

Emerging Risk

➤ Biodiversity Loss and ecosystem collapse

Description and Impact

Biodiversity loss can have significant implications to the Company, which is one of the world's largest seafood companies. As the Company is heavily reliant on the ocean's resources, biodiversity loss can directly impact Thai Union Group's business operations and supply chain in several ways:

- **Supply Chain Disruption:** Biodiversity loss can lead to declines in fish populations and the degradation of marine ecosystems. This can disrupt the availability of certain seafood products, impacting Thai Union Group's ability to source key ingredients for its products.
- **Regulatory and Compliance Risks:** Biodiversity loss often leads to increased regulatory scrutiny and tighter regulations aimed at protecting vulnerable species and ecosystems. This can result in stricter fishing quotas, environmental standards, and other regulations that may affect the Company's operations and require significant investments in compliance.
- **Reputational Risks:** As awareness of environmental issues grows, consumers and investors are increasingly concerned about the environmental impact of the companies they support. Biodiversity loss can lead to reputational risks for Thai Union Group if it is perceived as contributing to or not doing enough to mitigate the problem.
- **Market Access and Certification:** Biodiversity loss can affect market access, especially in regions where sustainable sourcing and environmental responsibility are highly valued. Certification programs such as Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) may become more stringent, making it harder for companies to meet the criteria for sustainable and responsible sourcing.

Risk Category: Environmental

Source of Risk: The Global Risk Report of the World Economic Forum

Timeframe of Impact: Ten-year timeframe

Management and Mitigation Plan

In 2023, the Company launched SeaChange® 2030, its sustainability plan to reshape the seafood industry with unified solutions for People and Planet that better sustain a reciprocal relationship for all. Through SeaChange® 2030 commitments, the Company is dedicating resources for Group-wide commitments and strategies for biodiversity with aim to safeguard life and the ecosystem. The commitments cover Responsible Wild Caught Seafood, Responsible Aquaculture, Responsible Wild Caught Seafood, Responsible Aquaculture, Responsible Agriculture, Path to Net Zero Emissions, Ocean Plastics Reduction, and Ecosystem Restoration.

Please visit <https://www.thaiunion.com/sustainability> for full details.

➤ Labor Shortage (Employment Crisis)

Description and Impact

In the past, operating in a developing country was advantageous due to the availability of inexpensive labor. However, as production shifts towards technology-oriented processes, there has been a change in the type of labor required and the pandemic has accelerated the process of labor mobilization and remote working, which opened doors to access human resources from various locations.

Consequently, this poses a challenge for companies in finding qualified employees to keep up with market trends and customer need

Thai Union Group has no exception; our employment trends are showing changes which can potentially have an impact on our operations and people. The scarcity of a skilled workforce can impede productivity, innovation, and overall growth for the Company.

Thai Union's people-related risks and employment crises impacts include:

- Industry mismatches between labor supply and demand, with the workforce existing the Company or moving to other organizations who fit more to their preference, for example, providing permanent remote or hybrid work, digitalized working process, which may cause our operation to be short-handed on staff which further impacts our production rates.
- Displacement due to automation, innovation, and digitalization leads to succession challenges and difficulty in attracting top talent in a tightening talent market limiting us to achieve our goals.
- There is a risk that our workforce is not equipped with the skills required to support our goals and new work environment which may affect Thai Union Group's growth.

Risk Category: Societal

Source of Risk: Macroeconomic (Digital inequality, challenge in talent attraction, retention, and engagement)

Timeframe of Impact: Three-five years

Management and Mitigation Plan

We are aware of the changing work environment and are closely monitoring this change in society. Our strategy will focus on talent development, strengthening our people's capabilities and increasing employee engagement across all our businesses. Through the Thai Union Academy, we focus on upskilling and reskilling our workforce with high demand curriculums to ensure our workforce is skilled and talented. We will also continue to place priorities in understanding our employee demographics and drive employee engagement to keep our workforce happy, including promoting a flexible working environment. Moreover, we have a policy to review critical positions and prepare a development plan of successors as well as succession in an unexpected situation to ensure the success of our employee and continuity of our business.

➤ Geopolitical Fragmentation

Description and Impact

Thai Union Group recognizes the emergence of intensifying geoeconomic tensions as a significant long-term risk to its global operations. The evolving geopolitical landscape—marked by increasing trade fragmentation, economic nationalism, and strategic decoupling—poses unprecedented challenges to companies like Thai Union that operate complex, international supply chains. This trend has escalated following recent global conflicts and macroeconomic realignments, creating uncertainty in trade flows and regulatory conditions.

Thai Union's business is particularly vulnerable to these developments due to its reliance on cross-border sourcing of raw materials, processing operations in multiple jurisdictions, and exports to key markets across Asia, Europe, and North America. The risk includes:

- Regional protectionist policies could interfere with the sourcing of essential materials and delay the distribution of products to major markets. Disruption to supply chains remains a key concern, such as increased trade restrictions, economic sanctions
- Geopolitical tensions are also driving regulatory divergence across countries, which may result in greater compliance challenges for Thai Union Group's when operating in multiple legal jurisdictions.
- Operational costs are expected to rise due to the changes in import and export duties, and potential disruptions along critical shipping routes, which could impact logistics and production efficiency.
- Reputational and stakeholder risks, as public sentiment is influenced by national interests and human rights concerns. Thai Union Group's may face scrutiny if it is perceived as conducting operations or sourcing from politically sensitive regions.
- Risk Category: Geopolitical

Source of Risk: State-based armed conflict, Geoeconomic confrontation, Biological, chemical, or nuclear weapons or hazards

Timeframe of Impact: One to five years

Management and Mitigation Plan

Thai Union has formally integrated this emerging geopolitical risk into its enterprise-wide risk assessment framework. In response, the Company is:

- Diversifying sourcing and production locations to reduce dependence on any single region vulnerable to geopolitical shocks.
- Accelerate COGS reduction initiatives across manufacturing network.
- Engaging in proactive monitoring of geopolitical developments through dedicated risk and compliance teams.
- Participating in industry coalitions and international trade forums to anticipate and shape upcoming regulatory changes.
- Scenario planning and strategic foresight exercises are being expanded to assess and test responses to global trade fragmentation under different geopolitical trajectories.

➤ Adverse Outcomes of AI Technologies

Description and Impact

Thai Union Group recognizes the adverse outcomes of AI technologies as a significant long-term risk. The Company is in the early-stage of its AI journey, with initial applications beginning to reach plant control and inspection systems, farming applications and computer-vision scanning, core enterprise systems, and daily office work through generative assistants and employee-built agents. AI rules are emerging unevenly across the jurisdictions in which the Company sources raw material, operates processing facilities and sells, including the phased application of the European Union AI Act, raising the prospect of several non-aligned regimes governing the same supply chain and product data.

Potential long-term impacts include:

- Regulatory divergence: differing AI rules across sourcing, processing and export markets could raise compliance cost and limit AI use in traceability and labelling.
- Competitive disadvantage: peers embedding AI in demand forecasting, yield optimization and cold-chain planning could gain a cost advantage.
- Ungoverned adoption: unapproved AI tools and employee-built agents linked to plant or enterprise systems could leak data or trigger wrong actions.
- Verification risk: AI-generated supplier documents could weaken confidence in traceability and sourcing claims.
- Reputational risk: synthetic content and rising expectations on AI transparency could affect brand trust.
- Workforce capability gap: scarce AI skills at the Company's manufacturing sites could slow adoption and compound people-related risks.

Thai Union identified this risk through its annual enterprise-wide risk assessment with the Global Leadership Team ([Annual Report 2025](#)).

Risk Category: Technological

Source of Risk: The Global Risks Report of the World Economic Forum (Adverse outcomes of AI technologies; Misinformation and disinformation; Cyber insecurity)

Timeframe of Impact: Three-five years

Management and Mitigation Plan

Thai Union has an AI Transformation Program built on three pillars, AI Foundation, AI for People and AI for Business, with security and governance as a key enabler. Only AI tools on the approved list may be used for Company work, currently Microsoft Copilot, Gemini Enterprise, NotebookLM Enterprise and Claude Enterprise, and the Group Acceptable Use Policy prohibits unauthorized AI tools and Shadow IT. A tiered AI governance framework, referenced to OECD, NIST, the EU AI Act and AI provider guidance, classifies AI use as individual, business unit or enterprise, with escalating approval and named accountability. Group Digital guidelines for AI/ML model and agentic application development set mandatory controls covering model risk assessment, bias and safety testing, drift monitoring, audit trails and Zero Trust controls with human approval for high-risk actions. AI literacy is scaled through a capability model, a Community of Practitioners, a mandatory ethics and awareness.