



About

A regional dashboard integrating multiple Earth Observation data sources to monitor agriculture and hazards through real-time analysis and visualization.

Purpose

Supports food security analysis, impact assessment and early warning by delivering ready-to-use indicators for evidence-based decision-making.

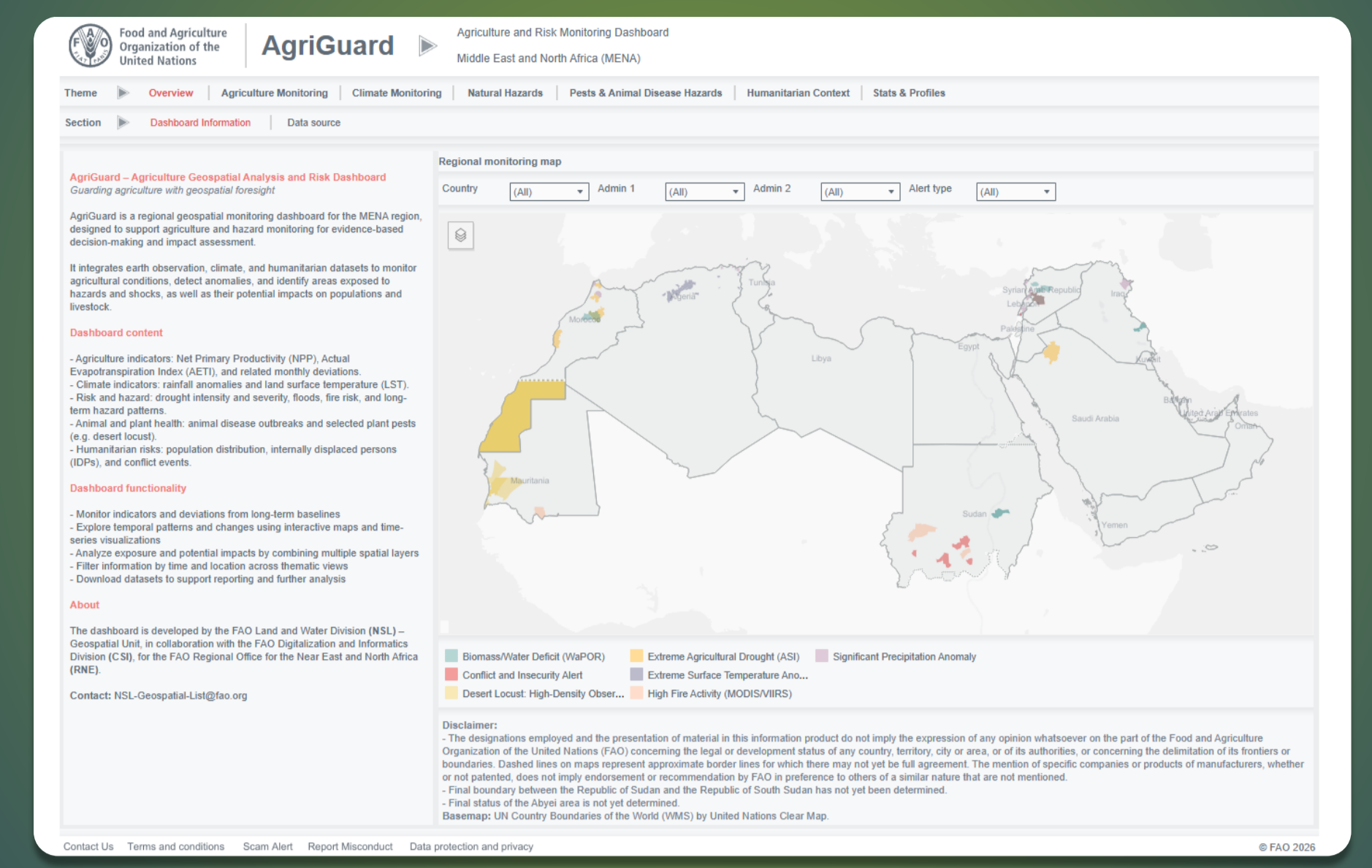
Coverage

Covering all of 19 NENA countries, in support of the FAO Regional Office for the Near East and North Africa.

Data

Integrates global and FAO datasets through an automated, reproducible pipeline delivering monthly, seasonal and annual outputs.

Regional monitoring map



19 Countries

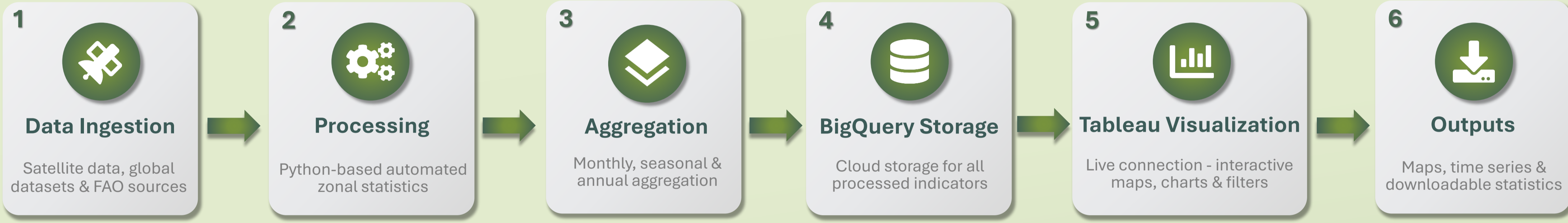
5 Major themes

5+ FAO indicators

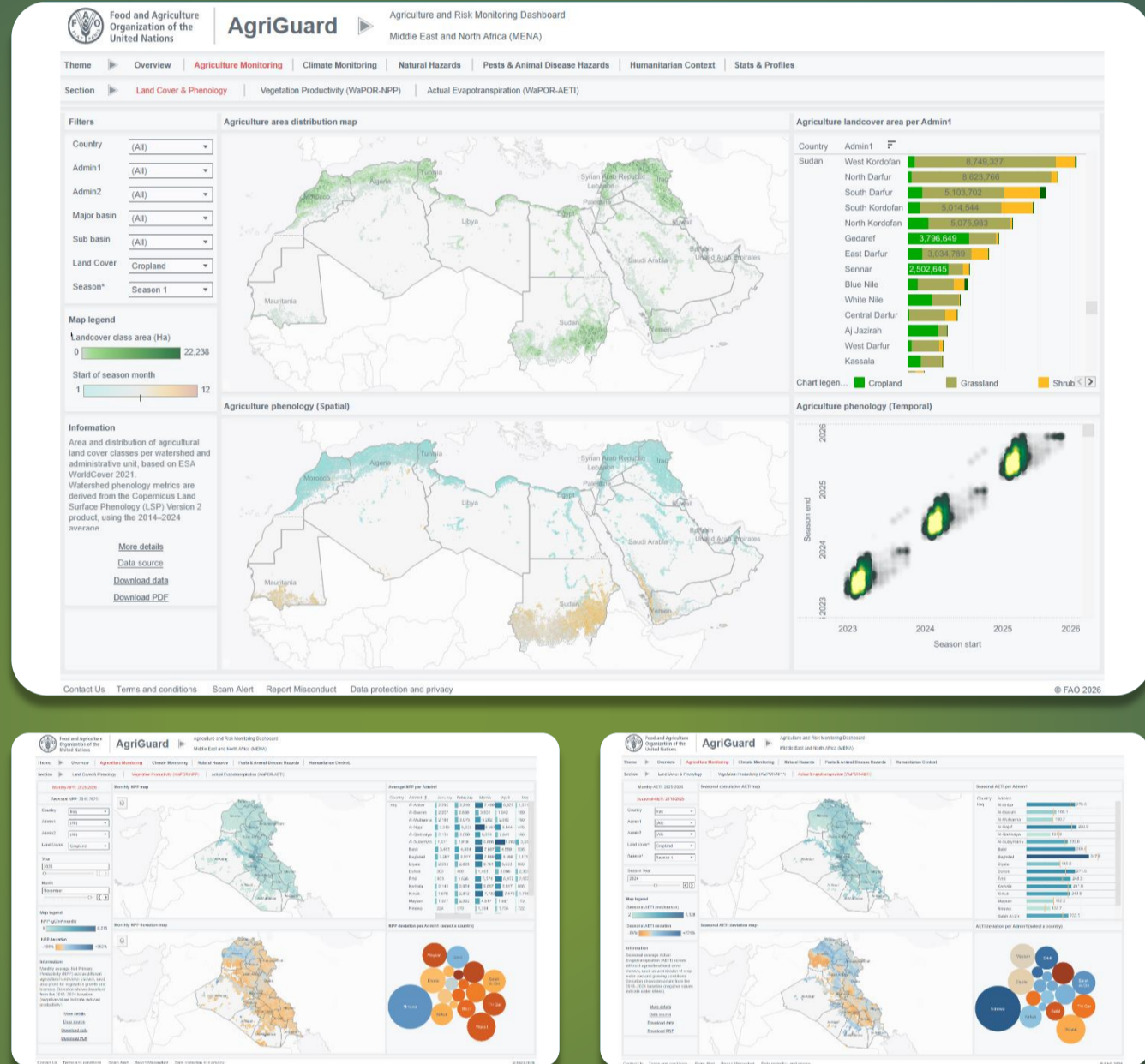
50+ Global indicators

30 Days update interval

Workflow

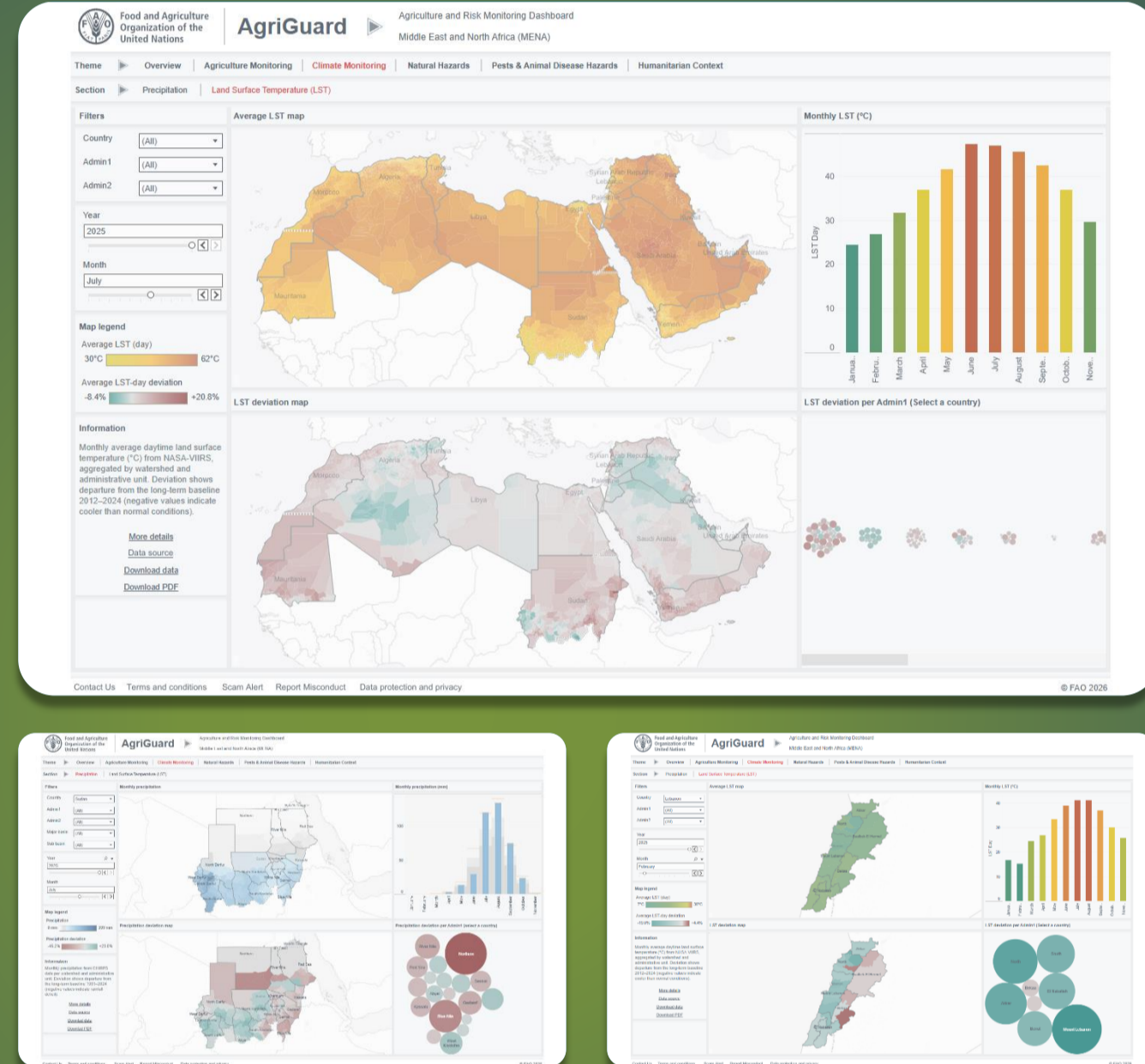


Agriculture monitoring



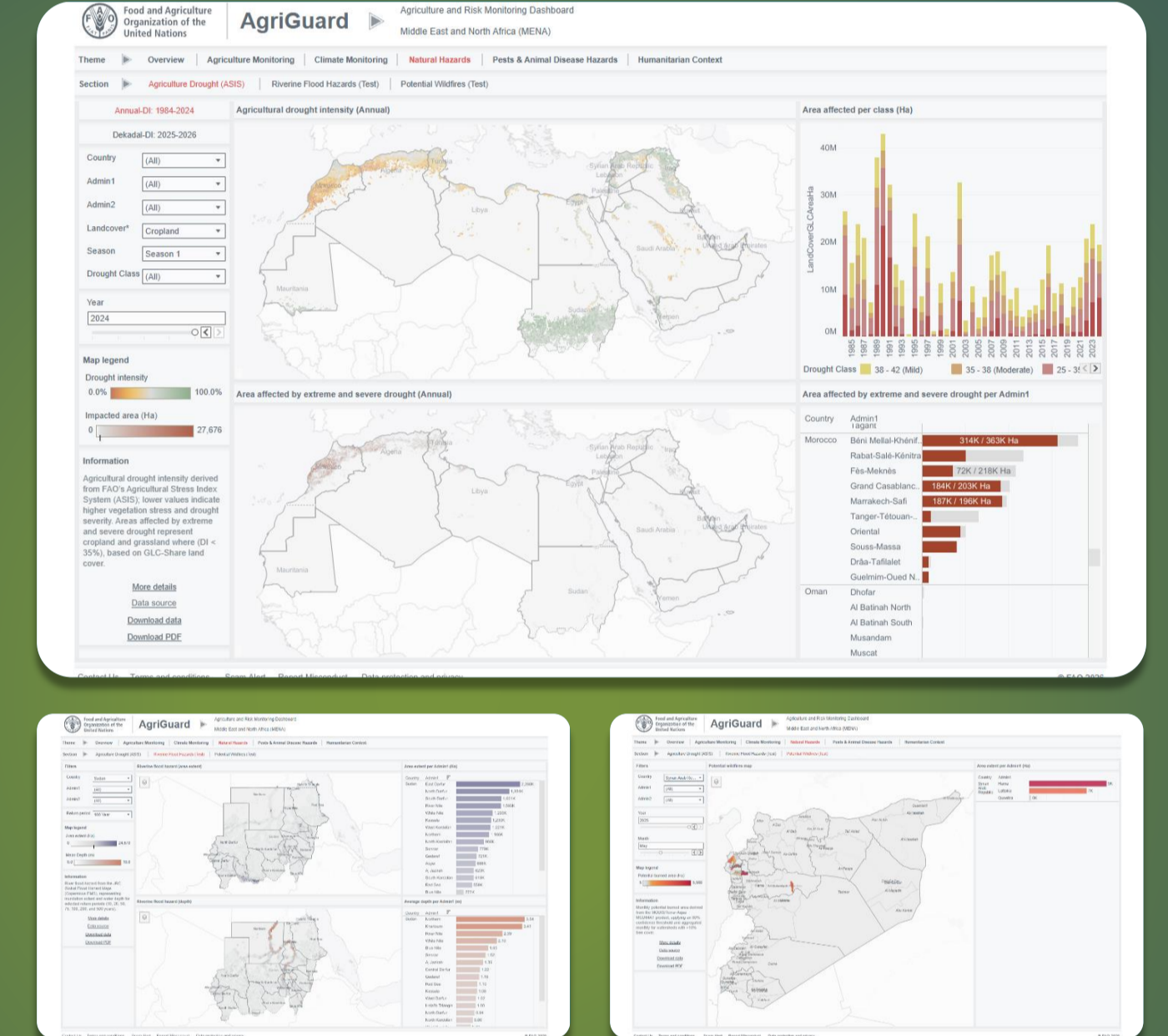
- Agricultural land cover (ESA-WorldCover)
- Vegetation productivity - NPP (FAO-WaPOR)
- Actual evapotranspiration - AETI (FAO-WaPOR)
- Phenology metrics (CLMS-LSP)

Climate monitoring



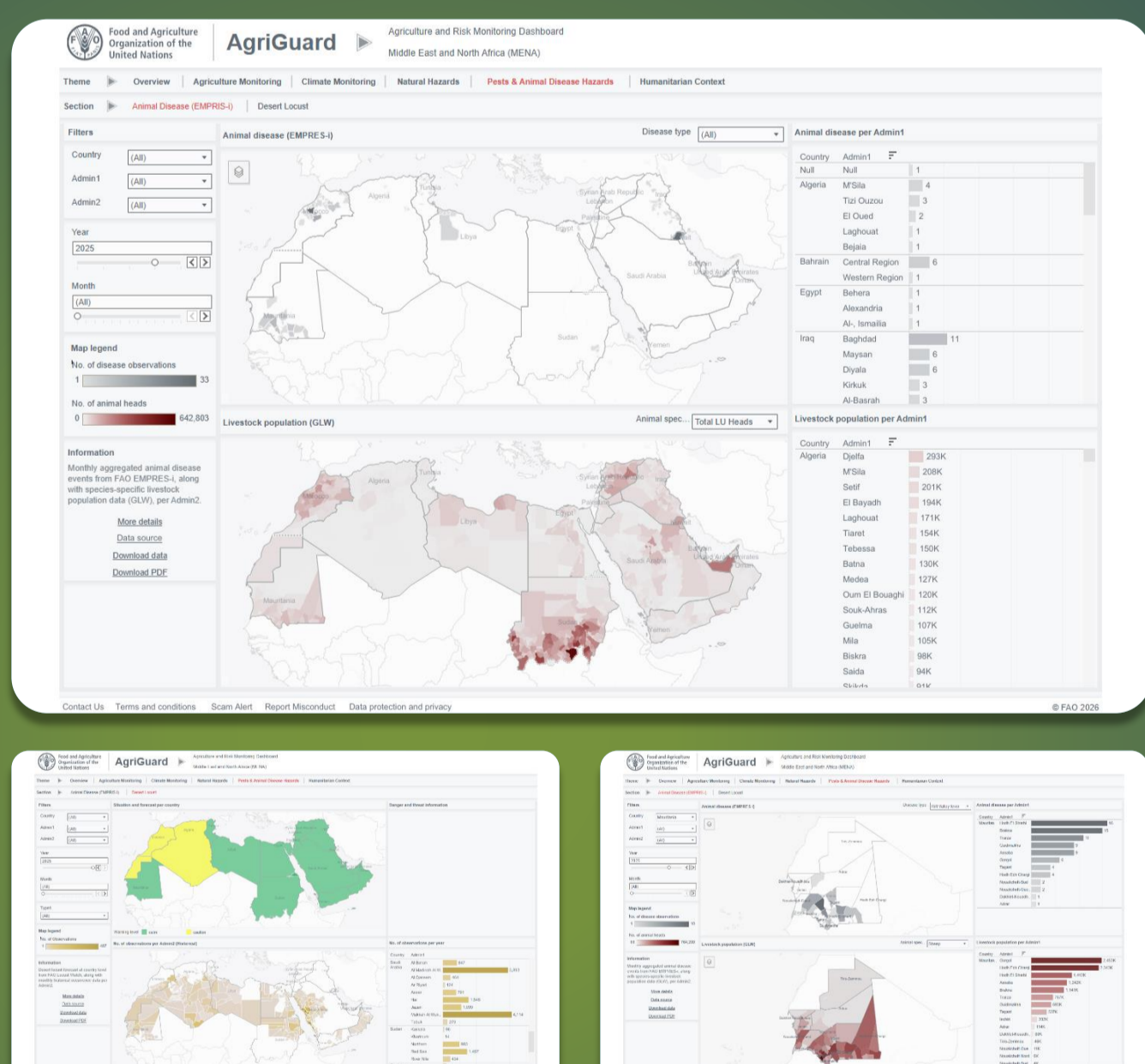
- Land surface temperature & anomalies (NASA-VIIRS)
- Monthly precipitation & anomalies (CHIRPS)
- Long-term climate trends

Natural hazard



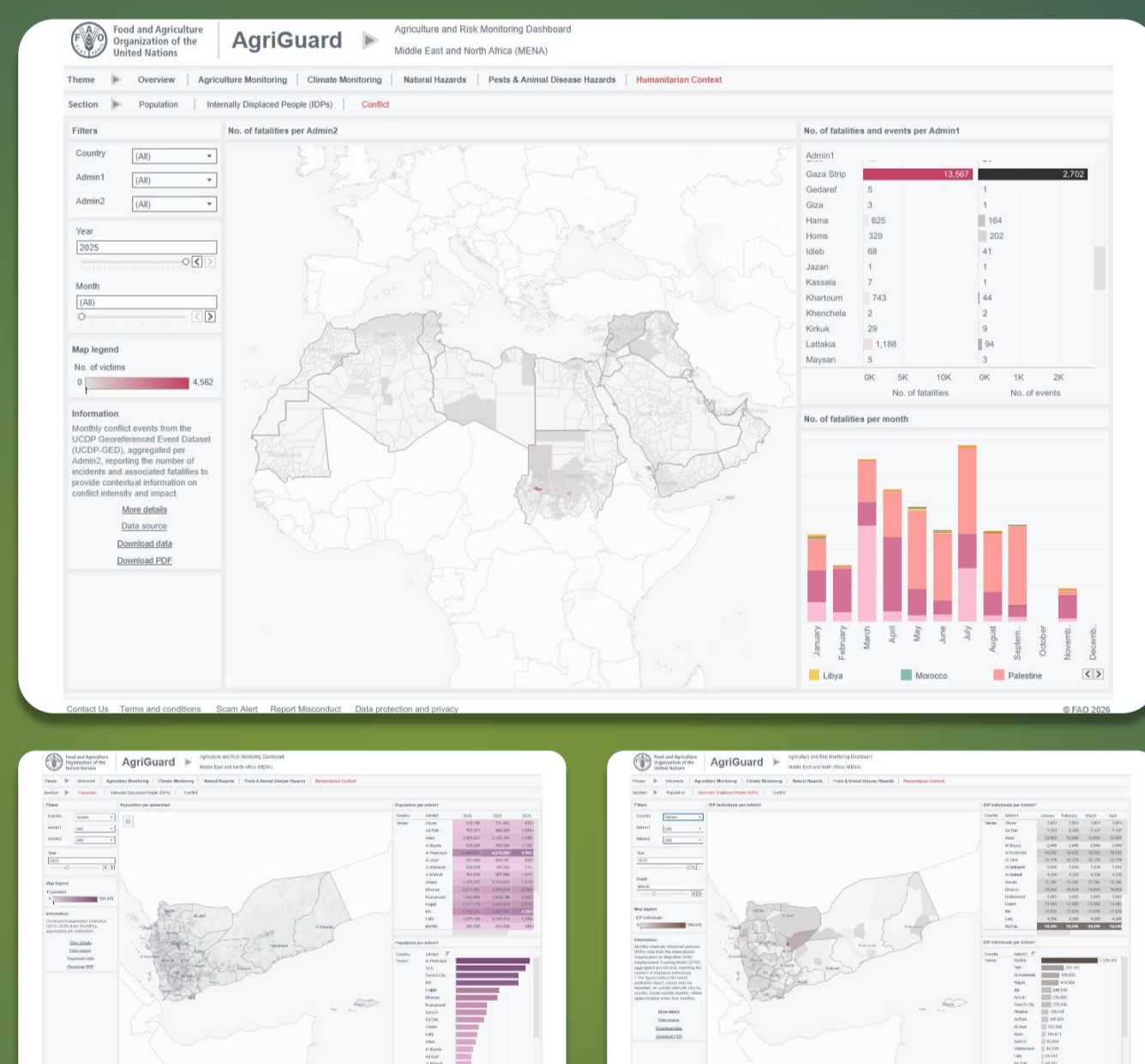
- Agricultural drought intensity & severity (FAO-ASIS)
- River flood hazard (JRC-GLOFAS)
- Burned area (MODIS)

Pest & animal disease



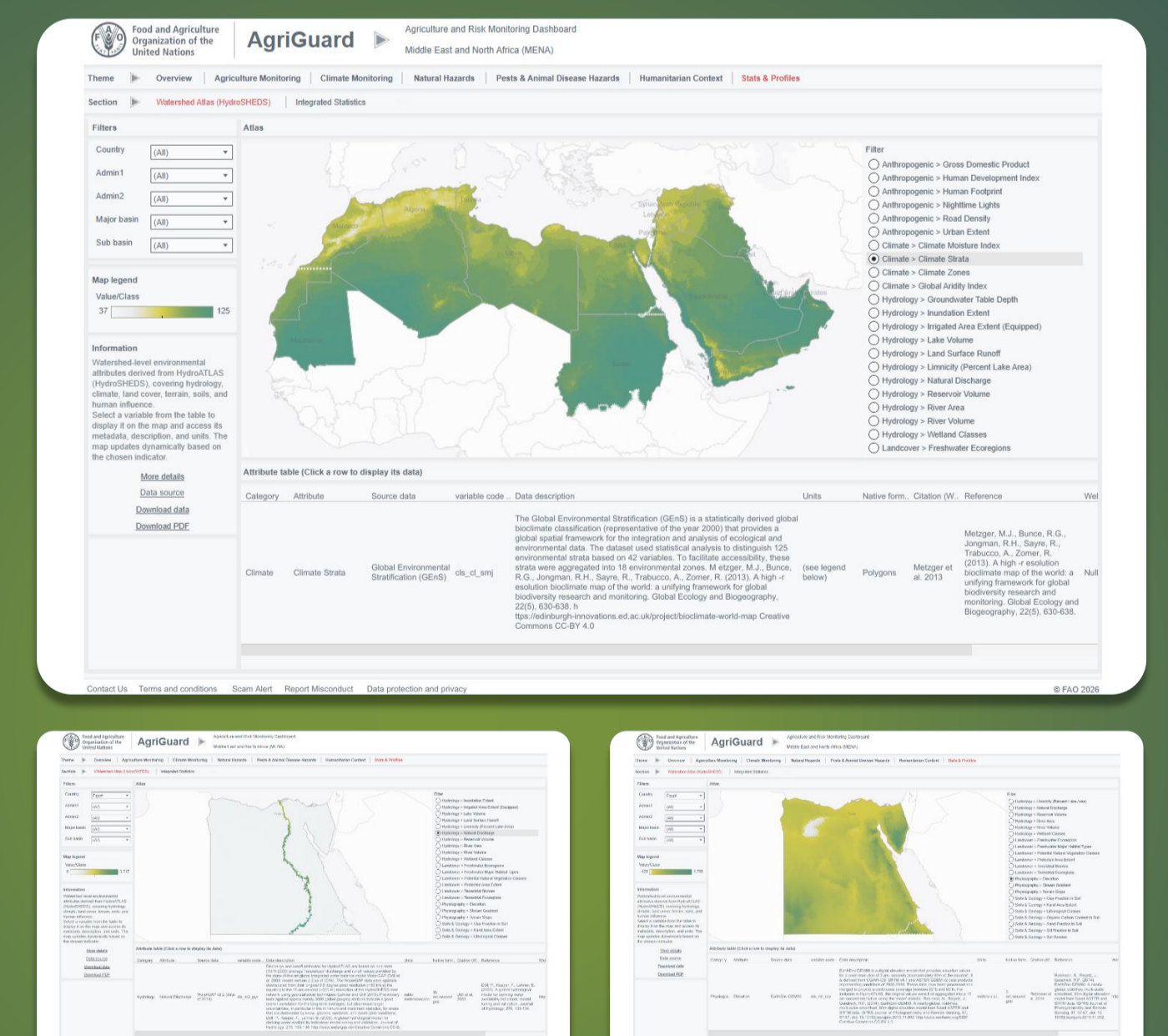
- Animal disease events (FAO-EMPRES-i)
- Livestock density (GLW4)
- Desert locust monitoring & forecasts (FAO)

Humanitarian context



- Conflict events & fatalities (UCDP)
- Population distribution (WorldPop)
- Internally displaced persons (IOM-DTM)

Stats & profile



- Watershed Atlas (HydroATLAS)
- +35 Environmental indicator
- Cross indicator watershed profiles

SPATIAL & TEMPORAL COVERAGE

- Regional → country → administrative → watershed
- Long-term baselines: 5–40 years based on indicator
- Annual, seasonal, monthly and decadal analysis
- Phenology-aligned seasonal aggregation

USE CASES

- Watershed agriculture monitoring for FAO projects
- Flood, crop and population exposure in Sudan
- Drought agricultural stress monitoring (NENA)
- Food security & impact assessment

SDG ALIGNMENT

- SDG 2: Zero Hunger (Targets 2.3, 2.4).
- SDG 13: Climate Action (Targets 13.1, 13.2)
- SDG 6: Water-use efficiency
- Supporting: SDG 1 & SDG 15

WHAT'S NEXT

- From monitoring to forecasting
- Ingest national data in priority countries
- Toward anticipatory action and decision-ready early warning

Abdullah Barhy, Almutaz Mohammed and Livia Peiser, Land and Water Division, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy.
Developed by the Geospatial Unit of FAO's Land and Water division, with technical support from FAO's Digitalization and Informatics division, for the FAO Regional Office for the Near East and North Africa.