



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DAGRI
DIPARTIMENTO DI SCIENZE
E TECNOLOGIE AGRARIE,
ALIMENTARI, AMBIENTALI E FORESTALI



Mekelle University Water Harvesting Lab

The Past, the present and the way forward

Firenze, 4 April 2019

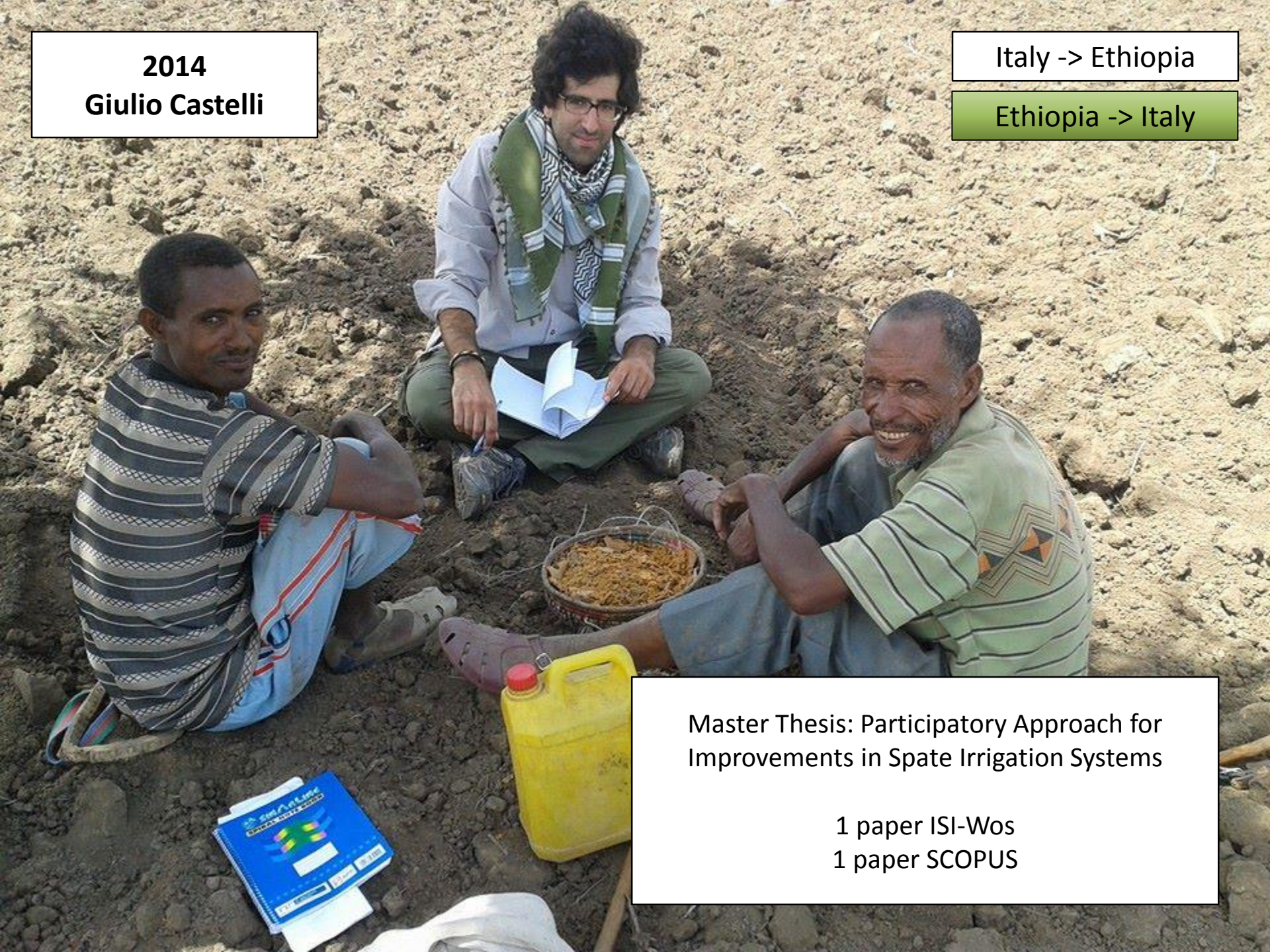
2014
Giulio Castelli

Italy -> Ethiopia

Ethiopia -> Italy

Master Thesis: Participatory Approach for
Improvements in Spate Irrigation Systems

1 paper ISI-Wos
1 paper SCOPUS



2014
Giulio Castelli

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International
Agreement

Master Thesis: Participatory Approach for
Improvements in Spate Irrigation Systems

1 paper ISI-Wos
1 paper SCOPUS



2014
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2016
Giulio Castelli
Andrea Minelli
Meron Lakew

Italy -> Ethiopia

Ethiopia -> Italy

Work in the framework of Harnessing Floods to Enhance Livelihoods and
Ecosystem Services project of Mekelle University

Two MSc theses on Ecosystem Services Assessment

Giulio Castelli – visiting PhD

1 paper SCOPUS

1 paper ISI-WoS



2014
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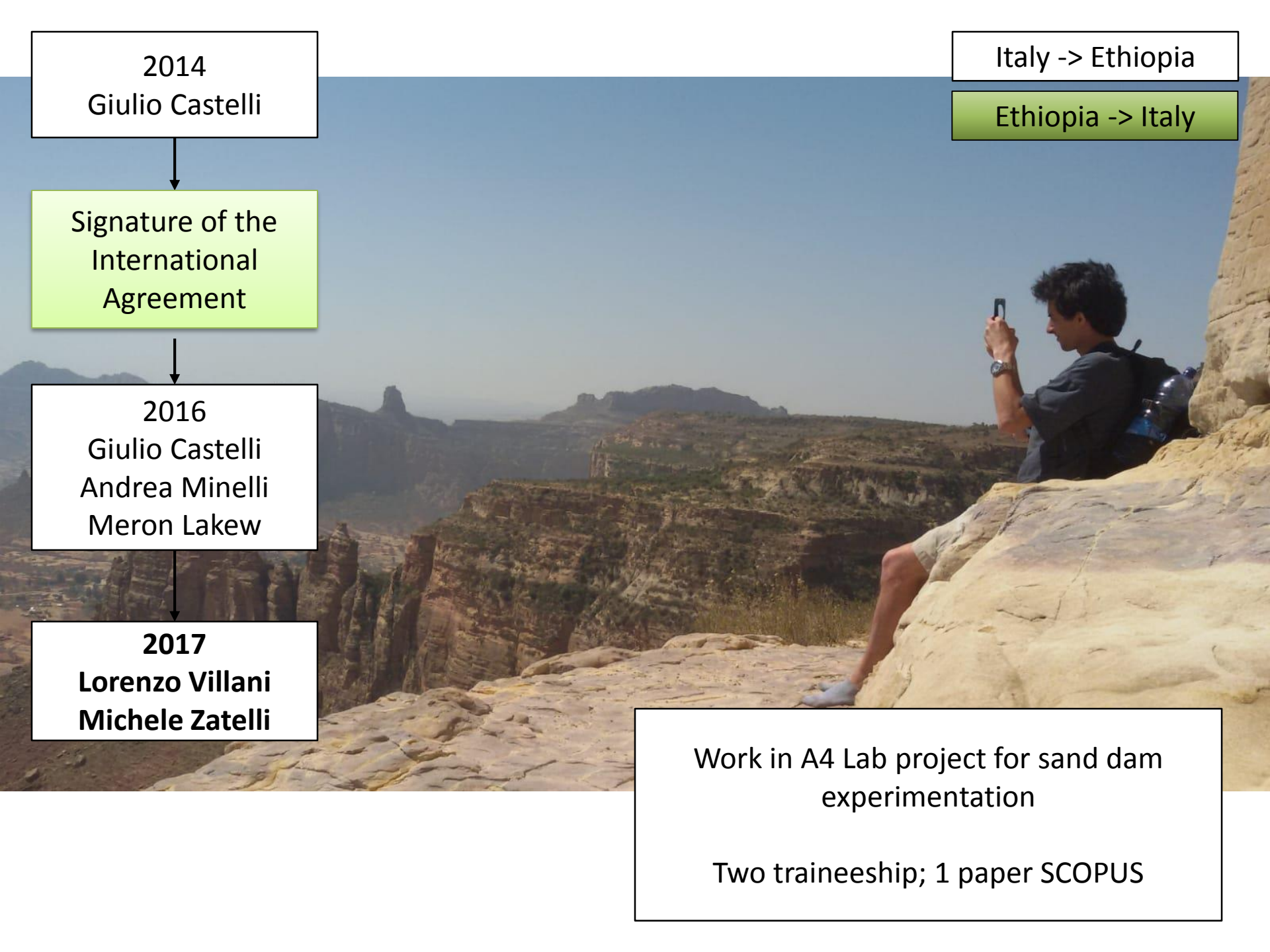
2017
Lorenzo Villani
Michele Zatelli

Italy -> Ethiopia

Ethiopia -> Italy

Work in A4 Lab project for sand dam
experimentation

Two traineeship; 1 paper SCOPUS



2014
Giulio Castelli



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2016
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Andrea Minelli
Meron Lakew



2017
Lorenzo Villani
Michele Zatelli



2017
Eyasu Yazew Hagos

Italy -> Ethiopia

Ethiopia -> Italy



First Official visit in Italy

2014
Giulio Castelli

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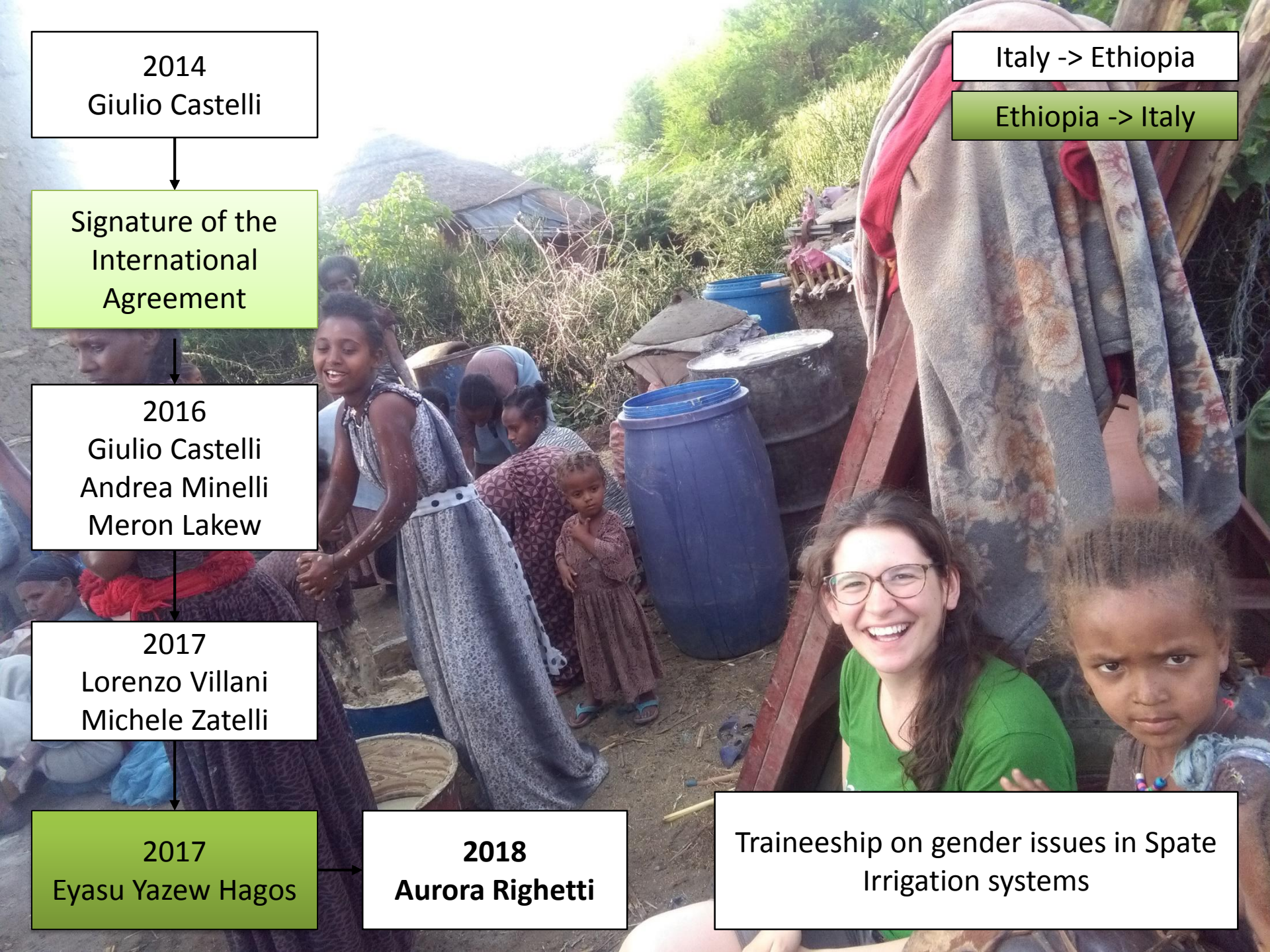
2016
Giulio Castelli
Andrea Minelli
Meron Lakew

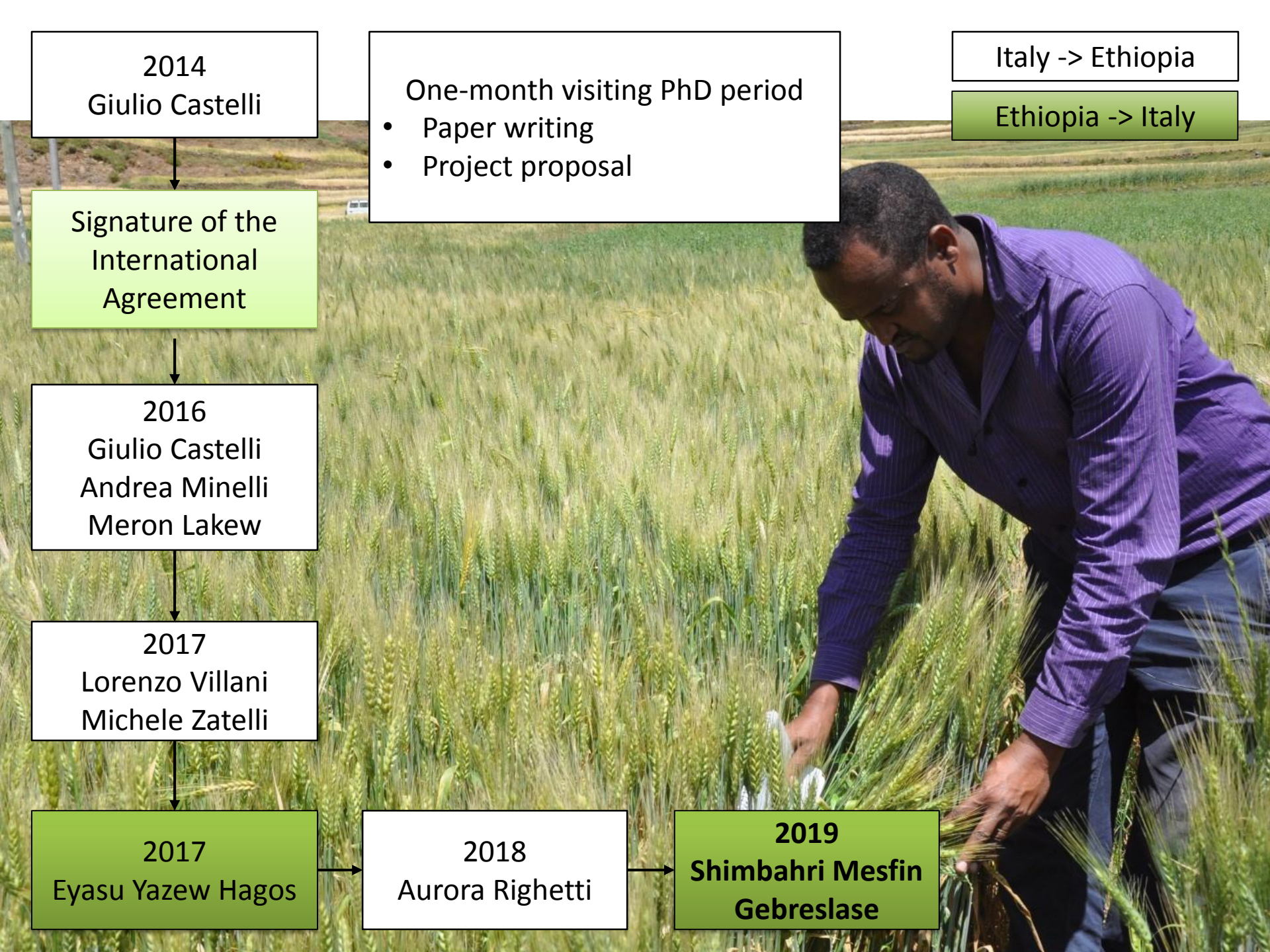
2017
Lorenzo Villani
Michele Zatelli

2017
Eyasu Yazew Hagos

2018
Aurora Righetti

Traineeship on gender issues in Spate
Irrigation systems





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2016
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Andrea Minelli
Meron Lakew

2017
Lorenzo Villani
Michele Zatelli

2017
Eyasu Yazew Hagos

One-month visiting PhD period

- Paper writing
- Project proposal

Italy -> Ethiopia

Ethiopia -> Italy

2018
Aurora Righetti

2019
Shimbahri Mesfin
Gebreslase

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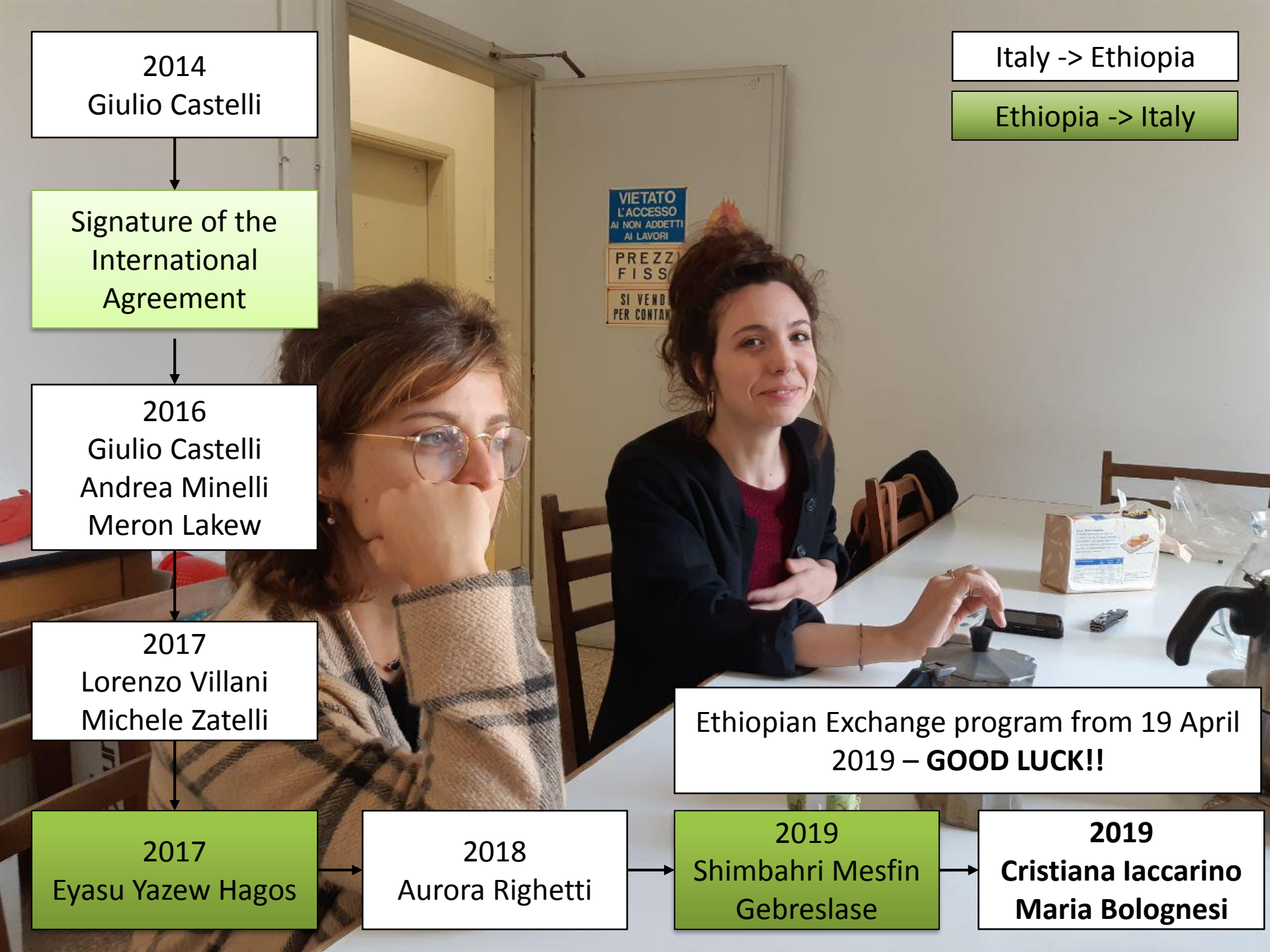
2019
Shimbahri Mesfin
Gebreslase

2019
Cristiana Iaccarino
Maria Bolognesi

Italy -> Ethiopia

Ethiopia -> Italy

Ethiopian Exchange program from 19 April
2019 – **GOOD LUCK!!**



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2018
Aurora Righetti

2019
Shimbahri Mesfin
Gebreslase

2019
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Maria Bolognesi

SCIENTIFIC PUBLICATIONS:

- Castelli, G., Castelli, F., & Bresci, E. (2019). Mesoclimate regulation induced by landscape restoration and water harvesting in agroecosystems of the horn of Africa. *Agriculture, Ecosystems & Environment*, 275, 54–64
- Castelli, G.; Bresci, E.; Castelli, F.; Hagos, E.Y; Mehari, A. (2018) A participatory design approach for modernization of spate irrigation systems. *Agricultural Water Management*, 210, 286-295.
- Villani, L.; Castelli, G., Hagos, E.Y.; Bresci, E. (2018) Water productivity analysis of sand dams irrigation farming in northern Ethiopia. *Journal of Agriculture and Environment for International Development*, 112 (1), 139-160.
- Castelli G., Minelli A., Tefera M., Bresci E., Yazew E., Embaye T.G., Sebhatleab M. (2017). Impacts of rainwater harvesting and rainwater management on upstream – downstream agricultural ecosystem services in two catchments of southern Tigray, Ethiopia. *Chemical Engineering Transactions*, 58, 685-690.
- Castelli, G., Bresci, E. (2017). Participatory Rural Appraisal for Diagnostic Analysis of spate irrigation systems in Raya Valley, Ethiopia. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 118(1):129–139

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2019
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Maria Bolognesi

RESUME

- 5-years relationships
- 7 International visits
- 7 MSc students involved
- 3 PhD and Post-PhD staff mobilised
- 3 Mekelle University Projects in which Water Harvesting Lab was involved
- 5 Indexed publications (WoS-SCOPUS)
- 15,000 Euros of budget

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2018
Aurora Righetti

2019
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Gebreslase

2019
Cristiana Iaccarino
Maria Bolognesi

WHAT'S NEXT??

- Shimbahri's work
- Cristiana and Maria's travel
- Search of Project and Funding
- ERASMUS+ call for next students and travels (including DICEA and SAGAS departments!!)



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Thanks

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Elena Bresci – elena.bresci@unifi.it

Water Harvesting Lab

Facebook: Water Harvesting Lab – UNIFI

Twitter: @GiulioCst

Mekelle University - Water Harvesting Lab
The Past, the present and the way forward