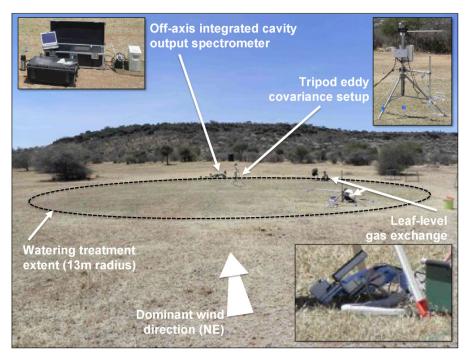
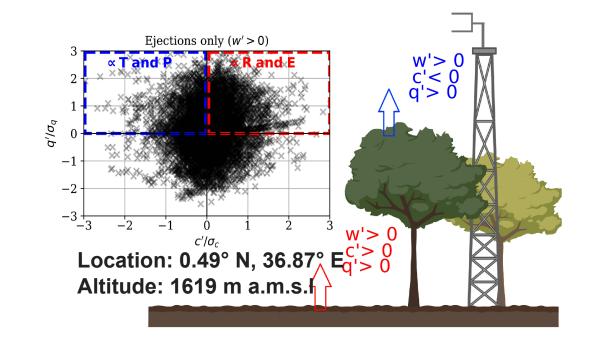
History and Progress on Eddy Covariance Research in East Africa: lessons learned

KE-Mpala Ranch 2010-2011



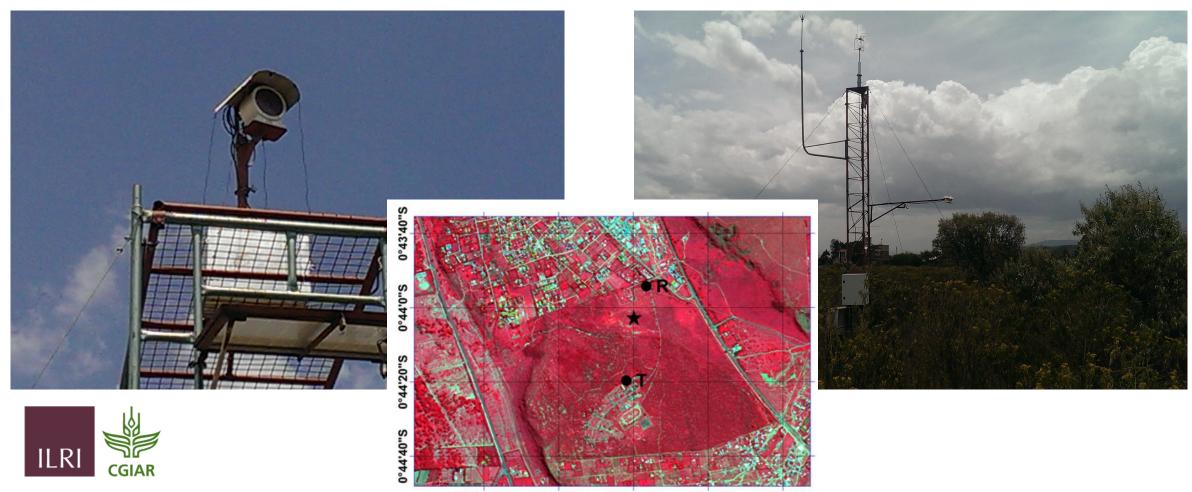


- δ2H isotopic flux partitioning of evapotranspiration over a grass field following a water pulse and subsequent dry down
- Direct partitioning of eddy-covariance water and carbon dioxide fluxes into ground and plant components



Water Resources Research, Volume: 50, Issue: 2, Pages: 1410-1432, First published: 08 February 2014, DOI: (10.1002/2013WR014333)

LAS and EC System (KWSTI) Naivasha (2012-2021)



36°26'20"E 36°26'40"E 36°27'0"E 36°27'20"E 36°27'40"E

KE-Naivasha (2012-2021) Vandalism

Vandalized equipment and more









KE-Maasai Mara EC tower (Jul 2017-2019)

Liu J. (2019). Downscaling And Validating Satellite- Based Soil Moisture Products Over The Maasai Mara In Kenya





Cosmic ray soil moisture neutron probe sensor

Fire razed by maasai herders

Kapkwang, et al. (2021) "Evaluation of Spatio-Temporal Soil Moisture Variability in Semi-Arid Rangeland Ecosystem, Maasai Mara National Reserve, Kenya". Journal of Engineering Research and Reports 20 (12):64-90. https://doi.org/10.9734/jerr/2021/v20i1217421.

Eddy Covariance since 2018

ILRI

	Α	Kapiti Ranch (2018-2020; 2022- Present)	A	В
	В	Ausquest farm (2019; 2022-Present)	****	
	С	Maktau farm (2018-Present)		
	D	Choke Ranch (2022-Present)		COLUMN THE
	CO ₂ H ₂ O CH ₄	Current of the second sec		
CGIA		Wolf, 2010	Maktau farm	Transa III

Environmental challenges







System complexity





Latest tower: Lake Victoria (KU Leuwen)



Instagram (Marilyn Roland)

Observations from working with organizations/ stakeholders



CAPACITY GAP LACK OF LACK OF INTEREST THEFT AND (TECHNICAL / **CONTINUOUS** VANDALISM/ (MISMATCHED **RESEARCH**) **FUNDING & HIGHER DISTURBANCE BY PRIORITY**) COSTS DUE TO **FIRE & WILDLIFE** LOCATION CONTINUOUS EC OBSERVATIONS ARE ONLY POSSIBLE IN PARTNERSHIP WITH

INSTITUTIONS OUTSIDE OF EAST AFRICA