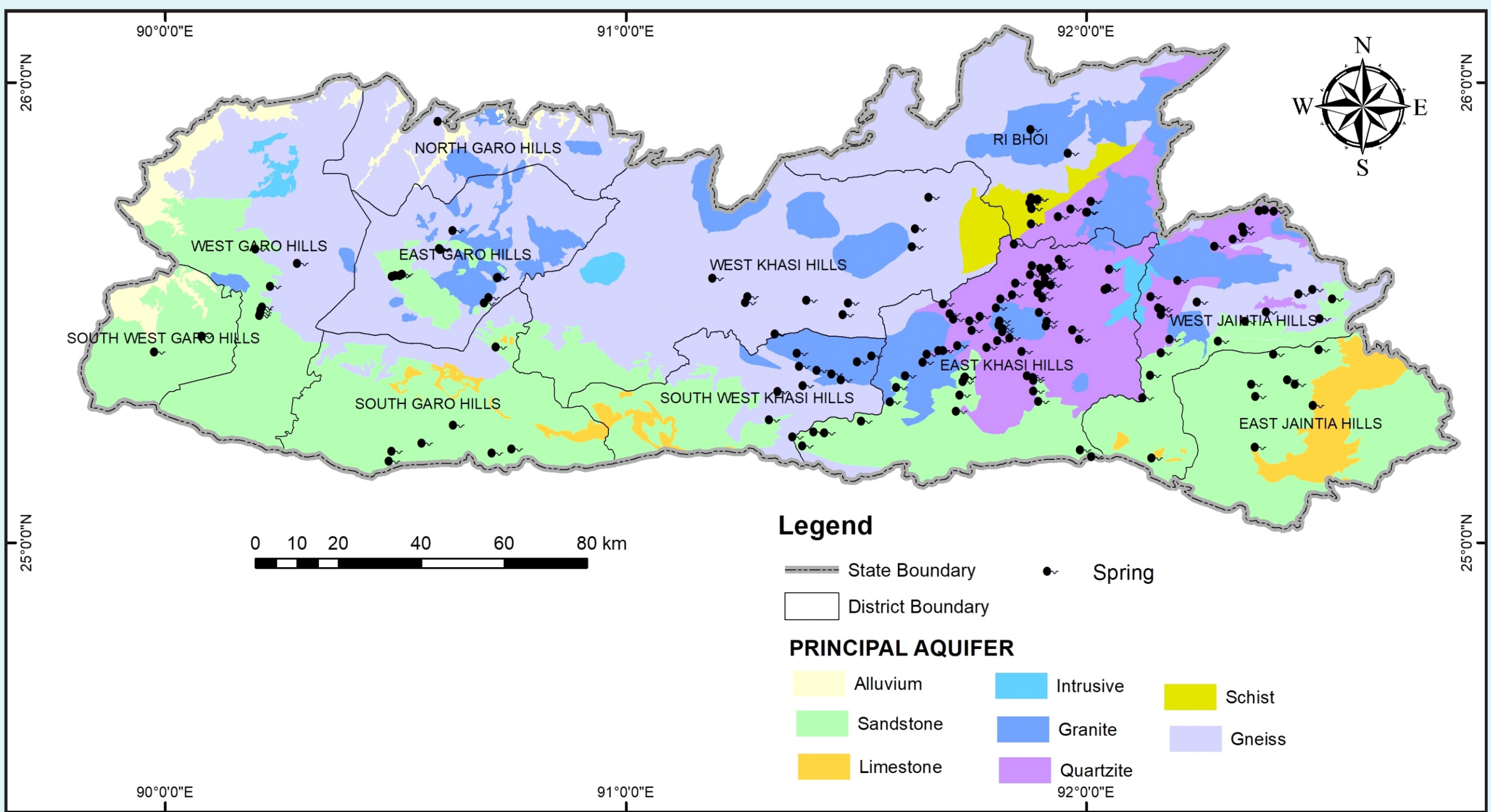


SPRINGS OF MEGHALAYA

SPRING LOCATIONS OF MEGHALAYA



MANAGEMENT

Comprehensive mapping/ Spring Inventory

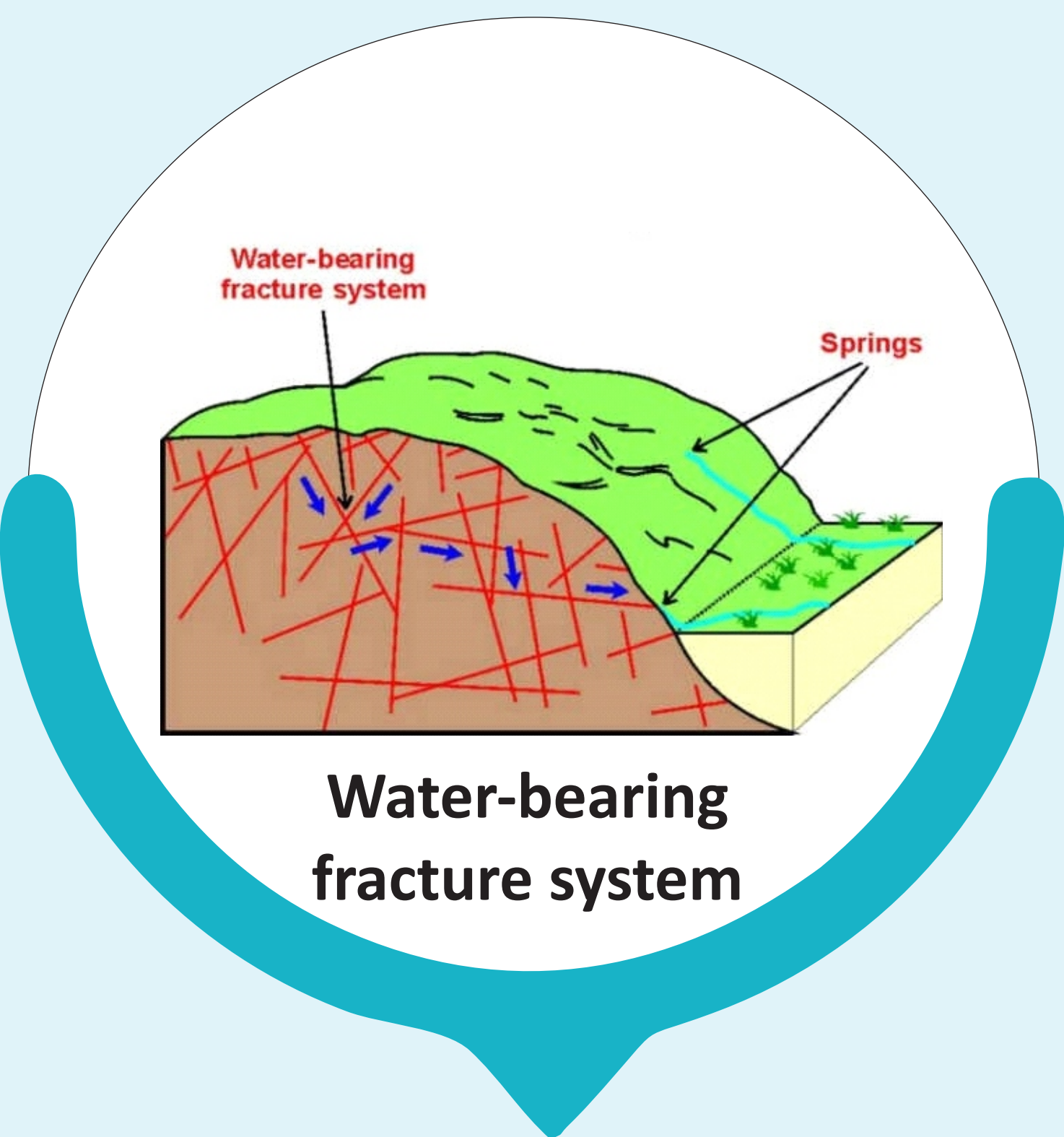
Data Monitoring System

Hydrological Assessments and Recharge Area Identification

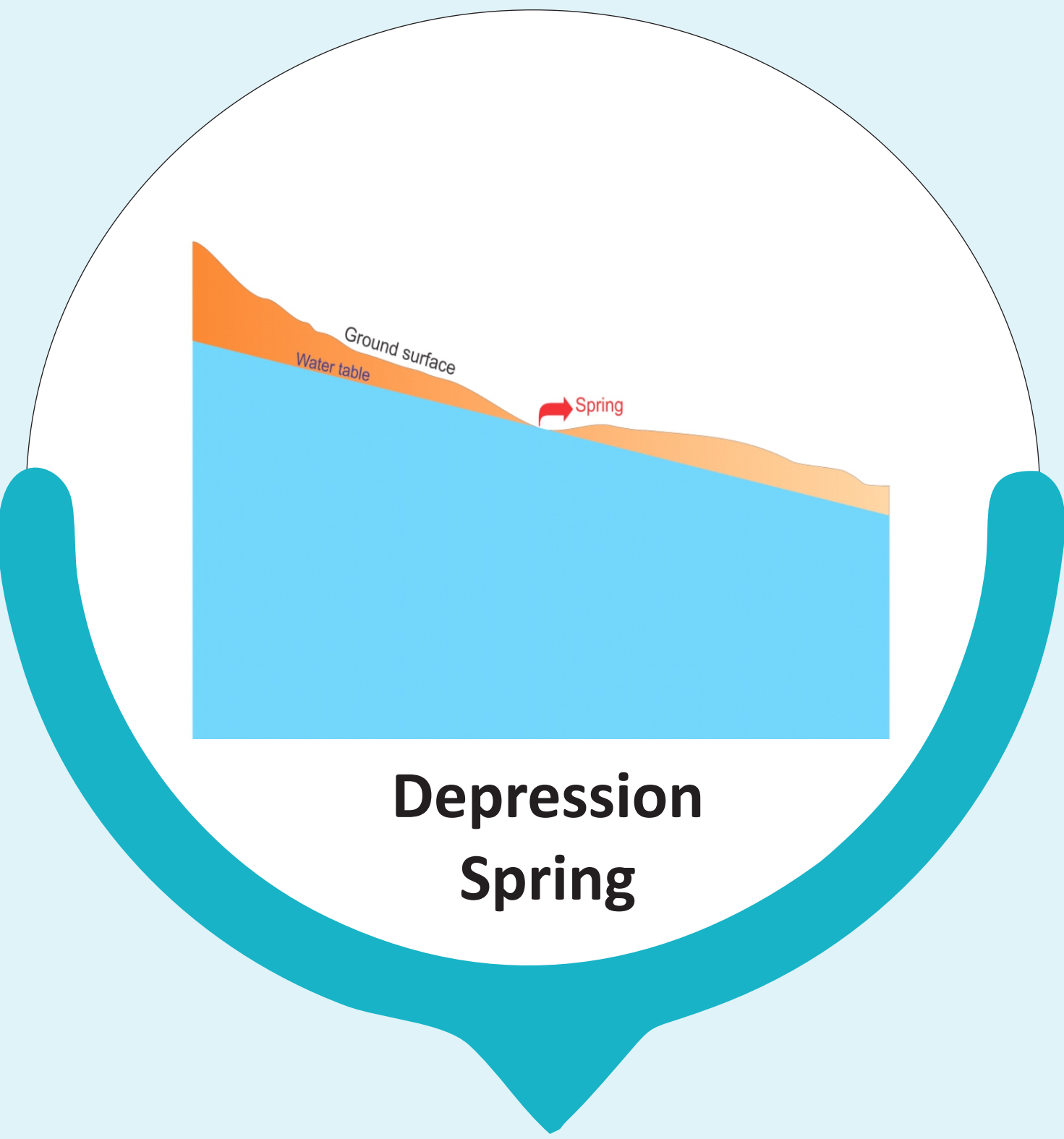
Springshed implementation protocol

Impact assessment- hydrological and socio-economic

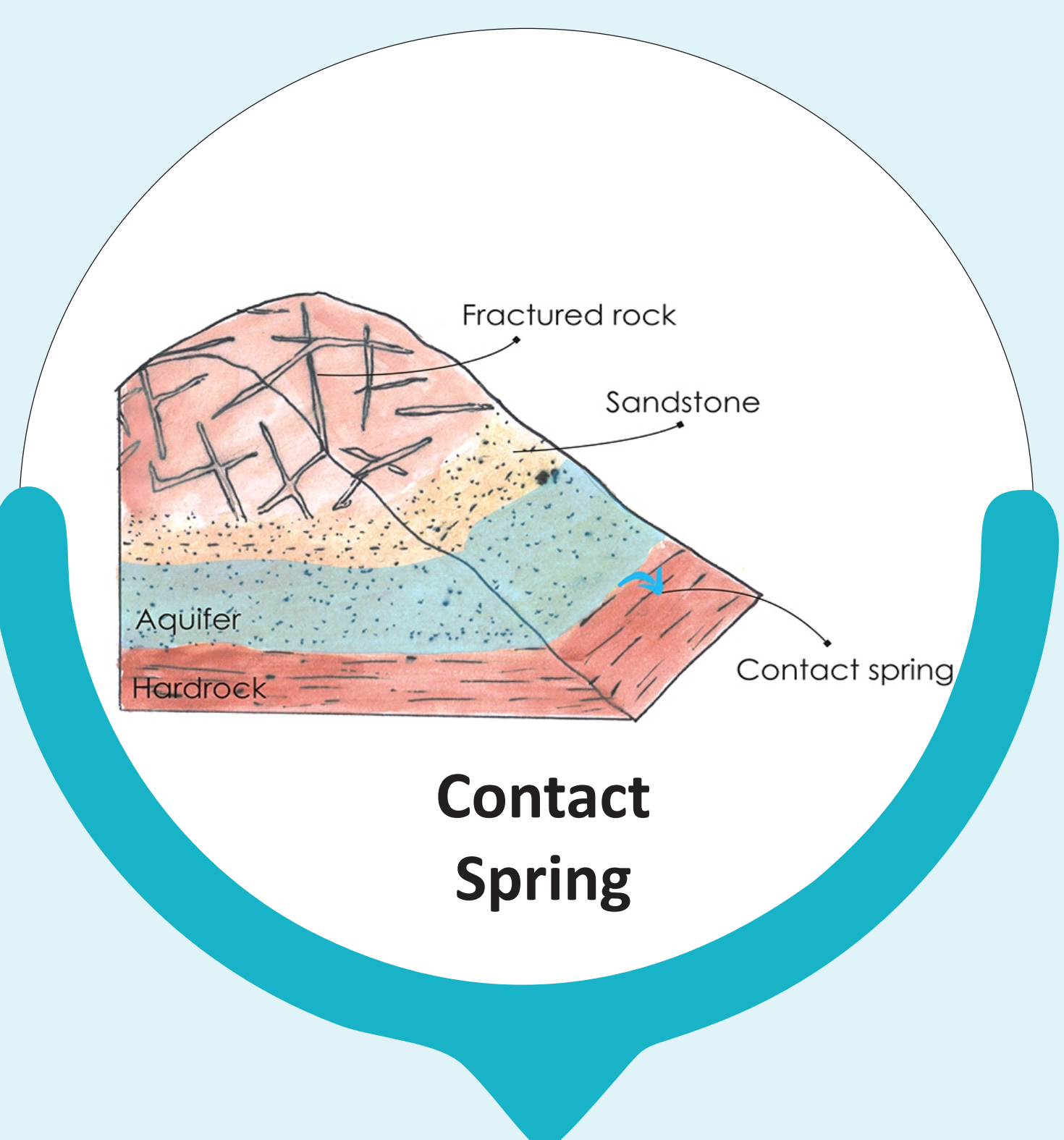
TPOLOGY



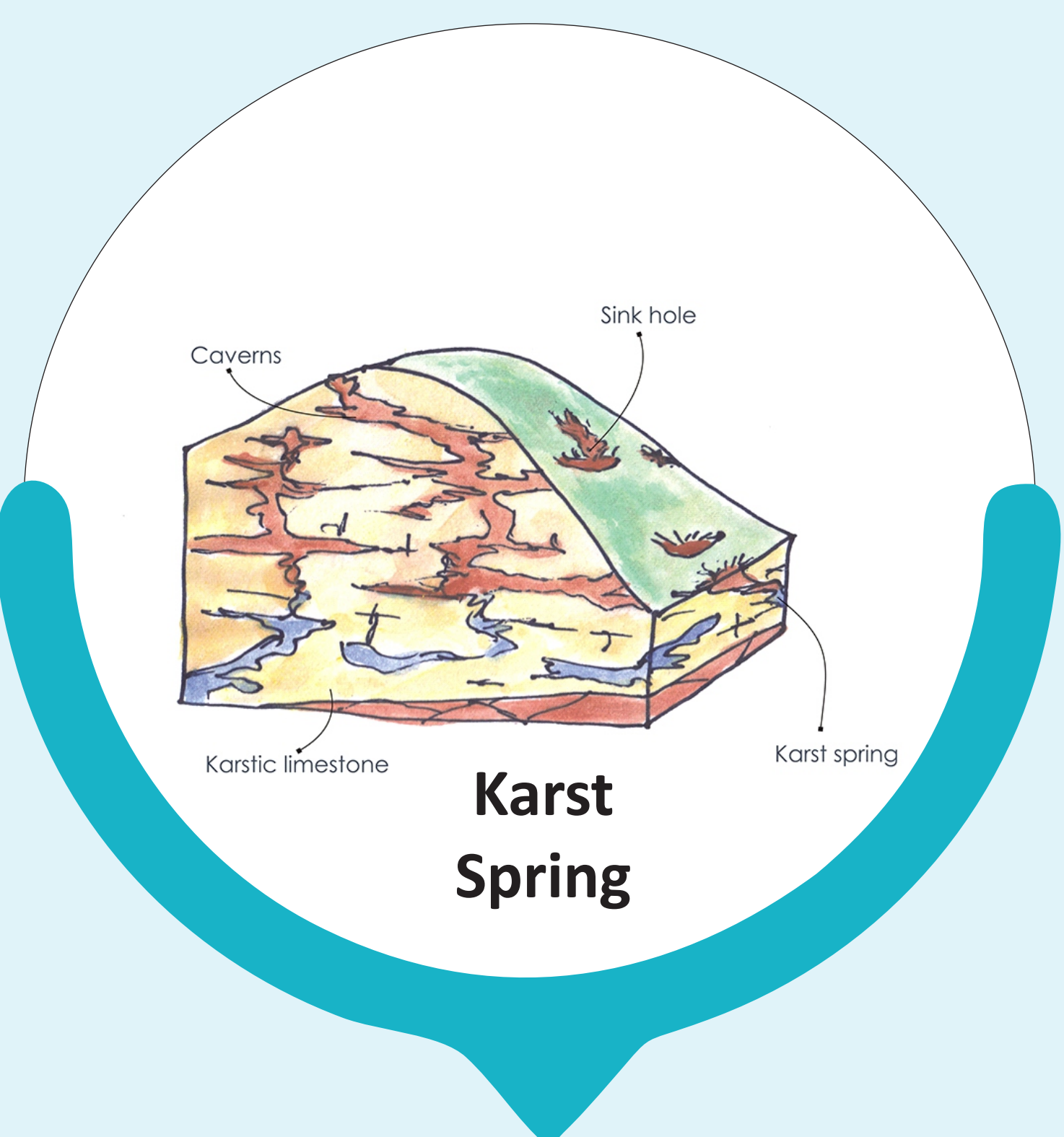
Tyrsad, East Khasi Hills



Aminda, West Garo Hills



Jadi, South Garo Hills



Mawmluh, East Khasi Hills

MONITORING

Pre-Monsoon



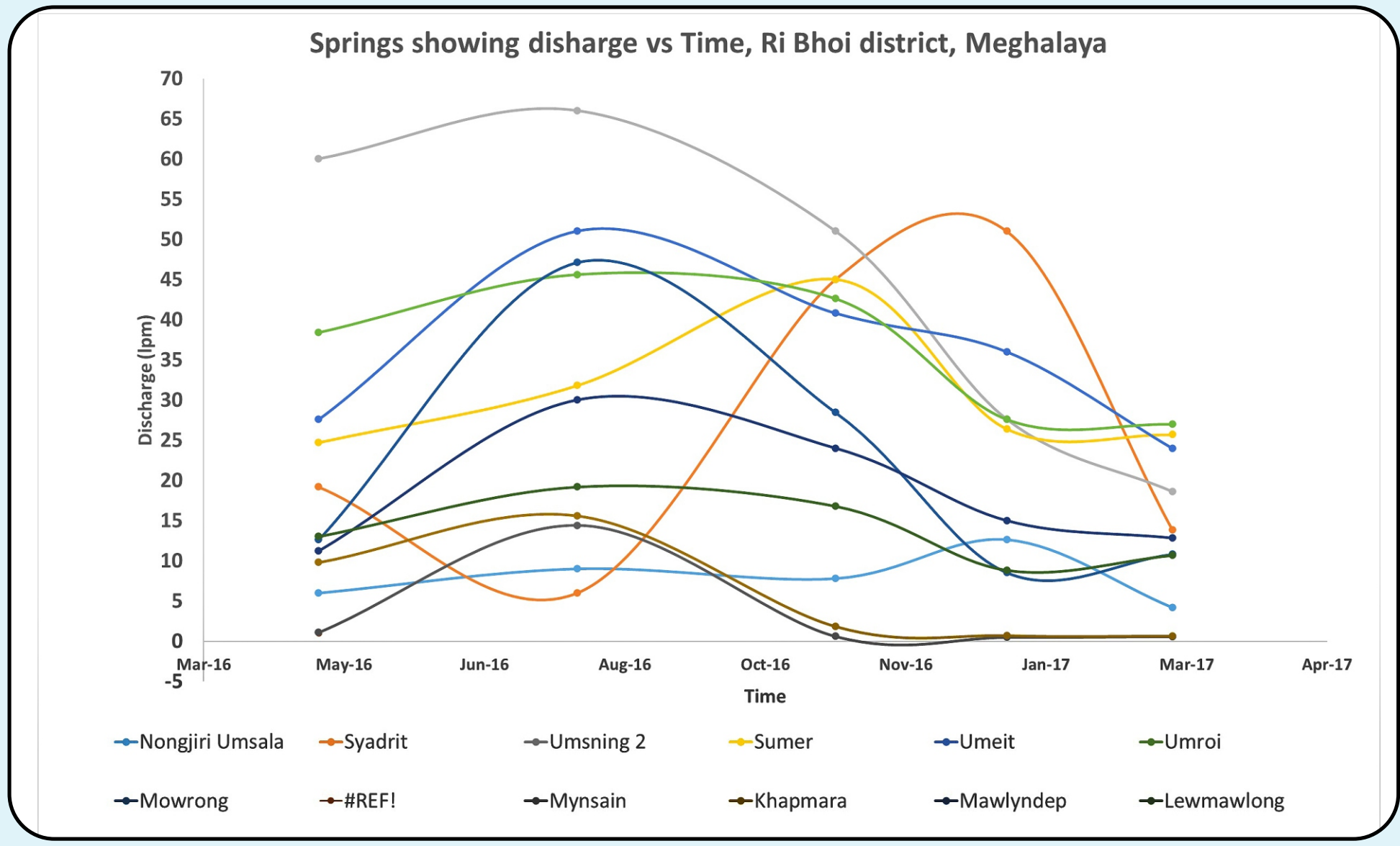
Lapalang, East Khasi Hills



Amlarem, West Jaintia Hills



Umjarang, West Jaintia Hills

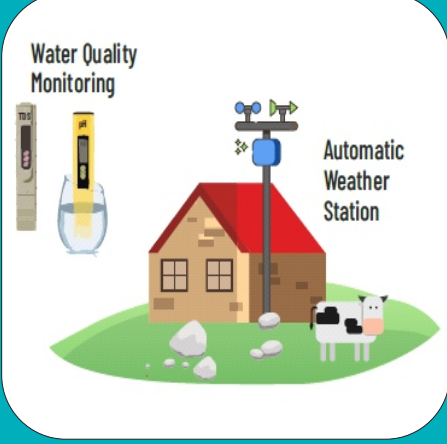


District	No. of Springs studied	Spring discharge (litre per minute)	
		Pre-monsoon	Post monsoon
East Garo Hills	13	1.5 - 30	18.46 - 34
East Jaintia Hills	9	0.36 - 6.6	1.02 - 27
East Khasi Hills	54	0.6 - 120	3 - 180
North Garo Hills	1	144	276
Ri-Bhoi	17	0.57 - 81	0.6 - 102
South Garo Hills	7	1.02 - 6	5.4 - 25.8
South West Garo Hills	2	0.6 - 20.4	0.6 - 54
West Garo Hills	7	0 - 7.0	10 - 30
West Jaintia Hills	25	0 - 36.6	0.06 - 40.2
West Khasi Hills	25	0.06 - 60	0.2 - 96

DATA REQUIREMENTS

Hydrological

- Evapotranspiration
- Water Quality
- Water Level
- Discharge
- Precipitation



Land Cover

- High resolution land cover maps



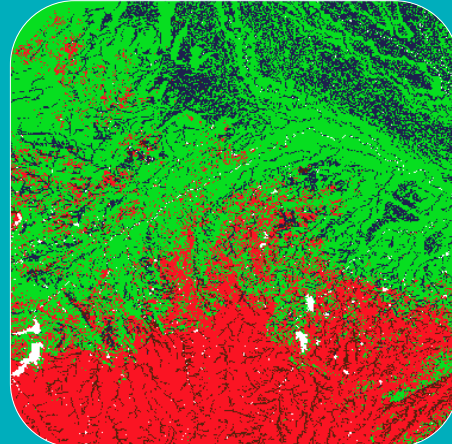
Topographic

- Elevation
- Slope



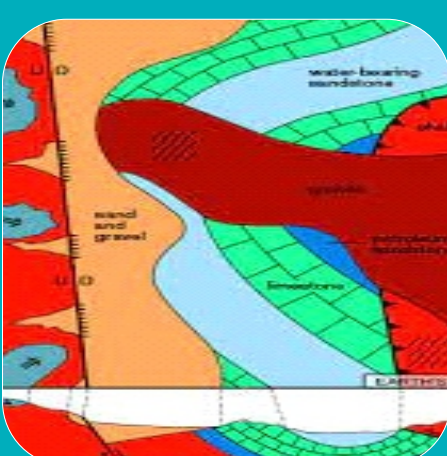
Soil Data

- Soil mapping
- Soil properties (porosity, permeability, etc.)



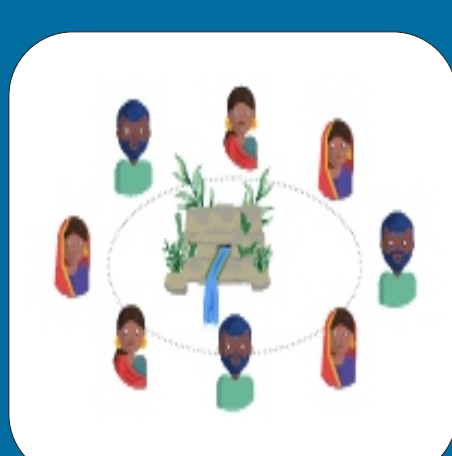
Geological

- Geological mapping
- Delineation of aquifer boundaries



Socio-economic

- Household inventory
- Dependency on the water source



Spring Mapping

GPS/Mobile App based Reconnaissance survey for collecting information (Hydrological, demographical, Catchment property, water quality, dependency, etc)

Monitoring & Database

- Web-based comprehensive database, (Spring portal/Atlas)
- Monitoring of vulnerable Springs
- Access and update from any part of the globe

Adaptive Solution for Implementation

- Developing Springshed Management plan and protocols
- Implemented by state dept. or local agencies

Identify Vulnerable Springs

- Scoring of springs based on critical issues
- High score springs will be declared as vulnerable springs and priority will be given for springshed development plan

Springshed Mapping

Conduct hydro-geological & isotopic mapping for Demarcation of Recharge area

Para-hydrologist

- Create Para-hydrologists by giving them basic training
- Others springs can be managed by the village youth for ensuring village water security