BICYCLING ALLIANCE FOR SUSTAINABILITY

第三屆ESG全球倡議論壇

3th ESG Global Initiative Forum

全球風險脈動與氣候實體風險分析評估報告

Global Risk Outlook and Climate Risk Assessment Report

安侯永續發展顧問股份有限公司

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台灣 KPMG 安侯永續發展顧問股份有限公司專業團隊是我國會計師事務所中率先建立且陣容居冠。成員具備會計、人力資源、化學工程、製造業、公共政策、供應鏈管理、公關、新聞、行銷、企業管理、環境工程/管理等多元專長。

80+人永續團隊

永續治理、策略與管理實務

- 永續治理機制及委員會建立
- 永續策略藍圖規劃
- 永續發展目標 (SDGs) 設定及工作坊
- 永續供應鏈管理及第三方問卷填覆輔導
- 企業人權風險鑑別與流程建置
- ESG盡職調查
- 不平等相關財務揭露計畫 (TISFD) 諮詢輔導

永續金融

- 永續金融承諾、政策與流程建立
- 金融業務流程整合及ESG盡職調查
- 資產組合淨零策略規劃
- 機構投資人盡職治理與投資標的溝通
- 金融業務永續影響力評估
- 永續金融評鑑諮詢輔導

企業真實影響力貨幣化評析

- 公益投資社會報酬分析 (SROI) 及查證輔導
- 企業真實價值 (True Value) 導入及決策分析

利害關係人內外部溝通

- 國際永續評比提升服務 (DJSI, CDP, MSCI, Sustainalytics, ISS-oekom, FTSE Russell)
- 永續獎項、評鑑或競賽諮詢輔導
- 內外部利害關係人溝通、共識凝聚
- 國際組織的媒合及會務協助
- 永續性品牌形象建立與打造

循環經濟商業模式

- 循環經濟體檢與現況分析
- 循環商業機會辨識
- 循環經濟策略藍圖建置
- 循環商業模式與行動方案規劃
- 企業循環度績效評估

社會企業、新創育成

- 社會企業輔導及育成
- 社會影響力評估
- 社會企業投資評估

報告書編製、永續資訊確信

- 永續報告書編製與諮詢 (GRI)
- 永續會計準則資訊揭露 (SASB)
- 永續資訊揭露準則依循 (WEF IBC, ISSB 等)
- 整合性報告 (Integrated Report)
- ESG績效報告書
- 報告書或永續資訊確信 (Assurance)

淨零排放與環境管理諮詢服務

- 溫室氣體盤查及淨零排放減量規劃 (Net Zero)
- 科學基礎減量目標 (SBT) 設定及導入
- 低碳策略藍圖與行動方案規劃
- 氣候變遷風險與機會鑑別與管理因應
- 氣候相關財務資訊揭露 (TCFD) 諮詢建置
- 碳定價、碳權與碳會計管理機制
- 環境損益及自然資本財務評估 (TNFD)

本次提供中華自行車永續聯盟協會服務項目

以宏觀的角度、專業的知識，為企業提供全方位之整合顧問、諮詢，以及確信服務。服務實績涵蓋電信業、電子科技業、金融保險業、交通運輸業、不動產業、紡織業、製造業、零售業、化學工業、食品業、民生消費、醫療生技業、餐飲業等。

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2026 WEF The Global Risks Report (1/2)

The World Economic Forum (WEF) released the Global Risks Report 2026, outlining the top ten most severe risks expected to materialize in both the short term (2 years) and the long term (10 years). Among these, **geoeconomic confrontation** has emerged as the primary short-term risk, while **extreme weather events** continue to be viewed as major risks in both the short and long terms.

Short term (2 years):

	2025	2026	
1	Misinformation and disinformation	Geoeconomic confrontation	↑
2	Extreme weather events	Misinformation and disinformation	↓
3	State-based armed conflict	Societal polarization	↑
4	Societal polarization	Extreme weather events	↓
5	Cyber espionage and warfare	State-based armed conflict	↓
6	Pollution	Cyber insecurity	↓
7	Inequality	Inequality	
8	Involuntary migration or displacement	Erosion of human rights and/or of civic freedoms	↑
9	Geoeconomic confrontation	Pollution	↓
10	Erosion of human rights and/or civic freedoms	Involuntary migration or displace-ment	↓

Source：The Global Risks Report 2025、The Global Risks Report 2026

● Environmental ● Geopolitical ● Technological ● Societal

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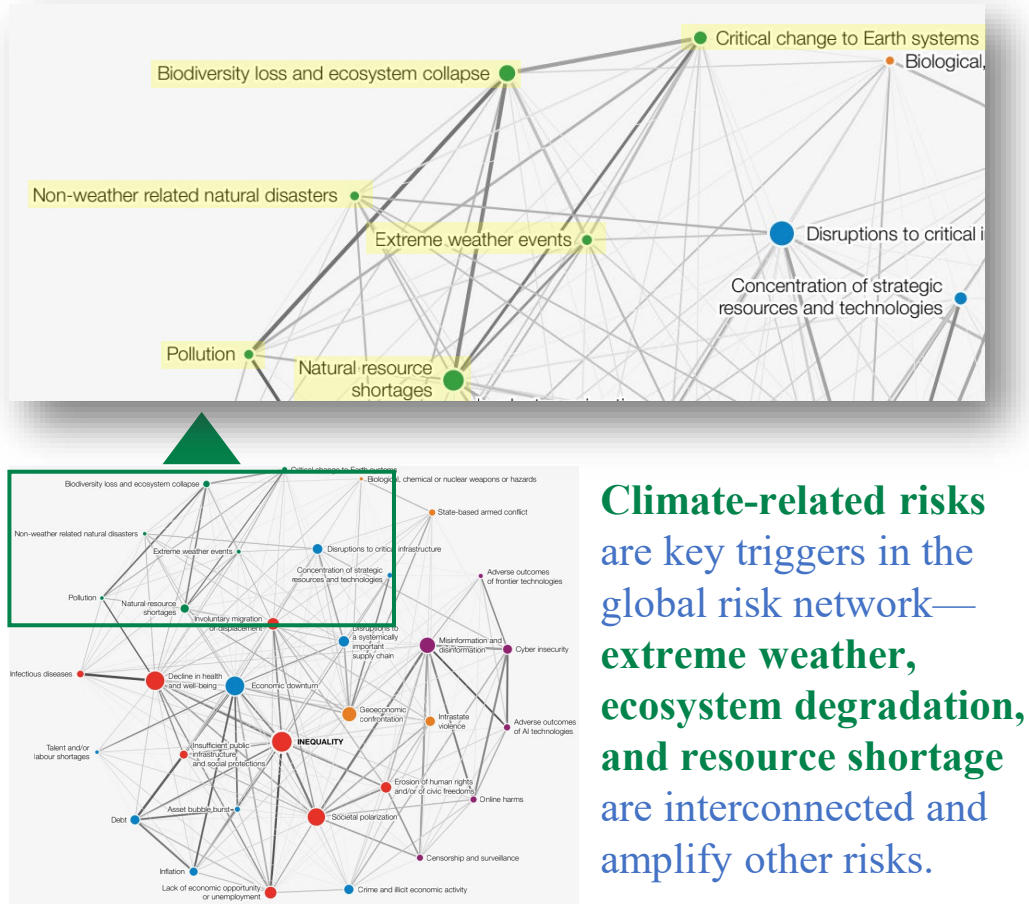
2026 WEF The Global Risks Report (2/2)

In the long term (10 years), global risks are expected to be dominated by **environmental risks**, which account for half of the top ten risks. Among them, **extreme weather events, biodiversity loss and ecosystem collapse**, and **critical change to Earth systems** rank among the top three risks. In addition, **three technological risks have moved up in the rankings**.

	2025	2026	
1	Extreme weather events	Extreme weather events	
2	Biodiversity loss and ecosystem collapse	Biodiversity loss and ecosystem collapse	
3	Critical change to Earth systems	Critical change to Earth systems	
4	Natural resource shortages	Misinformation and disinformation	↑
5	Misinformation and disinformation	Adverse outcomes of AI technologies	↑
6	Adverse outcomes of AI technologies	Natural resource shortages	
7	Inequality	Inequality	
8	Societal polarization	Cyber insecurity	↑
9	Cyber espionage and warfare	Societal polarization	
10	Pollution	Pollution	

Source：The Global Risks Report 2025、The Global Risks Report 2026

● Environmental ● Technological ● Societal



Climate-related risks are key triggers in the global risk network—**extreme weather, ecosystem degradation, and resource shortage** are interconnected and amplify other risks.

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The World Continues to Face Climate-Related Disasters

Storm in Italy

Storm Hans brought **torrential rainfall** to Italy's plains, with 300–500 millimeters of rain falling within 48 hours, resulting in **flooding** that caused three fatalities.

Severe Drought in Iran

Iran is facing **nearly six consecutive years of drought**. Water levels in the main reservoirs supplying Tehran have fallen to their lowest in 60 years, while nationwide rainfall has declined sharply.

Landslide Disaster in Guizhou, China

Heavy rainfall triggered two landslides in Qingyang Village, Dafang County, Guizhou Province, China, resulting in four deaths and 15 people missing. In Longsheng County, Guangxi Province, **flooding and landslides** left eight people missing.

Heavy rains hit the United States

The Wichita area in Kansas was hit by **torrential rains** on June 3. Rainfall reached 62.7 mm, breaking the single-day rainfall record of the past 93 years. The downpour caused urban flooding, left multiple vehicles stranded, disrupted transportation, and forced schools and businesses to suspend operations.

Torrential Rain and Flooding in Vietnam

Several villages in central Vietnam were struck **by heavy rainfall, triggering flooding and slope-related disasters**, resulting in major casualties and property losses. As of November 21, at least 41 deaths had been reported across six provinces in Vietnam.

Source：NCDR

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Extreme Climate Causing Flooding, Landslide, and Drought

From late 2025 to early 2026, Taiwan experienced successive episodes of **torrential rain–induced flooding and landslides** (e.g., Typhoon Fenghuang), followed by **extreme drought** beginning in December—creating a climate shock in which heavy rainfall and water shortages coexisted.

Typhoon Impacts

In November 2025, Typhoon Fenghuang brought torrential rain; landslides in Nanfang'ao affected residential areas.

- A sudden **landslide** occurred in Nanxing Village, Nanfang'ao, Yilan. Mud and sediment rushed into roads and homes, causing flooding.
- **Flooding** and traffic disruptions were also reported in Dongshan Township; meanwhile, Datong Township carried out an emergency village evacuation due to a **landslide alert**.
- In Taitung, **intermittent heavy rain** led to a fatal traffic accident and **multiple rockfalls**.

Source：鳳凰颱風帶來豪雨、75年來歷史新低！西半部等六處平地站整個冬季累積雨量只有24.3毫米

Winter Drought

At six lowland stations in western Taiwan, total winter accumulated rainfall was only 24.3 mm—setting a new record low for the past 75 years.

The winter from December 2025 to February 2026 became **Taiwan's driest in 75 years**. Across six lowland stations in western Taiwan (Taipei, Hsinchu, Taichung, Chiayi, Tainan, and Hengchun), accumulated rainfall was only 24.3 mm, a record low. The number of rainy days also dropped sharply, leading to **declining reservoir storage and a steep reduction in river flows**.

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Overview of the BAS Climate Risk Analysis and Assessment Project

Climate change can cause damage and losses to natural systems as well as to human societies and economies. **Using government open data (e.g., water resources and runoff, population statistics, potential landslide hazard maps) and rainfall projections under mid-century and end-century SSP5-8.5 scenarios**, KPMG assesses future disaster risk levels faced by member companies to support informed decision-making.

Conduct climate-related risk analysis. The analysis includes:

3 Risks**: Flood, Landslide, and Drought**

3 Indicators**: Hazard, Vulnerability, and Exposure**

3 Time periods **: Baseline, Mid-century, and End of the century**

Provide both Individual Analysis Reports for Member Companies and BAS Overall Analysis Report, including:

- **Explanation of the analysis methodology** and **results**
- **Recommended adaptation measures** and **benchmark cases for reference**

Expected Outcomes

- ✓ **Enhance operational resilience**: Identify physical risks such as flood, drought, and landslide risks to assist members to **reduce potential downtime, equipment damage, and supply disruptions.**
- ✓ **Improve investment and decision-making quality**: Integrate climate risk considerations into **site selection** and **major investments** to **avoid misallocation of capital** and **improve decision accuracy**.
- ✓ **Strengthen corporate credibility and competitiveness**: The project results can be leveraged to **support disclosures aligned with international climate disclosure frameworks (such as TCFD and CDP)**, **enhancing transparency** for global brand customers and across supply chains, and **strengthening corporate partnership priority and overall competitiveness.**

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Overview of Individual Analysis Reports for Member Companies

Data Input → **Risk Assessment Model** → **Site-Specific Assessment Results** → **Recommendations for adaptation measures** → **Benchmark Cases**

Suppliers and Business Partners' Locations (Addresses)

Member Companies' Locations (Addresses)

Multi-dimensional Time Horizons

Baseline: 1960-2010
Mid-century: 2036-2065
End of the century: 2075-2099

Multi-hazard Risk Types

Drought
Flood Landslide

Worst-case Scenario SSP 5-8.5 Warming magnitude: 4.4°C

Output

A specific site

in

A Specific timeframe

facing

A Specific risk

Risk level (1-5) is determined

Analyze

According to the specific risk

and the site's

Risk level (1-5)

recommended adaptation measures:

Internal preparedness

External collaboration

Reference

How other companies

respond to

the specific risk

through

adaptation measures

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Member Company Individual Analysis Report — Example: Company OO

Site-Specific Assessment Results - Heatmap Analysis

Risk Type	Flood		Drought		Landslide	
Time period	Mid-century 2036-2065	End of the century 2075-2099	Mid-century 2036-2065	End of the century 2075-2099	Mid-century 2036-2065	End of the century 2075-2099
Member company A	1	1	4	4	1	1
Partner B	2	4	3	4	0	0

Based on the risk level of each site, tailored adaptation recommendations are provided for individual locations.

Site-Specific Adaptation Recommendations

Risk Category	Flood		Drought		Landslide	
Time period	Internal Preparedness	External Collaboration	Internal Preparedness	External Collaboration	Internal Preparedness	External Collaboration
Member company A	Disaster-preparedness drills	River channel maintenance	Contingency plan	Early-warning mechanism	Regular monitoring	Regional disaster prevention
Partner B	Risk insurance	Attendance Management	Diversified water sources	Early-warning mechanism	Regular monitoring	Regional disaster prevention

Total: 78 reports
Covering 286 sites

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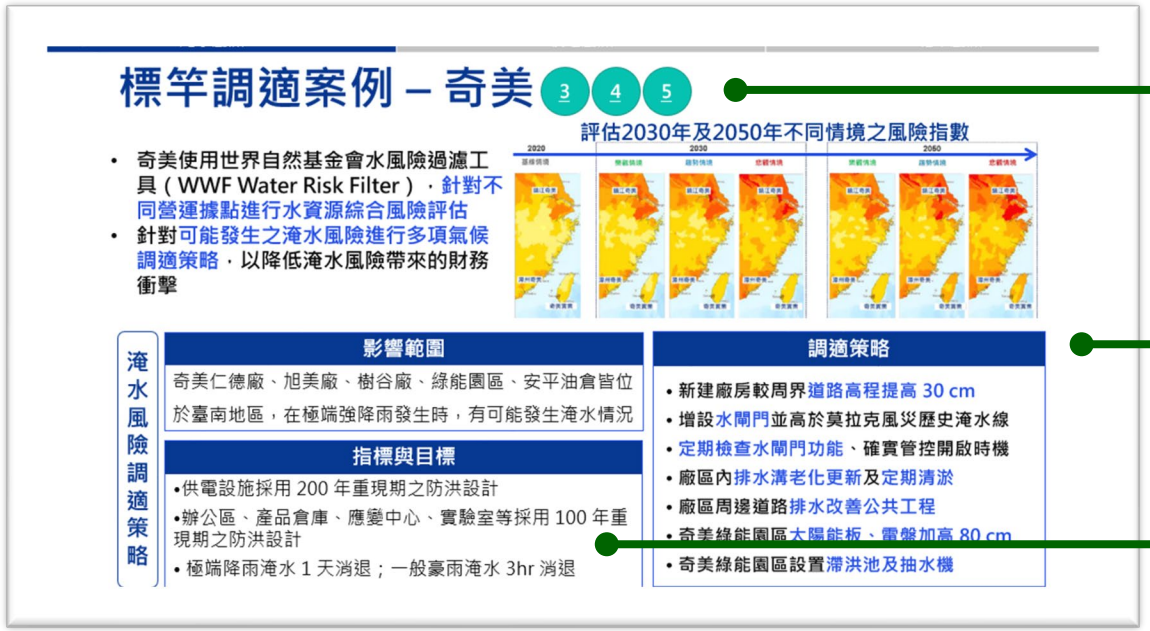
Benchmark Casebook of Adaptation Measures

List of Recommended Climate Adaptation Measures

編碼	風險類別	預防 / 應變	內部整備 / 外部合作	措施說明
1	淹水	預防	內部整備	強化淹水防災訓練：定期針對淹水情境進行疏散演練，強化員工對洪水發生時的應變能力
2	淹水	預防	內部整備	強化淹水風險承保：了解已投保的保單是否涵蓋淹水損失，與保險公司洽談「颱風及洪水保險附加條款」

Corporate Adaptation Measure Cases



Corresponding Measure List Item No.

Implementation in Practice

Indicators and Targets

A total of 37 adaptation measures and 30 company cases

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Overview of the BAS Overall Analysis Report

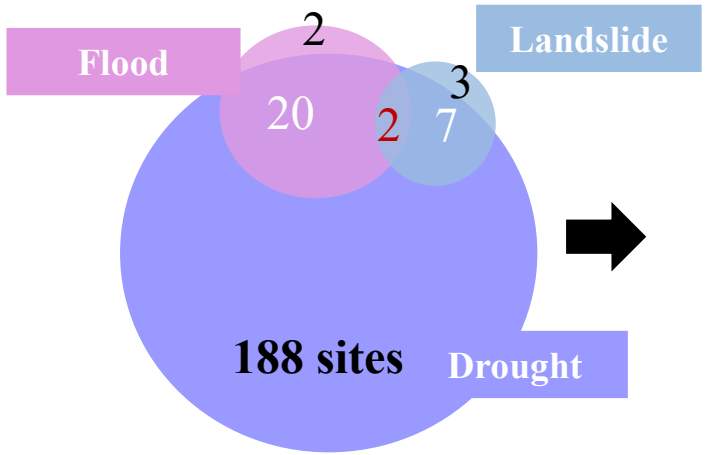
78 member companies 286 sites —

Changes in the share of high risk (Level 4–5)

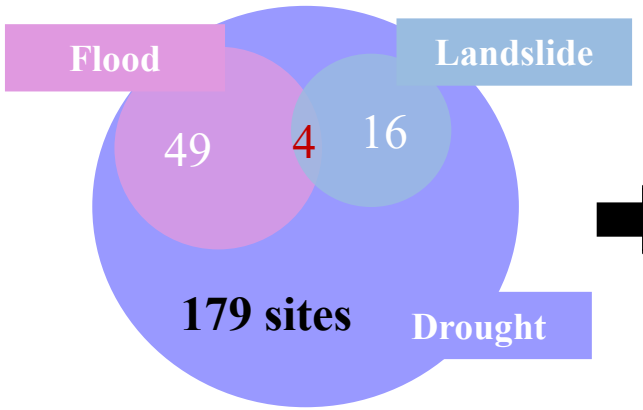
- Flood: **The proportion of high-risk sites continues to rise; early adaptation is needed.**
- Landslide: The proportion of high-risk sites is slightly lower across time periods, but the **long-term increase is significant.**
- Drought: Most sites face high risk across all periods; prioritize developing response plans.

Risk type	Baseline	Mid-century	End of the century
Flood risk	9%	Sharp increase → 22%	24%
Landslide risk	5%	8%	Sharp increase → 19%
Drought risk	87%	99%	99%

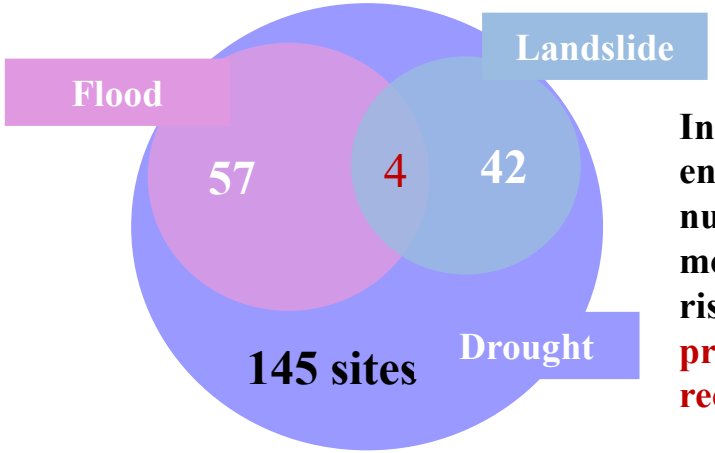
More sites face multiple risks over time



Baseline (1960-2010)



Mid-century (2036-2065)



End of the century (2075-2099)

In the mid-century and end-century periods, the number of sites facing more than one (multiple) risk increases → proactive preparedness is recommended.

Note: The numbers in the figure indicate the number of sites. Black numbers represent single risk; white numbers represent compound risk (simultaneously facing two high risks); red numbers represent multiple risk (simultaneously facing three high risks).

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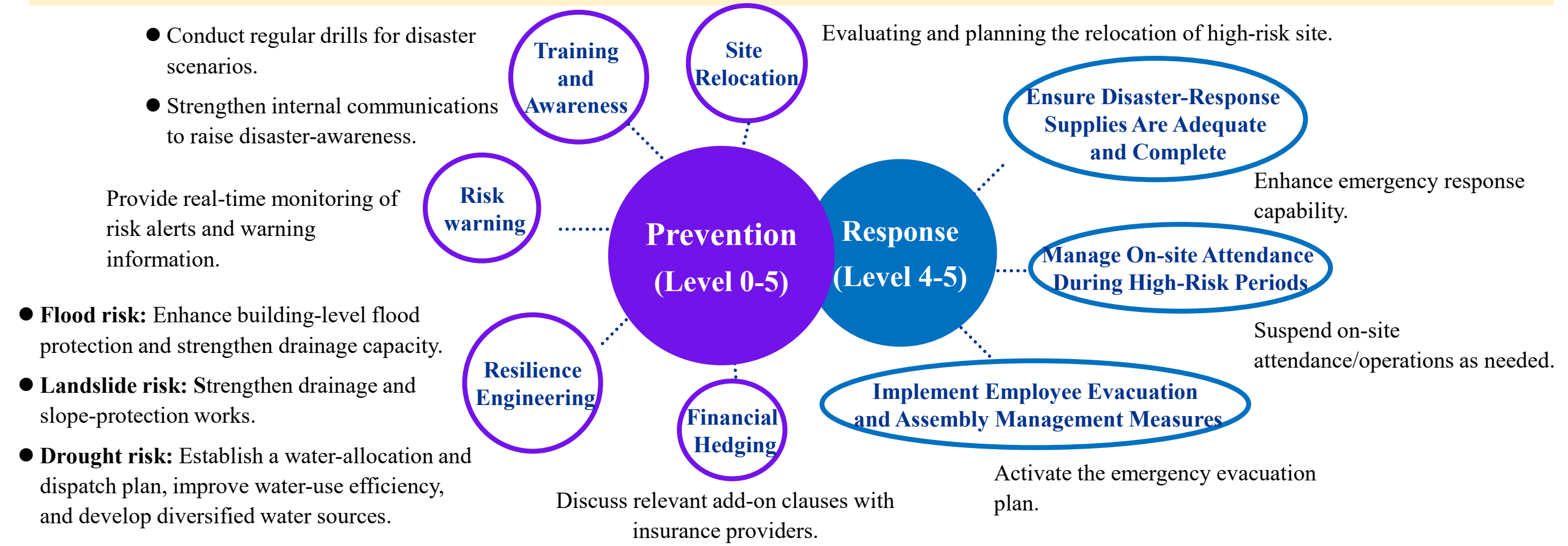
Recommendations on Adaptation Measures for Member Companies

- **For sites with lower risk levels (Levels 0–3): It is recommended to strengthen "Prevention" measures to reduce potential impacts in advance.**
- **For sites with higher risk levels (Levels 4–5): It is recommended to strengthen both "Prevention" and "Response" measures to enhance resilience when climate-related events occur.**



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Next steps

Referencing the company-specific analysis reports to formulate response measures:

- Understand the risk levels for each site across different time horizons.
- **Refer to the recommended adaptation measures and benchmark cases. Plan and deploy response actions in advance.**
- Work jointly with **supply-chain partners to respond and enhance supply-chain resilience.**

BAS

Member Companies

Continue supporting members in addressing climate risks:

- Support **high-risk and multiple-risk members to plan and prepare early.**
- **Connect nearby member companies to discuss joint response strategies.**
- Help members enhance climate resilience through **integrating professional information, matching technology and consulting resources, sharing best practices, and guiding companies to plan adaptation actions.**

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Thank You

Contact us

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