Climate Change Assessment



2021



CLIMATE RISK ASSESSMENT

Risk Assessment Process



From Risk Countermeasures to Response Plans



Climate Change Risk Assessment Tool Structure



Climate change risk description

- Risk item definition and TCFD classification
- Practical examples of risk items
- Proper noun explanation
- Department suggestion submission

Impact likelihood and degree

- The aspects of impacts of climate change
- Definition of impact likelihood
- Definition of impact magnitude

Risk identification and analysis

- Assess potential climate change risks
- Assess impact likelihood
- Assess impact magnitude

Manage climate change risks

- Inspect risk calculation results
- Determine management principles for each risk
- Anticipate future actions



Results

D	el	ta Climate Risk Ana	lysis M	atrix	_
4	Impact Likelihood	2 2 3 2 3 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	4 6 ²⁰	19	
3		13 14 9	22		
2		16 8 18 17	 Transition I (Degree of Transition I (Degree of Physical R (Degree of Physical R (Degree of 	Risks Difficulty in Quantifying Impact: High) Risks Difficulty in Quantifying Impact: Low) sks Difficulty in Quantifying Impact: High) sks Difficulty in Quantifying Impact: Low)	
1	1	2	3	Magnitude of Impact 4	5

Risk Type		Climate Risk Item		
		International sector agreements	L	
		Voluntary agreements	Μ	
		Uncertainty surrounding regulation and policies.	Μ	
	Policy and	Carbon tax and related regulation.	Μ	
	Regulatory Risks	 Requirement of decreasing greenhouse indirect emissions (water and waste reduction) 	L	
		Mandates on and regulation of existing products and services	Μ	
	[Renewable energy regulation	Н	
		Exposure to litigation	L	
Transition	Technology	Substitution of existing products and services with lower emissions options	L	
Risks	Risks	Costs to transition to lower emissions technology	L	
		Customers change supplier selection criteria.	L	
	Market Risks	Customers change product specification requirements.	Μ	
		Shifts in consumer preferences to low-carbon products	L	
		Emissions reduction requirements to suppliers	L	
		Increased cost of raw materials	Н	
		Investors evaluate climate change efforts (e.g. ESG performance) in making investment decision.	L	
	Business	Stigmatization of sector	L	
	Risks	Corporate image affected by news about climate change.	L	
	Immediate Physical Risks	Increased severity of extreme weather events as cyclones and floods	Н	
Physical Risks	Long-Term	Changes in precipitation patterns and extreme variability in weather patterns	Н	
	Physical Risks	Rising mean temperatures	L	
	6	Ø Rising sea levels	L	

Top 4 Risks



Physical Risk



Physical Risk — the impact of increased temperature on assets under RCP 8.5

.... 12 Global surface temperature change (°C) historica Temperature increase below CP2.6 2°C 10 RCP4.5 **RCP6.0** No emission reduction b³⁹ 8 **RCP8.5** countries 25 42 32 6 4 2 42 models 0 -2 2000 2050 1850 21 1900 1950

Source: IPCC AR5, Ch12, Figure 12.5

Year

IPCC AR5 RCP8.5 scenario:

- Temperature increase by 0.56°C between 2010 and 2030
- <u>Converted into an average annual temperature increase: 0.03°C</u>

			RCP8.5		
year	5%	17%	50%	83%	95%
1850- 1900			-0.61		
1986- 2005			0		
2010 <mark>d</mark>	0.23	0.29	0.37	0.47	0.62
2020 <mark>d</mark>	0.37	0.51	0.66	0.84	0.99
2030 <mark>d</mark>	0.65	0.77	0.94	1.29	1.39
2040 <mark>d</mark>	0.93	1.13	1.29	1.68	1.77
2050 <mark>d</mark>	1.20	1.48	1.70	2.19	2.37
2060 <mark>d</mark>	1.55	1.88	2.16	2.74	2.99
2070 <mark>d</mark>	1.96	2.25	2.60	3.31	3.61
2080 <mark>d</mark>	2.31	2.65	3.05	3.93	4.22
2090d	2.63	2.96	3.57	4.45	4.81

Source: IPCC, 2013: Annex II: Climate System Scenario Tables



Physical Risk – the impact of increased

temperature on assets under RCP 8.5

Item	Impact	Account Title Impacted	Calculation Formula or Description	Asset/Activity Life Cycle
Chillers	 Increase in the power consumption of chillers Increase in electricity bills 	Increase in operating costs	Chiller operating hours x power consumption increase coefficient x estimated temperature increase x average electricity price	1
	 Increase in the water consumption of chillers Increase in water bills 	Increase in operating costs	Chiller operating hours x water consumption increase coefficient x estimated temperature increase x average water fee	1
	Increase in maintenance fee	Increase in operating costs	Annual maintenance of RTHD, quarterly maintenance of RTHD, quarterly	1
Other air conditioners	Increase in maintenance fee	Increase in operating costs	maintenance of CVHF, RTHD evaporator cleaning, AHU non-woven fabric replacement (33 units), CVHF annual major maintenance	1
Energy-efficient equipment	Increase in the amount of investment	Increase in fixed assets	Energy-efficient air conditioning, energy- efficient air compressor, energy-efficient air discharge, and electricity recovery equipment	>5



Physical Risk — the impact of increased temperature on assets under RCP 8.5

Results under RCP 8.5

- Impact on temperature: IPCC AR5 RCP 8.5 scenario: Temperature increase by 0.56°C between 2010 and 2030
- <u>Converted into an average annual temperature increase of 0.03°C</u>
- Application: Increase of costs with temperature increase by 1°C
- Cases: Plant TN & WJ

	Potential Financial Impact	Cost of Management
Cash and cash equivalents	(21)	(57,220)
Property, plant and equipment	-	44,447
Total assets	(21)	(12,773)
	10	Unit: Thousands of



Physical Risk – the impact of water risk on our upstream activities under RCP 8.5

Scope: Upstream Activities Method: Assess the proportion of raw materials that consume a greater volume of process water in the upstream purchases **Composition analysis:** The number of suppliers accounts for about 11%, and the procurement accounts for about 40%

AQUEDUCT WATER RISK ATLAS

According to the WRI Aqueduct RCP8.5 scenario, these suppliers are mainly in areas where the water risk level is low to medium and medium to high





essimistic

■ Higher Water Demand ■ Lower Water Demand

The "pessimistic" scenario (SSP3 RCP8.5) represents a fragmented world with uneven economic development, higher population growth, lower GDP growth, and a lower rate of urbanization, all of which potentially affect water usage: and steadily rising global carbon emissions, with CO2 concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels. Source:

Aqueduct 2015



Physical Risk – the impact of water risk on our operations under RCP 2.6 & RCP 8.5

Assessment Process



making to optimize internal water resources ussessment model us a too



Model

Physical Risk – the impact of water risk on our operations under RCP 2.6 & RCP 8.5

- GCMs: The top 4 GCMs most suitable for northern Taiwan
- RCP emission scenarios:
- RCP2.6 (scenario for slowing warming; scenario designated by TCFD);
 RCP8.5 (scenario for high greenhouse gas emissions)
- 2030s (near future) as the target year

 \rightarrow 4 GCM * 2 RCP = A total of 8 simulation results

- Representative Concentration Pathway (RCP): Different potential greenhouse gas emissions in the future set as a scenario hypothesis for estimating the temperature increase
- General Circulation Model (GCM): A physical model used to simulate the interaction between the global atmosphere and the ocean



Physical Risk –Simulation of Cooling Water Consumption at the Plants in 2030s



When the temperature rises by 1°C,

- Delta Plant 2's daily cooling water consumption will increase by 4.85 metric tons
- Delta Plant 5's daily cooling water consumption will increase by 3.95 metric tons

 \rightarrow The two plants face different future climate impacts, which may be attributed to the areas of the plants or the new and old equipment 14



Physical Risk –Simulation of Cooling Water Consumption at the Plants in 2030s

Current Situation

Plant	Cooling water consumption
Plant 2	17,152
Plant 5	17,703

Resı	ults c	of Simulation	RCP 2.6 Changes in future water consumption	RCP 8.5 Changes in future water consumption
	P	Increase in cooling water consumption	2,120(ton/year)	1,584(ton/year)
	ant 2	Increase rate of cooling water/Increase rate of total water consumption	+12.4% ± 3.6%	+9.2% ± 3.4%
	P	Increase in cooling water consumption	1,726 (ton/year)	1,290(ton/year)
	ant 5	Increase rate of cooling water/Increase rate of total water consumption 15	+9.8% ± 2.7%	+7.3% ± 2.7%



Physical Risk – the impact of flood on our downstream activities under RCP 2.6 & RCP 8.5

- Delta has clients worldwide, but 96% of them (by revenue) are B2B customers with multiple sites. We expect that these clients would mitigate their physical risks.
- Only less than 4% of the revenue are generated from B2C customers. Without long term planning, they are likely to be exposed to physical risk.
- Since the main market of these B2C products is in the Taiwanese market, the RCP 8.5 map shows that more than 7 counties have the highest flooding risks.

Flood potential map under 600 mm/24 h rainfall intensity in Taiwan



Meteorological Research Institute, Atmosphere General Circulation Model



Transition Risk

IMPACT ANALYSIS



Transition Risk – potential GHG & renewable electricity policy

- Assessment scope of the project: Taiwanese market
- Expected assessment time: 2025, 2030





Transition Risk – technology and potential clients' demand

	2	025	20	30	
Major Parameters	NDC	Beyond 2°C(B2DS)	NDC	Beyond 2°C(B2DS)	
Electricity emission factor (kg/kWh)	0.394	0.330	0.376	0.229	Retrospectively estimate the possible national energy mix by using the predicted electricity carbon
Ratio of renewable energy (%)	20%	33%	24%	54%	emissions factor, and to derive the renewable energies and energy storage devices (critical factor)
Capacity of renewable energy device (GW)	26.9	44.4	31.8	72.0	
Capacity of energy storage system (MW)	590 Built in-house: 160 Private purchases: 430	2,338	1,082	5,096	
Discharge time (hr)		1	hour		Key Assumption:
Potential Market (Demands from clients measured in MW)	590	2,338	1,082	5,096	 The current technology will remain competitive for 10 years. Assets lifetime > 10 years Evaluated using a balanced model The non-renewable operating reserve capacity remains constant across different scenarios (remains at 3.2GW) Ancillary capacity increase will all be made usin



Transition Risk – potential policy impact on upstream activities

	2	025	2030		
Major Parameters	NDC	Beyond 2°C(B2DS)	NDC	Beyond 2°C(B2DS)	
Electricity emission factor (kg/kWh)	0.394	0.330	0.376	0.229	*The
Ratio of renewable energy (%)	20%	33%	24%	54%	emis 0.50
Incremental amount of GHG (kg)	(0.509- 0.394)*563,281,000 kWh*(1+8%)*5 =349,797,501	(0.509- 0.330)*563,281,000 kWh*(1+8%)*5 =544,467,414.6	(0.509- 0.394)*563,281,000 kWh*(1+8%)*10 =699,595,002	(0.509- 0.330)*563,281,000 kWh*(1+8%)*10 =1,088,934,829	*Ass foot upst
Incremental costs (USD)	3,497,975	5,444,674	6,995,950	10,889,348	Delt cons sam
Incremental costs transferred from upstream activities (USD)	349,798	544,467	699,595	1,088,935	*Ass rema *Ass will I

The current electricity emission factor in Taiwan = 0.509 kg/kWh Assume that the carbon ootprint from Delta's upstream is equivalent to Delta's own energy consumption and share the same increase rate. Assume the carbon fee emain USD 10/ton in Taiwan Assume that 10% of the cost vill be transferred to Delta



Transition Risk – overall results

Comparison of the 2 scenarios:

- In the model settings, we compared the growth of the same scenario in different years. The overall energy storage market is expected to grow more than twice as much in 2030 compared to 2025 in the B2DS.
- In the NDC scenario, the overall energy storage market is expected to grow almost twice as much in 2030 as in 2025.
- If we compare the 2 scenarios in the same year, the estimated overall energy storage market in 2030 in the B2DS is 4.7 times larger than in the NDC scenario. This indicates that the B2DS significantly drives demand for energy storage solutions, therefore, it is better if B2DS is the policy for Taiwan.

Results of Delta's strategic comparison scenario analysis:

- Before 2025, Delta's internal strategy for energy storage solutions is consistent with NDC.
- However, if the policy environment in the B2DS takes shape, we expect a doubling of net increase in revenue compared to the baseline value.





ADAPTATION

Risk Management Principles The general response strategies for risks can be divided into four categories, which are also known as the 4T principles

based on the acronym.

Transfer Assess and 3 Terminate classify risk Transfer the risk to a third olerable Through plan changes, the likelihood of Yes party, such as taking out Accept risk specific risks can be completely avoided. insurance or outsourcing For example, the production of a certain relevant business, to product has a huge impact on the Transfer in whole or Reduce the chance **Reduce impact** Avoid environment, and the production is of occurrence in part achieve the effect of stopped when the situation cannot be transferring part of the risk. Consider feasibility, cost, and benefits improved. List feasible risk countermeasures Supervise 8 Treat **Tolerate** Choose risk countermeasures Review Take measures to reduce the If the ability to take effective likelihood of risk occurrence Prepare response plan actions against a risk is and reduce the impact, or already guite limited, or the -----Reduce likelihood of achieve both goals at the Transfer in whole or benefits of taking actions are Reduce impact Avoid occurrence in part same time. Treating a risk out of proportion to the costs may not completely Keep part of the risk paid, it will be more suitable Keep part of

to accept the current situation

and continue to observe.

Tolerable

risk

No

Yes

the risk

eliminate the risk but can

control the risk to an

acceptable level.

ansfer in part

Delta Location Physical Risks identification and analysis

Hazard

Earthquake Extreme heat River flood Urban flood Coastal flood Cyclone Tsunami Water scarcity Wildfire

Delta main plant	Approaches in 5 years		In 10 years		In 11 years and beyond	
	Wildfire	High	Urban flood	High	Earthquake	High
Taiwan	Cyclone	High	River flood	High	Tsunami	High
Taiwan	Landslide	High	Coastal flood	High	Volcano	Low
	Extreme heat	High	Water scarcity	High		
	Extreme heat	High	River flood	High	Tsunami	High
	Wildfire	High	Coastal flood	High	Earthquake	Low
Suzhou			Cyclone	High	Landslide	Low
			Urban flood	Medium		
			Water scarcity	Medium		
	Extreme heat	High	River flood	High	Landslide	Low
	Wildfire	High	Urban flood	High	Tsunami	Medium
Dongguan			Coastal flood	High	Earthquake	Very Low
			Cyclone	High		
			Water scarcity	Medium		
	Extreme heat	High	River flood	High	Earthquake	Low
	Wildfire	High	Urban flood	High	Landslide	Low
Chachoengsao			Coastal flood	High	Tsunami	Low
			Cyclone	High		
			Water scarcity	Medium		
	Extreme heat	High	Coastal flood	High	Earthquake	Low
	Wildfire	High	Cyclone	High	Tsunami	Low
Samut Prakarn			Urban flood	Low	Landslide	Very Low
			River flood	Medium		
			Water scarcity	Medium		
	Earthquake	High	River flood	High	Volcano	Low
	Landslide	High	Urban flood	High	Tsunami	Medium
India	Water scarcity	High	Coastal flood	High		
	Extreme heat	High	Cyclone	High		
	Wildfire	High				

Identify the risks by ThinkHazard! a web-based tool used by World Bank Group to consider the impacts of disasters on our location.

- 1. Identify an intensity level for each hazard
- 2. How frequently that intensity might be exceeded
- 3. Database is from GFDRR Innovation Lab GeoNode $\overline{\pi}$

Return p	eriod (years)	rn Perio	Uish				
High N	ledium Lo	w	l/(Retui	nign				
100 - 250	475 - 500	1000 - 2500	icy or (Medium				
5	20	100	dner	\leftarrow				
10	50	1000	Free	Low				
10	50	1000	l	Damaging Intensity	>			
10	50	100		intensity		Intens	ity thresho	ld value
50	100	1000	Hazard	Intensity parameter	Intensity Unit	High	Medium	Low
100	500	2500						
5	50	1000	Earthquake	Acceleration (PGA)	g	0.2	0.1	0.1
2	10	30	Extreme heat	Wet Bulb Globe Temperature (WBGT	°C	32	28	25
2	10	50	River flood*	Inundation depth	m	0.5	0.5	0.5
			Urban flood*	Inundation depth	m	0.5	0.5	0.5
			Coastal flood	Inundation depth	m	2	0.5	0.5
			Cyclone	Mean wind speed	km/h	80	80	80
			Tsunami	Coastal maximum amplitude	m	2	1	0.5
			Water scarcity	Water availability	m3/capita/yr	<=500	<=1000	<=1700
			Wildfire	Canadian Fire Weather Index	FWI	30	20	15

Reference: : ThinkHazard! (thinkhazard.org)



Projected Future Temperature Change of Delta Production Sites In Taiwan

	Location	Comparia	2021-2025	2025-2030	2030-2050	0014	
Area	Production Sites		Average Year Temp.(°C)			GCM	
Taayyaan	TY CL	RCP 2.6	23.49	23.3	23.73	HadGEM2-AO	
Taoyuan		RCP 8.5	22.78	22.9	23.98	HadGEM2-AO	
Usinghu	CYN	RCP 2.6	23.86	23.69	24.08	HadGEM2-AO	
HSINCNU		RCP 8.5	23.3	23.38	24.46	HadGEM2-AO	
Teichung	Office	RCP 2.6	23.84	24.13	24.32	MIROC5	
raichung		RCP 8.5	23.94	24.41	24.66	MIROC5	
Teinen	Office	RCP 2.6	24.53	25.25	25.17	MIROC5	
Tainan		RCP 8.5 2	5 24.92	25.45	25.15	MIROC5	



Projected Future Precipitation Change of Delta Production Sites In Taiwan

Location			Commis	2021-2025	2025-2030	2030-2050	0014
Area	Production Sites		Scenario	Rainfall(mm/day)			GCM
Taoyuan	TY CL RD	RCP 2.6	3.43	4.63	5.93	HadGEM2-AO	
		RCP 8.5	5.42	4.9	4.81	HadGEM2-AO	
Hsinchu	CYN	CYN	RCP 2.6	2.81	4.16	5.86	HadGEM2-AO
	- Calendary		RCP 8.5	5	3.88	3.67	HadGEM2-AO
Taichung	Office	RCP 2.6	2.68	5.13	5.8	MIROC5	
		RCP 8.5	3.56	3.24	3.3	MIROC5	
Tainan	Office	RCP 2.6	3.53	4.42	5.91	MIROC5	
			RCP 8.5 2	6 2.2	3.9	2.75	MIROC5



Adaptation Planning – within 5 years

	Upstream (including suppliers)	Existing operations	New operating site	Downstream (including customers)
Approach es in 5 years	 Improve suppliers' understanding and awareness of climate change risks/opportunities (education) Analyze water resource risks and keep abreast of the impact on supply chains Require suppliers with high water risk to set reduction targets and provide reduction methods Use recycled metals and plastics to produce products on the premise of meeting quality requirements 	 Elevated foundation (flooding prevention) Replacing high water consumption facilities (water consumption) Improving water use efficiency, reducing the impact of drought and water shortage, and increasing resilience of response Adding an emergency water supply port to facilitate the operation of water trucks Maintaining green buildings and introducing previously unscored items Recycling effluent Applying for access to groundwater wells for emergency use 	 Include factors, such as climate change, for site selection conditions Increase flood discharge and prevention facilities in the surroundings Add water storage tanks to meet the water demand for at least 2–3 days and to improve the resilience Set up dual water supply systems to strengthen water dispatch Increase rainwater recycling facilities to reduce the demand for tap water Meet green building and WELL certifications 	-Assess new product requirements and specifications under climate change (products) -Assess the risk of storage location under climate change and flexibly adjust the place of shipment, or adopt other alternative storage plans



Adaptation Planning – 5 to 10 years

	Upstream (including suppliers)	Existing operations	New operating site	Downstream (including customers)
In 5–10 years	-Demand of new types of products under climate change (products) -Include the risk level in the QBR to reduce risky suppliers	-Strengthening emergency back-up provisions and planning (water consumption) -Installing water meters and other systems for monitoring and water-saving service management -Strengthening the use of reclaimed water -Re-examining and maintaining all old pipelines	 Establish a waste water reclamation system to reduce demands for secondary use (water consumption) Increase the area of natural wetlands near the company operations Re-examine and maintain all old pipelines 	-Sell new types of products or solutions -Use LCA to find carbon neutral products suitable for development



Adaptation Planning – more than 10 years

	Upstream (including suppliers)	Existing operations	New operating site	Downstream (including customers)
In 11 years and beyond	-Keep abreast of the transportation system to avoid blockage of the shipment path due to climate change, and from strategic alliances with other exporters, such as a shipping fleet		-Restore the ecosystem functions and services in a large area -Eco-industrial park with a high percentage of resources recycled, including water, electricity, heat, and raw materials.	-Keep abreast of the transportation system to avoid blockage of the shipment path due to climate change, and from strategic alliances with other exporters, such as a shipping fleet



Related to Climate Change

EMERGING RISKS



Critical Materials

Description

Metals are key materials for electrical and electronics equipment. In the past, we focused only on the possible toxicity and hazards of metals. However, the critical nature of metals is an emerging risk that electrical and electronics companies need to consider. When critical metals are used in products, these companies are exposed to supply chain risks.

The determination of criticality is comprised of three dimensions: supply risk, environmental implications, and vulnerability to supply restriction.



Reference: Methodology of Metal Criticality Determination

1.T. E. Graedel, Rachel Barr, Chelsea Chandler, Thomas Chase, Joanne Choi, Lee Christoffersen, Elizabeth Friedlander, Claire Henly, Christine Jun, Nedal T. Nassar, Daniel Schechner, Simon Warren, Man-yu Yang, and Charles Zhu 2.Environmental Science & Technology 2012 46 (2), 1063-1070 3.DOI: 10.1021/es203534z



Critical Materials

Impact

According to research from the U.S. National Research Council of the National Academies, raw materials including antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten, platinum group metals, rare earth elements are regarded as critical metals or called critical materials.

Delta is a global supplier of passive and magnetic components used in portable devices, cloud computing equipment, automotive, IoT, and other market segments. With our highly automated manufacturing operations, our magnetic components production capacity is over 10 billion pieces per year. Delta's automotive business provides EV/HEV powertrain solutions and power electronics components, including on-board chargers and DC/DC converters. These components and solutions have a high possibility of relying on the critical metals defined above.









Critical Materials

Mitigating Actions

Relevant Risk Factors

- Have few or no available substitutes
- Many are sourced from deposits concentrated in only a few countries which are subject to geopolitical uncertainty
- Competition due to increasing global demand for these materials from other sectors, which can result in price increases and supply risks.
- The world economy is starting to shift to a cleaner energy system
- Land constraints
- Investment shortfall for mining firms

Product Redesign

- Rely on less critical materials
- Examine alternative possibilities and performance
- Limit the use of critical materials through the use of alternatives

Secure Suppliers and Volumes

- Maintain relationships with critical suppliers
- Sign long-term contracts with main suppliers

Circular Economy

- Encourage close loop recycling
- Cooperate with metal recyclers to develop advanced recycling technology for critical metals with recycling constraints

Reference:

Electrical and Electronic Equipment Sustainability Accounting Standard (SASB, 2018) How green bottlenecks threaten the clean energy business (The Economist, 2021)



Ecosystem Services Degradation

Description

Ecosystem services are composed of the ecosystem and each living thing in it. These services lead to additional beneficial functions for all other creatures, including humans, and are therefore called ecosystem services. For example, 1. Life-maintaining services, such as nutrient circulation, oxygen production, and soil formation; 2. supply services, such as timber, fuel, and water; 3. adaptation services, climate regulation, water purification; and 4. cultural services. Degradation of ecosystem services, including deforestation in forest systems, desertification of grasslands, destruction of wetlands, and loss of

biodiversity, is already occurring and becomes increasingly serious. However, what is the direct and indirect relationship between ecosystem services and commercial activities and how the services degradation and climate change affect each other remains to be discussed and evaluated as a whole.







Impact

Degradation of ecosystem services may directly affect the company through several channels:

- 1. The price, channels, and quantity of raw materials acquired
- 2. Employees' health and mental state
- 3. Customers' supplier selection model
- 4. The company's future product strategy

5. If the company's development affects the health of the ecosystem, it may cause a backlash from the community or even other stakeholders

However, due to lack of information and no experience in evaluation, we cannot judge whether there are other impacts, nor can we quantify the impacts. We only know that packaging materials accounted for approximately 20.7%, but we believe that the degradation of ecosystem services will affect more than packaging materials in the future.



Ecosystem Services Degradation

Mitigating Actions

Potential approaches include:

- Introduce assessment of natural resources to clarify the possible relationships between the company and ecosystem services, including dependence and impact
- Pay attention to the literature research related to ecosystem services and keep abreast of the policy trends of the United Nations Convention on Biological Diversity
- Pay attention to the progress of emerging methodologies, such as the Taskforce on Nature-related Financial Disclosures (TNFD)
- Study the content, structure, and methods of Nature-Based Solutions, and look for ways for the company to adopt
- Launch a green power pilot project and include criteria, such as ecosystem services, in the company's due diligence evaluation framework, as one of the bases for decision-making



Figure 4.2

Generic steps in dependency pathways (Adapted from PwC 2015)

Smarter. Greener. Together.

