



Mitr Phol Group

Biodiversity Risk Assessment Report



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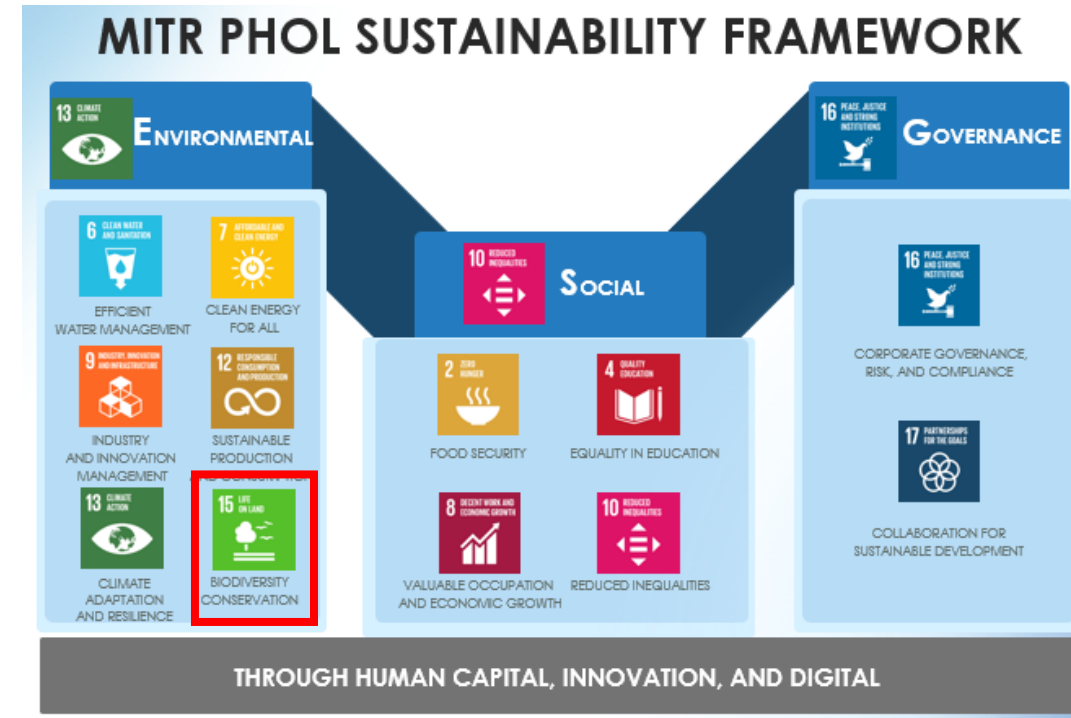
- Biodiversity Commitment & No Deforestation Commitment
- Biodiversity Risk Assessment Methodology
- Biodiversity Risk Assessment Process
- Biodiversity Risk Assessment Results & mitigation plan
- Application of Mitigation Hierarchy

## Our commitment toward biodiversity

- Commitment on biodiversity includes own operations, stakeholders, tier-1 suppliers, non-tier 1 suppliers, and business partners who must comply with the followings:
- Integrate the biodiversity assessment and management by imposing Mitr Phol Group's Security, Safety, Occupational Health, and Environment policy.
- Strive to prevent any net loss of biodiversity (No Net Loss: NNL) and promote new project implementation to have Net Positive Impact (NPI) if feasible.
- Determine to conduct business without impact on net forestation area (NO Net Deforestation) with an aim to compensate forest loss from current or future business operations.

# Biodiversity Commitment & No Deforestation Commitment

- We are committed to preserving biodiversity in all operations and the value chain. Biodiversity conservation is one of the Mitr Phol sustainability frameworks that we approach.
- Biodiversity Management is an integral part of the Company's Security, Safety, Occupational Health and Environment Policy.
- The Biodiversity Risk Impacts assessment has been conducted and its result been considered in prevention and mitigation measures in order to lessen environmental impacts and loss of biodiversity as per the Biodiversity Management Statement.



## Overview of implementation steps to run the WWF BRF or WRF Assess Modules

### STEP 0: SCOPING THE ASSESSMENT

The WWF BRF and WRF tools' Inform Module and Explore Modules can help focus the scope of the assessment on priority industries and geographies as recommended by TNFD and SBTN.

#### BRF INFORM MODULE

##### Step 0A: Identifying industry materiality

The WWF BRF Inform Module provides information about the level of dependencies on ecosystem services and impacts on biodiversity for a total of 25 industry sector.

#### BRF & WRF EXPLORE MODULE

**Step 0B: Exploring biodiversity and water importance and integrity**  
The WWF BRF and WRF Explore Modules provide maps showing the level of risk worldwide based on a total of 33 biodiversity risk indicators and 32 water risk indicators.

### STEP 1: COLLECTING LOCATION-SPECIFIC COMPANY AND SUPPLY CHAIN DATA

After refining the scope of the assessment in Step 0, collect location-specific data on (portfolio) companies' operational and supply chain sites. The following input data is required to use the Assess Modules of the WWF BRF and WRF tools:

Geographic location of sites  
(coordinates or address)

Industry classification of sites  
(using WWF Risk Filter industry sector classification)

Business importance of sites  
(indicated through high, medium or low importance)

#### GUIDANCE A: COMPANY DATA

##### For financial institutions

As a majority of financial institutions do not currently have easily available location-specific company information, WWF and Climate & Company developed guidance on how to collect location-specific proxy data for portfolio companies at scale.

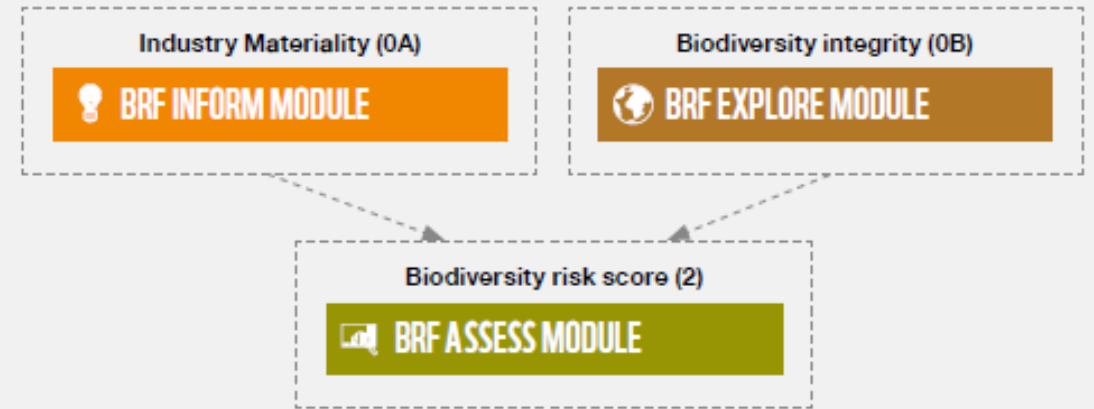
#### GUIDANCE B: SUPPLY CHAIN DATA

##### For companies and financial institutions

As a majority of companies and financial institutions do not currently have easily available location-specific supply chain information, WWF and Climate & Company developed guidance on how to collect location-specific proxy data for supply chains at scale.

### STEP 2: ASSESSING BIODIVERSITY-RELATED RISKS

The Assess Module combines the sites' industry materiality rating (0A) and the local biodiversity importance or integrity rating (0B) into a scape risk score for each company location. This comprises 33 biodiversity indicators from "water scarcity" to "terrestrial modification" following the BRF risk hierarchy.



### STEP 3: AGGREGATING BIODIVERSITY RISK TO THE COMPANY AND PORTFOLIO LEVEL





#### GUIDANCE C: AGGREGATION

For addressing the needs of financial institutions, WWF and Climate & Company developed guidance on how to aggregate scape risk per indicator to the company and portfolio level using the site-specific WWF BRF data outputs. While this guidance focuses on biodiversity risk, the same aggregation approach can be applied with the outputs of the WWF WRF data outputs.



- Mitr Phol group implemented the WWF biodiversity risk filter (WWF BRF) to understand and assess the biodiversity-related risks of our operational locations and value chains to prepare an appropriate response plan.
- Currently, the WWF Biodiversity Risk Filter tool assesses two types of biodiversity-related business risk: Physical and Reputational.



 <b>BRF METHODOLOGY</b>	<b>WWF BRF methodology:</b> Details the underlying methodology of the WWF BRF tool, including a description of the risk assessment framework, underlying structure and data and limitations.
 <b>GUIDANCE A: COMPANY DATA</b>	<b>Guidance on location-specific company data:</b> Since location-specific company data is required to run the WWF BRF (and WRF) Assess Module, this guidance provides financial institutions with an overview of existing proxy data for company locations and how to collect and prepare them at scale.
 <b>GUIDANCE B: SUPPLY CHAIN DATA</b>	<b>Guidance on location-specific supply chain data:</b> Since location-specific supply chain data is required to run the WWF BRF (and WRF) Assess Module, this guidance provides companies and financial institutions with an overview of existing approaches to collect and prepare location-specific supply chain data at scale.
 <b>GUIDANCE C: AGGREGATION</b>	<b>Guidance on WWF BRF and WRF tools output:</b> Since the WWF BRF (and WRF) provide an assessment at the site level but not at the company or portfolio level, this guidance provides financial institutions with a description of how the output of the tools can be further processed and aggregated to the company and portfolio level.

# Biodiversity Risk Assessment Process

The Scope of biodiversity risk assessment of Mitr Phol group includes our own operations sites and upstream activities. To assess and prioritize biodiversity risks at the corporate and portfolio levels, we apply the WWF biodiversity risk filter (WWF BRF).

## SCOPING THE ASSESSMENT

- Identifying industry materiality - level of dependencies on ecosystem services and impacts on biodiversity
- Identifying the site to assess through the company value chain

## COLLECTING LOCATION-SPECIFIC COMPANY AND SUPPLY CHAIN DATA

- Collecting the data to assess the WWF BRF which includes
  - Geographic location of sites
  - Industry classification of sites
  - Business importance of sites

## ASSESSING BIODIVERSITY-RELATED RISKS

- Scope risk score for each company location.
- Interpret the Risk Assessment Results

## AGGREGATING BIODIVERSITY RISK TO THE COMPANY AND PORTFOLIO LEVEL

- Integrated biodiversity risks into multi disciplinary company wide risk management processes

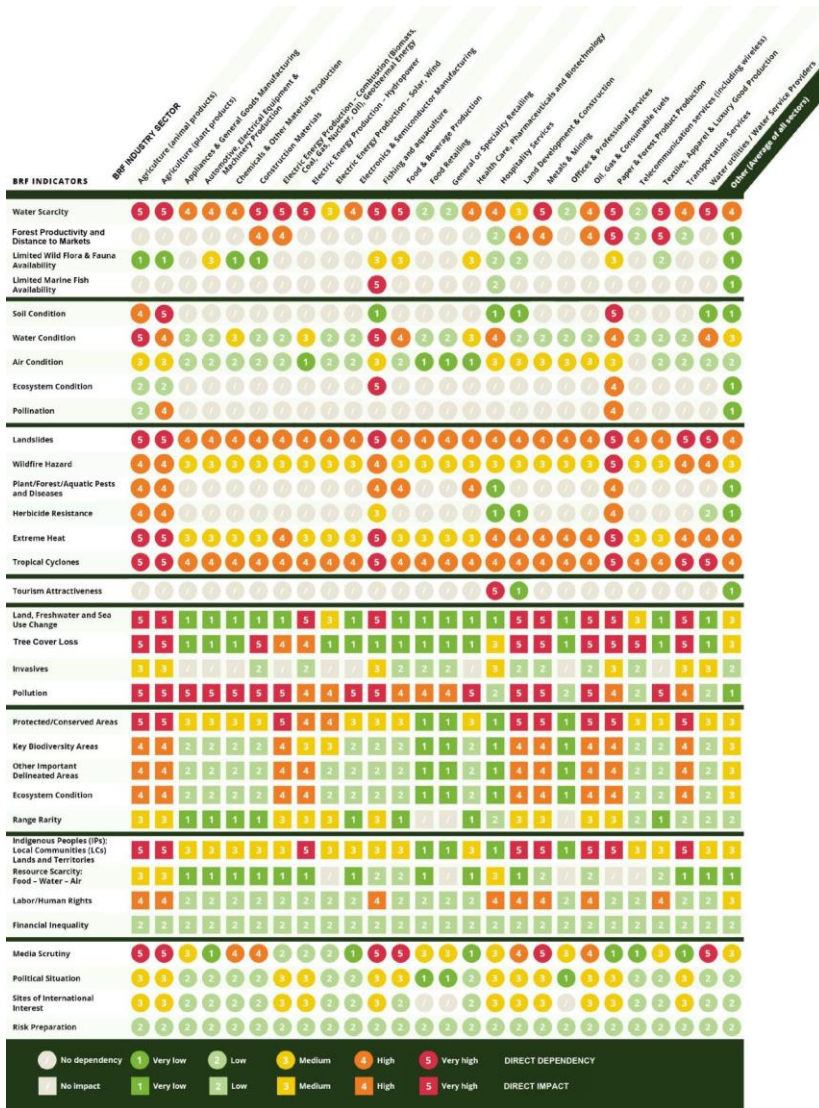


# Biodiversity Risk Assessment Result

## SCOPING THE ASSESSMENT

### Identifying industry materiality

- Mitr Phol Group has **identified industry materiality** included the level of dependencies on ecosystem services and impacts on biodiversity.
- The types of industry from our own operations area and the value chain shown as the table below :



Industry	Sites
Agriculture (plant products)	4
Chemicals & Other Materials Production	8
Electric Energy Production - Geothermal or Combustion (Biomass, Coal, Gas, Nuclear, Oil)	14
Electric Energy Production - Solar, Wind	2
Food & Beverage Production	11
Health Care, Pharmaceuticals and Biotechnology	1
Offices & professional services (e.g., Consulting, Software, Real Estate, Financial Institutions)	3
Other	7
Paper & Forest Product Production	5
Transportation Services	2
<b>Grand Total</b>	<b>57</b>



## SCOPING THE ASSESSMENT

Type of Site	Sites			
<b>Own operation and adjacent areas – 53 sites</b>	<ul style="list-style-type: none"> <li>• RDC</li> <li>• RaiESarn</li> <li>• MDC</li> <li>• MPK</li> <li>• MPV</li> <li>• MPL</li> <li>• MKS</li> <li>• MAC</li> <li>• MSB</li>   <li>• MBP-KS</li> <li>• MBP-KN</li> <li>• MBP-AC</li> <li>• MBP-DC</li> <li>• MBP-PK</li> <li>• MBP-PV</li> <li>• MBP-PL</li> </ul>	<ul style="list-style-type: none"> <li>• MBF-PK</li> <li>• MPSBT</li> <li>• MBF-DC</li> <li>• MBF-KS</li> <li>• MBF-KN</li> <li>• MCE</li>   <li>• RGS</li> <li>• BGP</li> <li>• PWP</li> <li>• BAI</li> <li>• KPG</li> <li>• CAB</li> <li>• GPH</li> <li>• SWDH</li> <li>• STEEM</li> <li>• ARE</li> <li>• SGE</li> </ul>	<ul style="list-style-type: none"> <li>• PNP</li> <li>• PNP-BP</li> <li>• PND</li> <li>• PPM</li> <li>• MPB</li> <li>• PDL</li> <li>• WSC</li>   <li>• UST</li> <li>• FF</li> <li>• MPW</li> <li>• AAW</li> </ul>	<ul style="list-style-type: none"> <li>• PPC-DC</li> <li>• PPC-PK</li> <li>• PPC-SR</li> <li>• PPCS</li>   <li>• RDI</li> <li>• KIC</li> <li>• ETO</li> <li>• TEED</li> <li>• HIN</li> </ul>
<b>Upstream Activities 2 site</b>				
<b>Downstream Activities 2 site</b>				

## COLLECTING LOCATION-SPECIFIC COMPANY AND SUPPLY CHAIN DATA

- We collect the site name and the specific location in each area operated and the supply chain. The Criteria for classifying different levels of business importance of own operational sites and the supply chain as follows :

### **Own operations**

#### High business importance level

- Operational controls & core business
- High revenue

#### Medium business importance level

- Operational controls
- Medium revenue

#### Low business importance level

- Operational controls
- Low revenue

### **Upstream activities**

- The representatives of suppliers

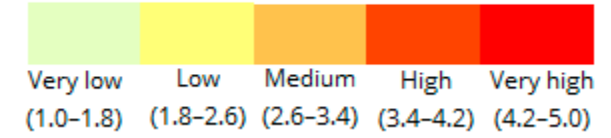
### **Downstream activities**

- The representatives of customers.

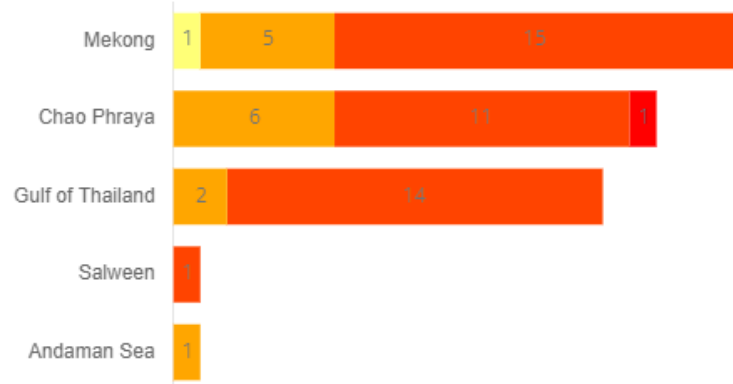
## ASSESSING BIODIVERSITY-RELATED RISKS

### Risk analysis for: Mitr Phol Group and the value chain

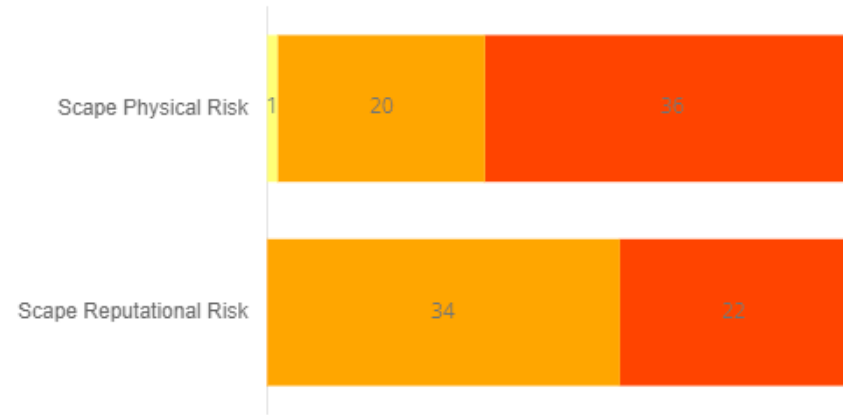
WWF Biodiversity Risk Filter levels



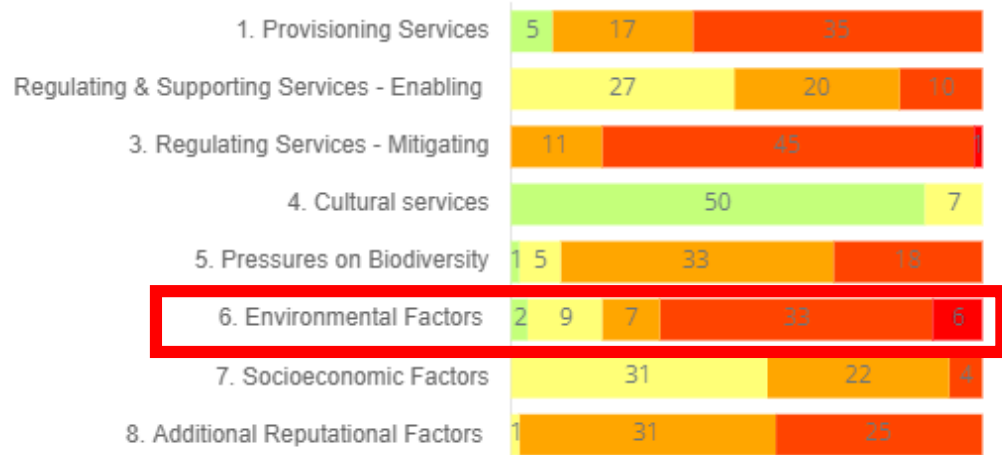
Number of Sites by Land- or Seascape



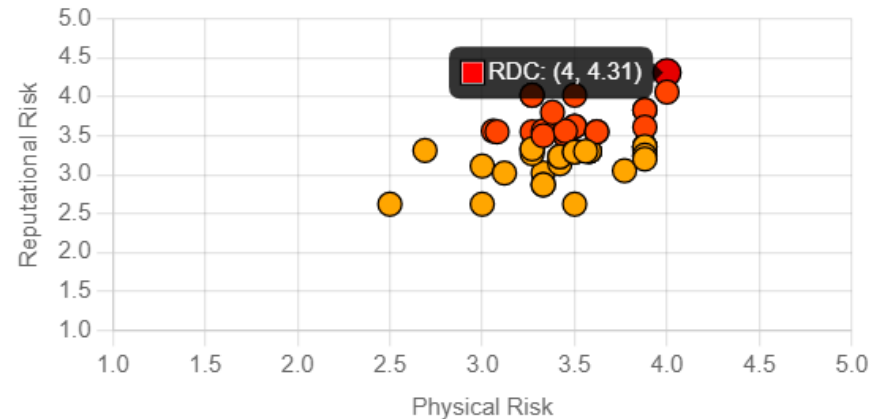
Number of Sites by Risk Type



Number of Sites by Risk Category



Physical Risk vs. Reputational Risk







## ASSESSING BIODIVERSITY-RELATED RISKS

### Interpret the results

- By comparing the risk types, **Mitr Phol group had a higher risk score on physical risk than reputational risk** which mean the physical risk is more critical to the site.
- When conducting an analysis of risk categories, it was found that **the highest category that company sites falling in were Environmental Factors**. A high risk score in this risk category is a result of high impact of the industry on these environmental assets in combination with already high location risk scores. Areas of very high location risk in this category are likely to be have a high number of local environmental assets.
- **The RDC (farming business) was the highest sites on biodiversity risk score both physical risk and reputational risk** where located in Suphanburi Province the central part of Thailand. Although, this site was the highest risk score and the revenue from this site was only 0.05%, our company integrated biodiversity risks into multi disciplinary company wide risk to management processes and apply the mitigation hierarchy to minimize the negative impacts on nature.

AGGREGATING BIODIVERSITY RISK TO THE COMPANY AND PORTFOLIO LEVEL

**Identified biodiversity-related risks**

Risk Management Framework

Internal Environment

Information and Communication

**SET Risk Appetites**

- Ensure that are consider with objective

**Identify Risk**

- Identify Potential Risk both internal and external risk

**Risk Assessment**

- Risks are assessed, analyzed, considered through likelihood and impact

**Risk Response**

- Action Toward risk, including: Avoidance - reducing conditions of the risk

**Control Activities**

- Establish policies and implement procedure of risk control

**Monitoring**

- Accomplice Monitoring Through tracking and evaluate of risk management



**MITR PHOL  
NET ZERO  
2050**