

You are cordially invited to the public PhD defence of

Emnet Negash

Climate and Conflict as Spatial Drivers of Agroecosystems in Ethiopia



Time: Tuesday, 03 September 2024 at 10:00 CET

Location: Krijgslaan 281, 9000 Gent – S9 building – Auditorium A0

Livestream link: <https://tinyurl.com/n8yxrkj3>

Summary

Climate change and armed conflicts are two of the most significant factors shaping agroecosystems in tropical Africa, with particularly profound impact over climate-sensitive economies like Ethiopia. Climate modeling studies highlight the critical role of microclimatic variations influencing rainfall patterns and hence their impact on crop resilience. Convection-permitting models as well as satellite observations reveal significant spatial and diurnal variations in rainfall, especially in orographically complex regions. These findings underscore the importance of using high-resolution data to simulate current and future climate and inform agricultural planning. Ecosystem vulnerabilities are further exacerbated by armed conflicts, disrupting agricultural activities, damaging infrastructure, and accelerating land degradation and desertification. Despite the evident microclimatic diversity, Ethiopia's approach to agroecosystem management has often been overly generalized, leading to inefficiencies in resource distribution and conservation efforts. These findings emphasize the need for more localized, nuanced strategies that account for both microclimatic variability and the socio-economic impacts of conflict to enhance food security and ecosystem resilience.

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Supervisors

Prof. dr. Kwinten Van Weverberg, UGent and RMI, Belgium

Prof. dr. Bert Van Schaeybroeck, UGent and RMI, Belgium

Em. Prof. dr. Jan Nyssen, UGent, Belgium

Examination Committee

Prof. dr. Alain De Wulf, Ghent University, Belgium (Chair)

Prof. dr. Lina Eklund, Lund University, Sweden

Prof. dr. Emiru Birhane, Mekelle University, Ethiopia

Prof. dr. Tim Van de Voorde, Ghent University, Belgium

Prof. dr. Piet Termonia, Ghent University and RMI, Belgium

About the candidate

Emnet Negash (°1991) obtained his master's degree in Climate and Society at Mekelle University in 2017, during which he also had the opportunity to undertake a six-month postgraduate study in Environmental Engineering at The Copperbelt University in Zambia. He then assumed an academic career at Mekelle University, initially as a lecturer and later as an assistant professor. Emnet started his PhD research in 2020 at the Department of Geography, funded by Ghent University's Special Research Fund (BOF). During his PhD tenure, Emnet (co-) authored several peer-reviewed journal articles, published perspective articles in popular journals, had a successful internship at the UK Met Office, co-convened conference sessions, and presented at various international conferences.

Afternoon seminars by members of the jury

Prof. dr. Lina Eklund: Nuancing the view of the Syrian climate-migration-conflict nexus (14:00 - 15:00 CET)

Prof. dr. Emiru Birhane: Mycorrhizal associations and growth of multipurpose trees in the drylands (15:00 - 16:00 CET)

Seminar venue: S8 building – Auditorium 1 Valère Billiet