

Curriculum vitae and track record

PERSONAL INFORMATION

- Demissie, Teferi
- Date of birth: *23.07.1971*
- Sex: Male
- Nationality: Ethiopian

Researcher unique identifier(s) (ORCID, ResearcherID, etc.):

URL for personal web site: <https://scholar.google.com/citations?user=44vbTQ8AAAAJ&hl=en>

KEY QUALIFICATIONS

My research area focusses in a range of interdisciplinary fields that includes: **1)** climate variability and change in tropical regions and its associated impact on the agriculture and water sector. **2)** Use of regional and coupled climate model simulations with particular focus on future climate projection and investigating mechanisms responsible for climate variability and change over tropical regions particularly over East and West Africa. **3)** Evaluation of the seasonal prediction and projections of Atmosphere-Ocean Coupled General Circulation models (CGCM). This work is part of an EU FP7 project on 'Enhancing prediction of Tropical Atlantic climate and its impacts (PREFACE) to evaluate the bias of the Norwegian Earth System model (NorESM) model, and models of other European climate-modeling centers towards improving our understanding of the climate of the tropical Atlantic and West African climate variability. **4)** Co-production of Climate services for enhanced food and nutrition security in East Africa. This is a project I and my colleagues are recently funded by the Norwegian Research Council. **5)** Perform high resolution regional atmospheric model simulations for various applications and also provide technical support for performing bias correction of regional atmospheric models for dynamical downscaling on the local scales. **6)** Evaluation and use of the sub-seasonal to seasonal (S2S) forecast with specific attention to the risk of extreme weather, including droughts, floods, heat waves and their impact on crop yield.

EDUCATION

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|------|---|
| 2013 | PhD: Atmospheric Physics; Disputation date: 10.10.2013. Department of Physics, Norwegian Science and technology University (NTNU), Norway Supervisor: Patrick Espy (NTNU) |
| 2004 | Master in Atmospheric Science Department of Atmospheric Science, University of Wyoming, Laramie, USA Supervisor: Bart Geerts (Uni Wyoming) |
| 1996 | Post-graduate diploma in Meteorology Indian Meteorology Department, Pune, India |
| 1991 | B.Sc in Physics Physics department, Addis Ababa University, Addis Ababa, Ethiopia |

CURRENT AND PREVIOUS POSITIONS

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|--------------|---|
| 2004-present | Senior researcher NORCE Norwegian Research Centre AS /Bergen/Norway |
| 2009-2013 | PhD research fellow Department of Physics, Norwegian Science and technology University, Norway |

- 2006-2009 Researcher
Beltsville center for climate system observation, Howard University, Beltsville, Maryland, USA
- 2004-2006 Freelance Meteorological consultant
Self-employed, DC USA
- 2001-2004 Research Assistant
Department of Atmospheric Science, University of Wyoming, Laramie, USA
- 1992-2001 Meteorologist
National Meteorological Agency of Ethiopia, Addis Ababa, Ethiopia

FELLOWSHIPS AND AWARDS (if applicable)

- 2009-2013 PhD Scholarships, Department of Physics, Norwegian Science and technology University (NTNU), Norway
- 2001-2004 Scholarship for Masters, Department of Atmospheric science, University of Wyoming, WY USA

MOBILITY (research stays abroad lasting more than three months) (if applicable)

- 2000-2000 International centre for theoretical Physics (ICTP), Trieste, Italy
- 2001-2001 International Research institute, Lamont, Palsides, NY USA
- 2001-2001 IGAD Climate Prediction & Applications Centre (ICPAC)
- 2003-2003 Goddard Space Flight Centre, Maryland, USA
- 2011-2011 Leibniz-Institute of Atmospheric Physics, Kuhlungsborn, Germany

PROJECTS

- 2014-2018 Partner on EU FP7 project on 'Enhancing prediction of Tropical Atlantic climate and its impacts (PREFACE)
- 2019-2020 Package leader on the Development of weather forecast over Mali project (NORCE KLIMA and NMBU project)
- Funded (but not started yet) – Co-producing Gender-responsive Climate Services for Enhanced Food and Nutrition Security and Health in Ethiopia and Tanzania (COGNET).

TEACHING ACTIVITIES (if applicable)

- 2018-2018 Advanced training of Numerical weather prediction with a special focus on WRF Data Assimilation, National Meteorology Agency, Addis Ababa, Ethiopia
- 2017-2017 Training on NCO, CDO and shell scripting to the National Meteorology Agency of Ethiopia Staffs, Addis Ababa, Ethiopia
- 2016-2016 Summer course on water, Climate and Society, University of Bergen, Bergen Norway

ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

- 2019 Organized a two-day workshop: Uganda Policy Engagement workshop on climate information and index insurance, Kampala, Uganda
- 2019 Organized a two-day Climate risk assessment workshop on potato value chain, 14-15 November, 2019, Kabale, Uganda
- 2019 Organized a two-day Climate risk assessment workshop on Sunflower value chain, 18-19 November, 2019, Mbale, Uganda
- 2019 Organized a two-day Climate risk assessment workshop on Sorghum value chain, 25-26 November, 2019, Meru, Kenya
- 2019 Organized a two-day climate risk assessment workshop on sunflower value chain,
- 2019 Organized a one-week training on the use of yr.no for meteorologists from Mali
- 2018 Organized a two-week training on Data Assimilation in WRF Modeling

INSTITUTIONAL RESPONSIBILITIES (if applicable)

- 2015-2018 Evaluation of two PhD from Environmental science of Addis Ababa University, Addis Ababa, Ethiopia
- 2018-2018 Evaluated the national framework of climate services in Ethiopia, Ministry of Environment, Forest and Climate change

COMMISSIONS OF TRUST (if applicable)

- 2013-2019 Reviewer of various journals, International journal of climatology, Climate dynamics, climate research, Journal of Applied Meteorology and Climatology, Meteorology and Atmospheric Physics, Bulletins of American Meteorological Society

MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)

- 2011-2019 Member, European Geophysical Union
- 2007-2019 Member, Ethiopian Meteorological Society

MAJOR COLLABORATIONS (if applicable)

- Noel Keenlyside (UIB, Bergen, Norway)
- Francisco Javier Doblas-Reyes, (Barcelona Supercomputing Center, Barcelona, Spain)
- Steve Woolngouh, Jon Shonk (University of Reading, UK)

Track record

Bezu S, **Demissie T**, Abebaw D, Mungai C, Kassa H, Huyer S, Solomon D. 2019. Climate change, agriculture and international migration: An African youth perspective. CCAFS Info Note. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

Shonk, J. K. P., **Demissie**, T. D., and Toniazzo, T.: A double ITCZ phenomenology of wind errors in the equatorial Atlantic in seasonal forecasts with ECMWF models, Atmos. Chem. Phys., 19, 11383–11399, <https://doi.org/10.5194/acp-19-11383-2019>, 2019.

Lancker K, Deppenmeier A-L, **Demissie T**, Schmidt JO (2019) Climate change adaptation and the role of fuel subsidies: An empirical bio-economic modeling study for an artisanal open-access fishery. PLoS ONE 14(8): e0220433. <https://doi.org/10.1371/journal.pone.0220433>

Voldoire, A., Exarchou, E., Sanchez-Gomez, E., **Demissie**, T., Deppenmeier A. L., ..2019, Role of wind stress in driving SST biases in the tropical Atlantic, Climate dynamics, 1-24, doi.org/10.1007/s00382-019-04717-0

Demissie T, Duku C, Groot A, Oroma G, Osumba J, Budding-Polo M, Lyimo R, Schonenberg P. 2019. Sesame Uganda: Climate change risks and opportunities. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS); Wageningen Environmental Research, The Netherlands. <https://hdl.handle.net/10568/103238>

Demissie T, Bolt J, Duku C, Groot A, Recha J. 2019. Green grams Kenya: Climate change risks and opportunities. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS); Wageningen Environmental Research, The Netherlands. <https://hdl.handle.net/10568/103232>

Groot A, **Demissie T**, Duku C, Budding-Polo M, Kabuka G, Nkenja E, Ninga K, Lyimo R, Recha J, Osumba J, Schonenberg P. 2019. Sunflower Tanzania: Climate change risks and opportunities.

Wageningen Environmental Research, The Netherlands; CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). <https://hdl.handle.net/10568/103237>

Koseki, S., T. **Demissie**, 2018: Does the Drakensberg dehydrate southwestern Africa?, *J. Arid. Env.*, 158, 35-42, doi.org/10.1016/j.jaridenv.2018.08.003

Gleixner, S., N. Keenlyside, **T. Demissie**, F. Counillon, Y. Wang, E. Viste, 2017: **Seasonal predictability of Kiremt rainfall in CGCMs**. *Environ. Res. Lett.*, 12, 114016

Koseki, S., N. Keenlyside, **T. Demissie**, T. Toniazzo, F. Counillon, I. Bethke, M.-L. Shen, and M. Ilıcak, 2017: **Causes of the large warm bias in the Angola-Benguela Frontal Zone in the Norwegian Earth System Model**, *Clim. Dyn.*, doi.org/10.1007/s00382-017-3896-2

Demissie, T. D., Espy, P. J., Kleinknecht, N. H., Hatlen, M., Kaifler, N., and Baumgarten, G., 2014: **Characteristics and sources of gravity waves observed in noctilucent cloud over Norway**, *Atmos. Chem. Phys.*, 14, 12133-12142, [doi:10.5194/acp-14-12133-2014](https://doi.org/10.5194/acp-14-12133-2014).

Demissie, T. Dejene, Kleinknecht, N. H., Hibbins, R. E., Espy, P. J., and Straub, C., 2013: **Quasi-16-day period oscillations observed in middle atmospheric ozone and temperature in Antarctica**, *Ann. Geophys.*, 31, 1279-1284, [doi: 10.5194/angeo-31-1279-2013](https://doi.org/10.5194/angeo-31-1279-2013).

Demissie, T. Dejene, K. Hosokawa, N. H. Kleinknecht, P. J. Espy, and R. E. Hibbins, 2013: **Planetary wave motions observed in Ozone and PMSE data from Antarctica**, *J. Atmos. Terr. Phys.*, ISSN 1364-6826, [doi: 10.1016/j.jastp.2013.10.008](https://doi.org/10.1016/j.jastp.2013.10.008).

B. U. E. Brändström, C. -F. Enell, O. Widell, T. Hansson, D. Whiter, S. Mäkinen, D. Mikhaylova, K. Axelsson, F. Sigernes, N. Gulbrandsen, N. M. Schlatter, A. G. Gjendem, L. Cai, J. P. Reistad, M. Daae, **T. Dejene Demissie**, Y. L. Andalsvik, O. Roberts, S. Poluyanov, and S. Chernouss, 2012: **Results from the intercalibration of optical low-light calibration sources**. *Geosci. Instrum. Method. Data Syst.*, 1, 91-107, 2011

Fuentes J. D, B. Geerts, **T. Dejene**, P. D'Odorico, and E Joseph (2006): **Vertical attributes of precipitation in West Africa and adjacent ocean**. *Theoretical and Applied Climatology.*, 000, 1-13 (2007) DOI 10.1007/s00704 – 007-0318-0 (cited 9 times)

Geerts, B., and **T. Dejene**, 2005: **Regional and diurnal variability of the vertical structure of precipitation systems in Africa based on space-borne radar data**. *J. Climate*, 18, 893-916 (cited 46 times).