programs and these among other things include advice to governments on policy and planning issues, seed sector development in dry areas, and provision of technical assistance as part of: – Technical Co-operation Program (TCP); – Trust Fund Projects; – FAO/UNDP Co-operative Program; – Special program for food security	User and sources of information	
24.	International Fund for Agricultural Development (IFAD) www.ifad.org ifad@ifad.org	Specialized UN agency to fund agricultural development with a mission to enable poor rural people to overcome poverty	Programs include support to the development of small and medium scale irrigation schemes in Amhara, SNNPR, Oromia and Tigray along with treatment of catchments/watersheds associated with schemes; and provision of credit facilities for income diversification. IFAD programs are implemented by the regional BoARD with supervision from the MoARD	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
25.	World Food Program (WFP) www.wfp.org	The main goal of the World Food Program is provision of relief and emergency assistance and work to address threats of food security and poverty	The main programs of WFP are focused on emergency food assistance, the productive safety net program, and development interventions' in most of the drought prone areas of the country. Some of the exemplary interventions of WFP are in soil and water conservation (physical and biological) like project ETH 2488, MERET, and MERET–PLUS are good examples, water harvesting, environmental rehabilitation, and asset protection and livelihoods		
26.	Austrian Development Agency (ADA) www.ada.gv.at	The goal of ADA support is reduction of poverty, safeguarding peace and human security and preserving the environment	ADA's support focuses on water and sanitation, rural development (food security, market-oriented livestock development; promotion of integrated watershed management practices; identification and promotion of alternative livelihood options; community based tourism development; enhancement of park infrastructure and its management), sustainable resource management, energy, the promotion of small and medium-sized enterprises, education, and good governance	User	
INTERNATIONAL AND REGIONAL INSTITUTIONS/ORGANIZATIONS					
27.	International Water Management Institute (IWMI) www.iwmi.org iwmi@cgiar.org Dr. Deborah Bossio d.bossio@cgiar.org Dr. Seleshi Bekele S.BEKELE@CGIAR.ORG Dr. Tilahun Amede t.amede@cgiar.org	IWMI is one of the international research centres supported by CGIAR with a mission to improve management of land and water resources for food, livelihoods and nature and contribute to the achievements of the UN MDGs of reducing poverty and hunger and maintaining the environment	IWMI's programs focused on four research themes: – Water management: understanding and addressing water productivity enhancing activities; Land, water and livelihoods: improving livelihoods for the rural poor; – Agriculture, water and cities: making an asset out of wastewater; and – Water management and environment: balancing water for food and nature;	Source of information and partner in the implementation process	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
28.	International Livestock Research nstitute (ILRI) www.ilri.org ilri@cgiar.org Dr. Alan J. Duncan a.duncan@cgiar.org Dr. Shirley Tarawali Theme Director, ILRI s.tarawali@cgiar.org	ILRI works on livestock and poverty through technology development and capacity building to bear on overall sustainable development. ILRI envisions better world for the poor people in developing countries by improving agricultural systems in which livestock are important	The main program areas and/or research themes of ILRI are in the following: – Biotechnology; – Market Opportunities; – People, Livestock and the Environment; – Poverty and Gender; – Sustainable Livestock Futures	Source of information and partner for the implementation process	
29.	Challenge Program on Water and Food (CPWF) www.waterandfood.org	CPWF is an international, multi-institutional research initiative aiming to improve productivity of the water used for agriculture and others in ways that are pro-poor, gender equitable and environmentally sustainable	The research programs include: – Enhancing rainfed agriculture in upper basin areas; – Identifying practical water saving technologies; – Improving human health; – Increasing river yield from swamps and through control of aquatic weeds in open water courses and lakes; – Promoting sustainable fisheries; and – Improving hydropower potential		

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
30.	International Food Policy Research Institute (IFPRI) www.ifpri.org Dr. Paul A. Dorosh Senior Research Fellow and Program Leader p.dorosh@cgiar.org Emily Schmidt GIS/REKSS Coordinator, IFPRI SSP II Project e.schmidt@cgiar.org	The mission of IFPRI is to achieve sustainable food security and reduce hunger and poverty in developing countries through scientific research and research-related activities in the fields of agriculture, livestock, forestry, fisheries, policy, and natural resources management	IFPRI's involvement in Ethiopia is broadly on analysis of issues that affect the overall performance of the agriculture and water sectors (land, natural resources, inputs, policies, markets, trade, value addition, credit and finance etc.) and on issues that affect production and productivity and the sustainable use of natural resources and the environment	Source of information and partner for the implementation process	
31.	WorldFish Center www.worldfishcenter.org	The mission of the WorldFish Center is to reduce poverty and hunger by improving and harnessing the benefits of fisheries and aquaculture	WorldFish Center is involved in research/ development activities related to Policy Economics and Social Sciences, Natural Resource Management, and Aquaculture and Genetic Improvement	User and source of information	
32.	International Center for Research in Agroforestry (ICRAF)—Worldagroforestry http://worldagroforestry.org/eastafrica www.icraf.org j.mowo@cgiar.org	ICRAF works towards mitigating tropical deforestation, land depletion and rural poverty through improved agroforestry systems. Its goal is to initiate and assist in the generation and dissemination of appropriate technologies	The research programs of ICRAF focus on land, water and forest resources with greater emphasis on agroforestry systems. Programs in agroforestry development and management, ways and means of protecting forests, integrated management of natural resources (water harvesting, soil and water conservation, and introduction of fruit and other trees as part of forest management process)	User, source of information, and partner in implementation	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
33.	International Crop Research Institute for Semi-Arid Tropics (ICRISAT) www.icrisat.org	The goal of ICRISAT is improving the well-being of the poor by reducing poverty, enhancing food and nutritional security and protecting the environment of the semi-arid tropics by helping empower the poor through science with a human face	The main programs of ICRISAT are focused at addressing the issues of production and productivity of the agricultural sector in semi-arid areas through TDD (breeding of the most relevant crops such as sorghum, millet, pulses, and others), management of water and other resources, conservation of water and use of other required inputs, and the proper management of natural resources and the environment	User, source of information and possibly partner in implementation processes	
34.	CIMMYT www.cimmyt.org	Drawing on strong science and effective partnerships CIMMYT creates, shares, and uses knowledge and technology on maize and wheat to increase food security, improve productivity and profitability of farming systems, and sustain natural resources and fight hunger and poverty	CIMMYT develops technologies and shares/ disseminates information and materials on: – High-yielding, stress tolerant maize, wheat varieties. – Large, unique collections of maize and wheat genetic resources. – Productivity-enhancing, resource-conserving farming practices. – Training and information sharing. addressing challenges of global climate change. – works closely with the NARS–EIAR	User, source of information and possibly partner in the implementation processes	
35.	International Center for Agricultural Research in Dry Areas (ICARDA) www.icarda.org Dr. Geletu Bejiga Country Manager g_bejiga@cgiar.org	ICARDA contributes to improvements of livelihoods of resource-poor in dry areas by enhancing food security and alleviating poverty through research and partnerships to achieve sustainable increases in agricultural productivity, income, ensure efficient and equitable use, conservation of natural resources	The research support programs of ICARDA focus on four major areas that include: – Biodiversity and integrated Gene Management; – Integrated Water and Land Management; – Diversification and Sustainable Intensification of production Systems; and – Social, Economic and Policy Research Works on crop improvement and watershed with EIAR and ARARI	User, source of information and possibly partner in the implementation processes	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
36.	Cornell University www.cornell.edu Prof. Tammo Steenhuis, Dept of Biological and Environmental Engineering Tss1@cornell.edu	The Dept of Biological and Environmental Engineering; and the Cornell International Institute for Food, Agriculture, and Development (CIIFAD), with partners in Bahir Dar University, Amhara region supports innovative programs that contribute to improving global food security, sustainable rural development and environmental conservation	The main areas of support program of Cornel University in the Amhara region are teaching at Bahir Dar University in the fields of natural resources management, water and the environment and undertaking various research and development programs in land, water, natural resources and the environment. The use of graduate students to generate data as part of their thesis papers is important. Cornel University was also a partner in the AMAREW project and mainly responsible for the watershed management component	User, source of information and possibly partner in the implementation processes	
37.	University of Bergen www.uib.no	The main goal of the University of Bergen is teaching, research and international cooperation	The programs of UB include research on climate and water, teaching and exchange of information/ knowledge and works with other universities (Arba Minch and Addis Ababa Univ.)	User and source of information	
38.	University of Berne www.unibe.ch/eng/ www.cde.unibe.ch/ University Centre for Development and Environment, Institute of Geography, University of Bern hans.hurni@cde.unibe.ch	The main goal of the University of Berne's Institute of Geography is to provide quality teaching at all levels and to serve as a centre of research in the areas of natural resources and the environment	Programs are teaching and research in natural resources management environment, water resources, soil, and land and water management. The teaching and research in land and water, environment, climate change, natural resources, and policy issues in water and environment were done in collaboration with MoARD, AAU, MU and ARARI	User and source of information	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
39.	International Sorghum and Millet (INTSORMIL) Collaborative Research Support Program (CRSP) www.intsormil.org Prof. Gebisa Ejeta gejeta@purdue.edu	INTSORMIL conducts collaborative research on sorghum and millet through partnerships of US university scientists and NARS scientists with the goal of improving productivity and utilization of the two crops contributing to improved income, poverty reduction and food security	The program focuses on enhancing production and use of sorghum, millet and some other grains (finger millet, folio and teff). This work has identified new farming practices that improve yields, reduce crop losses to pests and protect natural resources and helped to develop new markets for these important grains. The program also supports education of researchers at various levels and an outreach program to help farmers access the technologies developed	User and source of information	
Regional Institutions and Organizations					
40.	Nile Basin Initiative (NBI) Secretariat (Nile–SEC) www.nilebasin.org Ms. H. Ndombe Executive Director hndombe@nilebasin.org Dr. C. Kanangire Head SP ckanangire@nilebasin.org	An executive arm of an inter-governmental basin wide initiative aiming to bring a sustainable socio-economic development through the equitable utilization of, and benefit from, the water resources of the Nile River	The NBI has regional projects (on efficient use of water, environment, power, capacity building, benefit sharing, and water resources) designed to identify best practices, establish an enabling environment and bring stakeholders together and sub-basin programs looking at potential investments in the different sectors	User and source of information and possibly partner in the implementation process	
41.	Intergovernmental Authority on Development (IGAD) in Eastern Africa www.igad.org IGAD Climate Prediction and Applications Centre (ICPAC) www.icpac.net	The IGAD mission is to assist and complement the efforts of the Member States to promote regional cooperation and integration, resolve conflicts and achieve food security	The program of IGAD includes works on agriculture and environment, adaptation to climate changes and provision of information, and water management with respect to transboundary rivers. IGAD's other important program deals with conflict management in pastoral areas and so management of natural resources and the environment	User and source of information	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
42.	The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) www.asareca.org secretariat@asareca.org Dr. Seyfu Ketema Exec. Manager s.ketema@asareca.org Dr. Hezron Mogaka, Programme Manager NRM and Forestry h.mogaka@asareca.org	ASARECA's aim is to increase the efficiency of agricultural research in the region so as to facilitate economic growth and food security. Objective is to improve relevance, quality and cost-effectiveness of agricultural research; establish and support regional mechanisms for collaboration of research systems; and improves delivery of new appropriate information and technology	The ASARECA strategy includes: – Performance driven governance and management structures and systems; – Generation and uptake of demand driven technologies and innovations facilitated; – Policy options for enhancing the performance of the agricultural sector in the ASARECA sub-region; – Capacity building for implementing agricultural research in the IAR4D paradigm in the ASARECA sub-region; – Availability of information on agricultural innovation enhanced ASARECA uses the services of NARS by transferring resources obtained from various donors	User and source of information	
43.	Nile Basin Initiative (NBI) / Water Resources Planning and Management (WRPM) project http://wrpmp.nilebasin.org Dr. H. Ghany Project Manager hghany@nilebasin.org	One of the Shared Vision Program (SVP) projects of the NBI with the long-term goal of ensuring that Nile Basin water resources are developed and managed in an equitable, optimal, integrated, and sustainable manner to support socioeconomic development in the region	The NBI's Shared Vision Program projects deal with planning, development, management and efficient use of water, environmental management, capacity building, power trade, confidence building, and socio-economic development. The WRPM project deals with key water resources management issues and information requirements for cooperative development and management of the shared water resources. The programs involve process of developing effective national water policies and implementation strategies, project planning and management skills, and communication and decision-making tools	User, source of information and possibly partner for implementation	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
44.	Eastern Nile Subsidiary Action Program (ENSAP) or Eastern Nile Technical Regional Office (ENTRO) http://ensap.nilebasin.org Dr. Ahmed Khalid, ENTRO Executive Director akhalid@nilebasin.org Dr. Solomon Abate Project Coordinator, Watershed sabate@nilebasin.org Mr. Ayalew Nigussie Project Coordinator, Irrigation ANigussie@nilebasin.org	The Eastern Nile Technical Regional Office established in 2002 to facilitate preparation and advance the implementation of ENSAP. The Eastern Nile Subsidiary Action Program (ENSAP) seeks to realize the NBI's shared vision for the Eastern Nile region and isaimed at contributing to the reduction of poverty, economic growth and the reversal of environmental degradation	ENSAP is an investment program of the Governments of Egypt, Ethiopia and Sudan focusing on the Integrated Development of the Eastern Nile (IDEN) comprising some seven components like the Baro–Akobo Multi-purpose Water Resources Development; Flood Preparedness and Early Warning; Irrigation and Drainage; Watershed Management; and others	User, source of information and possibly partner for the implementation process	
45.	Global Water Partnership (GWP) for eastern and southern Africa www.gwpforum.org Simon Thuo, Coordinator, Eastern Africa sthuo@nilebasin.org	The Global Water Partnership founded in 1996 aims to have a water secure world by supporting the sustainable development and management of water resources at all levels	GWP works with the government to foster an integrated water resource management, and ensure the coordinated development and management of water, land, and related resources by maximizing economic and social welfare. Overall, programs / projects of GWP focus on: – Managing water and land resources; – Sustainable management of the environment; – Watershed management; – Poverty alleviation through the management of water; – Support to institutional development/building of capacity;	User and source of information	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
46.	Improved Management of Agricultural Water in Eastern and Southern Africa (IMAWESA) www.imawesa.org	The Improved Management of Agricultural Water in Eastern and Southern Africa (IMAWESA) is a regional knowledge management network whose goal is to contribute to poverty reduction through improved policy, institutions, practices and performance of smallholder management of water for agriculture	Programs are enhanced policy and institutional framework for smallholder management of agricultural water; Enhanced understanding by stakeholders and development partners, of key issues (technical, economic, social and environmental), to guide future interventions and investments in AWM; Strengthened capacity and improved effectiveness in the management and implementation of AWM projects and programs; and Enhanced sharing of knowledge and best practices in management of agricultural water, within and across the Region	User and possibly a partner	
47.	Famine Early Warning Systems Network (FEWS NET) www.fews.net	Famine Early Warning Systems Network (FEWS NET) activity collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues	FEWS NET monitors and analyses relevant data and information in terms of its impacts on livelihoods and markets to identify potential threats to food security and shares these with governmental organizations, NGOs and others that are involved in the delivery of emergency food aid, mitigation of food security problems, and planning and implementation of development activities	Source of information and possible partner	
48.	Organization for Social Science Research in Eastern and Southern Africa (OSSREA) www.ossrea.net/	The Organization for Social Science Research in Eastern and Southern Africa (OSSREA) is a regional membership-based and donor-supported research and capacity-building organization whose mission is to promote dialogue and interaction between researchers and policymakers in Eastern and Southern Africa with a view to enhancing the impact of research on policy-making and development planning	OSSREA's main programs are focused on research and teaching in the social sciences and as a result: – encourage and promote interest in the study of and research in the social sciences in Eastern and Southern Africa; – promote collaborative research and facilities for scholarly exchange of ideas and publications between individuals and institutions engaged in the study of and research in the social sciences; – promote the training of African scholars in the study of and research in the social science and encourage the establishment of institutions dedicated to this goal; – work in close cooperation with other individuals and institutions in Africa and elsewhere in the world engaged in the study of the social sciences;	User, source of information and possibly a partner in the implementation process	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
National Organizations, Higher Learning Institutions, Think Tanks, and Associations					
49.	Ethiopian Development Research Institute (EDRI) www.edri.org www.edri-et.org info@edri.org.et exe-director@edri.org.et	EDRI is a semi-autonomous economic policy institute founded in 1999 and hosted under the Office of the Prime Minister. The main goal and objective of EDRI: – conduct high quality economic research and policy analysis and respond to research and policy needs of government and the economy	The programs of the Ethiopian Development Research Institute are in the areas of: – Economic research and policy analysis, – Bridging research and policy; – Capacity building (human and institutional); – Knowledge dissemination and exchange using workshops, seminars, and conferences, and establishment of linkages; and – Provision of consultancy services	User, source of information and possible partner in implementation	
50.	The Environmental Economics Policy Forum for Ethiopia (EEPFE) www.edri.org www.edri-et.org www.efdinitiative.org Dr. Alemu Mekonnen Coordinator, EEPFE, EDRI info@edri.org.et	EEPFE is the local node in EfD network with the goal of supporting poverty alleviation and sustainable development through an increased use of environmental economics. The vision of the EEPFE is to be the leading centre for environmental economics policy research and a locus for interactions among those interested in policy oriented environmental research in Ethiopia. The Mission is to provide policy advice to government and other stakeholders	The EEPFE programs are aimed at: – Increasing number of trained environmental economists by creating a conducive working environment; – Strengthening the capacity of environmental economics graduates to do applied research on poverty and environmental management by linking research fellows with international research organizations; – Undertaking objective research and analysis on impact assessment, environmental management, and poverty with the goal of providing advice to policymakers and development agencies; – Collecting and analysing data on sustainable land use; – Increasing the knowledge base on environmental and development issues	User, source of information and possibly partner in implementation process	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
51.	The Ethiopian Strategy Support Program 2 (ESSP-II) www.ifpri.org/themes/essp/essp.htm www.edri.org.et ifpri-addis@cgiar.org	The Ethiopia Strategy Support Program II (ESSP-II) is collaborative program of capacity building, research, policy analysis and knowledge transfer or dissemination by IFPRI and EDRI. ESSP2 is an initiative to strengthen evidence-based policymaking in Ethiopia in the areas of rural and agric. development. Facilitated by IFPRI, ESSP2 works closely with the government of Ethiopia, EDRI and other development partners to provide information relevant to rural and agricultural strategies	The activities of the ESSP-II is collaborative research within three key institutions (EDRI, Central Statistics Agency, and MoARD) promoting poverty reduction and economic development in Ethiopia. The programs are: – knowledge-management to contribute to policy dialogue, strategic priority setting, and evidence-based policy analysis; – Capacity strengthening and increased knowledge dissemination within the academic and policy research community; – Enhancing communications and institutional linkages between policymakers, policy analysts, civil society, and other policy and research actors through joint seminars, other dissemination events		
52.	Addis Ababa University www.aau.edu.et	Teaching , Res. and Information	– Produce manpower in natural res. Management and biological sciences – Technologies and information on NRM, plant protection, food security environmental economics and others	User, source of information and possible partner in implementation processes	
53.	Arba Minch University www.amu.edu.et www.arbaminch-univ.com	Teaching, Res. and Information	– Produce manpower in water resource management and engineering – Technologies and information on agricultural development and natural resources management;	User, source of information and possible partner in implementation processes	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
54.	Haromaya University www.haramaya.edu.et	Teaching, Res. and Information	– Produce manpower in water and sanitation, irrigation and drainage, agriculture and natural resources management; – Generate technologies and also help in the dissemination process	User, source of information and possible partner in implementation processes	
55.	Bahir Dar University www.bdu.edu.et www.telecom.net.et/~/bdu/	Teaching, Res. and Information	– Produce manpower in water and natural resources management; – Technology development and dissemination	User, source of information, possible partner in implementation	
56.	Ambo University www.ambo.edu.et	Teaching, Res. and Information	– Produces manpower in agriculture and natural resources management; – Technology development and dissemination	User, source of information and possible partner in implementation processes	
57.	Mekele University www.mu.edu.et	Teaching, Research and information sharing	– Produces manpower in agriculture and natural resources management in relation to dry-land areas; – Technology development and dissemination	User, source of information and possible partner in implementation	
58.	Jimma University www.ju.edu.et	Teaching, Res. and Information	– Produces manpower in agriculture and natural resources management; – Technology development and dissemination	User, source of information and possible partner in implementation processes	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
59.	Forum for Social Sciences (FSS) www.fssethiopia.org.et	FSS is a think tank with a quest for the independent policy research and the provision of public forum for debates and consultations on policy issues and aims to contribute its share to the fostering and expansion of the democratization process	The FSS Undertakes various research activities with policy implications and share the findings with governmental and Non-governmental organizations, and other interested groups or individuals	User, source of information and possible partner in implementation processes	
60.	Ethiopian Economic Association (EEA) www.eeaecon.org	The EEA has actively engaged in Economic research, training, and organization of International and national conferences and round table discussions on Ethiopian economy and the dissemination of the result of these activities	– Contribute to the economic progress of Ethiopia, – Promote the professional interests of its members, – Promote economic research and assist in the dissemination of the findings of such research in Ethiopia, – Provide fora for the discussion of economic issues, and – Promote professional contacts among Economists.	User, source of information and possible partner in implementation processes	
61.	The Institute of Development Research (IDR) www.aau.edu.et/research/idr/	The Institute of Development Research (IDR) is an institute in the Addis Ababa University Ethiopia, and has been carrying out and promoting development research, teaching and research in social sciences since 1972	IDR collects and analyses socio-economic data on development problems, conducts multi-disciplinary socio-economic research and disseminates findings. The IDR programs include: – Rural development and Food Security; – Social/human development; – Environment, TD, and natural resource anagement; and – Macro and meso policy studies	User, source of information and possible partner in implementation processes	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
Non-Governmental Organizations (Local, national and international)					
62.	Famine Early Warning Systems Network/Ethiopia (FEWS NET) www.fews.net Ethiopia@fews.net	Famine Early Warning Systems Network (FEWS NET) collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues	FEWS NET monitors and analyses relevant data and information in terms of its impacts on livelihoods and markets to identify potential threats to food security and shares these with government, NGOs and others that are involved in the delivery of emergency food aid, mitigation of food security problems and planning and implementation of development activities	User and source of information	
63.	Organization for Rehabilitation and Development of Amhara (ORDA) www.ordainternational.org Orda.liaison@ethionet.et	The main vision and goal of Organization for the Rehabilitation and Development of Amhara (ORDA) is to empower people in the rural Amhara region to overcome poverty and hunger	Programs of intervention are: – Water and sanitation. – Irrigation systems development to ensure food security and income. – Environmental rehabilitation and land management to prevent soil erosion, and provide fuel, animal feed, timber wood and other forest by-products for household use. – Work on gender issues. – Emergency food aid provision	User	
64.	Relief Society of Tigray (REST) www.rest.org restaddis@ethionet.et	An indigenous NGO implementing a wide range of relief, rehabilitation and development activities in Tigray Regional State since 1978. Works with poor communities in addressing the issues of poverty, hunger and food security	Programs of REST include: – Water and sanitation services. – Irrigation schemes to ensure food security and income generation. – Reforestation to reverse years of environmental degradation, physical and biological conservation, – Introduction of stoves, animal feed, timber wood, and other products for household use. – Provision of micro-finance and development of small enterprises Address gender issues and provide emergency food	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
65.	CARE/E www.care.org care.eth@ethionet.et	CARE's mission is to serve individuals and families in poorest communities in the world by promoting innovative solutions and to address poverty and hunger	– Strengthening capacity at the local and community levels for self-help; – Providing economic opportunity; – Delivering relief in emergencies; – Influencing policy decisions at all levels; – Addressing discrimination in all its forms	User	
66.	World Vision/Ethiopia (WV/E) www.worldvision.org wveth@ethionet.et	An NGO providing relief and development in some parts of country. Main goal is to enhance lives of affected people and help enact sustainable solutions for the future of their communities, families, and children	World Vision/Ethiopia has major programs in water and sanitation and also in what is considered/ described as Area Development Program (ADP) which is an overall support program providing holistic community based approach to meet the needs of poor farmers with emphasis to children and women	User	
67.	Catholic Relief Services/ Ethiopia (CRS/E)—List of partners for CRS is also attached www.crs.org	CRS carries out the commitment of the Bishops of the United States to assist the poor and vulnerable by promoting human development and responding to major emergencies, fighting disease and poverty, and nurturing peaceful and just societies	The Key program areas of CRS/E include: – Development and promotion of water and sanitation; – Participate in emergency preparedness and recovery activities; – Support agricultural development and livelihoods including microfinance activities; and – Create awareness on HIV and AIDS and provide care for the affected	User	
68.	FARM/Africa www.farmafrica.org/uk farm.ethiopia@ethionet.et	FARM-Africa's mission is to reduce poverty by enabling marginal farmers and herders to make sustainable improvements to their wellbeing by effectively managing renewable natural resources.	FARM/Africa's support programs designed to improve people's long term opportunities to manage their resources effectively, increase household income, nutrition, access to food and animal healthcare, and protect the local environment. The major program areas include: – Participatory forest management; – Pastoralist development; – Female empowerment	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
69.	Save the Children (Canada, Denmark, Finland, Norway, Sweden, United Kingdom and United States) www.savechildren.org	Save the Children in Ethiopia have been working since 1965 on issues that are critical to children and as a result are active in all areas important to survival, protection and development of children	SC group delivers services essential to children's welfare; develop capacity of professionals, NGOs and children, conduct research on children's issues and advocate for policy change. Save the Children's programs address food security, education, health, nutrition, poverty alleviation, exploitation and abuse, children's rights, harmful traditional practices, discrimination against girls and children with disabilities, and refugees, and relief	User	
70.	Overseas Development Institute (ODI)—RIPPLE www.rippleethiopia.org info@rippleethiopia.org	The main goal is poverty reduction through practical interventions and also inform policy which lead to reduction of poverty	The major program of ODI is income diversification	User	
71.	GOAL www.goalethiopia.com goal.ethiopia@ethionet.et	GOAL registered in 1987 as international implementing NGO in Ethiopia, and has since been delivering a range of relief, rehabilitation and development initiatives throughout the country	The major programs of GOAL in Ethiopia include: – Health, education and nutrition with special emphasis on children at risk; – Emergency food aid distribution; – Rural community development; – Support to agricultural development and livelihoods; – HIV and Aids – Water, Sanitation and Hygiene	User	
72.	Amhara Development Association (ADA) www.telecom.net.et ada@ethionet.et	ADA is a for no profit NGO aiming to address issues of poverty and backwardness in the Amhara region and aspiring to be a forerunner in development endeavours	The support program of the development association is focused on selected sectors in the areas of health, education, infrastructure, basic skill training and other development activities, through community participation	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
73.	COOPI www.itacaddis.org addis@coopi.org	COOPI promotes and carries out emergency program as well as development activities in Africa, Latin America, Asia and the Balkans with the goal of reducing poverty and hunger	COOPI's program support areas are focused on emergency relief, development and overall rehabilitation efforts	User	
74.	Sasakawa Global 2000 (SG 2000) www.saa-tokyo.org/english/country/Ethiopia Dr. Abera Debelo Country Director	The SG 2000 started in emergency food aid but moved to technology transfer activities and development programs in agriculture. SG 2000's principal objective was to demonstrate the potential of improved food crop technology, by training extension workers and farmers	The initial and expanded intervention programs of the Sasakawa Global 2000 include: demonstration of local technologies to farmers, training of extension agents and farmers, building capacity in the national agricultural extension system, technical training to management, agroprocessing, marketing, farmers organizations, value-adding activities	User and source of information	
75.	OXFAM/UK www.pxfam.org.uk www.oxfam.org addisababa@pxfam.ork.uk	Support the overall efforts in addressing poverty, food security and hunger in the country by working with communities	– Development of new / improved farming techniques to increase harvest and productivity ; – Development water resources and ensure reliable supply; – Promote education especially, girls; – Helping local communities influence government decision-making	User	
76.	Christian Relief and Development Association (CRDA) www.crdaethiopia.org Dr. Meshesha Shewarega Executive Director crda@ethionet.et	CRDA is an indigenous non-profit umbrella organization whose objectives include: facilitate collaboration towards common ends; Support and coordinate dialogue, and exchange of information; Support members build their capacity; Represent the interest of members; and Policy research and analysis	CRDA allows resource mobilization and the sharing of experiences for effective and sustained impact. CRDA programs include building capacity in order to ensure efficiency and quality of interventions, efforts are not duplicated and lessons can be learnt. All this is geared towards championing societal transformation. The major support programs are engagement in relief and rehabilitation, developmental activities focusing on poverty alleviation and policy advocacy and lobbying	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
77.	Agri-Service Ethiopia (ASE) www.agriservice.ethionet.et Mr. Ammanuel Asefa Director, Program Support Department kidus_aman@yahoo.com	The vision of Agri-Service Ethiopia is development of Ethiopia where citizens enjoy dignified life and the facilitation of the empowerment of the poor and marginalized people in Ethiopia towards a sustainable livelihood	The core program areas of Agri-Service Ethiopia are related to the following: – Participatory learning and action; Natural resources management; – Participatory research and development activities; – Indigenous knowledge; – Empowerment of communities and local institution; Networking and advocacy	User and source of information and possibly partner	
78.	Ethiopian Orthodox Church Development and Interchurch Aid Commission (EOC/DICAC) www.Eoc.cfao@ethionet.et	The EOC/DICAC was established as a development wing of the church to provide relief services and support poverty reduction and livelihood activities. Has worked in emergency relief, rehabilitation, development, refugees and returnees support, and HIV/AIDS	Since its establishment, it has performed emergency relief, rehabilitation, development, support to refugees and returnees, and HIV/AIDS prevention and control activities. The main programs of intervention are in the areas of water and sanitation; food and agriculture; education; health and hygiene; and livelihood related activities. EOC is active in Amhara, Tigray, Oromia, and SNNP's regions	User	
79.	Water Action (WA) www.wateraid.org/ethiopia	Water Action is an Ethiopian NGO with the overall objective and goal of developing the water resources, promoting hygiene and sanitation	Water Action is implementing an integrated watershed development project in Amhara region with support from CRS. The Ngo is also involved in encouraging small-scale irrigation development programs	User	
80.	SNV in Ethiopia www.snvworld/eng/countries/ethiopia	SNV began work in the 70s responding to a call on the famine and emergency and is now focusing on some development programs that help reduce poverty and hunger	The programs of SNV are in two impact areas which are access to basic services and increase in production, income and employment	User	

	Organization/unit and contact information	Broad mandate and responsibilities for RWM	Major RWM programs and project with dates, partners in Blue Nile	Possible linkages with CPWF Program	Documents
81.	International Development Enterprises (IDE) www.ideorg.org www.ide-ethiopia.org/ Dr. Robert Yoder ryoder@ideorg.org	The purpose behind the establishment of the International Development Enterprises is to alleviate rural poverty is to help smallholder farmers use their own resources to earn a profit	This is accomplished with a two-pronged strategy: providing small-plot farmers with access to affordable irrigation technology, which allows them to grow high-value cash crops, and creating connections to markets, where they can sell their extra produce to generate income	User	
82.	Glimmer of Hope www.aglimmerofhope.org/ethiopia	The main goal of a Glimmer of Hope is to support some development activities and unearth the entrepreneurial skills and there by contribute to poverty reduction, reduction of hunger and sustainable impact on society.	The three major components of A Glimmer of Hope's Income Creation programs include such programs as micro-finance, micro-irrigation, and micro-enterprise	User	
83.	Ethiopian Wetlands and Natural Resource Association (EWNRA) www.wetlands.hud.ac.uk/ewnra	The EWNRA was formed by professionals to with the aim of developing wetlands management, research and training capacity in the country thereby facilitating the wise use, management and utilization of wetlands	As a result it concentrates on awareness raising, the provision of technical guidance, support to institutional capacity development and training—both in communities and government agencies, and policy development for the wise use of wetlands and creating the necessary capacity for the sustainable management of wetlands		
84.	Team Today and Tomorrow (TTT) www.TTT@ethionet.et	TTT was established by professionals in land and natural resources management to use their knowledge and experiences in order to address food security and degradation in selected localities in Amhara	Team Today and Tomorrow is an indigenous NGO partnering with CRS and involved in programs related to soil and water conservation, water and natural resources management, environmental rehabilitation and in so doing address livelihoods and food security issues	User	
85.	Tigray Development Association (TDA) www.tdaint.org tda.mekele@ethionet.et tda.addis@ethionet.et	TDA is a for no profit local NGO established with the main aim of rehabilitating areas affected by war and years of neglect and help bring development activities to fight hunger, poverty and food insecurity	The main areas of its support program are focused on health, education, skill building, agriculture and natural resources, conflict resolution, transport and culture	User	

http://nilebdc.wordpress.com

Nile Basin Development Challenge (NBDC) partners

Ambo University	http://www.ambou.edu.et
Amhara Regional Agricultural Research Institute	
Bahir Dar University	http://www.bdu.edu.et
Catholic Relief Services – Ethiopia	http://crs.org/ethiopia
Ethiopian Economic Policy Research Institute	http://eeaecon.org
International Livestock Research Institute	http://ilri.org
International Water Management Institute	http://www.iwmi.cgiar.org
Ministry of Agriculture	http://www.eap.gov.et
Ministry of Water and Energy	http://www.mowr.gov.et
Nile Basin Initiative	http://nilebasin.org
Oromia Agricultural Research Institute	
Overseas Development Institute	http://odi.org.uk
Stockholm Environment Institute	http://sei-international.org
Wollega University	http://www.wuni.edu.et
World Agroforestry Centre	http://worldagroforestrycentre.org