



EDRI



Conference on “**Sustainable Land and Watershed Management (SLWM): Experiences and Lessons**”
 Theme: “**SLWM for Improved Livelihood, Energy Security and Climate Smart Landscapes**”

Co-organized by Mekelle University (MU) and Environmental Economics Policy Forum for Ethiopia (EEPFE) at the Ethiopian Development Research Institute (EDRI)

Date: 26-27 May 2014

Venue: Axum Hotel, Mekelle – Ethiopia

Revised Conference Program

Day 1: May 26, 2014

Registration, Introduction, Welcome, Opening, & Keynote Speech

Session: Plenary 1

Room:

Time	Activity	Speaker/Presenter/Responsible	Facilitator/Chairperson
8:30 – 9:00AM	Participant Registration	Organizers	
9:00 – 9:10AM	Introducing Conference Program (and Expected Outputs)	Dr Zenebe Gebreegziabher/Dr Gebreyohannes Girmay	
9:10 – 9:20	Welcome Address	Dr. Kindeya Gebrehiwot, President, MU	
9:20 – 9:30	Welcome and about EEPFE/EDRI	Dr Alemu Mekonnen, Center Director, EEPFE/EDRI	Dr. Kindeya Gebrehiwot
9:30– 9:40	Opening Speech	H.E. Ato Sileshi Getahun, Natural Resource Development Sector State Minister, MoA	
9:40 – 10:00AM	Keynote Speech 1: Sustainable Land and Water Management in Ethiopia	H.E Dr. Tewolde Berhan Gebre Egziabher	
10:00 – 10:20AM	Keynote Speech 2: Capacity Building in Land Resource Management Teaching and Research in Ethiopia	H.E. Professor Mitiku Haile	
10:20 – 10:40	Health Break		

Sub-theme: Invited Papers

Session: Plenary 2

Room:

Time	Paper title:	Speaker/Presenter	Facilitator/Chairperson
10:40 – 10:55	Accelerating Crop Production in Ethiopia	H.E. Ato Wondirad Mandefro, Agricultural Development Sector State Minister, MoA	HE Ato Seleshi Getahun
10:55 – 11:10	SLWM and Livestock Management in Ethiopia	H.E. Dr. Gebregziabher Gebreyohannes, Livestock Development Sector Sate Minister, MoA	
11:10 – 11:25AM	Achievements of SLMP-I and Design and Implementation of Successor SLMP-II in Ethiopia	Ato Melaku Tadesse, National Program Coordinator, SLMP Ethiopia, MoA	
11:25-11:40	A to Z of SLM in Ethiopia	In Honor of the Late Dr Tesfai Mebrahtu, GIZ SLM	
11:40– 12:30	Discussion		

12:30 – 2:00PM	Lunch Break	Organizers	
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Sub-theme: Biological, Structural, and Integrated SLWM Approaches, Practices, and Climate-smart Landscapes **Session: Parallel 1A** **Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
2:00 – 2:15PM	Characterization of Acidic Soils in the Highlands of Tsegede, Tigray, Ethiopia	<u>Abreha K.</u> ; Hiluf G.; Tekalign M.; Kindie T.	Hailu K.	Dr Alemu Mekonnen,
2:15 – 2:30	The Spatial Variability of Measured Soil Properties in a Mountainous Terrine with Different Land Use and management Practices, Ethiopia	<u>Hailu K.</u> ; Ole W.; Andreas K.; Feras Z.; Stefan S.	Gebreyesus B.	
2:30 – 2:45	Soil Quality Indexing for Evaluating Soil Degradation in Mai-Negus Catchment, Northern Ethiopia	Gebreyesus B.;	Abeyou W.	
2:45:3:00	Irrigation Area Suitability Mapping in the Lake Tana Basin, Ethiopia	<u>Abeyou W.</u> ; Amy S.; David G.; Simon L.; Tammo S.	Tino. J.	
3:00 – 3:15	Climate-Smart Landscapes for Functional Agro-biodiversity in the East African Mountains	Tino. J.	Abreha K.	
3:15 – 3:35	Discussion			
3:35 – 3:50	Poster Presentations Session 1			
3:50 – 4:10	Health Break			

Sub-theme: Institutional, Socio-economic, and Policy Aspects of SLWM **Session: Parallel 1B** **Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
2:00 – 2:15PM	Governance, Planning and GIS in Public Institutions, Tigray	Fikru Y.	Kiremu. M.	Mr Stephen Danyo, World Bank Ethiopia Office
2:15 – 2:30	Sustainable Land and Water management in Sub-Saharan Africa under a changing Climate: A review of Institutional, Socio-economic, and Policy Aspects of Successful Investments in Kenya	<u>Kiremu. M.</u> ; James K.	Fitsum H.	
2:30 – 2:45	Land and Water Institutions in the Blue Nile Basin: Setups and Gaps for Improved Land and Water Management	<u>Fitsum H.</u> ; Amare H.; Sleshi B. A.; Everisto M.; Tesfaye T.	Menale K.	
2:45 – 3:00	Sustainable Intensification, Crop Income and Input Use: Empirical Evidence from Ethiopia and Malawi	<u>Menale K.</u> ; Hailemariam T.	Fikru Y.	
3:00-3:15				
3:15 – 3:35	Discussion			
3:35 – 3:50	Poster Presentations Session 1			
3:50 – 4:05	Health Break			

Sub-theme: Impacts, Processes, and Lessons in SLWM and Land Certification
Session: Parallel 1C
Room:

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
2:00 – 2:15PM	Integrating Conserved Resources with Intensification and Diversification of High Value Irrigated Crops: A Fertile Approach Towards Resilient Farming	Gebremedhin W.; Berhanu G.; Dirk H.; Dawit W.	Tinsae B.	Ato Melaku Tadesse
2:15 – 2:30	Effect of Provenance on Seed Germination, Early Survival and Growth Performance of <i>Ziziphus Spina-chriti</i> (L.) Desf. In Ethiopia	Tinsae B.; Abeje E.; Yigardu M.; Yared K.; Omarsherif M.; Tatek D.; Wubalem T.	Aregawi G.	
2:30 – 2:45	Recharging Ground Water for Sustainable Utilization of Irrigation and Domestic Water Supply, the Case of Raya Valley and Burqa Abagabir Watershed	Aregawi G.	Legesse Y.	
2:45 – 3:00	'Rural Land Administration and Use System in Tigray Regional State'	Legesse Y.; Gebreyohannes G.	Girmay G.	
3:00-3:15	Land Use Based Semi-Quantitative Specific Sediment Yield Assessment: The Case of Gergera Watershed, Northern Ethiopia	Ermias B.; Girmay G.	Gebremedhin W.	
3:15 – 3:45	Discussion			
3:45 – 3:50	Poster Presentations Session 1			
3:50 – 4:10	Health Break			

Sub-theme: SLWM and Livestock Management
Session: Parallel 2A
Room:

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
4:10 – 4:25	Characterization of Goat Population and Breeding Practices of Goat Owners in Gumara-Maksegnit Watershed – Northern Gondar, Ethiopia	Alayu K.; Surafel M.; Aynalem H.	Teyib S.N	HE Dr Gebregziabher Gebreyohannes
4:25 – 4:40	Impact of Sustainable Land and Water Management Practices. Challenges in Gode District of the Wabe Shebelle	Teyib S.N.; Gijs V.	Gebrehiwot T.	
4:40 – 4:55	Manipulation of Rumen Microbial Ecosystem to Reduce Methanogenesis and Improve Fiber Digestion Using Plant Extracts	Gebrehiwot T.; B.S. Punia	Firew T	
4:55 – 5:10	The chicken-and-egg paradox of prohibiting free grazing for natural resources conservation	Firew T.	Tessema Z.	
5:10- 5:25	Understanding Above-ground Vegetation and Soil Seed Bank Dynamics for the Restoration and Sustainable Management of Degraded Rangelands in Ethiopia.	Tessema Z.	Alayu K	
5:25 – 5:50	Discussion			
5:50 – 6:00	Poster Session 2			

Sub-theme: SLWM and Energy Security**Session: Parallel 2B****Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
4:10 – 4:25	Assessment of Socio-economic and Environmental Contributions of Biogas Technology: The Case of Meskan Woreda, Southern Ethiopia	<u>Hafte M.</u> ; Tegaye B.; Tesfaye A.	Asfafaw H.	Dr Mulu Bayray, Department of Mechanical Engineering, MU
4:25 – 4:40	Solar Energy for Sustainable Energy and Climate Security	<u>Asfafaw H.</u> ; Ole J.; Mulu B.	Tesfaye. H.	
4:40 – 4:55	Babmoo as Sustainable Biomass Energy: A Sustainable Alternative for Firewood and Charcoal Production in Africa	Tamru T.; <u>Tesfaye. H.</u> ; Fu J,	Ketsela M.	
4:55 – 5:10	Sustainable Land and Watershed Management for Energy Security in Ethiopia	Ketsela M.;	Mulu B	
5:10 – 5:25	Potential for Wind Pumping in Geba Catchment, Northern Ethiopia	<u>Mulu B.</u> ; Anwar M.	Hafte M.	
5:25 – 5:50	Discussion			
5:50 – 6:00	Poster Presentations Session 2			

Sub-theme: SLWM and Climate Change**Session: Parallel 2C****Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
4:10 – 4:25	Evaluating Potential Impact of Climate Change on Surface Water Resource Availability of Upper Awash Sub-Basin Ethiopia Rift Valley basin	<u>Mekonnen D.</u> Kassa T..	Abbadi G.	Dr Atinkut Mezgenu, Dean, College of Dryland Agriculture and Natural Resources, MU
4:25 – 4:40	Climate Change Trend and Adaptation Through Environmental Rehabilitation in Ethiopia	Abbadi G.	Tewodros G.	
4:40 – 4:55	Creating Carbon Neutral and Climate Resilient Rural Livelihood in Tigray	Tewodros G.	Yosef W.	
4:55 – 5:10	Predictability of Inflow Using Global Oceanic and Atmospheric Climate Forcing into Tekeze Reservoir, Ethiopia	Yosef W.	Zenebe G.	
5:10 – 5:25	Social Capital, Climate Change and Soil Conservation Investment: Panel Data Evidence from Highlands of Ethiopia	Mintwab B.; Abebe D.; <u>Zenebe G.</u> Liyousew B.	Mekonnen D.	
5:25 – 5:50	Discussion			
5:50 – 6:00	Poster Session 2			

Day 2: May 27, 2014

Sub-theme: Invited Papers

Session: Plenary 3

Room:

Time	Activity	Speaker/Presenter/Responsible	Moderator or Facilitator
8:30 – 9:00AM	Participant Registration	Organizers	HE Ato Wondirad Mandefro
		Speaker/Presenter	
9:00 – 9:15	Experience of MERET Project, Ethiopia	Ato Arega Yirga WFP, Ethiopia	
9:15 – 9:30	Market-based Incentives for Watershed Management	Prof. Edwin Muchapendwa University of Cape Town, South Africa	
9:30 – 9:45	The Eastern and Southern African Country Level Soil Health Consortia	Dr. James Mutega, International Plant Nutrition Institute (IPNI), Nairobi, Kenya	
9:45-10:00	Global Climate Change Alliance-Ethiopia (GCCA-E): Experiences from "Piloting Climate Smart Agriculture Interventions in the SLMP"	Dr Berhanu Mengesha, GIZ SLM	
9:45 – 10:10	Discussion		
10:10 – 10:30	Health Break		

Sub-theme: Biological, Structural, and Integrated SLWM Approaches, Practices, and Climate-smart Landscapes

Session: Parallel 3A

Room:

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
10:30 – 10:45	Tolerance of Certain Ethiopian and South African Sorghum Cultivars Towards Striga Astiatica, and the Influence of Water Stress on Crop Tolerance	Niguse T.	Abebe D.	Dr. Tadesse Dejene Director, University- Community-Industry Linkage, MU
10:45 – 11:00	Household Level Determinants of Agroforestry Technology Adoption in Rural Ethiopia	<u>Abebe D.</u> ; Alemu M.; Randall B.	Filmón T	
11:00 – 11:15	Evaluation of the Water Resource Potential of the Shilnat Watershed Using the Water Balance Method, Tigray, Northern Ethiopia	<u>Filmón T.</u> ; Shoeb Q.; Mohammad A.	Emiru B.	
11:15-:11:30	Arbuscular Mycorrhiza and Water and Nutrient Supply Differently Impact Seedling Performance of Dry Woodland Species with Different Acquisition Strategies	<u>Emiru B.</u> ; Thomas W.; Frank J.; Kindeya G.; Frans B	Kassu K.	
11.30-11:45	Sustainable Land Management, Watershed Development and Climate Change	<u>Kassu K.</u>	Niguse T.	
11:45– 12:10	Discussion			
12:10 – 12:30	Poster Presentations Session 3			
12:30– 2:00	Lunch Break			

Sub-theme: Institutional, Socio-economic, and Policy Aspects of SLWM**Session: Parallel 3B****Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
10:30 – 10:45	Evaluation of Irrigation Water Application Practices at Mindae Watershed, Abrehaweitsebeha Area, Northern Ethiopia	<u>Solomon H.</u> ; Degol F.	Teklu E.	Dr. Gebrehiwot Tadesse, College of Veterinary Medicine, MU
10:45 – 11:00	Onsite Financial Cost of Soil Erosion: Lessons from Watershed in the Blue Nile Basin	<u>Teklu E.</u> ; Wudneh A.; Bamlaku D.; Taye	Kiros H.	
11:00 – 11:15	Sustainability Problems of Agriculture Along Watersheds	<u>Kiros H.</u> Gebreyohannes G.	Haillesselasia D.	
11:15-:11:30	Impact of Community Based SWC on Woody Species (Title)	Haillesselasia D.	Kahiga. P.M	
11.30-11:45	A Multi-Stakeholder Decision Support Tool for Optimizing Sustainable Land Management Technologies. a Case Study of the Upper Tana Catchment	<u>Kahiga. P.M.</u> , Gathenya J.M, Home P.G, Wamuongo.J.W, Namirembe.S Kosi.N.O	Solomon H.	
11:11:45- 12:1045– 12:10	Discussion			
12:10 – 12:30	Poster Presentations Session 3			
12:30 – 2:00	Lunch Break			

Sub-theme: Biological, Structural, and Integrated SLWM Approaches, Practices, and Climate-smart Landscapes**Session: Parallel 4A****Room:**

Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
2:00 – 2:15PM	Scaling up of bench terrace technology in the mountainous areas of Tigrai, northern Ethiopia	Mulugeta G	Desta G.	Dr Tsehaye Asmelash, Vice President for Research and Community Services, MU
2:15 – 2:30	'Contributions of gullies as a natural reservoir for rainwater harvesting by Check-dam ponds and irrigation development in Tigrai Region: A case of Relief Society of Tigrai (REST) intervention Watershed	Desta G.	Gebreyohannes G.	
2:30 – 2:45	Wheat response to N & P Fertilization and Symbiotic Nitrogen Fixation in Northern Ethiopia	Gebreyohannes G.	Dereje A.	
3:00-3:15	Assessment of Watershed Management Activities As Part of Agricultural Water Management Solutions in Ethiopia	Gebrehereria G. Girmay G. <u>Dereje A</u>	Mulugeta G.	
3:00 – 3:20	Discussion			
3:20 – 3:50	Health Break			

Sub-theme: Impacts, Processes, and Lessons in SLWM and Land Certification		Session: Parallel 4B	Room:	
Time	Paper title:	Speaker/Presenter	Discussant	Chairperson
2:00 – 2:15PM	Long term Trend Analysis of the Hydrology and Sediment Load in the Upper Blue Nile Basin Using Statistical Tools and SWAT Model	Tesfay G.; Y.A. Mohamed; P. Van der Zaag	Gebreaweria G.	Dr Menale Kassie CIMMYT, Nairobi
2:15 – 2:30	Determinants of Adoption of Rainwater Management Technologies Among Farm Households in the Nile River Basin	Gebreaweria G.; Lisa-Maria R.; An N.; Kebede E.; Yenenesh A.	Zenebe G.	
2:30 – 2:45	Impacts of the low-cost land certification program in Ethiopia: A Review	Zenebe G. Gebreyohannes G	Menale K.	
3:00-3:15	Productivity Risk and Food Security Under Alternative Technology Choices in Malawi: Application of Multinomial Endogenous Switching Regression	Menale K.; Hailemariam T.; Paswel M.; Moti J.; Olaf R.	Tesfay G.	
3:00 – 3:20	Discussion			
3:20 – 3:50	Health Break			

Reflections, conclusions and the way forward		Session: Plenary 4	Room:
Time			
3:50-5: 05	Reflections (about conference), Conclusions and the Way Forward	tba	
5:05-5:20	Vote of Thanks (+Awards of Certificates of Recognition if time allows)	Dr Kindeya Gebrehiwot & Dr Alemu Mekonnen	
5:20	Closing Remarks	H.E Ato Belete Tafere Minister, Ministry of Env't and Forest	

Poster Session 1

Topic	Presenter
Wheat Crop Response on Liming and N and P Fertilization of Acidic Soils in Tsegede Highlands of Tigray region, Ethiopia	Abraha K
Non-market Valuation of Sacred Forests in Ethiopia: A Case Study of Ziqualla Monastery Forest	Aemiro M.
Expertise, Positions, and Negotiations about Soil and Water Conservation: Case Study of the Government SWC program in the Choke Mountains of Ethiopia	Atsbha B.
The Role of Agro forestry in Combating Land Degradation: The Case of Gelda Watershed, South Gondar, Ethiopia	Belayneh A.
Climate Change Resilience and Adaptation Measures in Kola Tembein, Northern Ethiopia	<u>Biadgilgn D.</u> ; Hailemariam M.
Prospects of Rainwater Harvesting Technology for Sustainable Rural Livelihood, in Tigray region, Ethiopia	Abadi T.
Experience and Lessons of Sustainable Land and Water Management (SLWM) in Tigray Region Under the Sustainable Land Management Program	Aregawi G.
Assessment of Institutional, Economic, and Environmental Aspects of Agro-ecological Practices: The Case of Fallowing and Zero Grazing in Kilte Awlaelo Woreda, Tigray, Ethiopia	Gebretsadik K.
Some Opportunities and Constraints in Relation to Sustainable Land and Watershed Management in Crop-Livestock Systems in Ethiopia: AN Overview of Experiences and Lessons	Gebreyesus B.

Poster Session 2

Topic	Presenter
Economic Benefits of Guizotia Abyssinica Pollination by Honeybees	<u>Haftom G.</u> ; Alemayehu T.
Managing Fragile Homestead Trees to Improve Livelihoods of Land-poor Farmers in Northern Highlands of Ethiopia	<u>Hailemariam M.</u> ; Biadgilgn D.
Comparing the Performance of Spatial Interpolation Technique in Mountainous Terrain for Mapping Soil Properties, Ethiopia	<u>Hailu K.</u> ; Ole W.; Andreas K.; Feras Z.; Stefan S.
Household Fuel Wood and Non-wood Energy Consumption and Forest Degradation in Northern Ethiopia	<u>Kassa T.</u> ; Yemane W.; Mulu H.
Combining Land Suitability with Sustainability at Local Level: The Case of Mojo Watershed	<u>Dula W.</u> ; Ketema W.
Economic Importance of Agroforestry Practices in Maytemeko Watershed, Amhara National Region, Ethiopia	<u>Meseret K.</u> ; Herbert H.; Monika S.; Belayneh A.
Improving Irrigation Efficiency and water productivity of Furrow Irrigation in Eastern Zone, Tigray, Ethiopia	Mulubrhan K.; <u>Tesfau G.</u> ; Eyob K.
Influence of Potassium and Nitrogen on Growth and Development of Striga Asiatica in Relation to its Host Sorghum (Sorghum Bicolor)	Niguse T.
Land Use, Land Cover Change and Woody vegetation Diversity in Human Driven landscape of Gilgel Tekeze Catchment, Northern Ethiopia	<u>Samuel T.</u> ; Etefa G.; Antony J.; Emiru B.; Gebeyehu T.

Poster Session 3

Topic	Presenter
Bodyweight Change and Carcass Characteristics of Abergele Goats Supplemented with Fixed Level of Acacia Saligna (Labill) H.L.Wendi. Leaves Treated With Air Drying, Water and Wood Ash Solutions Fed Grass Hay as Basal Diet	<u>Shumeye B.</u> ; Yaynshet T.
Effects of Tillage Methods and Glyphosate Application on Permanent Bed and Fallow Land on Weed Control in Wheat	Solomon H.
Explaining the Determinants of Community Based Forest management: Evidence from Alamata, Ethiopia	<u>Tadesse G.</u> ; Abay T.
Groundwater Recharge Estimation in Illala Catchment Using WetSpas Modeling and Chloride Ion Mass Balance Method	<u>Teklebirhan A.</u>
Farmers Acceptance and Adoption of Structural Soil and Water Conservation Technologies in Adama Wereda, Eastern Shewa, Ethiopia	<u>Tesfaye G.</u> ; Zerihun M.; Menfese T.
Assessment of the Energy Potential of Coffee Husk and Pulp Through production of Briquette	<u>Weldemedhin M.</u> ; Alemayehu H.; Esayas A.; Argaw A.
Transforming Degraded Bottomlands into Hubs for Resource Accumulation and High value Livestock Forage Sources to Improve the Income of Smallholders	<u>Gebremedhin W.</u> ; Berhanu G.; Dawit W.; Dirk H.; Azage T.
Improving Rural Livelihoods: The Impact of Participatory Land Rehabilitation Intervention in the Adwa District of Northern Ethiopia	<u>Yitbarek A.</u>
Agronomic Decision-making Using Weather and Climate Information as Adaptation Approach in Crop Production	<u>Yosef W.</u> ; Tsegay W.; Tsegaye K.

