



An ACP-EU Technology-Transfer Network on Rainwater Harvesting
Irrigation Management for Sustainable Dryland Agriculture, Food
Security and Poverty Alleviation in sub-Saharan Africa



FOSTERING FOOD SECURITY, POVERTY ALLEVIATION AND CLIMATE RESILIENCE THROUGH RAINWATER-SMART AGRICULTURE IN SUB-SAHARAN AFRICA

4TH AFRHINET
INTERNATIONAL NETWORKING, DISSEMINATION
AND ROUND TABLE EVENT

ADDIS ABABA, ETHIOPIA
RAS AMBA HOTEL
23RD FEBRUARY 2016

PROGRAMME

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ABOUT AFRHINET

AFRHINET is a three-year project which focuses on fostering the use of rainwater harvesting management for small-scale irrigation during dry spells in rural drylands of sub-Saharan Africa. The project focuses on the implementation of integrated capacity-building and demonstration activities, the establishment of research and technology-transfer centres, and the setting-up of a transnational network of multivariate relevant stakeholders. The action of the project takes place in, but it is not limited to, Ethiopia, Kenya, Mozambique and Zimbabwe.

The AFRHINET project is part of the second ACP Science and Technology Programme, an EU cooperation programme which is funded by the European Union and implemented by the ACP Secretariat.

BACKGROUND

Food insecurity poses today a problem to hundreds of millions of rural people in sub-Saharan Africa. By mid-century, 9 billion people will require food security and much of this will still be derived from rural production systems, placing these systems at the heart of the sustainable development agenda¹. However, the variability in water resources and insufficient capacity to manage that variability lies behind much of the prevailing poverty and food insecurity². It is widely known that Africa is one of the most vulnerable continents to climate variability and change, which is expected to have widespread impacts on African societies and their interaction with their natural environment³. Many of these challenges are directly or indirectly water-related, especially in terms of capturing and storing rainwater when and where it falls¹. In this regard, meeting global food needs requires cost-effective strategies for managing rainwater at a small-scale farmer level⁴. However, rainwater harvesting management may not only have the potential to eradicate hunger, but also to alleviate poverty and adapt to climate variability and change.

It is against this background that the workshop “Fostering Food Security, Poverty Alleviation and Climate Resilience through Rainwater-Smart Agriculture in sub-Saharan Africa” is being organised as part of the project “ACP-EU Technology-Transfer Network on Rainwater Harvesting Irrigation Management for Sustainable Dryland Agriculture, Food Security and Poverty Alleviation in sub-Saharan Africa” (AFRHINET). The workshop is hosted by the AFRHINET Research and Technology Transfer Centres at Addis Ababa University (Ethiopia) in cooperation with other AFRHINET Research and Technology Transfer Centres at University of Nairobi (Kenya), Eduardo Mondlane University (Mozambique), University of Zimbabwe (Zimbabwe) and Hamburg University of Applied Sciences (Germany). In addition, the AFRHINET partners SEARNET-ICRAF (Kenya), WaterAid-Ethiopia and ICRISAT-Zimbabwe are also actively participating in the workshop. The workshop will take place as a parallel session of the International Symposium on Climate Change Adaptation in Africa, which will be celebrated from 21st-23rd February 2016. If you are also interested to attend the Symposium, please visit this website: <http://www.haw-hamburg.de/en/ftz-als/veranstaltungen/africa2016.html>.

¹ Nicol, A.; Langan, S.; Victor, M.; Gonsalves, J. (Eds.) 2015. *Water-smart agriculture in East Africa*. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE); Kampala, Uganda: Global Water Initiative East Africa (GWI EA). 352p. doi: 10.5337/2015.203

² International Water Management Institute (IWMI). 2015. *Improving water management in Myanmar's dry zone for food security, livelihoods and health*. Colombo, Sri Lanka: International Water Management Institute (IWMI). 52p. doi: 10.5337/2015.213

³ Pachauri, R. K. et al. (2014): Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change / R. Pachauri and L. Meyer (editors) , Geneva, Switzerland, IPCC, 151 p., ISBN: 978-92-9169-143-2]

⁴Rockström, J. & Falkenmark, M. (2015). Increase water harvesting in Africa. *Nature* 519, 283 – 285.

The workshop will focus on rainwater-smart agricultural management strategies in sub-Saharan Africa, with a special focus on food security, poverty alleviation and climate resilience in rural arid and semi-arid areas. In this regard, cost-effective experiences from research, field projects and best-practices on the use of rainwater for irrigated and rainfed small-scale agriculture in sub-Saharan Africa will be showcased. Rainwater-smart adaptation strategies are understood as a subset of water-smart and climate-smart adaptation strategies¹ that refer to theoretical and practical approaches which specifically addresses challenges and uncertainties surrounding the availability, access and use of rainwater, particularly to achieve food security, poverty alleviation and climate resilience.

The aims of the workshop “Fostering Food Security, Poverty Alleviation and Climate Resilience through Rainwater-Smart Agricultural Management Strategies in sub-Saharan Africa” are:

- i. To provide research institutions, universities, NGOs, governments and enterprises from sub-Saharan Africa with a special focus on Ethiopia with an opportunity to display and present their works in this field of knowledge
- ii. To foster the exchange of information, ideas and experiences acquired in the execution of rainwater-smart projects, especially successful initiatives and best-practices practices across sub-Saharan Africa
- iii. To provide a platform to network and identify possibilities for future cooperation



Figure 1: A stepped tank is used to provide water during the dry season to an irrigated crop area in Ethiopia

PROGRAMME

Registration and Welcome Remarks		
Time	Activity	Person/Organisation Responsible
8:30-9:00	Registration	AFRHINET Team
9:00-9:10	Welcome Remarks	Dr. Belay Simane –National Coordinator of the AFRHINET project in Ethiopia, Addis Ababa University
9:10-9:25	Official Opening	High Authority Addis Ababa University/Ethiopian Ministry: tbc

Session 1: Rainwater-smart management agriculture strategies in rural arid and semi-arid Ethiopia		
Time	Activity	Person/Organisation Responsible
9:25-9:40	Presentation 1.1	“Fostering the use of rainwater for small-scale irrigation in rural arid and semi-arid areas of sub-Saharan Africa” –Josep de Trincheria, International Manager of the AFRHINET project, Hamburg University of Applied Sciences (Germany)
9:40-9:55	Presentation 1.2	“Contribution of RWH for increasing household income, food security & climate change adaptation-best practices of Kalu District, Ethiopia” –Mesfin Legesse, CARE (Ethiopia)
9:55-10:10	Presentation 1.3	“Experiences linking rainwater harvesting management and agriculture (tentative)” –Fethi Lebdi, FAO Subregional office for Eastern Africa (Ethiopia)
10:10-10:25	Presentation 1.4	“Slope Farming Project Arba Minch, Ethiopia: A small introduction focusing RWH and dryland farming” –Mammo Beriso, Technical University of Hamburg (Germany)
10:25-10:40	Presentation 1.5	“Feasibility Assessment of Rainwater Harvesting Irrigation Technologies in arid and semi-arid Ethiopia: A Multi-Criteria Decision Making Approach” –Paulos Asrat, Addis Ababa University (Ethiopia)
10:40-10:55	Presentation 1.6	“Self-supply and its link with rainwater-smart agriculture” –Abera Endeshaw, WaterAid-Ethiopia (Ethiopia)
10:55-11:15	Tea Break	
11:15-11:30	Presentation 1.7	“Rainwater for beekeeping and household agriculture (tentative) –Selamawit Yetemegn, RAIN-Ethiopia (Ethiopia)
11:30-11:45	Presentation 1.8	“Road water harvesting and their link to small-scale irrigation and food security in Ethiopia” –Taye Alemayehu, Meta Meta Ethiopia (Ethiopia)
11:45-12:00	Presentation 1.9	“Integrated landscape restoration and water harvesting practices for food security in Tigray region, Ethiopia” –Dr.Kifle Woldearegay, Mekelle University (Ethiopia)
12:00-12:15	Presentation 1.10	“Collection of run-off water into ponds for small-scale agricultural purposes (tentative)” –Felix Bachmann, Helvetas-Ethiopia (Ethiopia)
12:15-12:30	Presentation 1.11	“Government-based experiences on small-scale irrigated agriculture (tentative)” –Ministry of water, irrigation and energy (Ethiopia): tbc
12:30-12:45	Presentation 1.12	“Government-based experiences on rainwater-smart agriculture (tentative)” –Ministry of Agriculture and Natural Resources (Ethiopia): tbc

12:45-14:00	LUNCH	
Session 1 (cont.): Rainwater-smart management agriculture strategies in rural arid and semi-arid Ethiopia		
Time	Activity	Topic, Person/Organisation Responsible
14:00-14:15	Presentation 1.13	“Evaluation of in-field rainwater harvesting techniques for crop production in the semi-arid areas of Eastern Ethiopia” –Dr. Kibret at USWP, Haramaya University (Ethiopia)
14:15-14:30	Presentation 1.14	“RWH practices and its contribution to irrigated agriculture in Ethiopia” –Hune Nega, Small Irrigation Support (Ethiopia)
14:30-14:45	Presentation 1.15	“Innovation and technology transfer challenges in Rainwater Harvesting for pastoral communities in Ethiopia” –Alemayehu Haddis, Jimma University (Ethiopia)
14:45-15:00	Presentation 1.16	“In-situ water conservation in the semi-arid regions of the central rift valley of Ethiopia” –Teshale Fikadu, IDE-Ethiopia (Ethiopia)

Session 2: Rainwater-smart agriculture management strategies in sub-Saharan Africa. Focus on small-scale irrigation in rural arid and semi-arid areas		
Time	Activity	Person/Organisation Responsible
15:00-15:15	Presentation 2.1	“Best practical experiences in rainwater harvesting irrigation in arid and semi-arid areas of Kenya” –Francis Oremo, University of Nairobi (Kenya)
15:15-15:30	Presentation 2.2	“Best practical experiences on the use of rainwater for small-scale irrigation in sub-Saharan Africa” –Alex Oduor, SEARNET-ICRAF (Kenya)
15:30-15:45	Presentation 2.3	“Best practical experiences on the use of rainwater for small-scale irrigation in arid and semi-arid areas of Zimbabwe” –Dr. Menas Wuta, University of Zimbabwe (Zimbabwe)
15:45-16:00	Tea Break	
16:00-16:15	Presentation 2.4	Evaluating the feasibility of rainwater harvesting for food security in the Gwayi Catchment in Zimbabwe –Dr. Pauline Chavenge, ICRISAT-Zimbabwe (Zimbabwe)
16:15-16:30	Presentation 2.5	Experiences on the use of rainwater harvesting for small-scale irrigation in arid and semi-arid areas of Mozambique –Professor Sebastiao Famba, Eduardo Mondlane University (Mozambique)
16:30-17:15	Plenary Discussion	Moderated by Dr. Simane –National Project Coordinator of the AFRHINET project in Ethiopia, Addis Ababa University (Ethiopia)
17:15-17:30	Closing Remarks	Prof. Walter Leal –International Coordinator of the AFRHINET project, Hamburg University of Applied Sciences (Germany)