

Hayli Gubbi Eruption – HazardWise Report (Part 2)

Exposure Zones

- Local: Afar pastoral communities, livestock herds, soil/water sources.
- Regional: Red Sea aviation routes; Ethiopia–Eritrea–Djibouti border corridor.
- Remote: Drift corridor toward Arabian Peninsula and India aviation paths.
- Cross-border: Africa ↔ Arabian Peninsula ↔ South Asia air traffic corridors.

Propagation / Drift Path

Ash plume propagated westward across the Red Sea at 40–49k ft, intersecting international flight levels (FL390–FL490). Eastward layers possible under varying stratospheric winds.

[MAP PLACEHOLDER – Insert Drift/Spread Map Here]

Population & Infrastructure Impact

- Communities: Afar settlements; impacts include ash inhalation & livestock stress.
- Transportation: Ethiopian domestic flights; Red Sea maritime visibility; rerouted intl. flights.
- Utilities: Minimal; ash may affect water sources locally.
- Supply Chain: Possible delays on Red Sea shipping lanes; air-cargo diversions.
- Environmental: Short-term soil acidity changes; vegetation dusting; SO₂-related AQ concerns.