

Low ET



High ET

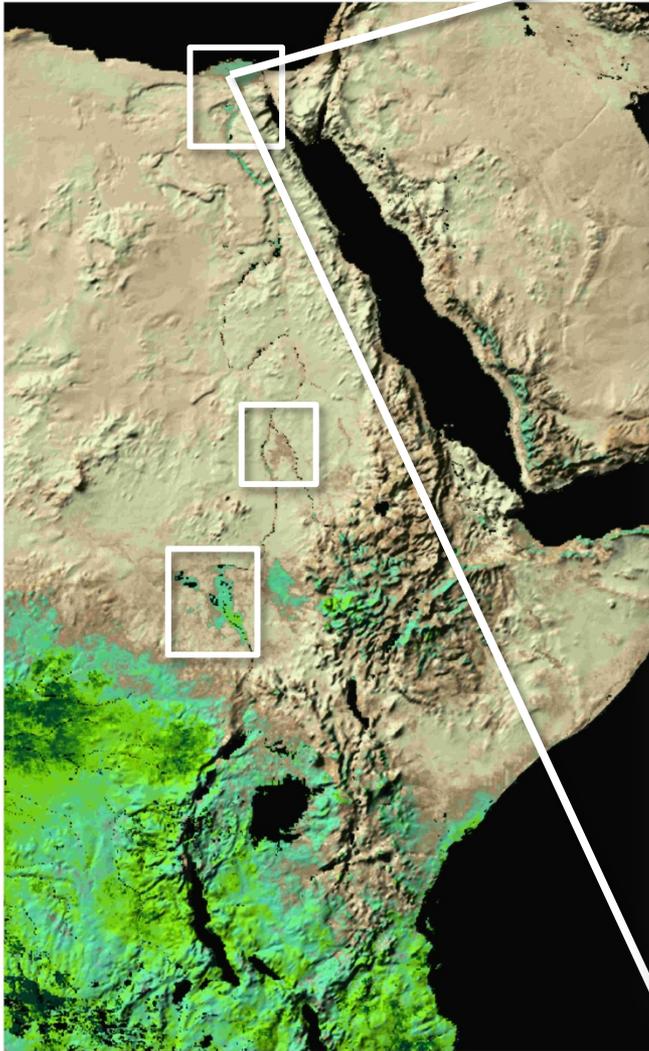
Irrigated area in Idaho

TIR and VI-based retrievals agree well for fields at very wet and dry conditions. but less well at intermediate moisture conditions.

In these cases, the LST is too cold to be consistent with the low ET rates predicted by the VI method, presumably reflecting soil evaporation that is unaccounted for using VIs only.

(Anderson et al., RSE, 2011, with METRIC/VI analyses by R. Allen)

2009 FEBRUARY



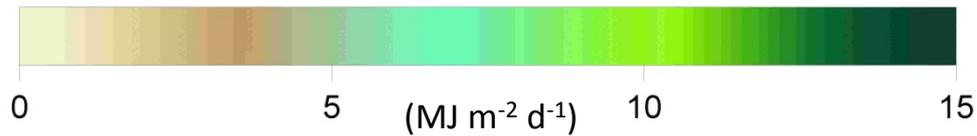
LANDSAT 5

Brightness temperature (K)



Average ALEXI ET (MSG TIR retrieval)

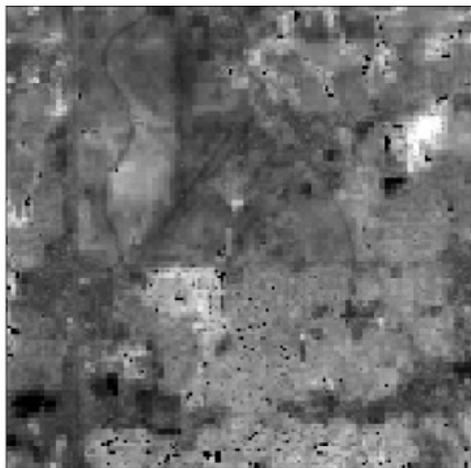
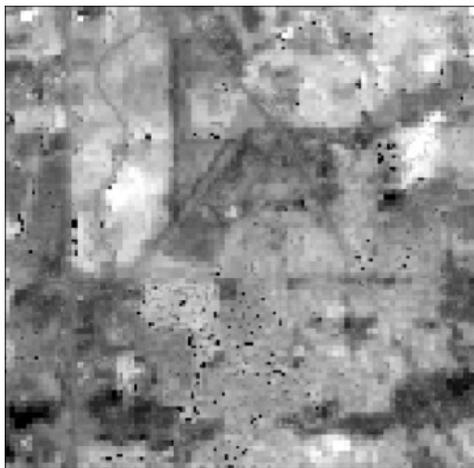
Average Noah ET (Water balance)



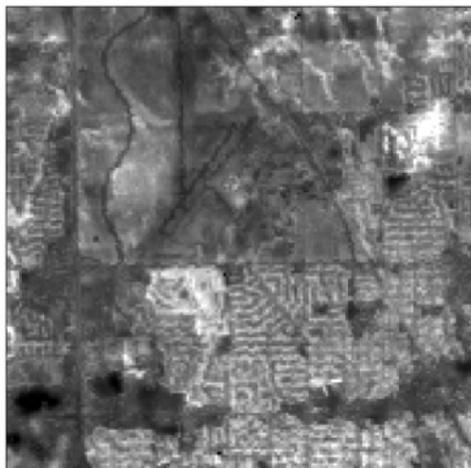
10 June 2001

12 July 2001

Unsharpened



Sharpened



89-mm precip
Low VPD



6-mm precip
High VPD

Latent heat flux ($W m^{-2}$)

Aerial Photo
20 February 1995



Norman, OK

Relies on temporal and spatial coincidence of TIR and VSWIR bands.

(Gao et al., Remote Sensing, 2012)