

Supplementary Materials: A Combined Satellite-Derived Drought Indicator to Support Humanitarian Aid Organizations

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Table S1. Input Variables for the Enhanced Combined Drought Index.

Input Variable	Dataset Provider	Temporal/Spatial Coverage	Temporal/Spatial Resolution	Comment/URL
Rainfall	TAMSAT	1983-present/Africa	Daily/0.0375° (approx. 4 km)	http://www.met.reading.ac.uk/~tamsat/about/
ESA CCI SM (Historic Soil Moisture Reference)	ESA Climate Change Initiative/TU Wien	1978-2013/global (only 1992 to present used due to data gaps)	Daily/0.25° (approx. 28 km)	Global dataset including observations from radars and radiometers (http://www.esa-soilmoisture-cci.org/)
CCI NRT (Near-real-time continuation of ESA CCI SM)	TU Wien (Department of Geodesy and Geo-information)	2013-present	Daily/0.25° (approx. 28 km)	ESA CCI processing chain adapted to include NRT observations of ASCAT on MetOP A/B and AMSR-2 und GCOM-W
Land Surface Temperature (MODIS)	NASA	2000-present/global	Daily/ Max. 0.1° (approx. 11 km)	http://neo.sci.gsfc.nasa.gov/
Vegetation Status (NDVI) (MODIS)	University of Natural Resources and Life Sciences, Vienna	2002-present/global	daily/250 m	http://ivfl-info.boku.ac.at/index.php/eo-data-processing

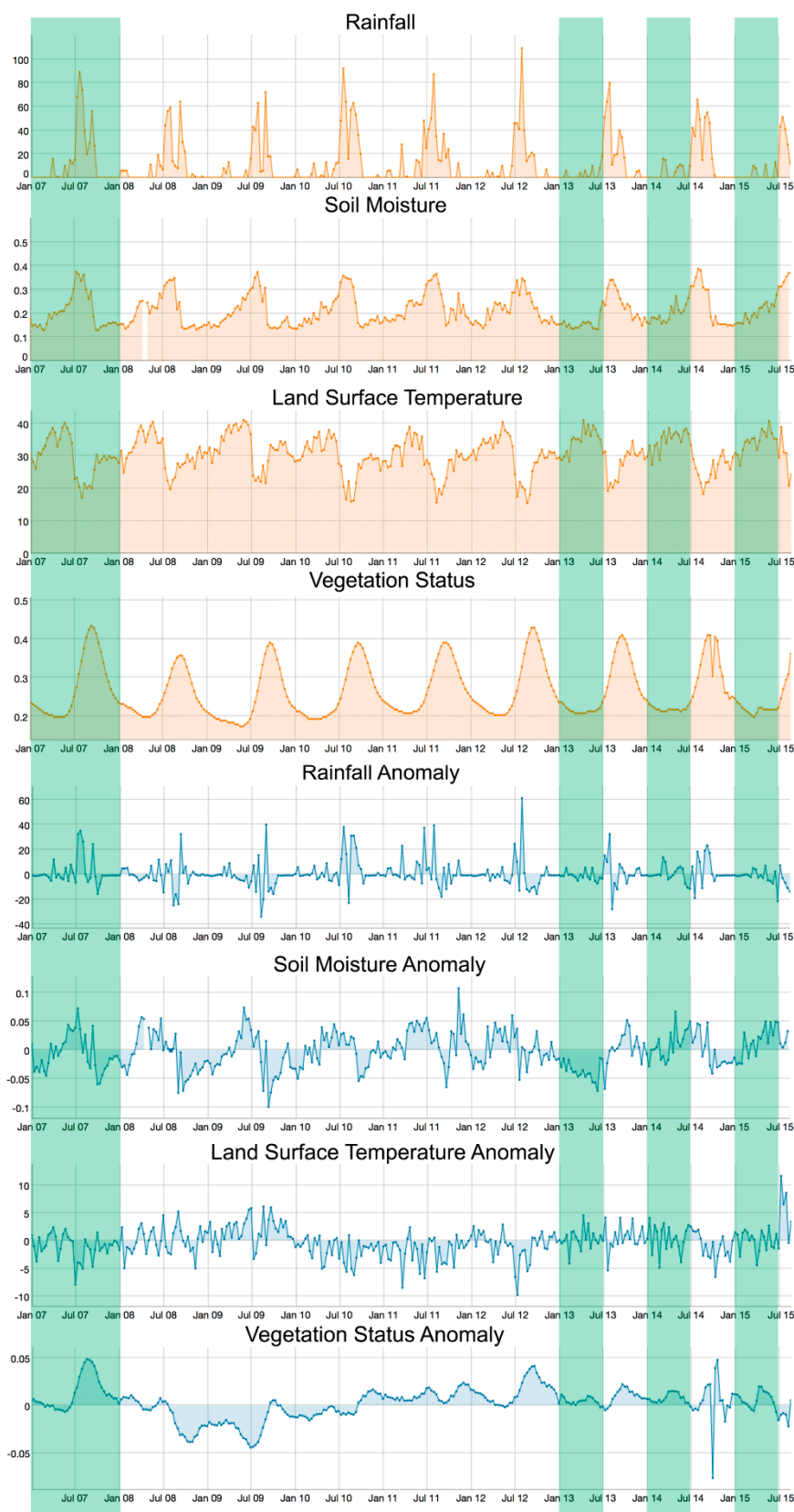


Figure S13. Time series for all raw data and corresponding anomalies that are currently processed by POETS; The time series cover 2007 to mid 2015 for the regions of Atsbi and Kinte Awelo; Report drought conditions are highlighted in green.

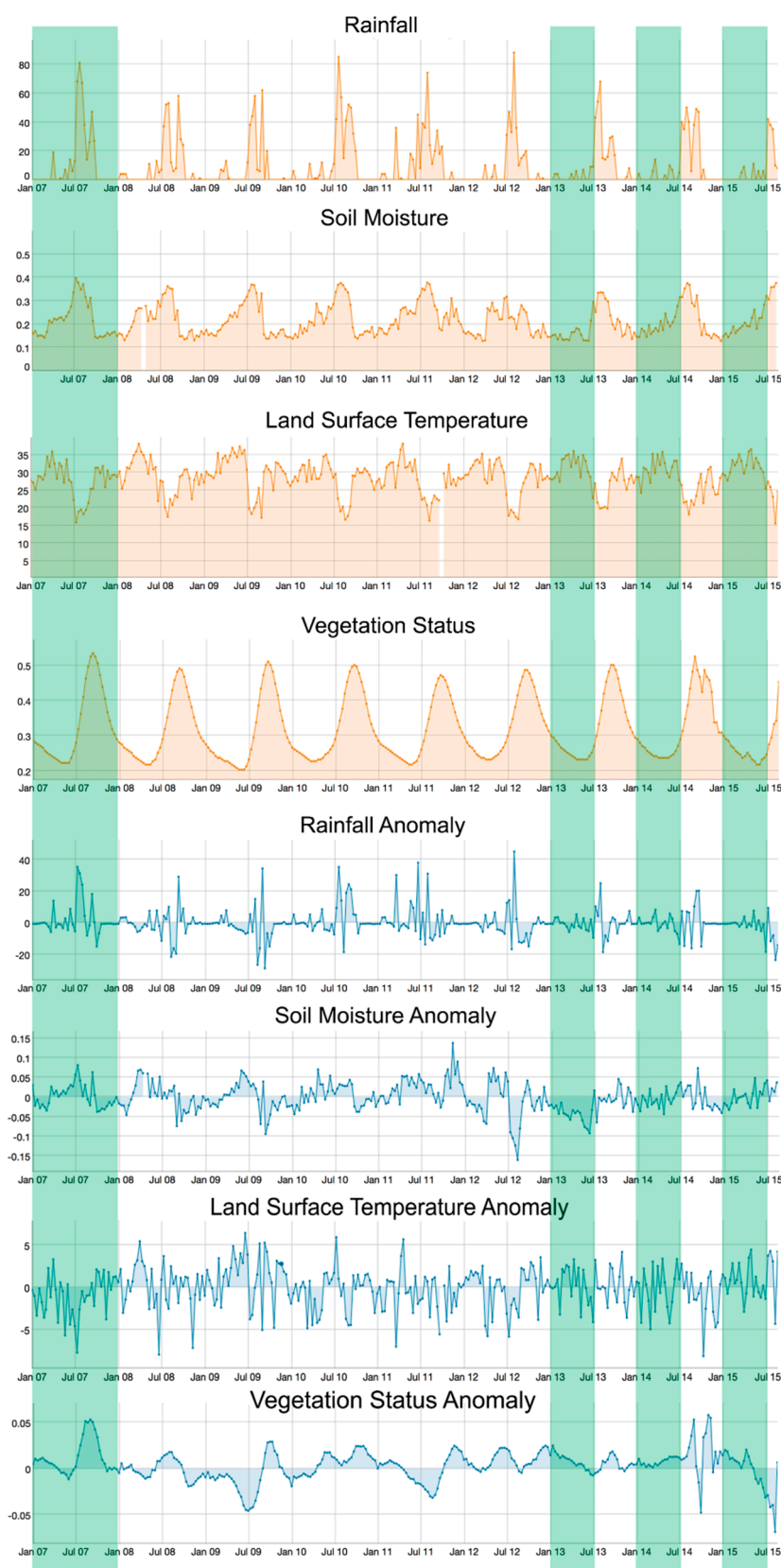


Figure S14. Time series for all raw data and corresponding anomalies that are currently processed by POETS; The time series cover 2007 to mid 2015 for the region of Saesi Daesdaemba; Report drought conditions are highlighted in green.

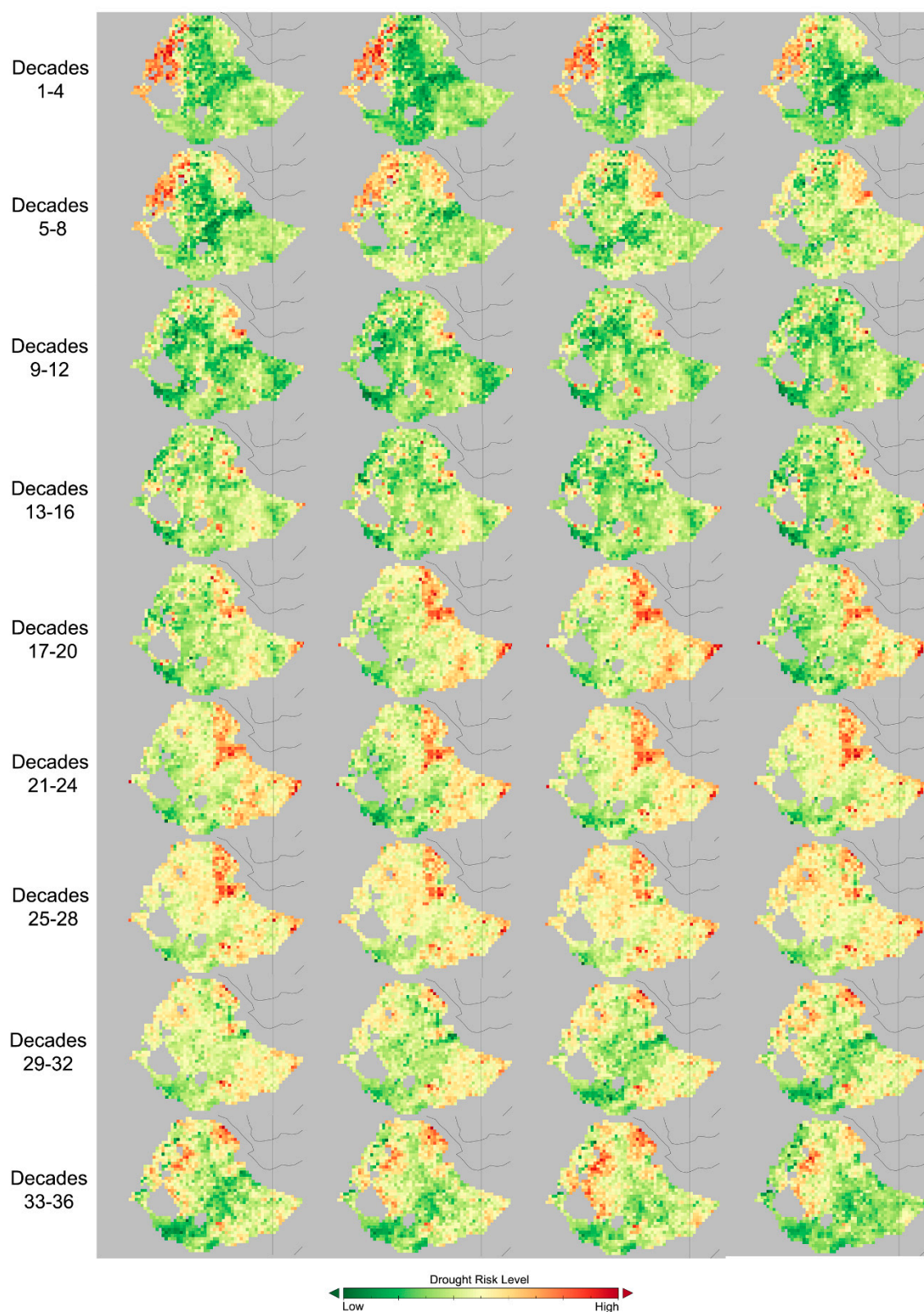


Figure S15. ECDI-based Drought Risk Level for all decades of 2007; Maximum warning level: 3.4 (decade 1).

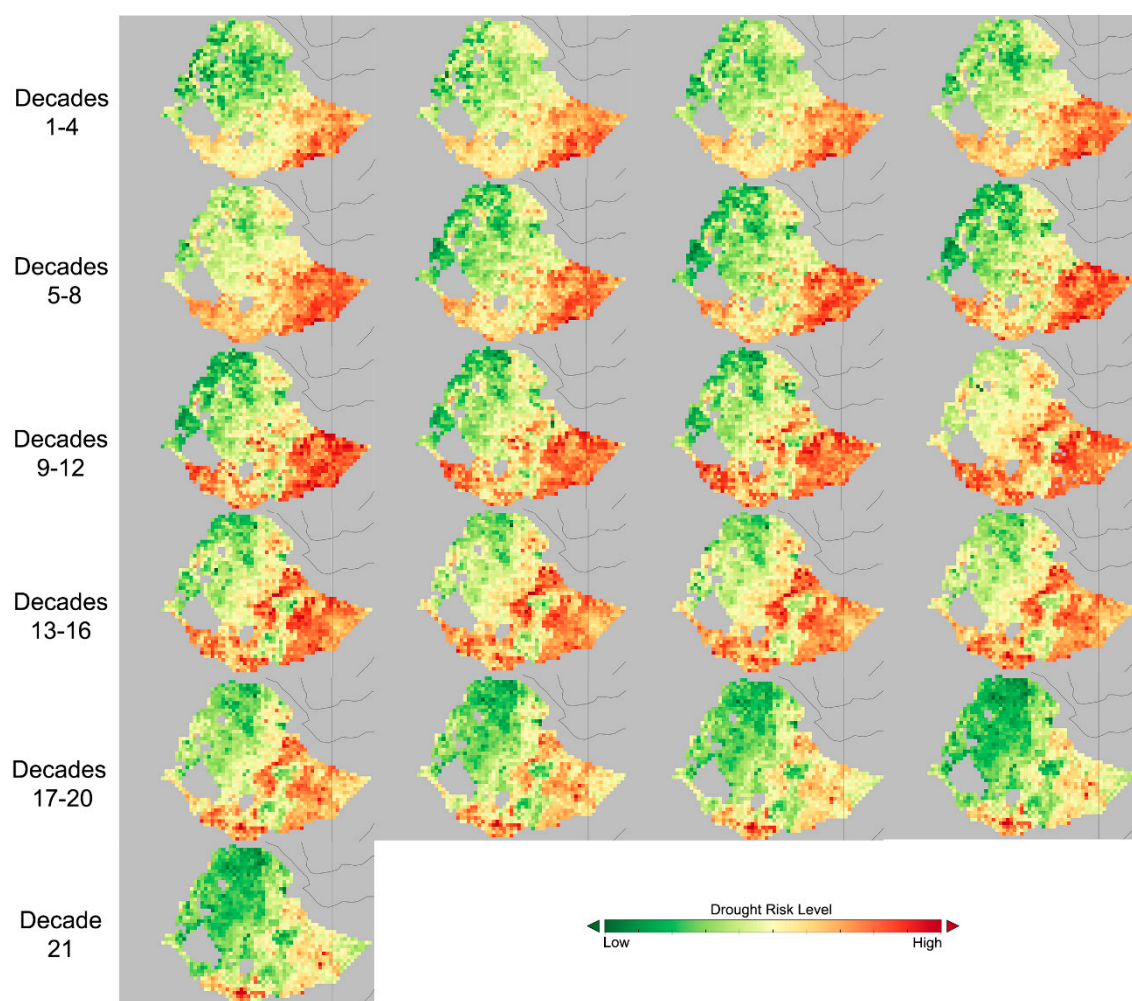


Figure S16. ECDI-based Drought Risk Level for the first 21 decades (seven months) of 2011; July is included, because famine was officially declared on 20 July; Maximum warning level: 3.5 (decade 20, 10–20 July 2011).

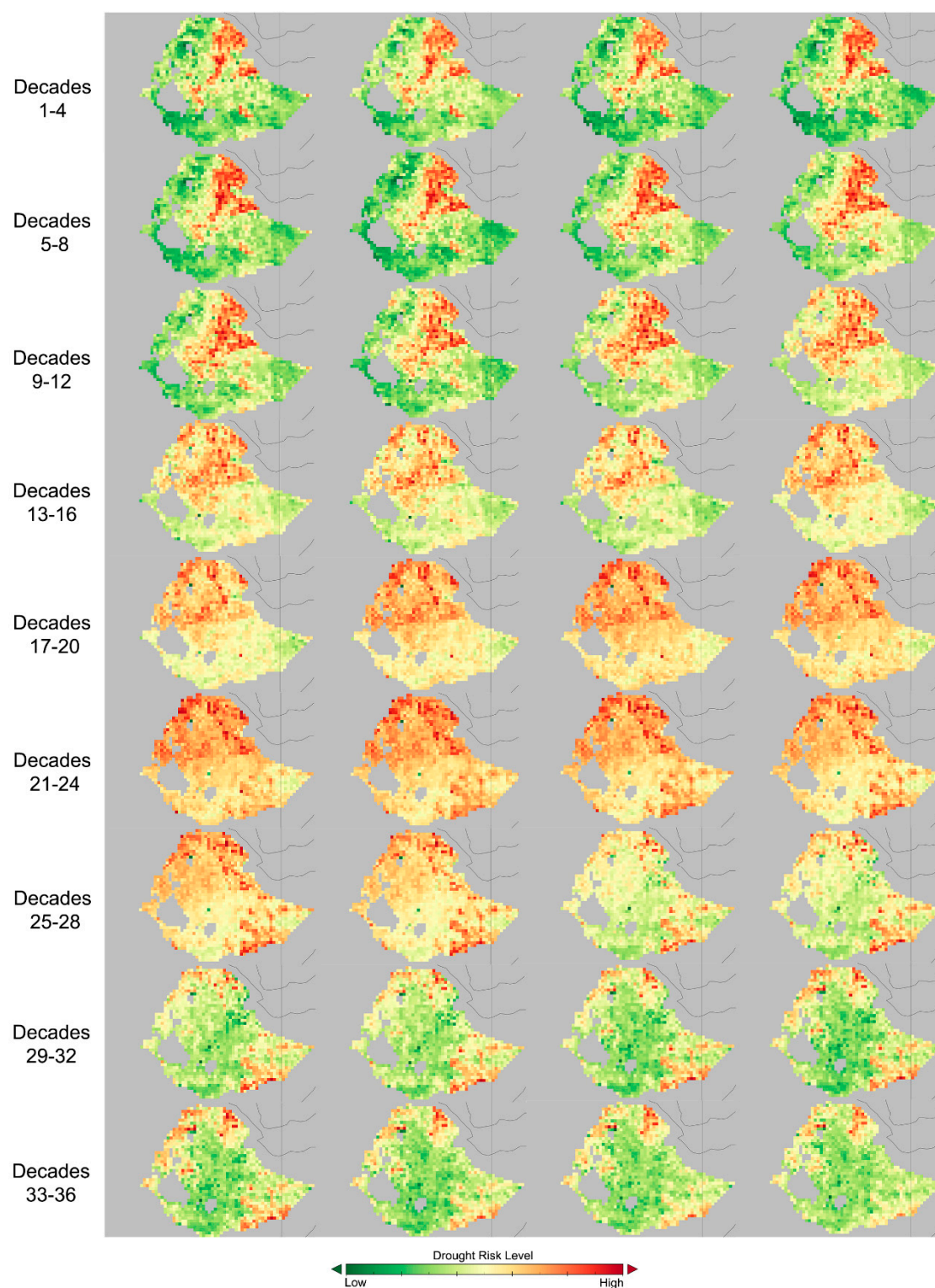


Figure S17. ECDI-based Drought Risk Level for all decades of 2013; Maximum warning level 3.5 (decades 3–6, late January to late February 2013).

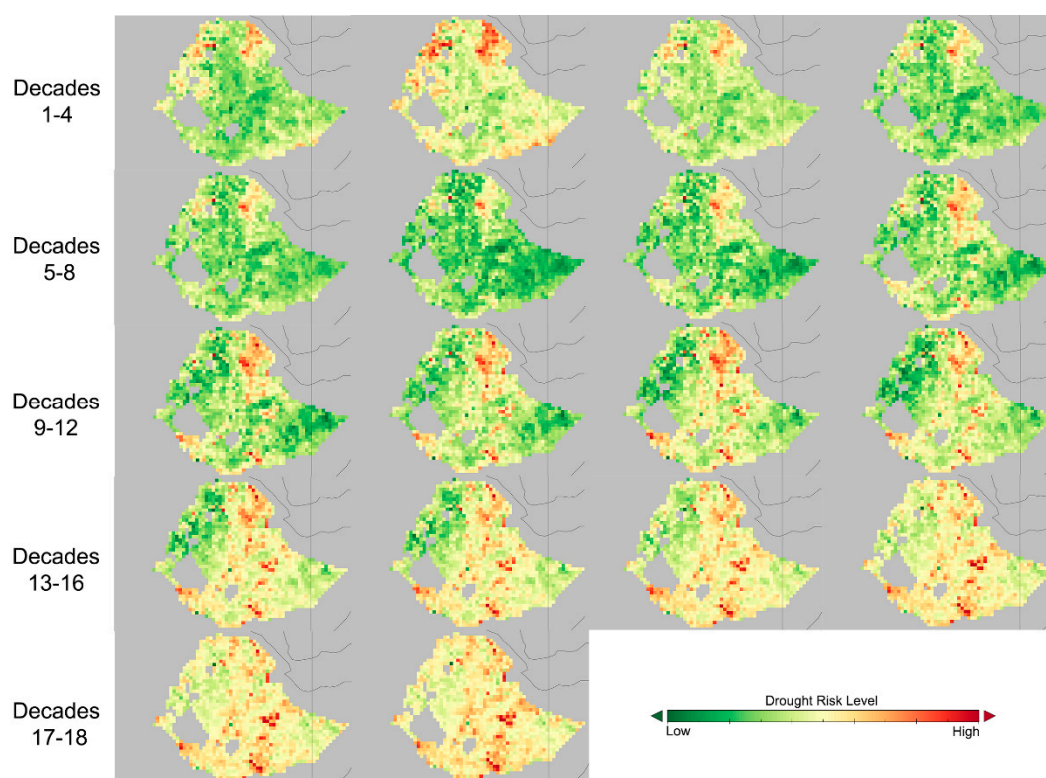


Figure S18. ECDI-based Drought Risk Level for the first 18 decades (six months) of 2014; Maximum warning level: 2.9 (decade 1 and 3–6, early January and late January to late February).

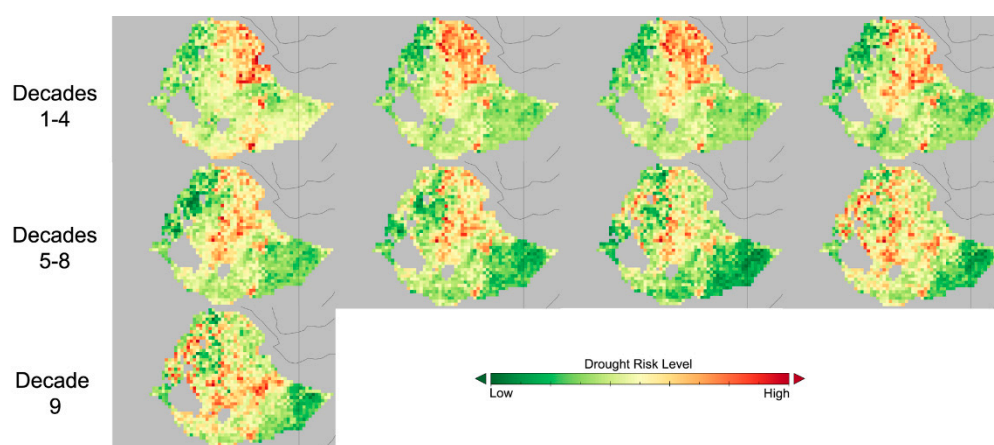


Figure S19. ECDI-based Drought Risk Level for the first 9 decades (three months) of 2015; Maximum warning level: 3.5 (decades 7 and 9, early and late March).