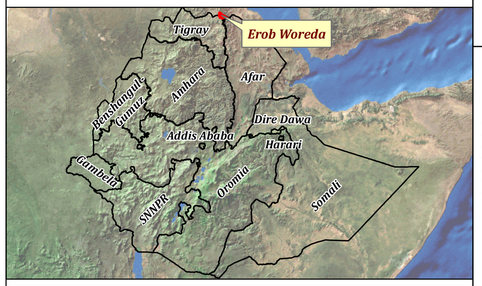
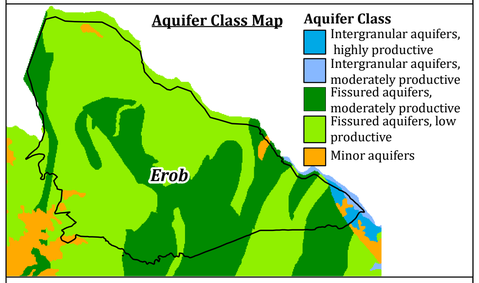
GROUNDWATER POTENTIAL MAP OF EROB WOREDA

INSET MAPS

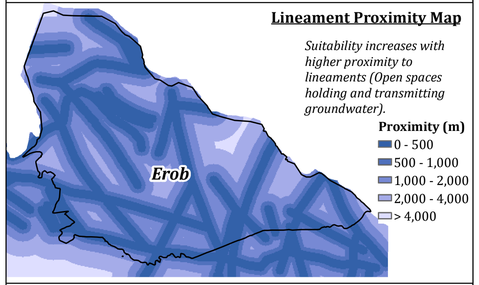


Aquifer Class Map



Aquifer Class
- Intergranular aquifers, highly productive
- Intergranular aquifers, moderately productive
- Fissured aquifers, moderately productive
- Fissured aquifers, low productive
- Minor aquifers

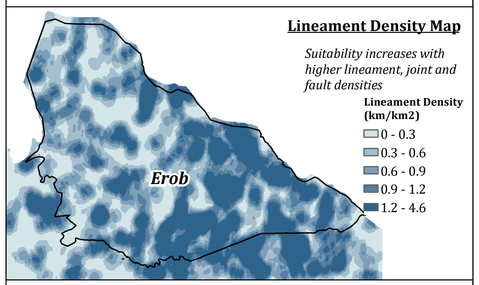
Lineament Proximity Map



Suitability increases with higher proximity to lineaments (Open spaces holding and transmitting groundwater).

Proximity (m)
- 0 - 500
- 500 - 1,000
- 1,000 - 2,000
- 2,000 - 4,000
- > 4,000

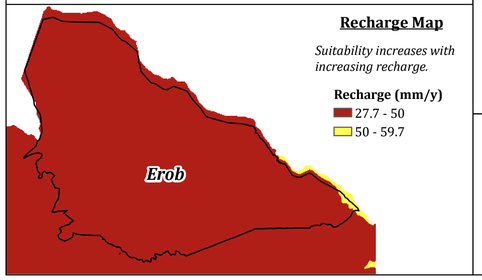
Lineament Density Map



Suitability increases with higher lineament, joint and fault densities

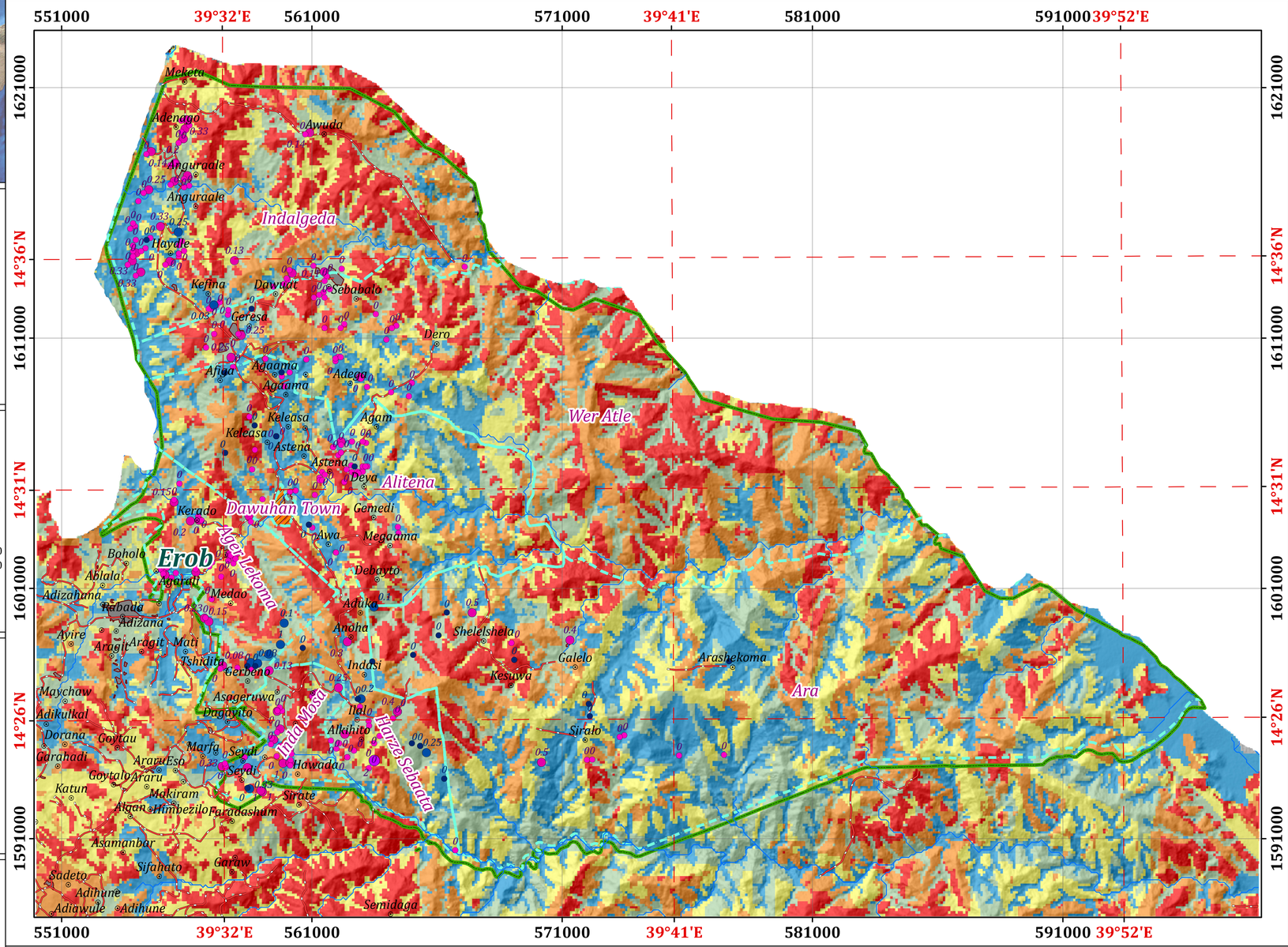
Lineament Density (km/km2)
- 0 - 0.3
- 0.3 - 0.6
- 0.6 - 0.9
- 0.9 - 1.2
- 1.2 - 4.6

Recharge Map



Suitability increases with increasing recharge.

Recharge (mm/y)
- 27.7 - 50
- 50 - 59.7



Horizontal Datum: WGS 1984
Vertical Datum: Mean sea level
Projection: Universal Transverse Mercator, Zone 37N

Administrative boundaries: CSA 2007
Built-up areas: Sentinel-2, Openstreetmap 2021

4 2 0 4 8 12 Km

Scale: 1: 100,000

N W E S

Legend

Groundwater Suitability Index

- Unsuitabile
- Low
- High
- Very Low
- Moderate

Other Symbols

- Locality
- Main Road
- Drainage
- Woredas Boundary
- Town
- Built-Up Areas
- Kebele Boundary

Well Yield (l/s)

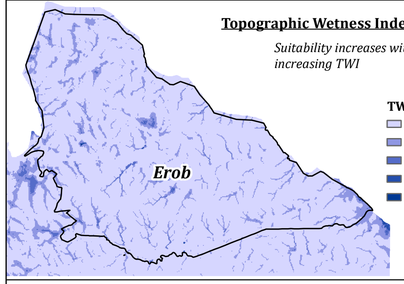
- No data
- 2 - 5
- < 1
- 5 - 10
- 1 - 2
- > 10

Spring Yield (l/s)

- No data
- 2 - 5
- < 1
- 5 - 10
- 1 - 2
- > 10

Topographic Wetness Index Map

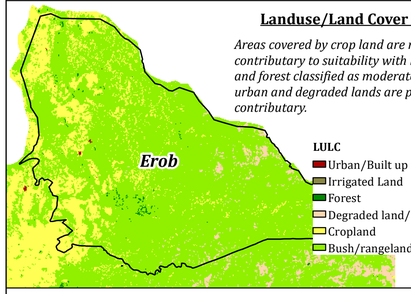
Suitability increases with increasing TWI



TWI Value
- <= 12
- 12 - 14
- 14 - 16
- 16 - 18
- > 18

Landuse/Land Cover Map

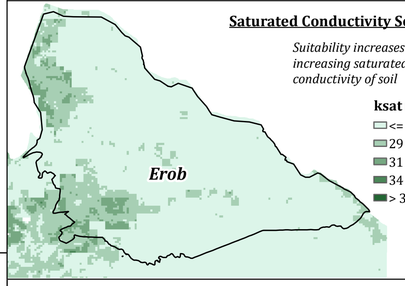
Areas covered by crop land are more contributary to suitability with bush land and forest classified as moderate while urban and degraded lands are poorly contributary.



LULC
- Urban/Built up areas
- Irrigated Land
- Forest
- Degraded land/Bare Land
- Cropland
- Bush/rangeland

Saturated Conductivity Soil Map

Suitability increases with increasing saturated conductivity of soil



ksat (cm/d)
- <= 29
- 29 - 31
- 31 - 34
- 34 - 36
- > 36

HYDROGEOLOGICAL MAPPING FOR CLIMATE RESILIENT WASH IN ETHIOPIA - LOT-1

UKaid MoWE ACACIA WATER aquacon

Cartography By:- Assaminew Gebeyehu

December, 2021