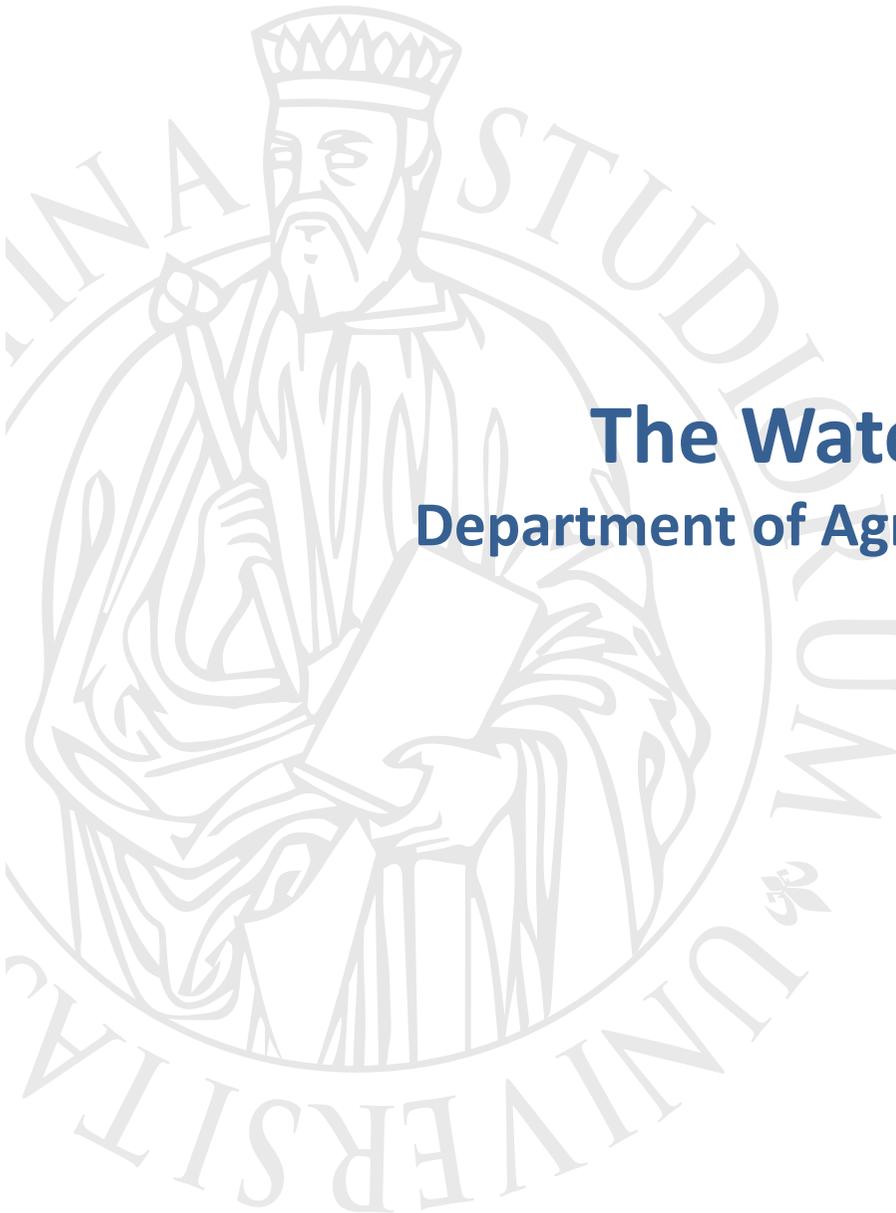




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The Water Harvesting Lab (WHLab)

Department of Agricultural Food and Forestry System
University of Florence

Elena Bresci – Giulio Castelli
elena.bresci@unifi.it

Water Harvesting Lab

The Water Harvesting Research lab of the Department of Agricultural, Food and Forestry Systems (GESAAF) is active on **inter-disciplinary research in the field of Water Harvesting.**

Water Harvesting: *“the process of concentrating precipitation through runoff and storing it for beneficial use” (Oweis, 2006).*



Water Harvesting Group: Research lines

1. **Participatory approach** to Water Harvesting (WH) systems design and management
2. Best siting of WH structures
3. WH impact evaluation
4. Effects of WH on **ecosystem services and microclimate**
5. **Fog** collection
6. **Flood Based Farming Systems (FBFS)**
7. Water **Conflicts**





Water Harvesting Lab: People



Scientific Coordinator:

[Prof. Elena Bresci](mailto:elena.bresci@unifi.it) – Associate Professor – elena.bresci@unifi.it



[Prof. Fabio Salbitano](mailto:fabio.salbitano@unifi.it) – Associate Professor – fabio.salbitano@unifi.it



[Ing. Giulio Castelli](mailto:giulio.castelli@unifi.it) – Post PhD – giulio.castelli@unifi.it



[Beatrice Laurita](mailto:beatrice.laurita@unifi.it) – PhD Student – beatrice.laurita@unifi.it





Water Harvesting Lab: People

Visiting Staff



Eyasu Yazew Hagos

Associate Professor in Land and Water Development
Mekelle University, Ethiopia
Visiting Professor 2017



Zobaer Ahmed

Visiting Fellow
BSc (Agriculture), MSc (Disaster Management), Erasmus Mundus
International Master of Science in Rural Development (IMRD) at Ghent
(Belgium), Pisa (Italy) and Humboldt (Germany) University- On going
Email: [zunnun09\[at\]gmail.com](mailto:zunnun09[at]gmail.com)

BSc and MSc Candidates



Eleonora Forzini

BSc Candidate 2018 – BSc in Forestry and Environmental Sciences
*NDVI analysis of vegetation dynamics associated to fog collection
implementation in Atacama Drylands*



Aurora Righetti

MSc Candidate 2018 – MSc in Economics and Development
Ethiopia Exchange Program 2018

Water Harvesting Lab: Past Projects

- Aguacruz – Bolivia (2015-2017)
- Valles Resilientes – Bolivia (2017-2018)
- Harnessing Floods to Enhance Livelihoods and Ecosystem Services – Ethiopia (2016-2017)



Water Harvesting Lab: Current Projects

Quelimane Agricole - Mozambique

Involved in Water Harvesting design and building

Funding: Italian Agency for Development Cooperation

Leader: ManiTese NGO



DETTAGLI DI PROGETTO

PAESE

Mozambico,

LOCALITÀ

Quelimane, Nicoadala, Namacurra,

DESTINATARI

540 produttori, 2.000 commercianti e 12.700 familiari, 90 tecnici e funzionari.

Water Harvesting Lab: Current Projects

Soberanos - Guatemala

Participatory Design of Rooftop Water Harvesting Systems
2017-2018

Cooperation with Universidad San Carlos de Guatemala



Research and scientific outreach

Since 2015

- 5 Indexed papers (SCOPUS and ISI)
- 1 Book chapter (SPRINGER Publishing)
- 14 Conference talks in national and international conferences
- 6 MSc thesis
- 3 Awards from national institutions

Latest out:



Agricultural Water Management
Volume 210, 30 November 2018, Pages 286-295



A participatory design approach for modernization of spate irrigation systems

Giulio Castelli ^a ✉, Elena Bresci ^a ✉, Fabio Castelli ^b ✉, Eyasu Yazew Hagos ^c ✉, Abraham Mehari ^d ✉

[Show more](#)

<https://doi.org/10.1016/j.agwat.2018.08.030> [Get rights and content](#)



International Online course on Water Harvesting

EDITION 2018-2019: Water Harvesting for land ecological restoration

Enrolment starts soon



University of Nairobi



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GESAAF
DIPARTIMENTO DI GESTIONE
DEI SISTEMI AGRARI,
ALIMENTARI E FORESTALI

Since 2015

	2015-'16	2016-'17	2017-'18	2018-'19
ECTS	6	4	4	4
Fee	300 €	150 €	150 €	150 €
Places reserved for emerging countries (no fee)	0	10	10	10
Enrollment number	13	35	30	??



Opportunities for UNIFI students

Possibility of **internship/trainee/MSc thesis** in the following Institutions:

- **MetaMeta Research** (the Netherlands, with fieldwork in Tanzania/Kenya)
- **Institut de Regions Arides** (Tunisia)
- **University of Nairobi** (Kenya)

And...



Two grants of 1,500 Euros available for MSc students

Water Harvesting in Ethiopia



The **Water Harvesting Lab** of GESAAF department offers **two grants of 1,500 E** each for covering the expenses of MSc thesis works in Ethiopia.

All the MSc of UNIFI are eligible
APPLICATIONS

DEADLINE FOR
15/10/2018



MSc Thesis Call: Announcement of preferential topics

General Topic: “Water/Land resource/risk management using geospatial data and models”



Aimed to explore human-nature interactions (land use changes dynamics and human-flood and human-ecosystem interactions) with Big/Open datasets and advanced cloud-based GIS platforms: **Google Earth Engine** and **ESRI ArcGIS online**.

MSc candidates will also receive **professional advanced training**

Thanks!

Water Harvesting Lab

Prof. Elena Bresci
elena.bresci@unifi.it

Ing. Giulio Castelli, PhD
giulio.castelli@unifi.it



Stay in contact with us

- Mailing list: <http://eepurl.com/dBQGOn>
- Check our Website: <https://www.gesaaf.unifi.it/vp-466-wh-lab.html>
- Follow us on UNIFIMagazine (we often publish articles on field work)



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TALK WITH US! WE ARE JUST HERE!

