

Weather Safety & Environmental Exposure by Shereen Montero

A Professional Guide to Protecting Workers and the Public in Malaysia

Training Agenda & Risk Landscape

Malaysia faces increasing climate volatility, from record-breaking monsoon rainfall to extreme UV levels. This training provides the critical figures and protective protocols required for safety compliance in 2026.

Key Hazard Modules

- Heat Stress & Acclimatization
- Monsoon Floods & Flash Hazards
- Lightning & Static Safety
- Landslide Risk Management
- Haze & Air Quality Protocols
- Coastal & Marine Safety
- UV Radiation Protection

OSHA ENFORCEMENT

As of June 1, 2024, penalties for safety breaches—including weather-related duty of care—have surged to RM500,000 under Act A1648.

Employers must proactively manage environmental risks to ensure the safety and health of all workers during outdoor assignments.

Heat Stress & Worker Acclimatization

33–35°C

Average Daily Max Temp

7–14 Days

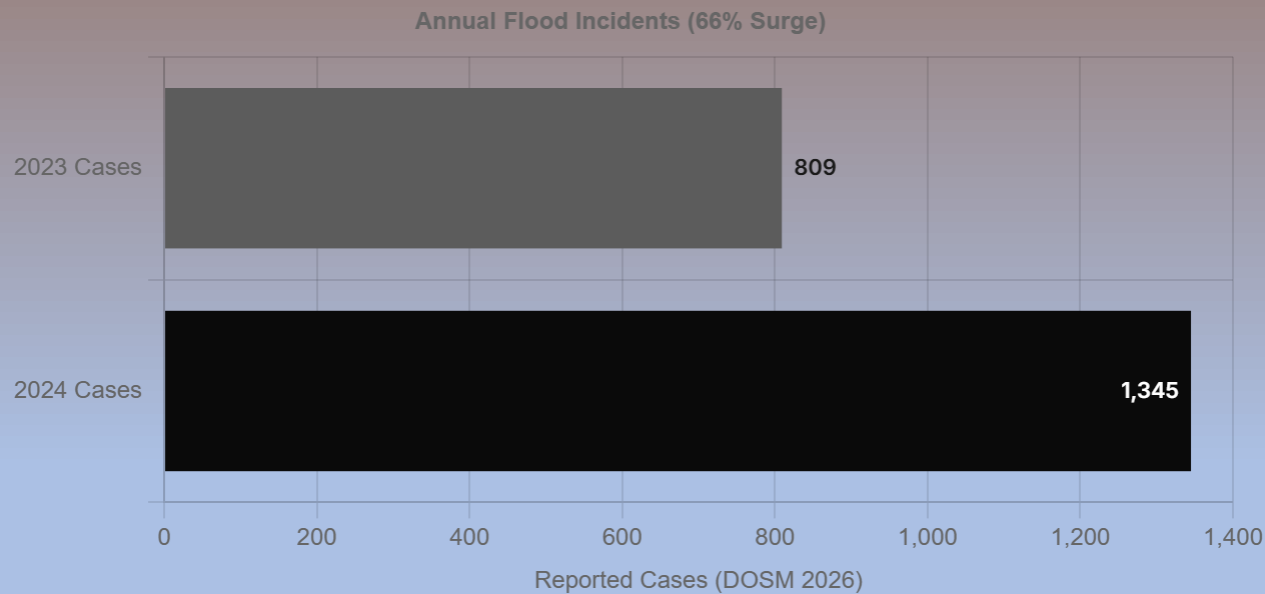
DOSH Acclimatization Period

32.0°C

Chuping Peak (DOSM 2026)

Protective Measures: Schedule heavy tasks before 10 AM, implement 15-minute rest cycles every hour in shaded areas, and ensure water consumption of 1 liter per hour in peak heat.

Rising Surge in Flash Flood Events



Critical Protocol: Sarawak reported the highest incidents (459 cases). Avoid crossing any flooded roads where water depth exceeds 10cm. Relocate electrical equipment to higher ground immediately when rain persists for 2+ hours.

Malaysia: High-Risk Lightning Zone

~200

Thunder Days Per Year

13.9

Ground Flash Density (flashes/km²)

30-30 Rule: Seek shelter immediately if thunder is heard within 30 seconds of a flash.
Remain in shelter for at least 30 minutes after the last clap of thunder.

Landslide Hotspots & Triggers

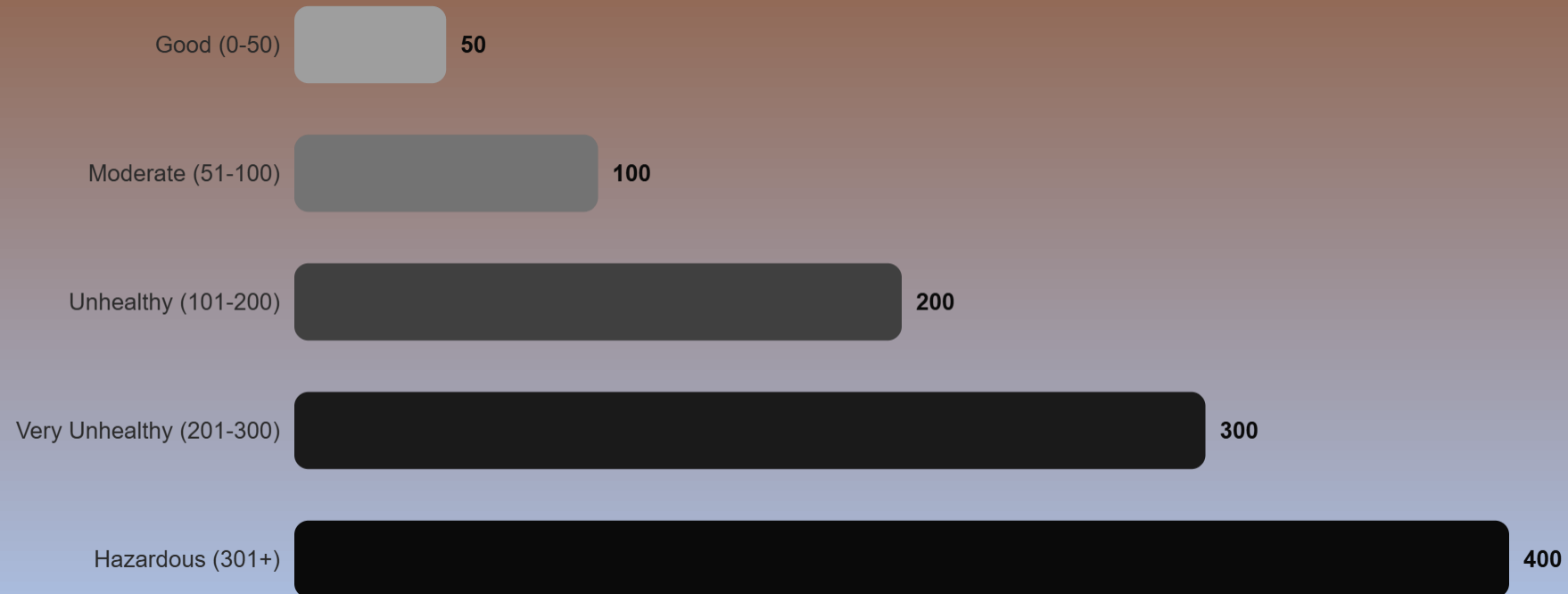
Identified Hotspots

JMG has mapped 31 national hotspots at high risk during the monsoon season. Soil weathering makes Malaysian slopes vulnerable to collapse after sustained rain.

Primary Hazard: Rainfall

80%+ of Malaysian landslides are triggered by rainfall. Watch for warning signs: leaning trees, new cracks in roads, or sudden water seepage on retaining walls.

Haze Exposure & API Work Stoppage



DOSH Policy: Minimize outdoor work at API 100+. STOP all strenuous outdoor work when API exceeds 200. Sri Aman peaked at 197 in 2026.

Coastal Winds & Sea Warnings

METMalaysia categorizes coastal threats into three warning levels. During the Northeast Monsoon, sea conditions can deteriorate rapidly, posing extreme risks to small craft and offshore operations.

Category	Risk Level
1st Category	Small Craft Hazard
2nd Category	Dangerous to Shipping
3rd Category	Extreme Marine Storm



Managing Extreme UV Radiation

11-15+

Peak UV Index (Extreme Level)

+40%

Surge in Skin Cancer (Last Decade)

Protective Protocol: Peak exposure occurs between 10 AM and 3 PM. Workers must utilize SPF 30+ sunscreen, wide-brimmed safety hats, and UV-rated long-sleeve uniforms to minimize cumulative health impacts.

Safety Checklist & Action Plan

Compliance Recap

- RM500,000 max penalty per breach
- Monitor METMalaysia MyCuaca app
- Mandatory worker rest intervals
- Regular PPE audits for UV/Rain
- Emergency flood evacuation drills

