MYANMAR MALARIA EARLY WARNING SYSTEM (MMEWS)

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MALARIA RISK

- Satellite data + spatial data + CRF surveys
- usPCR testing
- P. falciparum
- Satellite data + entomology surveys

Source: http://www.saburchill.com/ans02/chapters/chap013.html
Malaria Landscape

- Suitable mosquito habitat
- Population presence and density
- Population of Plasmodium parasites
- Access to care
- Occupational exposure
Malaria Burden Potential

Population Exposure
- Population presence/density:
  - urban centers
  - rural sites
- Occupation-related exposure:
  - rice cultivation
  - plantation work
  - forest harvesting
- Access to care:
  - distance to roads and medical facilities
  - political stability
- Subclinical parasitemia:
  - Plasmodium prevalence
  - drug resistance

Vector Abundance
- Standing water
- Vegetative stress
- Land surface temperature

Update frequency and data source:
- 8-day update:
  - Landsat OLI, Sentinel 2, Sentinel 1, MODIS, VIIRS
- Annual update:
  - Landsat OLI, Sentinel 2, Sentinel 1, VHR
- As needed or as available:
  - Auxiliary geospatial data, expert opinion, medical studies
CAPACITY BUILDING